



Psychosocial Consequences of Infertility among Rural and Urban Population in Vijayapura, Karnataka

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Financial Support: None declared
Conflict of Interest: None declared
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How to cite this article:

Patil VV, Udgiri R. Psychosocial Consequences of Infertility among Rural and Urban Population in Vijayapura, Karnataka. Natl J Community Med 2019;10(2):91-95.

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Date of Submission: 09-11-18

Date of Acceptance: 20-01-19

Date of Publication: 28-02-19

ABSTRACT

Background: The experience of infertility is clearly different from individual to individual, varying by gender, personality, culture, personal and family history as well as the investment they project in their forward-looking child. The study was conducted to assess the psychosocial consequences of infertility among rural and urban residents.

Methods: A cross sectional study was conducted in the rural and urban field practice area between March 2015- February 2016. Complete enumeration of all the houses was done to list all eligible couples and those who were exposed to pregnancy and had infertility were identified. A validated "Fertility problem inventory scale" was used to assess the psychosocial consequences of infertility and impact was seen at four levels i.e., personal, sexual, social and marital.

Results: Conflict within the marriage was highest (mean scores 61.5), followed by decline in sexual relationship (mean scores 51.4), social impact (mean scores 41.3) and personal impact (mean scores 38). Mean score difference was significant among primary and secondary infertility participants, men and women.

Conclusion: The results revealed that the couples have poor well-being on all the dimensions. There is need of awareness generation and counselling.

Key words: Infertility, Psychosocial consequences, Rural habitations, Urban habitations.

INTRODUCTION

"My infertility is a blow to my self-esteem, a violation of my privacy, an assault on my sexuality, a final exam on my ability to cope, an affront to my sense of justice, a painful reminder that nothing can be taken for granted. My infertility is a break in the continuity of life. It is above all, a wound to my body, to my psyche, to my soul."¹

The epidemiological definition (for monitoring and surveillance) put forth by World Health Organization is women of reproductive age group (15-49 years) at risk of becoming pregnant (non-pregnant, sexually active, not using any contraception and not lactating) who report trying unsuccess-

fully for a pregnancy for two years or more.²

The infertility pattern and trends indicate that there is increase in prevalence of infertility in India as reported in the 1981 census where it ranged from 4-6%³

It can have serious implications on psychological, physical, economic and social well-being for both spouses but more for women.⁴

Infertility has been neglected as a public health problem in some South Asian countries and the thrust areas in the research being correlates of increased fertility and methods to regulate it⁵. Hence the present study was undertaken.

OBJECTIVE

The study was conducted to assess the psychosocial consequences of infertility among rural and urban population.

MATERIAL AND METHODS

A cross sectional study was conducted at Rural and Urban Health Training Centre, which are the field practice areas of Shri B. M. Patil Medical College and Research Centre Vijayapura, from April 2015-March 2016. Eligible couples where a woman is in the reproductive age group 15-49 years were formed study population for the study.

Complete enumeration of all the houses covered under RHTC and UHTC was done to list all the eligible couples residing in the area those women at risk of pregnancy were identified so as to find out couples' with either primary or secondary infertility.

Couples who were residents of the locality (minimum 6 months duration) and all Couple where wife was in the reproductive age group between 15-49 years and at risk of pregnancy (sexually active, not using any contraception, not pregnant or not lactating) were included in the study Those who were seriously ill, not co-operative and not willing to participate in the study were excluded.

After obtaining ethical clearance from the Institutional Ethical Committee the study was conducted. Medico social workers, Anganwadi workers and ASHA workers were involved in the study. Objectives were explained to them. The purpose and overview of the study was explained at the time of the interview, and participants were informed that their participation was entirely voluntary, their anonymity would be assured, they could withdraw from the study at any time and the information that they will be providing would be used solely for the purpose of the study. Confidentiality about data and findings were assured to the participants and their consent was taken.

Out of 1962 houses a total of 1800(92%) of the houses and Out of the 1360 houses a total of 1210(89%) of the houses were accessed in rural and urban field practice area catering a population of 12000 and 10000 respectively. House to house survey was done covering all the participants coming under the field practice area so as to completely enumerate the eligible couples. Among them, women who were exposed to the risk of pregnancy were considered (as denominator to calculate the prevalence) and couples' with inability to conceive despite cohabitation and exposure to the risk of pregnancy (in the absence of contraception) for

two years or more (as per WHO Epidemiological definition) were included and considered to have primary infertility and those with inability to conceive despite cohabitation and exposure to risk of pregnancy (in the absence of contraception, post-partum amenorrhoea) following previous pregnancy for a period of two years or more were considered to have secondary infertility.⁶ in depth interview was conducted separately for husband and wife with infertility and the average duration of interview was more than an hour for each participant.

Evaluation of psychosocial factors:

Study tool: A validated "Fertility Problem Inventory scale"⁷ was used to assess the psychosocial consequences of the infertile study subjects after pretesting. It assessed 4 impact areas like personal impact, sexual impact, marital impact and social impact. The original validated English version was translated into local language Kannada by language experts.

Statistical analysis: Data were tabulated and analysed using the SPSS version 16. The results were expressed in terms of percentages, regression analysis were used to compare the mean scores.

RESULTS

Out of the 180 participants studied 106 were from rural area and 74 were from urban area. Mean age of the male and female participants was 32 and 26 respectively. Majority of the participants had infertility for < 5years. Mean marital impact scores were higher in both rural (60.3± 24.8) and urban (61.5±26.2) areas followed by sexual impact scores 55.9±28.4 and 51.4±23.3 in rural and urban areas respectively.

Personal impact: Higher scores among rural residents, age is inversely proportional to the mean scores, Socio-economic status, educational status are directly proportional to the mean scores, those who have availed health care facility showed less impact levels.

Sexual impact: Higher scores for rural people, females and Muslim participants showed higher impact levels, as the age increases the mean scores are decreasing.

Marital Impact: Age is directly proportional to the marital scores and it is higher among urban residents, taking treatment showed a decreasing levels of mean scores.

Social impact: Scores are higher for urban population, age and socio economic status showed direct relationship.

Table 1: Socio-demographic Profile of the study participants

Variables	Rural		Urban		Total
	Males (n=53) (%)	Females (n=53) (%)	Males (n=37) (%)	Females (n=37) (%)	
Age					
20-29	12(23)	35(66)	10(27)	22(59.4)	79(44)
30-39	24(45)	12(23)	15(40.5)	10(27.1)	61(34)
40-49	14(26)	06(11)	09(24.3)	05(13.5)	34(19)
50	03(6)	0	03(8.1)	0	6(3)
Educational status					
Illiterate	22(41)	16(30)	01(2.7)	0	39(22)
Primary school	7(13)	8(15)	10(27)	10(27)	35(19)
High school	18(34)	15(28)	09(24.3)	12(32.4)	54(30)
PUC/Class 12 th	3(5.6)	7(13)	09(24.3)	11(29.7)	30(17)
Degree	3(5.6)	7(13)	08(21.6)	04(10.8)	22(12)
Occupation					
Professional	6(11)	0	08(22)	0	14(8)
Semi-skilled	8(15)	2(4)	0	05(14)	15(8)
Skilled	19(36)	6(11)	19(51)	0	44(24)
Un-skilled	20(38)	4(7)	10(27)	10(27)	44(24)
Home-maker	0	41(78)	0	22(59)	63(35)

Table 2: Distribution of infertile women based on Socio-demographic variables

Variables	Rural (n=53) (%)	Urban (n=37) (%)
Religion		
Hindu	50(94)	28(75)
Muslim	03(06)	09(25)
Type of family		
Joint	26(49)	13(35)
Nuclear	23(43)	18(49)
Three generation family	04(8)	06(16)
SES		
Class I	06(11)	0
Class II	10(19)	07(19)
Class III	23(43)	15(41)
Class IV	09(17)	12(32)
Class V	05(9)	03(8)
Duration of infertility		
< 5 years	18(34)	17(46)
5-9 years	19(36)	11(30)
10-20 years	15(28)	07(19)
>20 years	01(2)	02(5)
Family history of infertility		
Yes	06(16)	05(14)
No	47(89)	32(86)
History of consanguineous marriage		
Yes	20(38)	10(27)
No	33(62)	27(73)

DISCUSSION

Our study described the impact of infertility on various psychosocial variables and we found that much of the effect was seen on the marital relationship followed by sexual relationship, psychological distress and social stigma.

Urban residents showed higher scores for marital and social scales when compared to their rural counterparts. Subjects with primary infertility had higher impact levels when compared to subjects with secondary infertility. The scores were higher

for females when compared to males and these results were consistent with the results of the earlier studies.^{8,9,10,11}

Higher marital dissatisfaction could be due to the strong belief among the population that having children stabilizes family and increases marital satisfaction and especially people think about the family status which can be fulfilled especially by childbearing and is considered very important and valuable. Here childless women stand at a risk of disrespectful treatment and stigmatization especially from relatives of the husband, hence, more common among women and also among participants with primary infertility.

A descriptive study was conducted among 500 infertile couple among whom marital disharmony was found among 28% of the couples which was highest when compared to sexual conflict (24%) , personal conflict (27%) and social isolation (13%), which is similar to our results. Psychological distress was more among women when compared to men which is similar to our results.¹²

Fultz et al., described in their study that women experience a more negative impact on their sexual relationship than men do, regardless of infertility diagnosis. Higher infertility- related stress among women also arose in part because women placed more importance than men on either experiencing or re-experiencing the role of parent. These anecdotal observations are attributed to different socialization experiences.¹³

In a study by Amir et al., effects of infertility duration and the difference in the effects of primary and secondary infertility were examined. As duration of infertility increased it had less influence on marital adjustment, well- being and psychological distress which are similar to our results.¹⁴

Table 3: Regression analysis of Personal and Sexual Impact scale as dependent variable with selected predictors

Variables	Personal impact		Sexual impact	
	B co-efficient	P value	B co-efficient	P value
Area				
Rural *	*	*	*	*
Urban	-6.32	0.066	-4.545	0.257
Age #	-1.04	0.0001	-1.594	0.0001
Gender				
Male*	*	*	*	*
Female	11.04	0.001	14.72	0.0001
Religion				
Hindu *	*	*	*	*
Muslim	6.282	0.209	11.45	0.04
Education				
Illiterate	1.444	0.717	-1.31	0.81
Primary	1.411	0.731	2.7	0.62
High school*	*	*	*	*
PUC	16.77	0.04	10.07	0.09
Degree	6.282	0.001	9.52	0.15
SES				
Class I	20.416	0.000	36.94	0.001
Class II	9.261	0.005	-1.34	0.79
Class III*	*	*	*	*
Class IV	-3.190	0.043	7.98	0.09
Class V	6.893	0.258	3.25	0.63
Type of infertility				
Primary*	*	*	*	*
Secondary	-25.130	0.0001	-30.1	0.001
Treatment				
Yes *	*	*	*	*
No	20.802	0.0001	20.52	0.002

*reference category # continuous variable

CONCLUSION

Infertility is not mere medical problem of the affected couples alone but is highly influenced by the social and psychological conditions. Our study described that women are more affected which has high influence on the family hence their marital relationships suffer. Even the social impact is high in urban areas leading to less social interactions which also indicate that infertility leads to high stigma among the couple. The educational status is very poor indicating the first barrier towards motivating the couples to access health care services.

It is worth mentioning that during our study period we educated and counselled the couples and their family members regarding the common causes of infertility, fertile period, to decrease the stress and stigma, lifestyle modification and to seek treatment.

RECOMMENDATION

Infertility has emerged as a serious health problem in India. Field based study should be encouraged

Table 4: Regression analysis of Marital Impact and Social Impact scale as dependent variable with selected predictors

Variables	Marital Impact		Social Impact	
	B co-efficient	P value	B co-efficient	P value
Area				
Rural *	*	*	*	*
Urban	1.170	0.74	2.43	0.42
Age #	1.258	0.001	-0.67	0.001
Gender				
Male*	*	*	*	*
Female	12.38	0.001	9.23	0.002
Religion				
Hindu *	*	*	*	*
Muslim	9.180	0.09	10.00	0.02
Education				
Illiterate	-9.76	0.06	-7.61	0.05
Primary	-3.88	0.47	0.425	0.91
High school * *	*	*	*	*
PUC	3.17	0.58	8.23	0.05
Degree	2.507	0.69	13.8	0.004
SES				
Class I	9.323	0.25	22.5	0.001
Class II	-4.65	0.92	5.27	0.18
Class III*	*	*	*	*
Class IV	4.67	0.33	4.78	0.19
Class V	0.415	0.95	5.11	0.337
Type of infertility				
Primary *	*	*	*	*
Secondary	-29.64	0.001	-18.74	0.001
Treatment				
Yes *	*	*	*	*
No	19.53	0.002	19.29	0.001

*reference category # continuous variable

to know the burden of infertility and its consequences.

The provision of health education as an integral part of infertility management into reproductive health care programmes is needed.

Efforts to raise awareness in the population about the causes of infertility are needed and facilities should be made available for early diagnosis and treatment of the same in the rural areas/urban slums.

Stress can act in a dual manner where stress affects fertility and infertility leads to stress thus forming a vicious cycle. Still females are considered as the only cause of infertility. Hence awareness should be given that both couples are equally responsible hence males also should be encouraged to seek treatment.

Female literacy and counselling helps them to overcome the psychological violence, brings confidence and it may help them to overcome the stigma.

Legal adoptions should be made popular.

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