

AGGRESSION AS A SUBSEQUENT RESPONSE TO HOPELESSNESS FEELINGS OF INFERTILITY

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The present research was carried out to investigate the differences in the level of aggression inflicted by infertile and fertile couples. A sample of 200 infertile and 200 fertile couples, ranging in age from 20 to 69 years, was taken from different cities of Pakistan. Aggression Questionnaire (Buss & Perry, 1992) was used to assess the level of aggression. The results indicated that infertile couples have higher level of aggression as compared to that of fertile couples. However, findings showed no gender differences in terms of aggression. The data provided evidence that family system and age do not play any important role in deterioration of emotional disturbances of infertile couples. The findings suggested that infertile couples from rural areas are more engaged in aggressive behaviors as compared to those from urban areas. Results further indicated that infertile people with less education were more aggressive as compared to highly educated.

Key words: infertility, frustration, self-blame, distress, anger

A diagnosis of infertility, the inability to have a pregnancy after a year, or the inability to carry a pregnancy to full term birth (Greil, 1991), has a tremendous negative impact on the well-being of a couple. The most common feelings of guilt, anger, frustration and hopelessness often accompany a diagnosis of infertility. Other emotions such as depression, anxiety, aggression and fear may result from lack of conception (Crick, Casas, & Mosher, 1997).

Most of the couples after the diagnosis of infertility go through a chain of emotional feelings that become harmful for them when increase in intensity (Crick et al., 1997).

The most common factors related to this problem are sadness, depress-

sion and aggression. The couples may have the feelings of failure, loss, disappointment and betrayal. Infertile couple's sadness can transform into sorrow or grief especially for the child of their dreams and the grief for their lost hopes and wishes of sharing experiences with child (Ardenti, Campari, Agazzi, & La Sala, 1999). Infertile couples experience changes in their marital relationships with their spouses. Feelings of being psychologically distant or withdrawal from relatedness more commonly prevail in these couples (Paulson & Sauer, 1991). When the partners within the couples are diagnosed with the basic inability to conceive, feelings of self-blame and guilt may develop. They may also develop the fear of separation from their partners (Verhaak & Vaillant, 2001).

Infertility appears to have major effects on infertile men and women. There are many supporting researches

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indicating that infertile couples always show aggression when they are frustrated and disappointed (Ardenti et al., 1999). Aggression can be defined as behaviors perpetrated with the intention of harming another individual, both physically and psychologically. Aggression can be manifested in active, passive, direct, indirect, covert, or overt, physical and psychological modes (Moffitt et al., 2003). Aggression is a common response to frustration in people generally and in infertile couples particularly. A continuous feeling of loss and disappointment creates frustration in infertile couples that leads to aggression. Infertility causes some behavioral problems which they cannot control. For most couples, it is not true that inability to conceive always causes them to be aggressive. However, those infertile couples who have a tendency towards aggression may become more aggressive because of their feelings of loss, failure and hopelessness of infertility (Huesmann, 2003).

Aggressive behavior may occur when couples stop treatment. Within hours of stopping treatment, couples may show some features of aggression. Failure of treatment causes an increased stress on the whole body even though there seems to be a lessening of overall stress (Eugster & Vingerhoets, 1999). Women in general and infertile females in particular are supposed to meet the feminine role regarding ability to bear children. They have to meet the expectations of their society. It is an indirect type of coercion, because most of the time females cannot exercise their will about sexual contacts (Greil, 1997). It has been reported that the chances of

increasing subsequent aggressive behaviors are high in couples even those not having any past history of anger acts, particularly when infertility is unexplained. A significant positive correlation between the problem of infertility and aggressive behavior has been found (Babcock, Waltz, Jacobson, & Gottman, 1993).

Men and women tend to have different reactions to a diagnosis of infertility. Women see the situation as a loss and extremely devastating in which their lives may be changed forever, but men typically view infertility as a bad break, but not as tragic (Greil, 1991). Women experience greater distress and aggression, lower self-esteem, and higher levels of depression when facing infertility than do men. This may be because of how they attribute the cause of infertility to either their own failure or past behaviors (Domar, Zuttermeister, & Friedman, 1999).

Boivin (2003) studied the psychosocial impacts of infertility in Greek couples and found that feelings of self-blame, guilt, nervousness and aggression were reported more by females as compared to males. Females also experienced more deep and severe feelings of sadness, anxiety, sorrow, grief and aggression when compared to the males. Inability to produce child also created the problems in their marital and sexual relationships. The researcher finally recommended that emotional, psychological, and social therapy and counselling should be provided to infertile men and women. Although females experience different emotional changes during infertility but many of these emotional ups and downs are common in

both genders. Women may experience a form of aggression and anger for not being able to be pregnant, and a feeling of deep and bitter anger and ill-will towards other women who are pregnant (Crick et al., 1997).

Results of the study by Crick et al. (1997) show a high level of aggression during the period of infertility. It is found that aggressive infertile females report more complications in their social and emotional behavior and may feel more socially isolated and depressed. They may also have negative self-perceptions, and peer rejection as compared to others. People who are involved in relationally aggressive actions also feel difficulty in adjustment and show more signs of sadness, depression, anxiety, and psychological stress when compared to their non-targeted peers.

Being a parent is a normative assumption of adult life in a society (Cook, 1987). Most couples who experience infertility consider it a major crisis (Berk & Shapiro, 1984; Burns & Covington, 1999). From the beginning of time, the necessity of fertility was evident. "Be fruitful and multiply" remains a permanent truth for most societies. In any society a woman's childbearing ability is often closely linked to her status as a woman, so that when a woman is infertile she may feel unfeminine. Due to the inability of childbearing, many women have a fear of separation from their partners. Fear of losing attraction and self-worth makes them more depressed and aggressive (Burns & Covington, 1999).

A community emphasizes more on the ability to produce child. Pregnancy appears to be the main objec-

tive of marriage (Lee & Kuo, 2000). Relationship in marriage may be discarded or impaired just because of not having normal conception (Wright, Bissonnette, & Duchesne, 1991). Men and women experience terrible shock when the cause of male or female infertility is identified and especially women may have the tendency of developing the feelings of shame and guilt in facing their parents and relatives (Guerra, Llobera, Veiga, & Barri, 1998). However, the possibility of occurrence of psychological changes in infertile couples is great but the most noticeable negative effects of infertility are that infertile couple may experience high level of depression and anxiety, low self-esteem and high aggression (Crick et al., 1997). They report less satisfaction with their marriages and sexual lives. Childlessness may be the result of an existing sexual dysfunction (Burns, 1995).

Keeping in mind the review of literature, the present study aims to find out the level of aggression as a result of devastating experience of infertility; also the present research was planned to analyze the impact of age, sex, education, family system, living area and income level on aggressive behavior of infertile couples. To achieve these objectives, it was hypothesized that infertile couples will be more aggressive compared to fertile couples. It was also hypothesized that infertile women would be engaged in more aggression than infertile men. Furthermore, age, sex, education, family system, living area and income level of infertile couples would be contributing factors in aggressive behavior of infertile couples.

Method

Participants

The sample consisted of 400 couples with an age range of 20-69 years; 200 infertile couples ($M = 33.33$, $SD = 8.18$) and 200 fertile couples ($M = 30.12$, $SD = 7.13$). Non-probability purposive convenience sampling technique was used to select the participants. All the respondents were of different educational level from below matric to above post graduate qualifications. All the participants were approached in different cities of Pakistan including Multan, Sahiwal, Khanewal, Bahawalpur, Vehari, Melsi, Lahore, Sialkot and Rawalpindi-Islamabad.

Instrument

The following instrument was used to achieve the objectives of present study.

Aggression Questionnaire (AQ; Buss & Perry, 1992)

Aggression Questionnaire (Buss & Perry, 1992) contains 29 items. Each item is rated on a 5-point scale with score ranging from 1 to 5 where 1 identifies the occurrence of characteristics with least intensity and options of 2, 3, 4, and 5, identify the occurrence of the characteristics with mild intensity, average intensity, moderate intensity and great intensity, respectively. This scoring was applicable to all items except for items 15 and 21 for which reverse scoring was done, i.e., if the subject marks the option 1, for these items a score of 5 was assigned. Likewise, the reverse scor-

ing was also done if subject marks the options 2, 4 & 5 (5 becomes 1, 4 becomes 2, 2 becomes 4, 1 becomes 5) and a score of 3 remains unchanged. A high score on the measure indicates a higher level of aggression. AQ has an internal consistency coefficient of .46 for the entire 29 items and split-half reliability of AQ is $r = .75$ (Buss & Perry, 1992).

Procedure

The participants of this study were selected and approached in order to collect the information through the Aggression Questionnaire. To select the participants, purposive and convenience sampling techniques were used. The subjects were told about the objectives of the study and then were given instructions about how to fill the questionnaire. They were assured that all the information sought from them would be kept strictly confidential and would be used for research purposes only. All the information provided by participants was statistically analyzed using SPSS (Statistical Package for Social Sciences, Version 10).

Results

In order to get comprehensive picture of differences of infertile and fertile couples independent sample t -test was computed (Table 1) to see differences in aggression and gender differences in terms of their emotional responses to their experience of infertility (Table 2).

The results in Table 1 reveal a statistically significant t -value, which demonstrates that infertile couples and fertile couples differ on the measure

Table 1

Means, SD and t-value for the AQ Scores of Infertile (n = 200) and Fertile Couples (n = 200)

Group	<i>M</i>	<i>SD</i>	<i>t</i>
Infertile Couples	69.37	14.42	5.18*
Fertile Couples	62.23	13.08	

df = 398. **p* < .001.

Table 2

Differences in the AQ Scores of Infertile Males (n = 200) and Infertile Females (n = 200)

Group	<i>M</i>	<i>SD</i>	<i>t</i>
Infertile Females	69.03	16.32	0.58
Infertile Males	69.71	16.79	

df. = 398. *p* = ns.

Table 3

Differences in the AQ Scores of Infertile Couples living in Nuclear and Extended Family Systems

Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>
Infertile Couples of Extended System	103	69.81	13.71	0.44
Infertile Couples of Nuclear System	97	68.91	15.18	

df. = 198. *p* = ns.

of Aggression Questionnaire. Infertile couples were more likely to engage in aggressive behavior as compared to fertile couples. According to the results shown in Table 2, the difference was found to be non-significant.

The infertile couples' overall profile irrespective of their family system: nuclear vs. extended family systems, areas: rural vs. urban, age, and education were analyzed through the computation of independent sample t-

test and ANOVA. The results pertaining to these factors are presented in Tables 3 to 6.

Table 3 indicates non-significant difference which means that infertile couples from extended family system and from nuclear family system did not differ from each other regarding their aggressive behavior. However, the difference was significant in Table 4 for the scores of infertile couples from rural and urban areas. These re-

Table 4

Differences in the AQ Scores of Infertile Couples belonging to Urban and Rural Areas

Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>
Infertile Couples of Rural Area	39	73.35	13.28	1.93*
Infertile Couples of Urban Area	161	68.41	14.55	

df. = 198. **p* < .05.

Table 5

One-Way ANOVA showing Significance of Difference in AQ Scores by Age

Source of Variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>
Between Groups	897.55	4	224.38	.82
Within Groups	108323.69	395	274.24	
Total	109221.24	399		

Table 6

One-Way ANOVA showing Significance of AQ Scores Differences of Infertile Couples by Education

Source of Variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>
Between Groups	5043.92	5	1008.78	3.81*
Within Groups	104177.32	394	264.41	
Total	109221.24	399		

**p* < .01.

sults suggest that infertile couples from rural areas are more engaged in aggressive behaviors as compared to those from urban areas.

Tables 5 and 6 indicate the results of one-way Analysis of Variance for AQ scores of five groups of infertile with different age levels and six groups of infertile couples

with different education levels, respectively. Findings depicted in Table 5 are non-significant that suggest the age of subjects has no effect on their levels of aggression. The results in Table 6 show a significant difference $F(5, 399) = 3.81$, $p < .01$ in the scores of infertile couples as a function of different educational levels, which implies that

Table 7

Multiple Comparisons for Six Groups of Education on the Aggression Questionnaire

Education (i)	Education (j)	Mean Difference (i-j)	Standard Error
Illiterate	Below Matric	5.39699	4.63366
	Matric	-2.65457	4.11770
	F.A.	5.22556	4.25597
	Graduate	-.74027	4.09760
	Post Graduate	5.57996	4.05693
Below Matric	Illiterate	-5.39699	4.63366
	Matric	-8.05156	3.25480
	F.A.	-.17143	3.42805
	Graduate	-6.13727	3.22933
	Post Graduate	.18297	3.17757
Matric	Illiterate	2.65457	4.11770
	Below Matric	8.05156	3.25480
	F.A.	7.88013	2.69001
	Graduate	1.91429	2.43171
	Post Graduate	8.23453(*)	2.36254
F.A.	Illiterate	-5.22556	4.25597
	Below Matric	.17143	3.42805
	Matric	-7.88013	2.69001
	Graduate	-5.96584	2.65913
	Post Graduate	.35440	2.59603
Graduate	Illiterate	.74027	4.09760
	Below Matric	6.13727	3.22933
	Matric	-1.91429	2.43171
	F.A.	5.96584	2.65913
	Post Graduate	6.32023	2.32732
Post Graduate	Illiterate	-5.57996	4.05693
	Below Matric	-.18297	3.17757
	Matric	-8.23453(*)	2.36254
	F.A.	-.35440	2.59603
	Graduate	-6.32023	2.32732

* $p < .05$.

the levels of aggression are different toward infertile couples with different educational levels.

To see what mean differences are contributing to any significant effects found in ANOVA (Table 6) for six groups of respondents regarding education, Scheffe-Test (Post-Hoc Test) was computed. Table 7 finds significant main effects of education on aggression level of infertile couples.

A significant difference (Table 7) was found on the measure of aggression between group 3 and 6. It means that infertile people with matric quali-

fications and those with post graduate qualifications were different in displaying their aggressive behavior due to infertility. Results indicate that infertile people with matric qualifications were more aggressive as compared to those with post graduate qualifications.

To corroborate the finding that the difference found in rural/urban infertile couples was due to differences in their educational level (Matric vs. Post graduate), one-way ANOVA and Post Hoc Test (Tukey Test) were performed. Results are presented in Tables 8, 9 and 10.

Table 8

One-Way ANOVA showing Significance of Difference in AQ Scores of Infertile Couples by Education and Area of Residence

Source of Variance	SS	Df	MS	F
Between Groups	4555.538	3	1518.513	6.29*
Within Groups	44203.146	183	241.547	
Total	48758.684	186		

* $p < .01$.

Table 9

Means and Standard Deviation of AQ Scores for the Four Groups of Infertile Couples

Group	N	M	SD
Matric - Urban	63	74.13	16.12
Post Graduate - Urban	89	64.31	14.51
Matric - Rural	23	74.83	17.71
Post Graduate - Rural	12	73.17	15.54
Total	187	69.48	16.19

Table 10

Multiple Comparisons for Urban and Rural Couples with Education on the Aggression Questionnaire

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error
Matric - Urban	Post Graduate - Urban	9.81*	2.56
	Matric - Rural	-.70	3.79
	Post Graduate - Rural	.96	4.90
Post Graduate - Urban	Matric - Rural	-10.51*	3.64
	Post Graduate - Rural	-8.85	4.78
Matric - Rural	Post Graduate - Rural	1.66	5.53

* $p < .05$.

Table 8 shows the means and SD for the four groups of infertile couples. Results of the one-way ANOVA (Table 9) indicate that these four groups of infertile couples (rural vs. urban and matric vs. post graduate) are significantly different in their levels of aggression. Findings from Table 10 further explained that both urban and rural infertile couples with matric qualifications were more aggressive as compared to the urban infertile couples with post graduate qualifications.

Discussion

The results were analyzed on the basis of the assumptions that infertile couples are more likely to engage in aggression than fertile couples. This hypothesis has been supported through this study (Table 1). The finding can be justified by taking into consideration the central features of the

study by Babcock, Waltz, Jacobson, & Gottman (1993). According to that, it is found that infertility is associated with the risk of subsequent aggressive acts among couples with or without a history of aggressive behavior. A significant positive correlation has been found between the inability to conceive and anger behavior. Research findings in the field of Social Psychology greatly emphasize that in response to frustration particularly resulting from infertility, aggressive and violent behaviors are always learned. These findings also coincide with findings of Crick et al. (1997) that pointed out the high level of aggression during the period of infertility.

Another objective of the study was to look at the gender differences in the levels of aggression of infertile couples. It was hypothesized that infertile women would be more

aggressive than infertile men. The assumption was based on the observation that husbands in our culture are not blamed for infertility. Our society places greater emphasis on fertility in women; through the process of gender role socialization, women learn that they would have to produce a baby after marriage. It means our society has a "motherhood mandate" but does not have a similar "fatherhood mandate". This differential societal expectation may trigger more feelings of distress and aggression in women than in men. But contrary to this assumption, no gender difference was found in terms of aggression when the data pertaining to aggression were subjected to *t*-test (Table 2). Since aggression in this study was conceptualized as a personality trait, it should be distributed in the population in accordance with the normal curve irrespective of gender that seems to have no direct bearing upon such a personality trait as aggression. Non-significant gender difference found in aggression suggests that aggressive behaviors resulting due to infertility are evenly distributed among infertile men and women. For most couples, being childless does not become a reason to be involved in aggressive behavior. However, it is the fact that couples who have the tendency of being aggressive may have more chances of becoming aggressive as a result of their failure and feelings of hopelessness resulting from inability to produce a child. This finding of present study may coincide with the findings of Tavris (1988). However, the author failed to report evidence of how and why males and females differ in the ways of expressing their feel-

ings of aggression. It was also recognized that both infertile men and women may, at times, use aggression or violence instrumentally and expressively. For men development of aggression is in fact a source of taking control over other people especially when people need to regain self-esteem and reclaim strength. For women this is a loss of power created by an irresistible pressure and resulting in self-blame and guilt. For women it is a loss of self-control, for men a source of experiencing power, which rarely results in self-blame and guilt.

Within the context of family system, there are two systems existing in our family settings, i.e., nuclear and extended systems. The family system in Pakistan is a closely intertwined one. A family in Pakistan is different from American and European families in innumerable countenances, such as culture, ways of living, regards for elders, combined family system, and a remoter and stronger contact with each other (Mohsin, 1990). When data were further analyzed to explore the phenomenon of aggression on the dimension of family system, i.e. nuclear and joint family system, there was no statistically significant difference (Table 3). It was noted that infertile couples from different family systems did not differ on the measure of aggression. The aggressive behavior of infertile couples resulting from infertility has nothing to do with different kinds of family systems, i.e., nuclear and joint families. It means that infertile couples belonging to nuclear or joint family system did not differ in showing aggression.

Another hypothesis was formulated about the area to which infertile sample belonged. It was assumed that infertile couples would have significant differences, irrespective of residential area, in magnitude of aggression. The results of present research showed that infertile couples have significant differences in their scores on AQ with regard to area. The data were analyzed by dividing infertile couples into two groups: the infertile couples living in rural area and infertile couples living in urban area. Infertile couples from rural areas may be psychologically more disadvantaged due to the problem of infertility as compared to infertile couples from urban area. The findings of the study partially supported the hypothesis (Table 4) suggesting that infertile couples from rural areas were more engaged in aggression than infertile couples from urban areas.

Aging is one of those processes which affect everyone differently. Response to aging is usually slow and painful. Physical decline begins at early adulthood, but it is late in the life when people become aware of it. Many sensory abilities such as visual acuity, auditory accuracy, muscle strength and reaction time diminish gradually. In the old age the onset of a threatening problem like depression, anxiety, low self-esteem, aggression, marital and sexual dissatisfaction may have an adverse impact on the sufferer. The old age may be detrimental to the psychological aspects of infertility.

An inferential analysis of the present study regarding age suggests that aging itself is associated with much maladjustment after onset of infertil-

ity. It was hypothesized that aging will be negatively related to the consequences of infertility. It means that infertile couples with different age levels will demonstrate different levels of aggression. The findings are inconsistent with our hypothesis. Contrary to our hypothesis, findings proposed that factor of age is not associated with varying degrees of aggression (Table 5).

The data of the present study were further analyzed from another dimension to advocate a series of circumstances and feelings that people diagnosed with infertility can experience. This analysis was performed to see whether the infertile couples having different educational levels slightly differ in their aggression. It was clearly considered that different educational levels would contribute to the psychological facets of infertility. The results of one-way ANOVA for scores of infertile couples showed significant differences among the six groups of different educational level on the measure of aggression. It was hypothesized that aggression would be in different patterns for different groups of infertile people belonging to different categories of education. The findings of the present research supported the hypothesis which implied that different groups of respondents showed different degree of aggression. Post-Hoc (Table 7) test was performed to know which groups are distant to each other on Aggression Questionnaire. The findings may be summarized that infertile sample with matric qualification and infertile sample with post graduate qualification depicted different patterns of aggressive behavior.

Results subjected to the differences found for rural vs. urban and matric vs. post graduate education level of infertile couples was further analyzed to check whether rural vs. urban difference is due to their educational levels (matric vs. post graduate). It was found that infertile couples from urban and rural areas with matric qualifications are more aggressive as compared to the urban infertile couples with post graduate qualifications.

Conclusions

The present study may be considered a pioneering research in studying aggression as subsequent response to infertility that was mostly neglected and least heard area in research with specific reference to Pakistani cultural context. Major conclusions of the study are given below:

- Infertile couples demonstrated higher levels of aggression as compared to fertile couples.
- It was also found that gender, age and family system of subjects have no effects on their levels of aggression.
- Infertile couples from rural areas were more engaged in aggressive behaviors as compared to infertile couples from urban areas.
- Results concerning educational levels indicated that infertile people with matric qualifications are more aggressive as compared to infertile people with post graduate qualifications.

Limitations & Suggestions

While the overall findings of the present research were encouraging, it

is important to acknowledge its limitations as well. The sample used in the present research is not large enough to represent the whole population of infertile couples in Pakistan. Unwillingness of the participants to participate in the present research because of the sensitivity of the issue of infertility that has prolonged and intense effects on the mental health of a couple is another reason not for taking representative sample.

In the light of limitations and wide implications of present research, it is suggested that more researches should be carried out with a larger sample from different provinces of Pakistan with reference to infertility and its psychological effects. A larger sample belonging to different areas of Pakistan may give a better picture into infertility and its related psychological problems. A broad based awareness of infertility and its resultant effects on couples should be given a higher priority for maximum benefit to the infertile couples.

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