

## Original Research Article

# Quality of marital relationship, partner violence, psychological distress, and resilience in women with primary infertility

Sisira C. Satheesan<sup>1</sup>, Veena A. Satyanarayana<sup>2\*</sup>

<sup>1</sup>Department of Psychiatry, Institute of Psychiatry and Human Behaviour (IPHB), Goa, India

<sup>2</sup>Department of Clinical Psychology, National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore, Karnataka, India

**Received:** 09 December 2017

**Revised:** 16 January 2018

**Accepted:** 17 January 2018

### \*Correspondence:

Dr. Veena A. Satyanarayana,

E-mail: [veena.a.s@gmail.com](mailto:veena.a.s@gmail.com)

**Copyright:** © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## ABSTRACT

**Background:** Primary infertility is an emerging public health problem associated with immense social stigma and adverse mental health consequence. The impact associated with infertility different from culture to culture. There is a paucity of qualitative research in Indian culture. Hence we aimed to explore the quality of marital relationship, psychological distress and resilience in a sample of women with primary infertility.

**Methods:** A cross sectional single group mixed design was used. Sample comprised of 30 adult women, in their late twenties, diagnosed with primary infertility- female factor, by practicing gynaecologist; recruited from a renowned infertility hospital in Bangalore. The participants were assessed on marital quality scale, domestic violence questionnaire, depression anxiety stress scale-21, and Connor Davidson resilience scale after obtaining written informed consent. Data analysis was carried out using descriptive and inferential statistics.

**Results:** Findings indicate high rates of intimate partner violence (47%) in the sample. Poorer quality of marital relationship was associated with higher levels of psychological distress and lower resilience. Women who experienced violence were more likely to report poor quality of marital relationship, higher levels of distress, and lower resilience than women who did not. Experience of at least one form of intimate partner violence emerged as a significant predictor of psychological distress.

**Conclusions:** The need for prevention and intervention service for infertility is at its peak. The findings of the present research have implications in mental health assessment and intervention in this vulnerable group of women.

**Keywords:** Marital relationship, Intimate partner violence, Psychological distress, Resilience, Primary infertility, India

## INTRODUCTION

Primary infertility is a condition in which a woman is unable to ever bear a child, either due to the inability to become pregnant or the inability to carry a pregnancy to a live birth.<sup>1</sup> The estimation of couples with infertility worldwide is 60 to 80 million, and the overall prevalence of primary infertility in India is between 3.9 and 16.8 percent.<sup>1</sup> Though infertility affects men and women

equally, women often experience stigmatization, discrimination, abandonment and social deprivation as a consequence of it.<sup>2,3</sup>

Greil explained the difference in psychological consequences of infertility in developed and developing countries.<sup>4</sup> In developed countries voluntary childfree status is accepted and hence many women experience infertility as a secret stigma, whereas in developing countries it is difficult to conceal, as motherhood is

closely interlinked with marriage and the belief is that married women are childless only if they are having infertility, especially country like India 'bearing and rearing children are central to women's power and well-being'.<sup>5,6</sup> Hence the psychological impact associated with infertility is likely to be greater in developing countries.<sup>3,7</sup>

Existing literature suggests poor marital adjustment and quality of life in women with infertility as compared to normal couple.<sup>8</sup> Studies report a revisit of choice of spouse selection and constant attribution of spouse as a reason for infertility among couple when they undergo stress.<sup>9</sup> Infertility related perception, pressuring oneself or spouse due to infertility and strong desire for children could be the strong predictors for poorer quality of marital relationship.<sup>10</sup> Researchers also found a significant correlation between infertility and divorce rate.<sup>11</sup>

Intimate partner violence (IPV) is another important global health problem which cuts across barriers of class, religion, race, ethnicity and education. Women with infertility are twice vulnerable to experience IPV as compared to women with children.<sup>12</sup> The most common type of violence reported was psychological/emotional violence followed by physical and sexual violence.<sup>13</sup> Studies conducted in India also corroborate with same finding.<sup>14</sup>

Not being able to achieve a highly desired social goal of to bear a child, women with infertility are vulnerable to psychological problems such as stress, depression, and anxiety.<sup>15</sup> Feelings of loss, disappointment, and betrayal are the common emotional response among women with infertility.<sup>16</sup> A very high prevalence of psychiatric morbidity has been reported among women with infertility.<sup>17</sup> Studies from India also shown higher levels of stress, anxiety and depression, and a worsening of these with longer duration of childlessness.<sup>18</sup>

Arrival of assisted reproductive treatments (ART) and its transition from an experimental procedure to an accepted medical treatment brought new hope to many childless couples.<sup>19</sup> Although it offered a cure for many, this invasive, expensive, and time-consuming treatments proved to be emotionally draining and many women show greater tendency towards symptoms of depression, anxiety and stress during the treatment period.<sup>20,21</sup>

Despite the emotional burden resulting from the condition of infertility, some couples use their own personal resources to survive this personal crisis and emerge resilience.<sup>22</sup> Studies have shown that women with fertility problems reported lower scores on resilience than published norms.<sup>23,24</sup> However we still lack studies examining the role of resilience in women with infertility.

In India, infertility is a growing public health concern and has immense mental health consequences on the individual, couple and in family. However, in Indian context there is a paucity of research in this area. Therefore, the present study examined the quality of

marital relationship, intimate partner violence (IPV), severity of psychological distress and resilience in a sample of women with primary infertility.

## METHODS

This cross-sectional, single group, quantitative research was carried out from December 2013- February 2014. The sample was selected from a well-known private hospital in Bangalore for the treatment of infertility. The sample included adult (18+ years), literate, married women, diagnosed with primary infertility female factor by practicing gynaecologists, who had recently initiated assisted reproductive treatments (medication regimen, IUI or IVF), and did not have prior history of psychological problems or consultation for the same. Women with secondary infertility and those who had a history of psychiatric illnesses previously or currently were excluded. Women were contacted during their waiting period at the hospital, and briefed about the study. A written informed consent (approved by the Institutional Review Board) was obtained, following which women were interviewed on study measures. Although a total of 46 women were contacted, a sample of 30 women (29 years, SD=3.51) met study criteria and completed the measures.

## Measures

In addition to socio demographic and clinical data sheet, the following measures were administered. Quality of marital relationship was measured using Marital Quality Scale (MQS) developed by Shah (1995).<sup>25</sup> It is a 50 items multi-dimensional 4 point self-reported scale, and its score ranges from 50- 200. Higher scores indicate poorer quality of marital relationship. It has an internal consistency of 0.91 and test- retest reliability of 0.83. Intimate partner violence was assessed using the Domestic Violence Questionnaire.<sup>26</sup> It's an open-ended question which covers following themes: women's power within marriage and implications for health, types of domestic conflict, and violence-related triggers, sources of support, and community norms. Psychological distress was assessed using Depression Anxiety Stress Scale-21 (DASS-21).<sup>27</sup> It consists of a set of three scales containing 7 items each designed to measure the negative emotional states of depression, anxiety and stress. Internal consistency of the DASS subscales was high (Cronbach's alpha) 0.94, 0.88, and 0.93 for depression, anxiety, and stress respectively. Resilience among participants was assessed using Connor Davidson Resilience Scale.<sup>28</sup> It is a 25 item self-reported scale with a 4 point response option. The score ranges from 0-100, where higher scores indicate greater resilience. Average duration of the entire interview per woman took 45 minutes.

## Statistical analysis

The data was analysed using SPSS version 16. Descriptive statistic was used to describe continuous variable whereas frequency and percentage were used for

categorical variable. Study also used Pearson's correlation coefficient, student's independent t-test and stepwise multiple regression analysis. The probability level of 0.05, 0.01 and 0.001 were used for the level of significance.

## RESULTS

### *Socio demographic variable*

Table 1 shows the socio demographic characteristics of the sample. The mean age (29.5 years  $\pm$ 3.53) of the sample indicates that the participants were in their late twenties, whereas the mean age (33 years  $\pm$ 3.75) of the spouse indicates that they were in their middle of thirties. Mean education (16 years  $\pm$ 1.34) indicates the sample were likely to have completed their graduation, the spouse also has similar level of education as their wife has (16 $\pm$ 1.95). The mean age (25 $\pm$ 3.30) at marriage indicates that the sample got married during their mid-twenties.

**Table 1: Socio demographic characteristics (continuous variables).**

Variable	Mean	SD
Age in years	29.5	$\pm$ 3.51
Education ( in years)	16	$\pm$ 1.34
Spouse age (in years)	33	$\pm$ 3.75
Spouse education(in years)	16	$\pm$ 1.95
Age at marriage	25	$\pm$ 3.30

**Table 2: Socio demographic characteristics (categorical variables).**

Variable	Category	%
Family structure	Joined	35
	Extended	23
	Nuclear	42
Type of marriage	Family arranged	82
	Self-arranged	18
Occupation	Home maker	54
	Employed	43
	Self employed	3
Occupation of spouse	Employed	88
	Self employed	12
Annual income	Above 40,000	88
	20000-400000	12

Table 2 shows that the significant proportion of the sample was from nuclear family (42%). Majority (82%) of the sample had a family arranged marriage and belonged to middle or upper middle socio- economic status (88%). Over half the sample (54%) was home makers whereas majority (88%) of spouse were employed.

### *Quality of marital relationship and intimate partner violence*

The mean score of the sample on MQS is 72.97 (SD $\pm$ 15.88), which indicates an average quality of marital relationship among women with primary infertility. In terms of intimate partner violence the result shows that psychological/emotional violence was high (46%) in the sample, followed by physical violence (16%) and sexual violence (7%). Almost half the sample (47%) experienced at least one form of intimate partner violence.

### *Psychological distress*

On DASS-21 the participants have a mean score of 7.63 (SD $\pm$  1.40) on depression, 7.06 (SD $\pm$ 1.92) on anxiety and 11.16 (SD $\pm$ 3.10) on stress. The total score is 25.86 ( $\pm$ 3.69), and all the above scores indicate moderate level of psychological distress.

### *Resilience*

The mean score on the CD-RISC is 76 (SD $\pm$ 11.7) which indicates a high score on resilience.

### *Relationship among quality of marital relationship (MQS), psychological distress (DASS) and resilience (CD-RISC)*

Findings indicate that there is a significant negative correlation between quality of marital relationship (MQS) and psychological distress (DASS) which indicates poorer quality of marital relationship is associated with greater psychological distress ( $P < 0.01$ ). There was also a positive correlation between quality of marital relationship (MQS) and resilience (CD-RISC) which indicates that poorer quality of marital relationship was associated with lower resilience scores ( $p < 0.05$ ). There was also a significant negative correlation between psychological distress (DASS) and resilience (CD-RISC) which indicates that higher psychological distress was associated with lower resilience ( $p < 0.05$ ).

### *Quality of marital relationship (MQS), psychological distress (DASS) and resilience (CD-RISC) by IPV*

**Table 3: Group difference on psychological variables by IPV.**

Variables (N=30)	IPV				P value
	Present (N=14)		Absent (N=16)		
	Mean	SD	Mean	SD	
MQS	63.06	5.03	84.28	16.57	<0.001
DASS	28.75	2.72	23.75	3.10	<0.001
CD-RISC	70.92	10.39	81.50	10.68	<0.01

Table 3 shows a significant difference between the groups IPV present and IPV absent on variables of quality of marital relationship (MQS), psychological distress (DASS) and resilience (CD-RISC). Women those who are experiencing any form of violence reported poorer quality of marital relationship, higher distress and lower resilience.

### **Predictors of psychological distress**

Five predictor variables were entered into the stepwise regression analysis: age at marriage, duration of marriage, total scores of quality of marital relationship (MQS), resilience (CD-RISC) and violence present/absent. Psychological distress (DASS) total score was the outcome variable. Results indicated that only violence present/absent entered the regression analysis and explained 37% (0.37) of the total variance in Psychological distress. This indicates that women who reported presence of IPV were more likely to report higher levels of psychological distress ( $p < 0.001$ ) compared to women who did not report.

## **DISCUSSION**

Existing literature renders women are more vulnerable to psychological distress due to infertility particularly in developing countries.<sup>4,24</sup> The literature also supports the fact that psychological consequences are significantly more among women with primary infertility than women with secondary infertility, as they have been able to produce at least one child to take the legacy forward.<sup>29</sup>

The socio demographic profile of the sample is in keeping with the trend seen in urban metropolitan cities. Due to globalization and its impact on diet, lifestyle and stress levels, the age at which couples start seeking infertility treatments have reduced to mid and late twenties compared to reports in the 90's, where the documenting age at initiating infertility treatments was mid or late thirties. Since the sample was reasonably well educated and employed, it is likely to ensure greater access to and affordability to health care resources.<sup>30</sup> Infertility treatments are known to be time and cost intensive and due to this reason few women gave up their demanding full time jobs to focus more on their treatment as that was of greater priority.<sup>31</sup>

The sample reportedly had an average quality of marital relationship. Rates of psychological/emotional violence were high in the sample followed by physical violence and sexual violence perpetrated by their husbands. This result is consistent with existing literature on IPV in couples with infertility.<sup>29</sup> Participants also reported that infertility had increased their sense of inadequacy and insecurity in the relationship; they felt a lot more touchy and sensitive and hence their reports of psychological violence may also be a result of their perceptions. From a cultural perspective, it is also known that women accept a certain degree of violence in relationships and the

presence of mild forms of violence will not be considered as a problem in itself.<sup>32</sup> Whether subscribing to a traditional gender role orientation mediates this in anyway needs to be explored in future research.

The result shows moderate levels of psychological distress among the participants. There are studies conducted in both western and Indian contexts supporting the above result.<sup>3,33</sup> The possible reason for this distress was explained as a sense of being incomplete as a woman, as fertility is seen as an important characteristic for defining a woman in a lot of patriarchal cultures, also in India.<sup>24</sup> In western countries, the level of distress due to infertility is reported to be significantly high, however in the current study, the level of distress reported is moderate.<sup>3</sup> The cross-cultural difference can be attributed to the collectivist Indian culture where informal support systems mitigate distress levels to a great extent. Sexton<sup>23</sup> in his study reported significantly lower resilience score in women with fertility problems. However in the current study participants report higher resilience. This may be due to the existing social support networks that might have act as a buffer.

We also found a significant negative correlation between marital quality and psychological distress, i.e. poorer quality of marital relationship is associated with greater psychological distress. The existing studies also support the same result.<sup>11,34</sup> The current finding shows increased level of distress among people who reported IPV which could have an impact on marital life. Women with abusive partners reported more stress related concerns and emotional problems than did non-abused women which in turn influences overall marital satisfaction. Indeed, studies report a range of negative impact of IPV on current physical and psychological health of women which can be extremely serious.<sup>35,37</sup> Further, one review reports that IPV is associated with depression, PTSD, anxiety, self-harm, and sleep disorders.<sup>38</sup> The current study is in line with the previous research studies in that, it reports a negative correlation between quality of marital life and resilience which indicates that poorer quality of marital relationship was associated with lower resilience.

We also found a significant negative correlation between psychological distress and resilience. The result is supported by Sexton, whose study shown negative association between resilience and infertility specific and general distress.<sup>23</sup> Those who are able to view infertility as a medical problem and seek treatment while being optimistic about the future may have less distress.

Women who reported experiencing any violence were more likely to report poorer marital relationship, higher distress and lower resilience. The stepwise multiple regression analysis indicated that women who experienced violence were more likely to experience higher severity of psychological distress. This variable alone predicted 37% of the total variance in distress



score. Findings are consistent with previous literature in this area which shows that women who report experiencing violence have higher levels of distress, poorer marital relationship, and lower resilience than those who do not report exposure to violence.<sup>39,40</sup>

## CONCLUSION

We found high rates of IPV in the present study. Poor quality of marital relationship was associated with higher distress and lower resilience. Experience of any one form of IPV emerged as the single most important predictor for severity of psychological distress. The study also identifies the need to examine the possible role of traditional gender roles in mediating the association between IPV and distress.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: Not required*

## REFERENCES

- World Health Organization. International statistical classification of diseases and related health problems. Infertility. 2004.
- Peterson BD, Newton CR, Rosen KH, Skaggs GE. Gender differences in how men and women who are referred for IVF cope with infertility stress. *Human Rep.* 2006;21(9):2443-9.
- Dyer SJ, Abrahams N, Abrahams N, Mokoena NE, Lombard CJ, Spuy ZM. Psychological distress among women suffering from couple infertility in South Africa: a quantitative assessment. *Human Rep.* 2005;20(7):1938-43.
- Greil AL. Infertility and psychological distress: a critical review of the literature. *Social Sci Med.* 1997;45(11):1679-704.
- Leonard L. Problematizing Fertility. 'Scientific' accounts and Chadian women's narratives. CA: University of California Press. 2002;27(5):193-214.
- Riessman CK. Stigma and everyday resistance practices childless women in South India. *Gender Society.* 2000;14(1):111-35.
- Ebomoyi E, Adetoro O. Socio-biological factors influencing infertility in a rural Nigerian community. *Int J Gynaecology Obstetrics.* 1990;33(1):41-7.
- 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 Human Reproductive Sci.* 2011;4(2):80-5.
- Monga M, Alexandrescu B, Katz SE, Stein M, Ganiats T. Impact of infertility on quality of life, marital adjustment and sexual function. *Urology.* 2004;63(1):126-30.
- Lau JT, Wang Q, Cheng Y, Kim JH, Yang X, Tsui HY. Infertility related perceptions and responses and their associations with quality of life among rural Chinese infertile couples. *J Sex Marital Therapy.* 2008;34:248-67.
- Akyuz A, Seven M, Şahiner G, Bakır B. Studying the effect of infertility on marital violence in Turkish women. *Int J Fertility Sterility.* 2013;6(4):286-93.
- Okonofua F. New Reproductive technologies and infertility treatment in Africa. *African J Reproductive Health.* 2003;7(1):9.
- Ardabily HE, Moghadam ZB, Salsali M, Ramezanzadeh F, Nedjat S. Prevalence and risk factors for domestic violence against infertile women in an Iranian setting. *Int J Gynaecol Obstetrics.* 2011;112(1):15-7.
- Sudha G, Reddy KS. Infertility: Gender based domestic violence against women in Chittoor District of Andrapradesh. *Asia Pacific J Social Sci.* 2011;3(1):90-101.
- Sbaragli C, Morgante G, Goracci A, Hofkens T, De Leo V, Castrogiovanni P. Infertility and psychiatric morbidity. *Fertility and Sterility.* 2008;90(6):2107-11.
- Ardenti R, Campari C, Agazzi L, Sala GBL. Anxiety and perceptive functioning of infertile women during in-vitro fertilization: exploratory survey of an Italian sample. *Human Repr.* 1999;14(12):3126-32.
- Upkong D, Orji E. Mental health of infertile women in Nigeria. *Turkish J Psychiatry.* 2006;17(4):259-65.
- Kousalya K, Sanjeeva RN, Reddy UMC, Jayashree K. Depression, anxiety and stress among infertile women and the impact of counselling on these levels. *Innovative J Med Health Sci.* 2013;3(3):110-2.
- Kotze D, Kruger TF. The effect of the biochemical marker soluble human leukocyte antigen G on pregnancy outcome in assisted reproductive technology—a multicentre study. *Fertility and sterility.* 2013;100(5):1303-9.
- Vayena E, Rowe PJ, Peterson HB. Assisted reproductive technology in developing countries: why should we care?. *Fertile Ster.* 2002;78(1):13-5.
- Verhaak CM, Smeenk J, Evers AW, Kremer JA, Kraaijmaat FW, Braat DD. Women's emotional adjustment to IVF: a systematic review of 25 years of research. *Human Rep Update.* 2007;13(1):27-36.
- Boivin J, Bunting L, Collins JA, Nygren KG. International estimates of infertility prevalence and treatment-seeking: potential need and demand for infertility medical care. *Human Rep.* 2007;22(6):1506-12.
- Sexton MB, Byrd MR, Von Kluge S. Measuring resilience in women experiencing infertility using the CD-RISC: Examining infertility-related stress, general distress, and coping styles. *J Psychiatric Res.* 2010;44(4):236-41.
- Ganth B, Thiagarajan S, Nigesh K. Role of infertility, emotional intelligence and resilience on marital satisfaction among Indian couples. *Int J Applied Psychol.* 2013;3(3):31-7.

25. Shah A. Clinical validity of marital quality scale. *NIMHANS J*. 1995;13(1):23-31.
26. Krishnan S, Subbiah K, Khanum S, Chandra PS, Padian NS. An intergenerational women's empowerment intervention to mitigate domestic violence: Results of a pilot study in Bengaluru, India. *Violence against women*. 2012;18(3):346–70.
27. Lovibond SH, Lovibond PF. *Manual for the Depression Anxiety Stress Scales*. Sydney-Psychology Foundation; 1995.
28. Connor KM, Davidson JR T. Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression Anxiety*. 2003;18(2):76–82.
29. Epstein YM, Rosenberg HS. Depression in primary versus secondary infertility egg recipients. *Fertility Steril*. 2005;83(6):1882-4.
30. Staniec FOJ, Webb NJ. Utilization of infertility services: how much does money matter? *Health Services Res*. 2007;42(3):971-89.
31. Dunkel- Schetter C, Stanton AL. Psychological adjustment to infertility. *Infertility Springer*. 1991: 197-222.
32. Allison CJ, Bartholomew K, Mayseless O, Dutton DG. Love as a battlefield attachment and relationship dynamics in couples identified for male partner violence. *J Family Issues*. 2008;29(1):125-50.
33. Kumar A, Kumar A., Mittal S, Sumuna G, Bahadur A, Maiti L. Psychological distress measurement among infertile Indian women undergoing in-vitro fertilization. *Indian J Public Health Res Development*. 2013;4(3):164-19.
34. Tao P, Coates R, Maycock B. Investigating Marital Relationship in Infertility: A systematic review of quantitative studies. *J Rep Infert*. 2012;13(2):71-80.
35. Campbell JC. Health consequences of intimate partner violence. *Lancet*. 2002;359(9314):1331-6.
36. Watts C, Zimmerman C. Violence against women: Global scope and magnitude. *Lancet*. 2002;359(9313):1232–7.
37. Martinez M, Garcia-Linares MI, Celda-Navarro N, Blasco-Ros C, Echeburua E, Martinez M. The impact of physical, psychological, and sexual intimate male partner violence on women's mental health: depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide. *J Women's Health*. 2006;15(5):599– 611.
38. Dillon G, Hussain R, Loxton R, Rahman S. Mental and physical health and intimate partner violence against women: A review of the literature. *Int J Family Med*. 2013:1-15
39. Afifi TO, Enns MW, Cox BJ, Asmundson GJG, Stein MB, Sareen J. Population attributable fractions of psychiatric disorders and suicide ideation and attempts associated with adverse childhood experiences. *Am J Public Health*. 2008;98(5):946– 52.
40. Labronici LM. Resilience in women victims of domestic violence: a phenomenological view. *Texto & Contexto- Enfermagem*. 2012;21(3):625-32.

**Cite this article as:** Satheesan SC, Satyanarayana VA. Quality of marital relationship, partner violence, psychological distress, and resilience in women with primary infertility. *Int J Community Med Public Health* 2018;5:734-9.