

# Association of socio-personal factors with the defense mechanisms used by infertile women

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■ **ABSTRACT** : Parenting is viewed by most of the couples as their central role in life, and the thought of not achieving it can be very upsetting. Infertility is a stressor that often taxes a couple's personal and relational resources such that defense mechanisms are a natural outgrowth of the experience. Social and personal factors play a huge role in an individuals' life and studying their association with the defense mechanisms can help to gain a deeper understanding of infertility experience of women. The present study is an attempt to explore the association between socio-personal factors and defense mechanisms used by rural and urban infertile women of Ludhiana district. The study was based on a sample of 180 infertile women (90 rural and 90 urban). Socio-personal profile was assessed by using self-structured Interview Schedule. Defense mechanisms were explored by using Defense Mechanisms Inventory by Mrinal and Singhal (1984). Results revealed that there is a non-significant difference in the use of defense mechanisms as per the socio-economic strata of the respondents. It was also revealed that socio-personal factors like duration of infertility and educational qualification are significantly associated ( $p < 0.01$ ) with principalization and the defense turning against self is significantly associated with family type and working status of the respondents.

■ **KEY WORDS**: Socio-personal factors, Defense mechanisms, Infertile women

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Since the beginning of history the phenomena of reproduction has been the essence in the continuity of human race. Motherhood is considered as the central and defining role for a woman. Especially in Indian culture pregnancy is considered as an important role to carry forward the family name. But the growing incidences of infertility is a serious cause of concern in some cultures where bearing children is considered as the most important role of a women. According to WHO (2004) infertility is defined as 'the inability of a couple

to achieve conception or to bring a pregnancy to term after a year or more of regular, unprotected intercourse. Infertility has profound effects on individuals particularly in developing countries, as the production of children is often highly socially valued and is vital for social security and health networks as well as for family income generation. In a patriarchal setting, such as in India, bearing children, particularly sons, largely defines a woman's identity. Motherhood is of great social significance and infertility is perceived as a threat to

men's procreativity and the continuity of the lineage (Iyengar and Iyengar, 1999). Nelson and Gellar (2011) stated that pregnancy and childbirth are typically associated with positive emotions. But when a woman fails to conceive within a year even without unprotected intercourse it may affect her total wellbeing. The next emotional reaction is guilt. Infertile women may feel guilty of not fulfilling her husband's desire of having their biological child. Infertility frequently results in anger, depression, anxiety, and feelings of worthlessness. The blame may be directed at the person's body for being "inadequate", or they may blame their partner, their doctor or may feel they are being punished for something they did in their life.

Infertility and its treatment are severe stressors and many women undergoing fertility treatment experience significant emotional distress (Verhaak *et al.*, 2007). The existing literature indicates that several factors may influence emotional reactions to infertility and fertility treatment, including sociodemographic factors, cognitive perception (e.g. controllability) and coping strategies (e.g. avoidance coping) (Benyamini *et al.*, 2009; Boivin and Schmidt, 2005; Gourounti *et al.*, 2010; Mahajan *et al.*, 2009; Miles *et al.*, 2008; Lord and Robertson, 2005; van den Broeck *et al.*, 2010; Verhaak *et al.*, 2005a and b). A selection of possible predictors of infertility-related stress can be based on stress vulnerability models (Lazarus and Folkman, 1984 and Leventhal *et al.*, 1980).

As infertility is widely acknowledged as a crisis for individuals and couples and on confronting a crisis, individuals have a trend of developing habitual modes and methods of managing stress and coping with upsetting emotion. By and large these habitual methods help people to manage and defuse stressful situation they find themselves in. These modes are called defense mechanisms and are used as ways of dealing with external threats. Defense mechanisms or coping skills refers to cognitive and behavioural efforts to master, reduce, or tolerate the internal and/or external demands created by the stressful transaction (Lazarus and Folkman, 1984). These are used to protect oneself against rejection, abandonment and loss of self-esteem. It is widely accepted that when stress situations are handled in a competent manner, our behaviour tends to be task oriented. But when our feelings of adequacy and worth are threatened by stress situation, our reactions tend to become defense oriented aimed primarily at protecting ourselves from devaluation and relieving

painful tension and anxiety (Morady, 2001). Although a stressful situation, however not all the infertile women become depressed or experience significant psychological distress. It is because different people uses different defense mechanisms to deal with a stressful situation. Coping with or responding to infertility may be linked to societal attitudes towards childlessness. Therefore studying about whether these defense mechanisms are associated with selected socio-personal factors like socio-economic strata, family type, age, duration of infertility, working status, educational qualification of the individuals can help to gain a deeper understanding of infertility experience of women. Hence the present study was planned to study the association between use of defense mechanisms and socio- personal factors of the respondents.

## ■ RESEARCH METHODS

The study was based upon the sample of 180 respondents drawn equally from rural and urban areas of Ludhiana district. The rural sample was drawn purposively from two blocks of Ludhiana district and the urban sample was taken from Ludhiana city. The sample was collected from government hospitals, public health centres, private clinics, maternity homes using convenient and snowball sampling technique. Respondents who met the following inclusion criteria were selected.

- Women who were willing to conceive but had never conceived despite of cohabitation and exposure to pregnancy for a period of at least 1 year.
- Women who gave their consent to participate in the study.

### Tools :

#### *Self structured interview schedule:*

The schedule was constructed to obtain the background profile of the respondents like age, education, type of family, occupation etc.

#### *Defense mechanisms inventory by Mrinal and Singhal (1984):*

This inventory was used for exploring the defense mechanisms used by rural and urban infertile women. It divides defense mechanisms broadly on five types:

#### **Turning against self :**

In this class are those defences that handled conflict

through directing aggressive behaviour towards self. Masochism, autosadism are examples of this class of defense.

### Turning against object :

This class of defenses deals with conflict through attacking a real or presumed external frustrating object.

### Principalization :

This class of defences deals with the conflict through invoking a general principle that “splits off” affect from content and represses the former. Defenses like intellectualization and rationalization fall into this category.

### Reversal:

This class includes defences that deal with conflict by responding in appositive or neutral fashion to a frustrating object which might be expected to evoke a negative reaction. Reaction formation, negation are subsumed under this category.

### Projection :

These defences justify the expression of aggression towards an external object through first attributing to it, without unequivocal evidence, negative intent or characteristics.

### Procedure:

Each respondent was contacted personally and was administered the tools individually. Answer sheets were scored following the scoring procedure given in the manual. On the basis of raw scores, percentages,  $\chi^2$  value were calculated to find the association of selected socio-personal factors with the defense mechanisms by infertile women.

## ■ RESEARCH FINDINGS AND DISCUSSION

The Table 1 depicts difference in the use of defense mechanisms as per the socio-economic strata of the respondents. A close scrutiny of the table reveals that non-significant differences were observed in the use of principalization ( $\chi^2 = 1.772$ ), projection ( $\chi^2 = 0.675$ ), reversal ( $\chi^2 = 0.781$ ), turning against self ( $\chi^2 = 0.882$ ) and turning against object ( $\chi^2 = 0.774$ ) across all the three socio-economic strata's. The findings are in contrast to a study by Lykeridou *et al.* (2011) who reported that infertile women of the lowest social class used more passive-avoidance coping than women of the highest social class.

The Table 2 elaborates on the association of socio-personal factors with the use of the defense principalization in the respondents. It is quite evident from the table that the use of principalization is significantly associated with duration of infertility ( $\chi^2 = 12.84$ ) as nearly half (44.73 %) of respondents who were dealing with infertility from more than years were using principalization on a below average level however majority of respondents who were dealing with it from last 1-3 years were using it on an average level. The table further elucidates that educational qualification of the respondents is significantly associated ( $\chi^2 = 17.43$ ) use of principalization. A rationale for the findings can be the fact that principalization is a defense that rationalises a conflict through logical reasoning *i.e.* valid reasoning and it is something which influenced by education and therefore principalization was used comparatively more by the respondents who were more qualified.

Non significant association was observed between use of principalization and family type, age and working status of respondents.

The Table 3 depicts association between use of the defense *projection* and socio-personal factors of the

Table 1 : Difference in use of defense mechanisms as per socio-economic strata of respondents				
	Low socio-economic strata (60)	Middle socio-economic strata (60)	High socio-economic strata (60)	$\chi^2$ (obtained by using Kruskal-Wallis test)
Defense mechanism	Mean rank score	Mean rank score	Mean rank score	
Principalization	84	91.59	95.91	1.772 NS
Projection	90.09	94.41	87	0.675 NS
Reversal	87.34	89.16	95	0.781 NS
Turning against self	95.19	89.41	86.9	0.882 NS
Turning against object	88.24	88.16	95.1	0.774 NS

NS= Non-significant

respondents. It was apparent that there was a non significant association between use of projection and socio-personal factors *i.e.* family type, age, duration of infertility, educational qualification and working status of respondents.

The data presented in Table 4 highlights association between use of the defense *turning against object* and socio- personal factors of the respondents. It came into light that there was a non-significant association between use of turning against object and socio-personal factors

*i.e.* family type, age, duration of infertility, educational qualification and working status of respondents.

Table 5 shows association between use of reversal and socio-personal factors *i.e.* family type, age, duration of infertility, educational qualification and working status of respondents. It was evident that a non-significant association was observed between use of reversal and socio- personal factors of the respondents.

On probing the data of Table 6, it came into light that the defense *turning against self* is significantly

**Table 2 : Association of socio-personal factors with the use of defense principalization in the respondents**

Defense mechanism	Level of use	Family type		Chi-square value	Age of the respondent			Chi-square value	Duration of infertility			Chi-square value
		Joint n <sub>1</sub> = 99	Nuclear n <sub>2</sub> =81		25-28 years (n <sub>1</sub> =36)	28-31 years (n <sub>2</sub> =89)	31-34 years (n <sub>3</sub> =55)		1-2 years (n <sub>1</sub> = 77)	2-3 years (n <sub>2</sub> =65)	>3 years (n <sub>3</sub> =38)	
Principalization	Above average	18 (18.18)	22 (27.16)	2.63NS	6 (16.66)	19 (21.34)	15 (27.27)	5.35NS	19 (24.67)	15 (23.07)	6 (15.78)	12.84***
	Average	37 (37.77)	24 (29.62)		15 (41.66)	30 (33.70)	16 (29.09)		29 (37.66)	22 (33.84)	10 (26.31)	
	Below average	28 (28.28)	24 (29.62)		8 (22.22)	30 (33.70)	14 (25.45)		13 (16.88)	22 (33.84)	17 (44.73)	
	Low	16 (16.16)	11 (13.58)		7 (19.44)	10 (11.23)	10 (18.18)		16 (20.77)	6 (9.23)	5 (13.15)	

Table 2 contd.....

Defense mechanism	Level of use	Working status		Chi-square value	Education				Chi-square value
		Working (n <sub>1</sub> =91)	Non working (n <sub>2</sub> =89)		Up to middle (n <sub>1</sub> =59)	Up to 10th (n <sub>2</sub> =39)	Up to 12th (n <sub>3</sub> =34)	Grad and above (n <sub>4</sub> =48)	
Principalization	Above average	23 (25.27)	17 (19.10)	5.847NS	7 (11.86)	10 (25.64)	10 (29.41)	13 (27.08)	17.43***
	Average	33 (36.26)	28 (31.46)		12 (20.33)	16 (41.02)	13 (38.23)	20 (41.66)	
	Below average	27 (29.67)	25 (28.08)		29 (49.15)	8 (20.51)	5 (14.7)	10 (20.83)	
	Low	8 (8.79)	19 (21.34)		11 (18.64)	5 (12.82)	6 (17.64)	5 (10.41)	

\*\*\* indicates significance of value at P=0.01,

NS = Non-significant

**Table 3 : Association of socio-personal factors with the use of projection in the respondents**

Projection Levels	Family type		Chi-square value	Age of the respondent			Chi-square value	Duration of infertility			Chi-square value
	Joint n <sub>1</sub> = 99	Nuclear n <sub>2</sub> =81		25-28 years (n <sub>1</sub> =36)	28-31 years (n <sub>2</sub> =89)	31-34 years (n <sub>3</sub> =55)		1-2 years (n <sub>1</sub> =77)	2-3 years (n <sub>2</sub> =65)	>3 years (n <sub>3</sub> =38)	
Above average	39 (39.39)	33 (40.74)	1.72NS	12 (33.33)	37 (41.57)	23 (41.81)	3.27NS	30 (38.96)	27 (41.53)	15 (39.47)	2.31NS
Average	34 (34.34)	26 (32.09)		11 (30.55)	32 (35.95)	17 (30.9)		27 (35.06)	21 (32.30)	12 (31.57)	
Below average	17 (17.17)	11 (13.58)		7 (19.44)	13 (14.60)	8 (14.54)		14 (18.18)	8 (12.30)	6 (15.78)	
Low	9 (9.09)	11 (13.58)		6 (16.66)	7 (7.86)	7 (12.72)		6 (7.7)	9 (13.84)	5 (13.15)	

Table 3 contd.....

Projection Levels	Working status		Chi-square value	Education				Chi-square value
	Working (n <sub>1</sub> =91)	Non working (n <sub>2</sub> =89)		Up to middle (n <sub>1</sub> =59)	Up to 10th (n <sub>2</sub> =39)	Up to 12th (n <sub>3</sub> =34)	Grad and above (n <sub>4</sub> =48)	
Above average	42(46.15)	30 (33.70)	3.81NS	23(38.98)	18 (46.15)	14 (41.17)	17 (35.41)	2.65NS
Average	26 (28.57)	34 (38.20)		21(35.59)	11 (28.20)	10 (29.41)	18 (37.50)	
Below average	12 (13.18)	16 (17.97)		10 (16.99)	5 (12.82)	5 (14.70)	8 (16.66)	
Low	11 (12.08)	9 (10.11)		5 (8.47)	5 (12.82)	5 (14.70)	5 (10.41)	

NS=Non-significant

**Table 4 : Association of socio -personal factors with the use of defense-turning against object in the respondents**

Level of use (Turning against object)	Family type		Chi- square value	Age of the respondent			Chi- square value	Duration of infertility			Chi- square value
	Joint	Nuclear		25-28	28-31	31-34		1-2 years	2-3 years	>3 years	
	n <sub>1</sub> = 99	n <sub>2</sub> =81		years (n <sub>1</sub> =36)	years (n <sub>2</sub> =89)	years (n <sub>3</sub> =55)		(n <sub>1</sub> =77)	(n <sub>2</sub> =65)	(n <sub>3</sub> =38)	
High	12 (12.12)	10 (12.34)		5 (13.88)	11 (12.35)	6 (10.90)		9 (11.68)	8 (12.30)	5 (13.15)	
Above average	42 (42.42)	39 (48.14)	1.76NS	13 (36.11)	38 (42.69)	30 (37.03)	3.71NS	37 (48.05)	29 (44.61)	15 (39.47)	1.41NS
Average	20 (21.97)	18 (22.22)		8 (22.22)	19 (21.34)	11 (20.00)		13 (16.88)	15 (23.07)	10 (26.31)	
Below Average	25 (25.25)	14 (17.28)		10 (27.77)	21 (23.59)	8 (14.54)		18 (23.37)	13 (20.00)	8 (21.05)	

Table 4 contd...

Level of use (Turning against object)	Working status		Chi- square value	Education				Chi- square value
	Working	Non working		Up to middle	Up to 10th	Up to 12th	Grad and	
	(n <sub>1</sub> =91)	(n <sub>2</sub> =89)		(n <sub>1</sub> =59)	(n <sub>2</sub> =39)	(n <sub>3</sub> =34)	above (n <sub>4</sub> =48)	
High	10 (10.98)	12 (13.48)		6 (10.16)	5 (12.82)	5 (14.70)	6 (12.5)	
Above average	38 (41.75)	43 (48.31)	1.83NS	24 (40.67)	13 (33.33)	11 (32.35)	26 (54.16)	6.87NS
Average	20 (21.97)	18 (20.22)		14 (23.72)	9 (23.07)	9 (26.47)	6 (12.50)	
Below average	23 (25.27)	16 (17.97)		15 (25.42)	12 (30.76)	9 (26.47)	10 (20.83)	

NS=Non-significant

**Table 5 : Association of socio -personal factors with the use of defense- reversal in the respondents**

Level of use (Reversal)	Family type		Chi- square value	Age of the respondent			Chi- square value	Duration of infertility			Chi- square value
	Joint	Nuclear		25-28	28-31	31-34		1-2 years	2-3 years	>3 years	
	n <sub>1</sub> = 99	n <sub>2</sub> =81		years (n <sub>1</sub> =36)	years (n <sub>2</sub> =89)	years (n <sub>3</sub> =55)		(n <sub>1</sub> = 77)	(n <sub>2</sub> =65)	(n <sub>3</sub> =38)	
Average	29 (29.29)	27 (33.33)		10 (27.77)	30 (33.70)	16 (29.09)		27 (35.06)	18 (27.69)	11 (28.94)	
Below average	17 (17.17)	14 (17.28)	1.382NS	8 (22.22)	12 (13.48)	11 (20.00)	1.933NS	12 (15.58)	12 (18.46)	7 (18.42)	1.044NS
Low	53 (53.53)	40 (49.38)		18 (50.00)	47 (52.80)	28 (50.90)		38 (49.35)	35 (53.84)	20 (52.63)	

Table 5 contd...

Level of use (Reversal)	Working status		Chi- square value	Education				Chi- square value
	Working	Non-working		Up to middle	Up to 10th	Up to 12th	Grad and	
	(n <sub>1</sub> =91)	(n <sub>2</sub> =89)		(n <sub>1</sub> =59)	(n <sub>2</sub> =39)	(n <sub>3</sub> =34)	above (n <sub>4</sub> =48)	
Average	31 (34.06)	25 (28.08)		14 (23.72)	14 (35.89)	11 (32.35)	17 (35.41)	
Below average	14 (15.38)	17 (19.10)	1.623NS	8 (13.55)	7 (17.94)	5 (14.70)	11 (22.91)	5.686NS
Low	46 (50.54)	47 (52.80)		37 (62.71)	18 (46.15)	18 (52.94)	20 (41.66)	

NS=Non-significant

**Table 6 : Association of socio -personal factors with the use of defense- turning against self in the respondents**

Level of use (Turning against self)	Family type		$\chi^2$ value	Age of the respondent			$\chi^2$ value	Duration of infertility			$\chi^2$ value
	Joint	Nuclear		25-28	28-31	31-34		1-2 years	2-3 years	>3 years	
	n <sub>1</sub> = 99	n <sub>2</sub> =81		years (n <sub>1</sub> =36)	years (n <sub>2</sub> =89)	years (n <sub>3</sub> =55)		(n <sub>1</sub> = 77)	(n <sub>2</sub> =65)	(n <sub>3</sub> =38)	
Above average	48 (48.48)	21 (25.92)		14 (38.88)	33 (37.07)	22 (40.00)		26 (33.76)	23 (35.38)	20 (52.63)	
Average	33 (34.34)	20 (24.69)	19.73***	10 (27.77)	27 (30.33)	17 (30.90)	0.972NS	21 (27.27)	26 (40.00)	7 (18.42)	6.142NS
Below average	11 (11.11)	18 (22.22)		6 (16.66)	13 (14.06)	10 (18.18)		14 (18.18)	10 (15.38)	5 (13.15)	
Low	6 (6.06)	22 (27.16)		6 (16.66)	16 (17.92)	6 (10.90)		16 (20.77)	6 (9.23)	6 (15.78)	

Table 6 contd...

Level of use (Turning against self)	Working status		$\chi^2$ value	Education				$\chi^2$ value
	Working	Non-working		Up to middle	Up to 10th	Up to 12th	Grad and	
	(n <sub>1</sub> =91)	(n <sub>2</sub> =89)		(n <sub>1</sub> =59)	(n <sub>2</sub> =39)	(n <sub>3</sub> =34)	above (n <sub>4</sub> =48)	
Above average	29 (31.86)	40 (44.94)		24 (40.67)	17 (43.58)	10 (29.41)	18 (37.5)	
Average	24 (26.37)	30 (33.70)	7.702**	20 (33.89)	11 (28.20)	10 (29.41)	13 (27.08)	4.794NS
Below average	19 (20.87)	9 (10.11)		9 (15.25)	6 (15.38)	7 (20.58)	7 (14.58)	
Low	19 (20.87)	10 (11.23)		6 (10.16)	5 (12.82)	7 (20.58)	10 (20.83)	

\*\*\* and \*\* indicate significance of values at P=0.01 and 0.05, respectively NS= Non-significant

associated with family type ( $P < 0.01$ ) and working status ( $P < 0.05$ ) of the respondents. It was apparent that the respondents hailing from joint families used the defense comparatively more than the one hailing from nuclear family set up. This can be attributed to the constant comparison that a women faces with the other female members in a joint family. And these comparison leads to the feeling of inadequacy and guilt which internalises and the individual start blaming oneself. It was also observed that use of defense was more in the non working respondents as compared to the working respondents. Further it was found that a non-significant association was evident between the defense *turning against self* and socio- personal factors like age, duration of infertility and educational qualification of the respondents.

### Conclusion :

Infertility, besides being a medical condition, is a social situation. Current study showed that socio-economic status is not significantly associated with the use of defense mechanisms in the respondents which basically indicates all strata's are making use of defense mechanisms indifferently. Results revealed that socio-personal factors like duration of infertility and educational qualification are significantly associated with principalization. It was also revealed that use of turning against self is more in non-working respondents and those hailing from joint families. Therefore there is a need to sensitize people particularly the family members so that they can acknowledge infertility not just as a medical condition but also as an emotional crisis with a wide variety of losses, disappointments as they can play an equally important role in making this journey less stressful.

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