**Sociocultural Determinants of Infertility Stress in Patients Undergoing Fertility Treatments**

*Ansha Patel, P. S. V. N. Sharma, Pratap Kumar¹,², V. S. Binu³*

Department of Psychiatry, Kasturba Medical College, Manipal University, ¹Department of Obstetrics and Gynaecology, The Manipal Assisted Reproduction Centre, Manipal University, ²The Manipal Assisted Reproduction Centre, Kasturba Medical College, Manipal University, Manipal, ³Department of Biostatistics, Dr. M.V. Govindasamy Centre, National Institute of Mental Health and Neuro Sciences, Bengaluru, Karnataka, India

**Introduction:** Involuntary childlessness is a distressing condition that has considerable social implications in developing nations. **Aim:** The present study aims to investigate the less known sociocultural determinants of infertility stress in patients undergoing assisted conception and reproductive treatments. **Methods:** This cross-sectional research was conducted on 300 men and women with primary infertility. The profile of sociodemographic variables, clinical variables, and sociocultural variables was collected using a locally devised questionnaire. Infertility stress was assessed using the psychological evaluation test. **Statistical Analysis:** Research data were analyzed using SPSS 15. Chi-square test is used for univariate analysis. Multiple logistic regression with enter method is used to examine the association between infertility stress and sociocultural variables. **Results:** The findings suggest that in both men and women, low spousal support, financial constraints, and social coercion in early years of marriage predicts infertility distress. Peer-support neither predicts nor protects against distress. **Discussion:** Family acceptance and social security for infertility is low. Stigma, concealment, and discrimination among men are reported to be high. Distress is three times greater in women with overinvolved family members who had unrealistic expectations from treatments. Taking continuous cycles of fertility treatments seems unaffordable for most patients. Subfertile individuals were socially perceived to be deprived, blemished, incomplete, and sexually incompetent. **Conclusion:** Data from this investigation, provides a glimpse into sociocultural aspects of infertility. The findings may be useful for identifying targets for individual and family-focused psychological interventions for distress reduction in infertility.

**Keywords:** Economic, family, infertility, men, predictors, sociocultural, stigma, stress, support, women

---

**INTRODUCTION**

The sociocultural construction of fertility stems from the importance that individuals and societies ascribe to procreation. Parenthood is often encouraged by social learning whereby members of one’s social network reinforce expectations, intentions, thrills, and challenges of having a child. In many cultures, childbearing is promoted by one’s family, neighbors, siblings, and peers. Children born within one’s social network instigate the need to start a family. In addition to this, parental attitudes and values also influence fertility behavior and orientations. When conception is delayed, all the later sources can serve as important agents of social pressure, distress, and frustration. Notions such as “the ticking biological and social clocks,” “depleting stamina and physical vigor” and “diminishing vitality regarding lowering ovarian and semen reserves” pose a threat of being sterile. Pronatalist societies are known to elevate

---

**Address for correspondence:** Ms. Ansha Patel, Room, Number 33, 3rd Floor, Main OPD Building, Department of Psychiatry, Kasturba Medical College, Manipal - 576 104, Karnataka, India. E-mail: ansha_patel@yahoo.co.in

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

**How to cite this article:** Patel A, Sharma PS, Kumar P, Binu VS. Sociocultural determinants of infertility stress in patients undergoing fertility treatments. J Hum Reprod Sci 2018;11:172-9.
emotional distress in childless couples. This is so, as infertility is a perceived to be a serious social problem that leads to stigma, social exclusion, loss of entitled role within the family for those who fail out of the usual norm of family building. Literature cites that in most cultures, “being childless” is an undesired social role and infertility is an “unexpected life transition.”

In tandem with the low social acceptance of involuntary childlessness in certain societies, the tag of “infertility” is a painful experience and the reason that most couples resist this label. The later study also suggests that infertility experience in developing countries differs remarkably from that in developed countries. In developing countries, irrespective of the cause of infertility, the tag of childlessness carries higher societal blame for women due to patriarchal family structures. Childlessness may be experienced as a hazard to personal worth, social security, status, gender identity, family lineage, blocks caregiving traditions, and may also cause legal disputes. In addition, the later research also suggests that social ostracism is commonly faced by those with involuntary childlessness and is a reason why infertility also disrupts social ties.

A common feature of societies within the developing nations is the favorable milieu toward marriage and childbearing. In patriarchal, patrilocal and patrilineal societies, procreation is highly valued as children are symbols of life-accomplishment as well as fundamental sources of happiness, support, resource, labor, and personal security for elders in the family. Moreover, sociocultural values and norms are mostly oriented toward higher fertility. In such a milieu, childlessness is perceived as something which deviates from “normal way of living” and “the traditional concepts of biological inheritance.” Childlessness or even lack of male child at times invites prejudice and ill-will. The religious context of feminism too is associated with beauty, grace, power, and fertility. In societies that over-emphasizes the roles of “motherhood,” “homemaker,” “family inheritance,” fertility is deemed as a fundamental characteristic and role-defining feature of young women. The fulfillment of this role strengthens their personal importance, confidence, strengthens marital bonds and provides them certain freedom, power, and worth within their family structures and kinship ties. Invariably, when couples fail to conceive or miscarry, the women are outrageously blamed for it. Compared to the male counterparts, subfertile women from the pronatalistic societies often pay a higher cost for childlessness, which in turn contributes to a personal loss of self-esteem and physical, emotional, marital, economic insecurity in them. Furthermore, there is also exists a strong link between masculinity, femininity, and fertility. Childlessness is also equated with sexual incompetence and subjected to greater social ridicule.

As a resolution to subfertility, the literature on treatment-seeking behavior offers a new angle. In developing countries, the willingness to opt for allopathic treatments for infertility is limited due to stigma, religious beliefs, cultural issues, and other socioeconomic aspects. Treatment denial, disappointment, frustration, resignation from assisted conception, and reproductive treatments are far more common, and most couples prefer to opt for milder cures such as homeopathic, ayurvedic, and magicoreligious treatment for subfertility.

Research on the emotional and behavioral correlates of infertility in South Asia is limited. Nevertheless, it is well known that infertility is linked to marital disruption and domestic violence in these regions. In addition, nearly 5%–10% infertile women below 29 years of age get divorced or separated or deserted. Lack of family support and domestic violence are reported by 23% of such women. Infertile women are more at a risk of abandonment, emotional harassment, grief, and feelings of failure. In addition, in general, the social attitudes are often unfavorable for couples with infertility and nearly 27%–30% face interpersonal disharmony within their families and societies. The review suggests that elevated sociocultural strains often create a negative psychological well-being and are agents of longitudinal stressors that impact the lives of couples.

In a systematic exploration of the above issues, and in line with the popular research trends enumerating the social constructions of infertility, this study aims to examine the sociocultural determinants of infertility stress in men and women undergoing fertility treatments in a developing nation.

The objectives of this study were as follows:
1. To find the association between social support (spousal, family, and peer) and stress in infertile men and women
2. To find an association between infertility distress and other stressors (treatment-related, sociocultural, family-related, and financial) among men and women.

**Methods**

**Study participants**

This is a part of a previous investigation on predictors of distress in men and women undergoing fertility treatment. The sample of the present study...
comprised of 300 consenting men and women diagnosed with primary infertility. The study excluded those who were diagnosed with secondary infertility and met criteria for major psychiatric morbidity (assessed using the Mini International Neuropsychiatric Interview 5.0 English version).

**Data collection**
The consenting patients were interviewed on sociodemographic variables,[27] clinical variables, and psychological variables (social support and stressors) using a semi-structured questionnaire prepared by the principal investigator. Subsequently, participants were assessed for the presence of infertility-specific stress, using the “Psychological Evaluation Test for infertility”[28] the ethical clearance from the concerned authorities was taken before the conducting this work.

**Statistical analysis**
The data were entered and analyzed using SPSS (SPSS for Windows, version 15, September 2007, SPSS Inc., Chicago, IL, USA). The results were summarized using means, medians, percentages, odds ratio, and 95% confidence intervals. Chi-square test is used for univariate analysis. Multiple logistic regression with enter method is used to examine the association between infertility specific stress and the study variables. Those variables with \( P < 0.1 \) in univariate analysis were considered for inclusion in multiple logistic regression models. For all the above analysis, \( P < 0.05 \) was considered as statistically significant.

**Results**
The descriptive data of the sample characteristics have been given in Table 1. The table shows that the mean age of men who participated in the study was 36 years and that of women was 29 years. Most of the individuals were from lower middle/middle socioeconomic status, rural background, and joint family setups. Median for marital years was 4, and the participants of the study usually began treatments (such as ovulation induction and intrauterine inseminations) within 1–2 years of diagnosis of infertility. The most common factors accounting for infertility in women who participated in the study were genital tract infections, low ovarian reserve, poor endometrial growth, and polycystic ovarian disease. Whereas for men the common causes for infertility were low semen counts.

Table 1: Description of the sample characteristics of this study

| Variables                              | Males (n=300) | Females (n=300) |
|----------------------------------------|--------------|-----------------|
| Mean (standard deviation) age (years)  | 36 (5)       | 29 (5)          |
| Occupation*                            |              |                 |
| Homemaker                              | 0            | 63              |
| Semi-skilled worker                    | 11           | 3               |
| Skilled worker                         | 27           | 4               |
| Clerk/farmer/shopkeeper                | 27           | 28              |
| Large-scale businessman/professional   | 35           | 2               |
| Education*                             |              |                 |
| Primary                                | 3            | 8               |
| Secondary                              | 27           | 29              |
| Senior secondary                       | 44           | 43              |
| Graduate                               | 20           | 16              |
| Postgraduate                           | 6            | 4               |
| Socioeconomic status*                  |              |                 |
| Lower/upper lower                      | 15           | 13              |
| Middle/lower middle                    | 50           | 55              |
| Upper middle                           | 29           | 20              |
| Upper                                  | 6            | 12              |
| Language*                              |              |                 |
| Kannada only                           | 84           | 85              |
| Kannada, Hindi, English                | 16           | 15              |
| Residence*                             |              |                 |
| Rural                                  | 62           | 55              |
| Suburban                               | 20           | 24              |
| Urban                                  | 18           | 21              |
| Family setup*                          |              |                 |
| Nuclear                                | 45           | 49              |
| Joint                                  | 55           | 51              |
| Number of years of married life (years)**| 4 (2.6) | 5 (3.6)        |
| Duration of infertility (years)*       |              |                 |
| 1 year                                 | 64           | 56              |
| 2 years                                | 36           | 41              |
| Duration of fertility treatments (years)* |          |                 |
| Ovulation induction, intrauterine insemination, *in vitro* fertilization* | | |
| 1 year                                 | 78           | 80              |
| 2 years                                | 18           | 12              |
| 3 years                                | 3            | 5               |
| 4 years                                | 1            | 3               |
| Infertility type*                       |              |                 |
| Single defect: Identified in patient   | 30           | 29              |
| Combined factor: Identified in patient and spouse | 30 | 35 |
| Unexplained: No defect identified in patient and spouse | 40 | 36 |
| Diagnosis of females*                  |              |                 |
| No abnormality                         | 19           |                 |
| PCOS                                   | 27           |                 |
| Chocolate cyst                         | 6            |                 |
| Fibroid                                | 4            |                 |
| Endometriosis                          | 8            |                 |

Contd...
majority of patients could not afford continuous cycles of intrauterine insemination or in vitro fertilization treatments. In addition to this, in men specifically, the infertility-associated stigma and discrimination were another distressing factor. Likewise, in women, high family involvement was perceived to be an added stressor. The multivariate regression analysis in Table 3 confirms stronger associations between distress and financial stressors for men and women. Table 3 also shows that spousal support predicts infertility distress in women.

**DISCUSSION**

Infertility in developing countries may be experienced as a demeaning social reality.[29] This investigation attempts to explore some of the sociocultural factors that predict infertility distress in men and women seeking fertility treatments.

The results of this study suggest that in both men and women, low spousal support predicts infertility stress. In women, this association was stronger. Women with unsupportive spouses are known to experience greater marital stress. Such women experienced four times greater distress in comparison to women whose husbands supported them in their fertility-related struggles and who had congenial marital relations. On the contrary, in men with unsupportive spouses, the magnitude of infertility distress was double than those with supportive spouses. The probable causes for the association between distress and marital issues could be that infertility is perceived to be a barrier for personal growth and prosperity. In addition, the women participants in this study experienced greater self and social blame for infertility. Similar results have also been reported by other studies.[26,30‑33] Partner support has also been recognized as an important predictor of adjustment in infertility particularly in infertile men.[34] In interviews with patients during this research, it was revealed the inability to experience parenthood often made them feel empty and dejected regarding their marital and family life. Contrary to this, evidence also suggests that infertility leads to increased couple bonding, communication, and marital benefit.[35‑37]

Data from this study also suggests that financial constraints significantly predict stress in men and women taking fertility treatment. Our clinic-based data reveals that a typical cycle of intrauterine insemination treatment costs 10,000–15,000 rupees, with a success rate of barely 10%–15% per cycle. Whereas, a typical in vitro fertilization cycle costs between 1.5 and 2.5 lakhs, with a higher success rate of 30%–40% per cycle. Moreover, the treatment cost per cycle was beyond the affordability of most middle-class patients as their family income was around 15–25,000 rupees/month. Thus, taking continuous cycles of treatment was difficult, and the monetary and psychosocial support provided by patient’s family for repeated allopathic treatments was low. Other studies also suggest similar results and state that due to low social acceptance, stigma, and affordability issues most patients in developing countries tend to a drop-out from assisted conception and reproductive treatments.[14,38]

Sociocultural pressures for conception soon after marriage were also seen as an additional cause of worry for participants of the study, irrespective of their gender. Data from this study suggest that both men and women face social coercion for pregnancy and childbirth. These pressures play a large role in escalating infertility distress. Findings from other studies in this area suggest that there is a thin line between “social encouragement and social pressures” from family, siblings, and cousins.[8] Further inquiry using ethnographic methods is required in this area, to develop and holistic understanding of the way social relationships impact parenting ambitions.

This study also reveals some interesting findings. One of these was that family stigma and discrimination faced by infertile men predicts distress in them. Distress was nearly twice as much in men who faced social stigma and exclusion due to being subfertile than in men who did not experience this. These results were also supported by another study.[39] In interviews at our clinic, while conducting this research, patients reported that they are often tormented by the loss of social status due being infertile. Participants reported of “being perceived as incomplete or their lives being stagnant by others.” Society perceived them as “blemished, disadvantaged
Table 2: Univariate binary logistic regression analysis for predictors of stress in infertile women and men

a. Predictors of stress in women

| Variable | Infertility specific stress (%) | Odds ratio (95% CI) | P |
|----------|---------------------------------|---------------------|---|
|          | No (61) | Yes (239) |          |              |              |              |
| Spousal support | | | | | |
| Strong support from spouse and cordial marital relations irrespective of subfertility (n=225) | 56 (25) | 169 (75) | 1 | | |
| Fairly to low spousal support with significant marital distress, more often due to infertility (n=75) | 5 (7) | 70 (93) | 4.63 (1.78-12.07) | 0.002 | |
| Family stigma and discrimination due to infertility | | | | | |
| No (n=244) | 54 (22) | 190 (78) | 1 | 0.112 | |
| Yes (n=56) | 7 (13) | 49 (88) | 1.98 (0.85-4.64) | 0.05 | |
| Family involvement | | | | | |
| Low (n=99) | 24 (24) | 75 (76) | 1 | | |
| Moderate (n=168) | 34 (20) | 134 (80) | 1.26 (0.69-2.28) | 0.44 | |
| High (n=33) | 3 (9) | 30 (91) | 3.20 (0.89-11.42) | 0.07 | |
| Family support for allopathic fertility treatments and assistance during treatment cycles | | | | | |
| Low (n=113) | 30 (27) | 83 (73) | 1 | 0.03 | |
| High (n=187) | 31 (17) | 156 (84) | 1.81 (1.03-3.21) | 0.03 | |
| Peer support | | | | | |
| Low (n=38) | 9 (24) | 29 (76) | 1 | 0.58 | |
| High (n=262) | 52 (20) | 210 (80) | 1.25 (0.55-2.80) | 0.24 | |
| Sociocultural pressures for conception | | | | | |
| No (n=162) | 44 (27) | 118 (73) | 1 | 0.002 | |
| Yes (n=138) | 17 (12) | 121 (88) | 2.65 (1.43-4.90) | 0.004 | |
| Financial stressors for fertility treatments | | | | | |
| Not present (n=167) | 44 (26) | 123 (74) | 1 | 0.004 | |
| Present (n=133) | 17 (13) | 116 (87) | 2.44 (1.32-4.51) | 0.004 | |

b. Predictors of stress in men

| Variable | Infertility specific stress (%) | Odds ratio (95% CI) | P |
|----------|---------------------------------|---------------------|---|
|          | No (61) | Yes (239) |          |              |              | |
| Spousal support | | | | | |
| Strong support from spouse and cordial marital relations irrespective of subfertility (n=233) | 72 (31) | 161 (69) | 1 | | |
| Fairly to low spousal support with significant marital distress, more often due to infertility (n=67) | 11 (16) | 56 (84) | 2.27 (1.12-4.60) | 0.02 | |
| Family stigma and discrimination due to infertility | | | | | |
| No (n=244) | 75 (31) | 169 (69) | 1 | 0.01 | |
| Yes (n=56) | 8 (14) | 48 (86) | 2.66 (1.20-5.90) | 0.03 | |
| Family involvement | | | | | |
| Low (n=99) | 30 (30) | 69 (70) | 1 | | |
| Moderate (n=168) | 46 (28) | 122 (73) | 1.15 (0.66-1.99) | 0.60 | |
| High (n=33) | 7 (21) | 26 (79) | 1.16 (0.63-4.12) | 0.31 | |
| Family support for allopathic fertility treatments and assistance during treatment cycles | | | | | |
| Low (n=113) | 36 (32) | 77 (68) | 1 | | |
| High (n=187) | 47 (25) | 140 (75) | 1.39 (0.83-2.33) | 0.20 | |
| Peer support | | | | | |
| Low (n=38) | 10 (26) | 28 (74) | 1.08 (0.50-2.33) | 0.84 | |
| High (n=262) | 73 (28) | 189 (72) | 1 | | |
| Sociocultural pressures for conception | | | | | |
| No (n=162) | 55 (34) | 107 (66) | 1 | 0.009 | |
| Yes (n=138) | 28 (20) | 110 (80) | 2.01 (1.19-3.42) | 0.009 | |
| Financial stressors for fertility treatments | | | | | |
| Not present (n=167) | 60 (36) | 107 (64) | 1 | | |
| Present (n=133) | 23 (17) | 110 (83) | 2.68 (1.54-4.64) | <0.001 | |

and perhaps sexually incompetent.” A majority of the participants of this study reported that instead of being treated emphatically, they often faced the blame of involuntary childlessness as if, “they actually want to
be childless.” Moreover, patients often hid the fact that they are seeking treatments (from friends, colleagues at work-circle and even family members) as frank disclosure would lead to intrusive questions and a violation of their privacy. The later results were also reported by a other similar investigations. Overall, the findings of this study are analogous to other researchers, revealing that developing nations offer low support and social security for couples with involuntary childlessness.

Another fascinating finding of this research was that in women facing fertility problems, family overinvolvement raises distress. Distress was three times greater in women whose family members accompanied them during treatment cycles than in women whom only the husband accompanied them in treatment cycles. Intriguingly, the data from this study revealed that peer support neither predicts nor protects against infertility distress experienced by men and women.

There are certain limitations of this study as well. This investigation explored a few, selected sociocultural aspects of infertility and assessed these using minimally standardized, semi-structured questionnaires, and quantitative method. The data collected in this study is likely to be contaminated due to the biases of subjective reporting by patients and investigators. In future, an ethnographic inquiry would be more suitable for investigating the experiences of subfertile patients as it would capture a wider view of the social phenomenon. In addition, studies comparing the psychological sociocultural profiles of the community-based population and the clinic-based population are required to understand the motivations behind seeking treatments and ways in which infertility distress is experienced, affected, and managed by those who do not seek treatment.
Despite the above-mentioned limitations of the present study, this work can serve as a guideline to conduct further investigations on sociocultural determinants of infertility stress in patients undergoing fertility treatments. This work can also help in identifying targets for individual and family focussed psychosocial interventions for distress reduction in infertility. Moreover, since this study provides a glimpse into the social concerns and issues in seeking medically assisted reproductive treatments, its findings can help in reducing dropouts from same.

**Conclusion**

Data from this study is in line with other researchers that suggest that in developing nations, infertility is a social problem with serious sociocultural consequences and social solutions. For a majority of patients undergoing treatments, it is an embarrassing, stigmatizing, and shame-laden experience. Infertile men and women are perceived to be defective, socially inapt and negative social attitudes contribute to their distress. In both men and women factors such as low spousal support, financial constraints, and social coercion in early years of marriage predict infertility-related distress. Peer-support neither predicts nor protects against distress probably as most of the patients maintain high concealment and secrecy while undergoing infertility evaluation and treatments. Family stigma and discrimination perceived by men are higher than women. Distress was three times greater in women whose family is overinvolved and had unrealistic expectations from treatment. Distress was twice as much in women whose family members accompanied them during treatment cycles than in those women who were accompanied by their husbands during treatments. Overinvolved family members tended to overestimate the success of the treatments and the chances of live birth. This factor particularly predicts distress and contributes to dejection in situations when treatment failures. Discontinuation from treatments is likely to be high due to same. In addition, data suggests that taking continuous cycles of assisted conception and reproductive treatments appear to be financially unfeasible for most patients due to a multitude of psychosocial and economic factors.

**Acknowledgement**

The authors would like to express their gratitude toward all the study participants of the study. We would also like to thank Dr. BS Patel for rendering help in linguistic corrections and alterations.

**Financial support and sponsorship**

Nil.

**Conflicts of interest**

There are no conflicts of interest.

**References**

1. Lois D. Types of social networks and the transition to parenthood. Demogr Res 2016;34:657.
2. Lois D, Arrázñ Becker O. Is fertility contagious? Using panel data to disentangle mechanisms of social network influences on fertility decisions. Adv Life Cycle Res 2014;21:123-34.
3. Axinn WG, Clarkberg ME, Thornton A. Family influences on family size preferences. Demography 1994;31:65-79.
4. Friese C, Becker G, Nachtigall RD. Rethinking the biological clock: Eleventh-hour moms, miracle moms and meanings of age-related infertility. Soc Sci Med 2006;63:1550-60.
5. Parry DC. Work, leisure, and support groups: An examination of the ways women with infertility respond to pronatalist ideology. Sex Roles 2005;53:337-46.
6. Ulrich M, Weatherall A. Motherhood and infertility: Viewing motherhood through the lens of infertility. Fem Psychol 2000;10:323-36.
7. Koropatnick S, Daniluk J, Pattinson HA. Infertility: A non-event transition. Fertil Steril 1993;59:163-71.
8. Greil AL, Shreffler KM, Johnson KM, McQuillan J, Slauson-Blevins K. The importance of social cues for discretionary health services utilization: The case of infertility. SocioL Inq 2013;83:209-37.
9. Dyer S, Lombard C, Van der Spuy Z. Psychological distress among men suffering from couple infertility in South Africa: A quantitative assessment. Hum Reprod 2009;24:2821-6.
10. Jindal UN, Gupta AN. Social problems of infertile women in India. Int J Fertil 1989;34:30-3.
11. Singh AJ, Dhaliwal LK. Identification of infertile couples in a rural area of Northern India. Indian J Med Res 1993;98:206-8.
12. Neff DL. The social construction of infertility: The case of the matrilineal Nayars in South India. Soc Sci Med 1994;39:475-85.
13. Unisa S. Childlessness in Andhra Pradesh, India: Treatment-seeking and consequences. Reprod Health Matters 1999;7:54-64.
14. Anjali W. Sociocultural attitudes towards infertility and assisted reproduction in India. Current Practices and Controversies in Assisted Reproduction 2002;60-74.
15. Widge A. Seeking conception: Experiences of Urban Indian women with in vitro fertilisation. Patient Educ Couns 2005;59:226-33.
16. Mukhopadhyay S, Garimella S. The contours of reproductive choice for poor women: Findings from a micro survey. In: Women's health, public policy and community action, edited by Swapna Mukhopadhyay. New Delhi, India, Manohar 1998. p. 98-121.
17. Vayena E, Rowe PJ, Griffin PD. Current practices and controversies in assisted reproduction: Report of a meeting on medical, ethical and social aspects of assisted reproduction, held at WHO Headquarters. Geneva, Switzerland: World Health Organization Geneva; 2002. Available from http://apps.who.int/iris/bitstream/handle/10665/42576/9241590300.pdf?sequence=1. [Last accessed on 2017 Apr 14].
18. Gandotra MM, Pandey DN. Values attached to children in Indian society and family size norms: The changes and impact. J Fam Wel 1979;26:9-14.
19. Aggarwal RS, Mishra VV, Jasani AF. Incidence and prevalence of sexual dysfunction in infertile females. Middle East Fertil Soc J 2013;18:187-90.
20. Ganguly S, Unisa S. Trends of infertility and childlessness in India: Findings from NFHS data. Facts Views Vis Obgyn 2010;2:131-8.

21. Singh JC, Tharyan P, Kekre NS, Singh G, Gopalakrishnan G. Prevalence and risk factors for female sexual dysfunction in women attending a medical clinic in South India. J Postgrad Med 2009;55:113-20.

22. Jejeebhoy SJ. Infertility in India—levels patterns and consequences: Priorities for social science research. J Fam Wel 1998;44:15-24.

23. Patel A, Sharma PS, Narayan P, Nair BV, Narayanakurup D, Pai PJ, et al. Distress in infertile males in Manipal-India: A clinic based study. J Reprod Infertil 2016;17:213-20.

24. Patel A, Sharma PS, Narayan P, Binu VS, Dinesh N, Pai PJ, et al. Prevalence and predictors of infertility-specific stress in women diagnosed with primary infertility: A clinic-based study. J Hum Reprod Sci 2016;9:28-34.

25. Kanani S, Lathe K; Shah M. Application of qualitative methodologies to investigate perceptions of women and health practitioners regarding women’s health disorders in Baroda slums. In: Gittelsohn J, Bentley ME, Pelto PJ, Pachauri S, Harrison AD, editors, Listening to women talk about their health: Issues and evidence from India. New Delhi, India: Har-Anand Publications; 1994. p. 116-30.

26. Sudha G, Reddy KS. Emotional distress in infertility couples: A cross sectional study. Asia Pac J Soc Sci 2011;3:90-101.

27. Kumar BR, Dudala SR, Rao AR. Kuppuswamy’s socio-economic status scale – A revision of economic parameter for 2012. Int J Res Dev Health 2013;1:2-4.

28. Franco JG Jr., Razera Baruffi RL, Mauri AL, Petersen CG, Felipe V, Garbellini E, et al. Psychological evaluation test for infertile couples. J Assist Reprod Genet 2002;19:269-73.

29. Cousineau TM, Domar AD. Psychological impact of infertility. Best Pract Res Clin Obstet Gynaecol 2007;21:293-308.

30. 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;4:80-5.

31. Tao P, Coates R, Maycock B. Investigating marital relationship in infertility: A systematic review of quantitative studies. J Reprod Infertil 2012;13:71-80.

32. Monga M, Alexandrescu B, Katz SE, Stein M, Ganiats T. Impact of infertility on quality of life, marital adjustment, and sexual function. Urology 2004;63:126-30.

33. Drosdzol A, Skrzypulec V. Evaluation of marital and sexual interactions of polish infertile couples. J Sex Med 2009;6:3335-46.

34. Martins MV, Peterson BD, Almeida V, Mesquita-Guimarães J, Costa ME. Dyadic dynamics of perceived social support in couples facing infertility. Hum Reprod 2014;29:83-9.

35. Schmidt L, Holstein BE, Christensen U, Boivin J. Communication and coping as predictors of fertility problem stress: Cohort study of 816 participants who did not achieve a delivery after 12 months of fertility treatment. Hum Reprod 2005;20:3248-56.

36. Onat G, Beji NK. Marital relationship and quality of life among couples with infertility. Sex Disabil 2012;30:39-52.

37. Ferreira M, Antunes L, Duarte J, Chaves C. Influence of infertility and fertility adjustment on marital satisfaction. Procedia Soc Behav Sci 2015;171:96-103.

38. Bharadwaj A. Why adoption is not an option in India: The visibility of infertility, the secrecy of donor insemination, and other cultural complexities. Soc Sci Med 2003;56:1867-80.

39. Baluch B, Nasseri M, Aghssa MM. Psychological and social aspects of male infertility in a male dominated society. J Soc Evol Syst 1998;21:113-20.

40. Finamore PS, Seifer DB, Ananth CV, Leiblum SR. Social concerns of women undergoing infertility treatment. Fertil Steril 2007;88:817-21.