

## Attachment Styles in Depressed and Non Depressed Mothers Postpartum

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### Abstract

**Background:** Attachment is defined as lasting emotional connectedness. Attachment experiences are one of the basic ingredients in the complexly determined relationship between early experiences of parental care, personality growth and behavior. Attachment theory has been major aids in helping researchers understand how the quality of early and continuing close relationships affect children's and adults emotional development, interpersonal style and social behavior. Lately studies have shown attachment as a risk factor in postpartum depression. To address this we did a comparison of attachment styles in depressed and non depressed mothers postpartum.

**Method:** 40 patients with depression postpartum (PPD) and 40 control subjects were studied. We compared PPD patients with healthy controls' attachment styles using the Adult Attachment Questionnaire part I & II.

**Results:** The PPD patients showed more insecure attachment than their non depressed counterparts on both the parts of AAQ revealing significant statistical difference.

**Limitations:** A purposive sample was used, sample size was small, more number of objective measures could be used and a longitudinal design would be more apt to see its long term effects.

**Conclusion:** These results suggest that there is a difference in the attachment styles of depressed and normals postpartum, and PPD patients show more insecure attachment than their counterparts. These findings could be helpful in aiding therapy and rehabilitation of such patient population.

**Keywords:** Attachment; Postpartum depression; secure style; Avoidant style; ambivalent style.

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### I. Introduction

Attachment is defined as "lasting psychological connectedness between human beings" (Bowlby, 1969) which is believed to be determined in early years of life. The attachment style which forms in infancy secure or insecure, has a lifelong continuity. There is evidence that shows attachment style formed in early childhood persists during adolescence (Hamilton, 2000).

Attachment is not just a connection between two people; it is a bond that involves a desire for regular contact with that person and the experience of distress during separation from that person. Further their attachment may be determined by cultural variations. India being a heterogeneous cultural pool must lead to varied attachment influence.

It has been recognized that, psychologically, the individual cannot be understood independently of his or her social and cultural context. The infant does not enter the world as an 'a priori' discreet psychological being. Rather, the self and personality form as the developing mind engages with the world in which it has its self. There is no hard boundary between the mental conditions of the individuals in which they find themselves. It is the interaction between individuals and their experiences that create personalities. Rutter (1991) said that "the quality of parent child relationships constitute a central aspect of parenting, that the development of social relationships occupy a crucial role in personality growth, and that abnormalities in relationships are important in many types of psychopathology."

Attachment behavior brings infants close to their carers. It is within these close relationships that children learn about themselves, other people and social life in general. According to Grossmann (1995), "attachment is the very foundation for a child's ability to understand and participate in the extended social and cultural world without undue emotional conflict." The concept of attachment is a relationship based theory of personality development and our psycho social progress through life. The recognition by individual that social life involves a constant interplay between self reflexive mind possessed of their own feelings, motives, thoughts, beliefs and intentions is a central feature of attachment theory. Attachment is not one relationship among others; it is the very foundation of healthy individual development. (Grossmann, 1995)

Evolutionary theory of attachment suggests that children are biologically pre-programmed to form attachments with others, because this helps them to survive. The infant produces innate 'social releaser' behaviors such as crying and smiling that stimulate innate caregiving responses from adults. The determinant of

attachment is not food but care and responsiveness. Bowlby suggested that a child would initially form only one primary attachment (monotropy) and that the attachment figure acted as a secure base for exploring the world. The attachment relationship acts as a prototype for all future social relationships so disrupting it can have severe consequences.

Ainsworth further expanded upon Bowlby's work in her now-famous "Strange Situation" study. The study involved observing children between the ages of 12 to 18 months responding to a situation in which they were briefly left alone and then reunited with their mother (Ainsworth, 1978). Ainsworth concluded that there were three major styles of attachment: secure attachment, ambivalent-insecure attachment, and avoidant-insecure attachment. Researchers Main and Solomon (1986) added a fourth attachment style known as disorganized-insecure attachment. Numerous studies have supported Ainsworth's conclusions and additional research has revealed that these early attachment styles can help predict behaviors later in life.

Attachment theory also helps understand how social adversity places some children at increase risk of experiencing personal distress and interpersonal conflict and developing problem behaviors. Starting with Bowlby's work (Bowlby, 1973), insecure attachment style has been considered a predictor of psychopathology in later life and secure attachment was associated with healthy processes (Nakash-Eisikovit et al., 2002).

A longitudinal study by Klohnen & Bera (1998) found that women's reports of attachment-related characteristics show continuity when assessed at the ages of 27, 43 and 52 years. Some evidence exists for stability of working models; it is also found that working models can be modified as life circumstances change. Studies of attachment between mother and children (Thompson, Lambs and Estes, 1983; Vaughn, Egeland, Sroufe and Waters, 1979) suggest that major life changes alter working models but little evidence exists in how these events lead to change or stability in working models in adulthood (Rothbard & Shaver, 1994)

Hence, attachment of children of depressed mothers, is likely to be disrupted; depressed mothers are found to be less sensitive than non-depressed mothers and show greater negativity in their interactions with their children. If a mother displays behaviors associated with an insecure attachment style, maternal availability and responsiveness to the infant are likely to be impaired (Forman et al 2007).

Postpartum depression also known as peripartum depression (DSM V 2013) is a type of clinical depression which can affect women as well as men, typically after childbirth. The prevalence rates reported among women range from 5% to 25% (DSM IV 1994), but methodological differences among the studies make the actual prevalence rate unclear.

The postpartum period is unique with the degree of neuroendocrine alterations and psychosocial adjustments, the potential impact that breast feeding has on treatment planning, and the long term implications of a history of postpartum mood disorder on subsequent family planning.

Although a number of risk factors have been identified, the causes of PPD are not well understood. Many women recover with a treatment consisting of a support group or counseling.

Depression is a serious and common problem for child bearing women. It is disruptive to their daily life and impairs their functioning in all domains. There may be a form of depression that is peculiar to the postpartum period; postpartum depression shares many characteristics, including risk factors, with depressions that occur at other times.

Postpartum depression may lead mothers to be inconsistent and inconsiderate with childcare. Women diagnosed with postpartum depression often focus more on the negative events of childcare, resulting in poor coping strategies.

Murray et al (1996) states "Maternal sensitivity to the infant at 3 months postpartum is predictive of the quality of later infant attachment to the mother..." Attachment of children of depressed mothers, is likely to be disrupted; it is seen that depressed mothers are found to be less sensitive than non-depressed mothers and show greater negativity in their interactions with their children (Forman et. al 2007). If, during this sensitive period, a child is exposed to a mother's depressive symptoms, including emotional withdrawal and inconsistency in responsiveness; reported as characteristics of depressed mothers (Field et al 1990), the child's regulation of attention and emotions may be jeopardized. This can have implications for the development of the child beyond the period of maternal depression (Hay, 1997). Research has shown decreased cognitive and socio-emotional development (Sharp et. al 1995), insecure attachment to the mother (Murray 1992) and behavioural disturbances in children of depressed mothers, compared to children of non-depressed mothers.

The behavioural problems of children of depressed mothers are directly linked to parenting deficits associated with depressed women. Clinically depressed mothers have been characterised as incompetent, apathetic and uninvolved, ineffective, emotionally flat, insensitive, disengaged and intrusive in interactions with their children (Cummings and Davies, 1994; Goodman, 1992). Regardless of maternal adjustment status, insensitive, incompetent mothering is identified as a central predictor of insecure attachments in early childhoods (Ainsworth et al., 1978). Thus, it is not surprising that children of depressed mothers show increased rates of insecure attachments and mothers with insecure attachments show increased depression. Insecure attachment have been associated with psychiatric symptomatology in later childhood when accompanied by

environmental risk factors such as high life stress. Insecure children of depressed parents maybe specially vulnerable because of high levels of interpersonal stress and marital discord that so frequently co occur with depression (Hammen, 1991).

Attachment theory and research has expanded to incorporate the effects of parental “working models” of relationships, resulting in part from parents’ early relationship histories, on parents’ propensities to perceive children’s’ cues without distortion and to respond to children sensitively and appropriately (Maine et al., 1985; Van ijzenboorn, 1992).

Crockenburgh (1981) found that temperamentally difficult infants were more likely to become securely attached to their mothers when their mothers’ level of social support was high. It is thus expected that mothers prone to depression whose marriages and support networks are at least adequate would tend to have more positive perception of them and their infants would be more behaviourally competent.

Researchers hypothesize that the sadness, irritability, social withdrawal that characterize depressed women compromise their ability to provide a responsive, sensitive, nurturing environment for their infants (Cohen and Campbell, 1992) a result of these early and less optimal patterns of maternal behaviour are more irritable and less self regulated and more withdrawn infant who develops an insecure attachment relationship with his or her relatively unresponsive disengaged mother.

The theories and researches discussed so far are based on the western population. To the best of our knowledge, there are no published studies on the relationship between maternal attachment style and PPD in India. Child and family social work has always given intellectually and practically challenging situations to the practitioner. Work with children and their carers is essential to understand the human growth and behaviour, personality development and psychopathology.

The study is being done to see the comparison of maternal attachment style in mothers postpartum and normal. It is done to see how the attachment style affects the mother infant dyad and what could be possibly done to improve the situation in the future as the condition and effect of avoidant maternal attachment style on infants is seen to be adverse and result into avoidant coping styles in children. Clinicians should pay particular attention to vulnerable women with regard to their attachment style for early identification and treatment of PPD.

### **Hypotheses**

There will be no difference in the attachment style of depressed and non depressed mothers post partum.

## **II. Method**

### **Procedure**

Data were collected from 2 hospital’s maternity wards and gynecologist’s clinic of both private and government sector of New Delhi. Consent from the concerned doctors was taken in advance. Mothers who were in their 4<sup>th</sup> week to 18 months postpartum were approached when they came in for their routine checkups and vaccinations of the infants. Mothers who had chronic illnesses were excluded from the study. After providing the information about PPD and its importance postpartum, they were asked to fill a questionnaire which would take 20 minutes to complete. Participants who scored above the cut off point in the EPDS were referred to a psychiatrist affiliated with the study. The information provided about the importance of PPD to infant-mother health to doctors and nurses stands out as a positive aspect of the present study.

### **Measures**

#### **The socio demographic data sheet**

The socio demographic data sheet that will be filled out by the mothers included questions about personal history, family history, and motherhood history will be prepared based on related scientific literature.

#### **The Edinburgh Postnatal Depression Scale (EPDS) (Cox and Holden, 1987)**

This is a scale consisting of 10 questions that require marking one of the 4 choices about how the mother felt during the previous week. Each item is scored between 0 and 3 and the total score is calculated. EPDS is the most frequently used scale in the screening of PPD. It is used starting form 6-8 weeks after birth; in this regard, it is suitable for screening for symptoms that began in the first 4 postpartum weeks according to the DSM IV criteria.

#### **Adult Attachment Style Questionnaire (AAQ) (Hazan and Shaver 1987)**

AAQ is comprised of 2 parts. The first part was developed by Hazan and Shaver (1987) and includes 3 different expressions about the relationship with parents in childhood and general behavioral characteristics that are used to classify adults as secure, ambivalent, or avoidant. The second part of the scale, developed by Mikulincer et al. (1990), includes 15 items, which are scored between 1 and 7. Each attachment style is

represented by 5 items and attachment style of the individuals is determined by verifying which scores are the highest.

### III. Statistical Analysis

Statistical analyses were conducted using SPSS 17. Comparison of both the groups (depressed and non depressed) with sociodemographic variables were conducted using independent group t test and chi square depending on the type of variable (continuous or discreet).

The comparison of both the groups on AAQ Part I & II was analyzed using chi square test.

### IV. Results

TABLE 1: Comparison of Demographic Variables of Depressed and Non depressed group postpartum (n=80)

VARIABLES		DEPRESSED GROUP	NON DEPRESSED GROUP	t/X <sup>2</sup>	df	p
		Mean ± SD/ Frequency (%)	Mean± SD/ Frequency (%)			
MOTHERS AGE (yrs)		25.5 ± 2.72	24.70 ± 1.85	1.63	78	0.04*
FATHERS AGE (YRS)		28.3 ± 2.31	26.5 ± 2.31	3.11	78	0.11
CHILDS AGE (months)		5.17 ± 3.67	4.35 ± 1.96	1.25	78	0.02*
DURATION OF MARRIAGE (yrs)		3.75 ± 1.93	2.87 ± 1.74	2.12	78	0.43
MOTHERS EDUCATION	High sec	24 (60%)	18 (45%)	1.80	1	0.17
	Grad	16 (40%)	22 (55%)			
MOTHERS OCCUPATION	Home Maker	27 (67.5%)	23 (57.5%)	0.85	1	0.35
	Working	13 (32.5%)	17 (42.5%)			
FATHERS OCCUPATION	Service	14 (35%)	13 (32.5%)	0.05	1	0.81
	Business	26 (65%)	27 (67.5%)			
GEOGRAPHIC LOCATION	Urban	38 (95%)	38 (95%)	0.001	1	1.0
	Rural	2 (5%)	2 (5%)			
FAMILY STRUCTURE	Joint	22 (55%)	21 (52.5%)	0.05	1	0.82
	Nuclear	18 (45%)	19 (47.5%)			
PRIMARY CAREGIVER	Mother	38 (95%)	33 (82.5%)	3.13	1	0.07
	Others	2 (5%)	7 (17.5%)			

\*Statistically significant on 0.05 level

**Table I.** shows that significant differences were found in mother's age and child's age. The Mean and SD for mother's age (25.5 + 2.72) for depressed group and (24.70 + 1.85) for non depressed group p (0.04) which is statistically significant. The Mean and SD for child's age was found for depressed group (5.17 + 3.67) and nondepressed group (4.35 + 1.96) with p (0.02) which is again statistically significant. No significant differences were found in father's age and duration of marriage. The Mean and SD for father's age calculated for depressed group (28.3 + 2.31) and for non depressed group (26.5 + 2.31) with p (0.11). The Mean and SD for duration of marriage for depressed group (3.75 + 1.93) and for non depressed group (2.87 + 1.74) with p (0.43) both of which were not significant. No significant differences were found on other variables. It was seen that more mothers were graduates (55%) in the non depressed group than their counterparts depressed group (40%). The numbers of mothers who were homemakers were (67.5%) and (57.5%) [n = 40] in the depressed and non depressed group respectively, and those working were 13 (32.5%) and 17 (42.5%) [n=40] in the depressed and non depressed group respectively. No significant difference in geographical location, father's occupation, primary caregivers and family structure was seen when compared in both the groups.

TABLE 2: Comparison of Variables Related to Pregnancy and Childbirth in Depressed and Non depressed group Postpartum (n=80)

VARIABLES		DEPRESSED GROUP (n=40)	NON DEPRESSED GROUP (n=40)	X <sup>2</sup>	df	P
		Frequency (%)	Frequency (%)			
PREGNANCY PLANNING	Planned	27 (67.5%)	35 (87.5%)	4.58	1	0.03*
	Unplanned	13 (32.5%)	5 (12.5%)			
PROBLEMS IN PREGNANCY	Yes	32 (80%)	19 (47.5%)	2.45	1	0.11
	No	8 (20%)	21 (52.5%)			
DELIVERY HISTORY	Normal	17 (42.5%)	24 (60%)	9.14	1	0.002*
	C section	23 (57.5%)	16 (40%)			
CHILD LOSS	Yes	15 (37.5%)	3 (7.5%)	10.32	1	0.001*
	No	25 (62.5%)	37 (92.5%)			
NO. OF CHILDREN	First	25 (62.5%)	26 (65%)	0.05	1	0.81
	Following	15 (37.5%)	14 (35%)			
GENDER	Boy	28 (70%)	28 (70%)	0.001	1	1.0
	Girl	12 (30%)	12 (30%)			

\*Statistically significant on 0.05 level

**Table II.** shows significant differences in variables of pregnancy planning, delivery history and child loss, it was seen that non depressed group (87.5%) had more planned pregnancies and than the depressed group (67.5%). The depressed group (57.5%) had more c section deliveries and the non depressed group (60%) had more normal vaginal deliveries, and more child loss was seen in depressed group(37.5%) as compared to their counterparts. No significant differences resulted in problems in pregnancy, number of children and gender of the infant.

TABLE 3: Comparison of Attachment Styles as given by Adult Attachment Questionnaire Part I &II in the Depressed and Non depressed group

		DEPRESSED GROUP (n=40)	NON DEPRESSED GROUP (n=40)			
		Frequency (%)	Frequency (%)	X <sup>2</sup>	df	P
AAQ (part I)	Secure	4 (10%)	24 (60%)	25.97	2	0.001*
	Avoidant	25 (62.5%)	6 (15%)			
	Ambivalent	11 (27.5%)	10 (25%)			
AAQ (part II)	Secure	4 (10%)	24 (60%)	26.05	2	0.001*
	Avoidant	27 (67.5%)	7 (17.5%)			
	Ambivalent	9 (22.5%)	9 (22.5%)			
*Statistically significant on 0.05 level						

**Table III.** Shows that the AAQ part I reports three attachment styles which tell the relationship of the subject with the parents in childhood and general behavioral characteristics, results revealed that 10% of mothers are classified as secure in the depressed group as compared to 60% in the non depressed group. 62.5% are categorized as having an avoidant attachment style in depressed as compared to 15% in the non depressed group, and 27.5% were classified as of ambivalent style in the depressed group than 25% in the non depressed group. The chi square (25.97) was significant at 0.05 level.

The part II of AAQ reveals the ongoing adult attachment style of the subject, results found 10% were seen to be having a secure attachment style in the depressed group and 60% in the non depressed group, 67.5% and 17.5% had an avoidant attachment style in the depressed and non depressed group respectively and both the groups had 22.5% of mothers categorized with an ambivalent attachment style. Part II had a chi square (26.05) which were also significant at 0.05 level. Thus, both the parts of AAQ showed statistically significant differences in both the groups in terms of their attachment styles, depressed group showed more of avoidant attachment style and the non depressed group showed more of secure attachment style.

## V. Discussion

The present study investigates the comparison of attachment styles of mothers depressed and non depressed postpartum. The tool used for adult attachment in the study is AAQ which is frequently used measure of adult attachment and has been used in other Indian studies with different variables and EPDS to measure postpartum depression in women worldwide.

Postpartum depression is an important social and health problem for women and their families (Boyce & Stubs, 1994; O'Hara, 1994, 1995). It has many consequences especially personal suffering of women, mother-child relationship and the child's social and cognitive development.

### Comparison of Socio-demographic Profile of Depressed and Non depressed Mothers in Postpartum Depression

The socio demographic adversity contributes to the prevalence of postpartum depression in the form of gender of the child, mother's educational qualification, mother's and father's work status, pregnancy planning, delivery history, geographical location, child loss, family structure and primary caregiver etc. In the present study out of the total number of 80 subjects two groups were formed who were screened using EPDS 50% were depressed mothers and 50% were non depressed mothers. Significant differences were found in the mother's age (25.5+2.72) and child's age (5.17+3.67) in the depressed group than their counterparts, indicating that mother's age and child's age does play a role as a risk factor for postpartum depression. It has also been seen in studies that mothers with depressive symptoms were older, poorer, less literate, reported more intimate partner violence and showed lower emotional bonding to their infants 2-3 months postpartum as compared to mentally healthy or anxious mothers (Edhobog 2011).

No differences were obtained in the gender of the children of depressed and non depressed mothers. However mothers giving birth to a girl child are more likely stressed and at risk for depression considering the Indian culture. A study done in India does show that preference for male child is deeply rooted in Indian society, such gender bias and limited control over the reproductive health of the mother may make pregnancy a stressful experience for some women (Patel et al., 2002). Although the Indian culture states a male preference, the variability in the present findings could be because the present sample consisted of majority of mothers who were graduates, working and living in urban areas, it could be possible that keeping in mind the wider and more liberal outlook of the educated class, the preferences for gender (boy or girl) may be getting blurred.

Mother's educational status too plays a crucial role as a risk factor in postpartum depression. 55% of non depressed mothers were graduates than 40% of their depressed counterparts who were only higher secondary educated. Findings of the present study are in consensus with previous studies. An Indian study observed differences in depressed and non depressed mothers when level of education was compared. More depressed patients were lower in literacy (21.6% versus 17.5%) as compared to non depressed subjects (Patel et al., 2002). The differences could be due to the enhanced cognitive capacity to reason out and work things out in a planned manner.

Mother's occupation (working or home makers) was another demographic variable to determine the vulnerability towards depression. In the present study 67.5% of mothers in depressed group were homemakers as compared to the non depressed group (57.5%). Parallely 42% of women were working in the non depressed group as compared to 32% in the depressed group. Other studies too substantiate the findings. A study indicated that being a housewife increased the risk of postpartum depression nearly two fold; it is more frequently seen in unemployed women. Having a social life and earning money after childbirth acts as a protective factor against mood disturbances may it be eastern or western community (Goker et al., 2012). Gotlib (1989) also observed in his study that housewives were over represented in the depressed group (Gotlib, Whiffen et al., 1989). Overall it can be said that women who are housewives are more vulnerable to psychological distress as compared to professional women.

It was seen that the non depressed group (87.5%) had more planned pregnancies than the depressed group (67.5%) probably because the higher education and working environment make these women more equipped to plan everything in advance which makes them less vulnerable to the uncertainties of pregnancy.

It was also seen in the present study that differences exists in the mode of delivery, 57.5% of women in the depressed sample had caesarean section deliveries and 60% of non depressed sample had normal vaginal deliveries. This could be a chance factor as previous studies have shown mixed findings.

A higher percentage of women as seen in the present study suffered from complications during pregnancy 80% in the depressed group and 47.5% in the non depressed group which implied a causal role for obstetric factors in postpartum depression.

### **Comparison of Attachment Style in Depressed and Non Depressed mothers Postpartum**

AAQ (part I) assesses relationship with parents whereas AAQ (part II) reports about the ongoing attachment style of an individual. In the present study, on AAQ part I it was observed that in the depressed group 62.5% of the mothers had avoidant attachment style whereas only 15% of the mothers in the non depressed group had avoidant attachment style. On the other hand, 60% of the mothers in the non depressed group had showed secure attachment style compared to 10% in the depressed group.

Similar findings were obtained in AAQ Part II . It was observed that in the depressed group 67.5% of the mothers had avoidant attachment style whereas only 17.5% of the mothers in the non depressed group had avoidant attachment style. On the other hand, 60% of the mothers in the non depressed group had showed secure attachment style compared to 10% in the depressed group. Overall it can be seen that a significant difference exists between the two groups in attachment styles in both the parts (AAQ I & II).

As evident significant number of mothers in the depressed group has exhibited avoidant attachment style in both part I & II of AAQ suggesting that these mothers had avoidant attachment style since childhood and it continued over time. Hence, the attachment style is pervasive/ stable over time. The attachment style of nondepressed mothers too seems to be pervasive as significant number of mothers' displayed secure attachment style both in Part I and II of AAQ.

These findings are substantiated by a longitudinal study done by Hamilton (2000) who suggested that attachment style formed in infancy as either secure or insecure, display a lifelong continuity, and the attachment style formed in early childhood persists during adolescence. In another longitudinal study Klohnen & Bera (1998) found that women's show continuity in their attachment related characteristics when assessed at 27, 43 and 52 years of age.

Main & Solomon (1986) too in their Meta-analysis study found that early attachment styles predict behaviors later in life. Stability of attachment style finds an explanation in Bowlby's (1980) theory of Attachment, wherein he suggested individuals develop mental representations of their relationship with

significant others, and it is stored within a well organized representational structure (Bowlby 1980; Collins and Read, 1994) and these mental representations/ working models tend to remain stable over time. In the present study more number of mothers in the depressed group had insecure attachment style and more number of mothers in the non depressed group had a secure attachment style. Insecure attachment style has been considered a predictor of psychopathology in later life and secure attachment is associated with healthy processes (Nakash-Eisikovit et al., 2002). Other studies too have found that individual attachment style determines depression (Burge et al., 1997; Hankinet al., 2005). It has also been proposed that unmet attachment needs during childhood may lead to postpartum depression (Whiffen & Johnson, 1998). Although significant findings have been reported in our study, more substantial results could be found with a larger population, more number of objective measures and a prospective longitudinal study to see the effect of maternal attachment style on infant's attachment style.

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