Mental Health and Life Satisfaction among Women Suffering from Infertility: A Comparative study

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Abstract

Introduction: *The present study is intended to see the relationship between infertility and mental health. Infertility is a global public health problem. The WHO estimates that 8–12% of couples around the world experience difficulty in conceiving a child. The infertility rates vary between countries and regions. in developing world it is more legitimate option for women and childlessness is seen as voluntary. In India motherhood is central to women's power and well-being. Consequences of infertility in these countries range from economic hardship, to social isolation, violence and denial of proper death rites. Many families depend on children for economic survival, especially in old age. Many times psychological state of woman may get disturbed when reproduction seems impossible. **Methodology:** This study is comparative one which includes infertility cases and controls. Mental health has compared between women who are infertile and women who have child. Sample size is 165 in which 65 respondents are cases and 100 respondents are in control group. **Results:** Mean score of anxiety in women suffering from infertility is 41.43 and in normal women, it is 20.21. Women who are suffering from infertility shows greater anxiety as compared to control group. On the score of depression the mean of the case group is 16.58 and the control group it is 5.88. Women who are suffering from infertility have higher score on depression scale as compare to normal female. **Conclusion:** the study shows that there is significant relationship between infertility and mental health. Women who are suffering from infertility shows negative mental health as compare to women who have child.*

Key Words: *Infertility, anxiety, depression, mental health, life satisfaction, loss of emotional control*

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Introduction

The WHO estimates that 8–12% of couples around the world experience difficulty in conceiving a child. The infertility rates vary from countries and regions. Due to the overpopulation problem in developing countries, over fertility rather than infertility has been the focus of family planning program. Infertility so far is neglected health issue in developing countries. In most of the developing countries most of the resources are being utilised for maternal and child health. According to the epidemiological transition infertility will increase in developing countries in coming decades. Infertility treatment is much complicated and costly if individuals choose to go for intra vitro fertilisation. Repeated settings of treatment produces more anxiety and depression in child willing female. Enough availability of fertility clinical services and proper counselling will be the need of time consideration the increasing number of infertility. There are two views on childlessness, in developing world it is more legitimate option for women and childlessness is seen as voluntary. In India

motherhood is central to women's power and well-being (Riessman, 2000). The consequences of infertility in these countries ranges from economic hardship, to social isolation, violence and denial of proper death rites. Many families depend on children for economic survival, especially in old age. In oriental cultures reproduction is one of the highest valued factors. Psychological state of an individual may get disturbed when reproduction seems impossible. Several common characters of infertile women has been drawn out in few qualitative studies. These studies have extracted 11 themes from interviews with infertile women: negative identity; a sense of worthlessness and inadequacy; a feeling of lack of personal control; anger and resentment; grief and depression; anxiety and stress; lower life satisfaction; envy of other mothers; loss of the dream of co-creating; the 'emotional roller coaster'; and a sense of isolation (Williams 1997). In National, Regional, and Global Trends in Infertility Prevalence Since 1990 systematic study done by WHO explained that in 2010, 1.9% of child-seeking women aged 20–44 y

was unable to have a first live birth, and 10.5% of child-seeking women with a prior live birth were unable to have an additional live birth. Levels of infertility were similar in 1990 and 2010, decreasing 0.1 percentage points for primary infertility in 1990 and increasing 0.4 percentage points for secondary infertility in 1990 world-wide. Prevalence of primary fertility was found in early reproductive age and secondary infertility was found high with increasing age. (Maya et al., 2012).

Who defines infertility as a disability and an impairment of body functions. Estimates generated from the First WHO/ World Bank Report on Disability depict that 35 million women suffer with primary or secondary infertility (maternal morbidity) as a result of either maternal sepsis or infection due to unsafe abortions. The burden related to maternal morbidity has been found predominantly in developing and transitional countries and represents the fifth largest global burden of all disabilities evaluated within women of reproductive age (WHO, 2013).

While the role and status of women in society should not be decided solely by their reproductive capacity, in some societies womanhood is determined through the motherhood. In such a circumstances the personal suffering of the infertile woman is worsen and can lead to unstable marriage, domestic violence, stigmatization and even banishment.

In the country like India, it is found from studies that the women diagnosed with infertility have been abandoned by their husbands, have been victims of intimate partner and family violence, may not be buried on fertile agricultural ground, and risk complete rejection from their community and social functions due to fear of these women transmitting infertility to other family or community members (WHO, 2013). In India according to census data 2011, infertility rate has estimated around 11.8% among reproductive age group.

Wischmann et al. (2001) suggested that, while most couples do not have a psychopathology, there is a subgroup that needs psychological help. While infertile women are not necessarily more likely to exhibit

psychopathology they are more likely to experience higher levels of distress than comparison groups (Beutel et al., 1998). It is also found that women currently experiencing infertility problems display more depression and anxiety than counterparts who have eventually conceived naturally (Oddens et al. 1999). Abbey (2000) reports evidence that women experience more infertility stress than men. Edelmann and Connolly (1998) suggest in their study that infertility simply reflect the tendency for women generally to be more distressed than men. The most of the recent studies confirm earlier research that concludes that infertility is more distressing for women than it is for men (Anderson et al. 2003, Holter et al. 2006).

There are very less studies measuring mental health on the basis various criteria among the women suffering long term burden of physical and psychological burden due to infertility, because her status is often get identified with her fertility. Also there are very less studies which are measuring positive and negative mental health together in Indian context. Literature shows very little regard for the social construct of infertility. Infertility is central problem in woman life and there are serious consequences which affects social life and mental health of women.. Considering the significance of the issue the present study has designed to understand the infertility and its consequences towards the mental health issues like anxiety, depression and loss of emotional and behavioural control among the women with following specific objectives.

1. To study Anxiety, Depression, Loss of Behavioural/Emotional Control in women suffering from infertility.
2. To study the general positive affect and emotional ties in women suffering from infertility.
3. To study the life satisfaction in women suffering from infertility.

Methodology:

Study design: the study includes quantitative methodology. Comparison between two groups were done by using cases and controls. It is a cross sectional study. Taking into consideration of time constrain, difficulties in getting infertility

cases and follow up of infertility cases we choose to do cross sectional study. Study duration is august 2013 to march 2015.

Sample size: Total sample was 165. Case and comparison group were identified from same hospitals and clinics. Case group includes 65 females infertility cases and comparison group includes 100 normal females. Cases and controls are matched on the basis of sociodemographic variables.

Study settings : All data were collected from gynaecology and obstetrics department of hospitals and infertility clinics. Normal female for comparison group were selected from same hospitals and clinics. Confidentiality was maintained about hospitals and for the safety of participants according to consent. The oral consent were taken from all the sample with explaining the details of the study. The sample were taken from Mumbai and Pune.

Tools: The Mental Health Inventory-38 (MHI-38) was used, which has six subscales – Anxiety, Depression, Loss of Behavioural / Emotional Control, General Positive Affect, Emotional Ties and Life Satisfaction; and Two global scales - Psychological Distress and Psychological Well-being;

Scoring of the subscales: The subscales are scored in two steps: (1) item scoring; and (2) the subscales themselves. Of the 38 items, 35 were used to score the six mental health subscales (items 2, 22 and 38 are omitted from the subscales). Each item appears in only one subscale. Table no. 1 shows the mapping of items to the various subscales.

Table no. 1 Item composition of the six MHI subscales included in MHI-38

Subscale	Component items	Subscale directionality	Subscale raw score range
Anxiety	Items 3, 11, 13, 15, 25, 29, 32, 33 and 35	Higher scores = greater Anxiety	9-54
Depression	Items 9, 19, 30 and 36	Higher scores = greater Depression	4-23
Loss of Behavioral / Emotional Control	Items 8, 14, 16, 18, 20, 21, 24, 27 and 28	Higher scores = greater Loss of Behavioral / Emotional Control	9-53
General Positive Affect	Items 4, 5, 6, 7, 12, 17, 26, 31, 34 and 37	Higher scores = greater Positive Affect	10-60
Emotional Ties	Items 10 and 23	Higher scores = stronger Emotional Ties	2-12
Life Satisfaction	Item 1	Higher scores = greater Life Satisfaction	1-6

Thus, higher scores on three subscales indicate positive states of mental health (General Positive Affect, Emotional Ties, Life Satisfaction); higher scores on the other three subscales indicate negative states of mental health (Anxiety, Depression, Loss of Behavioural/Emotional Control).

Table no. 2 Item composition of the MHI global scales

Global mental health scale	Component items	Subscale directionality	Scale raw score range
Psychological Distress	Items 2, 3, 8, 9, 11, 13, 14, 15, 16, 18, 19, 20, 21, 24, 25, 27, 28, 29, 30, 32, 33, 35, 36 and 38.	Higher scores = greater Psychological Distress	24-142
Psychological Well-being	Items1,4,5,6,7, 10, 12, 17, 22, 23, 26, 31, 34 and 37	Higher scores = greater Psychological Well-being	14-84

Thus, the higher scores on Psychological Distress indicate negative states of mental health, while higher scores on Psychological Well-being indicate positive states.

Data analysis: data analysis has done with SPSS software.

Results and Discussion:

Table no.3 Age of the respondent

Statistics	Cases (n- 65)	Control (n- 100)
Mean	28.94	30.98
Mode	28.00	30
Median	27	28
Std. Deviation	3.678	3.30

The mean age of female in reproductive age group is 29 in case group and 31 in control group. Case group includes total 65 cases and control group includes 100 cases. Above table shows mean age of the respondents which is fairly young and ideal age to have motherhood. Study do not have participant from late age. It predicts that age of the respondent is not confounding factor in study.

Table No. 4 Age Group of the Respondents

Fertility Status of Women		Age Group of the Respondents				Total
	women suffering from infertility	21-25	26-30	31-35	36-40	
		13 (20%)	33 (50.8%)	18 (27.7%)	1 (1.5)	65 (100%)
	women having children	0 (0%)	65 (65%)	19 (19%)	16 (16%)	100 (100%)

The above cross tabulation shows percentage of fertile an infertile women according to age group. In women suffering from infertility 20% women are from age group 21-25, 50.8% women are from age group 26-30 years 27.7% women are from age group 31-35 and 1.5% women are from the age group 36-40. This predicts that more than 50% women who are suffering from infertility are from age group 26-30. This age period is very crucial for women because in late age chances of complicated pregnancy rises. In group which women are having children, 65% women are from 26-30 years age group. Therefore, above statistics show that higher percentage of infertile women and women having children is in same age group, that is 26-30 years. This age group seems ideal age group for women for willingness of pregnancy and to have baby.

Table no. 5 Anxiety score in case and control group(n-165)

Statistics	Cases (n- 65)	Control (n- 100)
Mean	41.43	20.21
Mode	44.00	20.00
Median	47	28
Std. Deviation	5.559	6.568

Above table shows anxiety score in both cases and control groups. Higher the score on anxiety subscale means greater the anxiety. Mean score of anxiety in women suffering from infertility is 41.43 and in normal female it is 20.21. Women who are suffering from infertility score higher on subscale and shows greater anxiety as compared to control group i.e. normal female.

Table no .6 Depression score for case and control group

Statistics	Cases(n-65)	Control(n-100)
Mean	16.58	5.88
Median	17.00	6.00
Mode	20	6
Std. Deviation	2.904	1.465

Table no. 6 shows that in case group the mean score is 16.58 and in control group it is 5.88. Women who are suffering from infertility have higher score on depression scale as compare to normal female. It suggests that women who are suffering from infertility have greater depression than normal female.

Table no. 7 Loss of behavioural or emotional control score in case and control group (n-165)

Statistics	Cases(n-65)	Control(n-100)
Mean	35.15	18.42*
Median	35.00	17.00
Mode	35	17
Std. Deviation	1.513	6.974

The mean score for case group is 35.15 and for control group is 18.42. It shows that case group score higher on loss of behavioural control subscale as compare to control group. Therefore, it suggest that women who are not able to conceive since a year without using precautions and willing to have child shows greater loss of behavioural control as compare to women who are having children.

Table no. 8 General positive affect score in case and control

Statistics	Cases(n-65)	Control(n-100)
Mean	30.65	44.51
Median	27.00	50.00
Mode	24	50
Std. Deviation	7.268	10.646

The mean score for case group is 30.65 and for control group is 44.51. Therefore, it suggest that women who are not able to conceive since a year without using precautions and willing to have child shows low general positive affect as compare to women who are having children.

Table no.9 Emotional ties score in cases and controls

Statistics	Cases(n-65)	Control(n-100)
Mean	5.09	10.10
Median	5.00	10
Mode	5	12
Std. Deviation	1.885	1.667

The mean score for case group is 5.09 and for control group is 10.10. Therefore, it suggest that women who are not able to conceive since a year without using precautions and willing to have child shows low score on emotional ties subscale suggesting weaker emotional ties as compare to women who are having children. Women having children shows higher score on emotional ties subscale suggesting stronger emotional ties with their beloved ones as compare to women suffering from infertility.

Table no.10 Life satisfaction score in cases and control

Statistics	Cases(n-65)	Control(n-100)
Mean	2.34	4.90*
Median	2.00	5.00
Mode	2	5.00
Std. Deviation	0.447	0.798

The mean score for case group is 2.34 and for control group is 4.90. It suggest that women who are not able to conceive since a year without using precautions and willing to have child shows low score on life satisfaction subscale suggesting less life satisfaction as compare to women who are having children. Women having children shows higher score on life satisfaction subscale suggesting greater life satisfaction as compare to women suffering from infertility.

Table no.11 Psychological distress score in cases and control

Statistics	Cases(n-65)	Control(n-100)
Mean	103.17	50.11
Median	103.00	55.00
Mode	116	60.00
Std. Deviation	10.399	15.304

The mean score for case group is 103.17 and for control group is 50.11. Therefore, it suggest that women who are not able to conceive since a year without using precautions and willing to have child shows higher score on psychological distress subscale suggesting greater psychological distress as compare to women who are having children. Women having children shows low score on psychological distress subscale suggesting less psychological distress as compare to women suffering from infertility.

Table no.12 Psychological well-being score for cases and control

Statistics	Cases(n-65)	Control(n-100)
Mean	39.95	61.74*
Median	38.00	65.00
Mode	35.00	65.00
Std. Deviation	5.176	11.035

The mean score for case group is 39.95 and for control group is 61.75. Therefore, it suggest that women who are not able to conceive since a year without using precautions and willing to have child shows low score on psychological wellbeing subscale suggesting less psychological wellbeing as compare to women who are having children. Women having children shows higher score on psychological wellbeing subscale suggesting greater psychological wellbeing as compare to women suffering from infertility.

Conclusion

He present study has shown that there is significant relationship between infertility and mental health. Women who suffer from long term burden of childlessness feel more anxiety and depression as compare to female that have children. Study has conducted in Indian setting where gender norms plays very important role to define women status in society. A married women without child become part of social stigma in oriental culture like India. Failure of perceived role becomes the reason for anxiety and depression in women without child. In patriarchal culture women power in family is depend on number of children and son she is having. In the era of globalisation and changing life style women suffers from double burden work. Even if they earn they are supposed to take care of family and nurture the children. Increased work participation of women, career consciousness delays the

pregnancy and leads to changes in body cycle and infertility. Women who are suffering from infertility show greater loss of emotional and behavioural control in this study. Study show that in infertile women general positive affect is low. They do not feel cheerful and enthusiastic in their day to day life. Women who are suffering from infertility do not feel energetic in their daily life. As compare to women who have children women who suffer from infertility shows weak emotional boning with their beloved ones. They do not feel their love relationships are complete and feeling of fulfilment get worsen. Study also shows that women suffers from infertility have less life satisfaction as compare to women having children. Psychological distress is high in women who are suffering from infertility as compare to normal female. Overall psychological wellbeing is not good in women suffering from infertility.

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