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**Theme: Children and parenting**

**Paper title: Intergenerational transference of attachment style in children of depressed mothers.**

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**Abstract**

The extant literature suggests there is an intergeneration effect of maternal depression on child mental health outcomes. In addition there is evidence to support an association between insecure attachment styles and depressive vulnerability in that insecure style is associated with low self-esteem. Therefore, children of insecurely attached, depressed mothers have an increased risk for adverse outcomes. This paper examines the question of whether or not children of depressed mothers ‘inherit’ the attachment style of their mothers thereby maintaining the intergenerational transference of risk to their own children.

Data for this paper comes from the Mater and University Study of Pregnancy and Outcomes. During the child’s first five years, depressed mothers were identified by self-reported symptoms. When the child was 15 years, Bartholomew and Horowitz Attachment prototype questionnaire (1991) was administered to mothers and their teenage children. Analysis focuses on the comparison of attachment style prototype and congruence in maternal-child attachment for depressed and non-depressed mothers. Results indicate that teenage children of insecurely attached depressed mothers have a higher rate of fearful attachment than youth of securely attached mothers. We recommend that, intervention can be directed towards not only symptom treatment of depression, but also parenting interventions and child interventions promoting more secure attachment styles in children at risk. This has the potential to have very long term benefits extending over generations.

## **Introduction**

Attachment is a concept that describes the emotional bond a person experiences with other people and can be dichotomised into two types: secure and insecure attachment (Ainsworth, 1978). According to attachment theory (Bowlby, 1979), securely attached people are likely to develop internal representations or “working models” of others as caring and dependable, and of themselves as love-worthy and competent. Persons with secure attachment style seek comfort from others when distressed and succeed in eliciting positive responses. In contrast, individuals with insecure attachment style tend not to be able to form intimate relationships with other human beings (see for example, Kennedy, 1999; Roche, et al., 1999; Paterson et al., 1995; Laible & Thompson, 2000; Smallbone & Dadds 2000).

Bartholomew and Horowitz (1991) conceptualised attachment styles as having two underlying dimensions: models of the self (positive-negative) and models of others (positive-negative). These dimensions define four possible attachment styles, viz “secure” (positive models of self and others); and “insecure” types such as “preoccupied” (negative models of self and positive models of others), “dismissing” (positive models of self and negative models of others) and “fearful” (negative models of self and negative models of others).

Most research suggests that between one half of the population is securely attached. Mickelson, Kessler and Shaver (1997), reported that the distribution of secure attachment style in a nationally representative sample of American adults was 59%. Diehl, Elnick, Bourbeau and Labouvie-Vief (1998) explored attachment style in randomly selected suburban American communities. Using the Bartholomew and Horowitz (1991) attachment score, they found 50.7% of the sample classified as having a secure attachment style, 25.3% classified themselves as dismissing, 15.8% as fearful and 8.2% as preoccupied. Bartholomew and Horowitz (1991) had similar findings; in their relatively small sample of first year psychology students, 47% of the sample was securely attached, 18% was dismissing, 21% fearful, and 14% preoccupied.

Interestingly almost one-third of the participants in the Bartholmoew and Horowitz study (1991) had equally high dimensional ratings on two or more attachment styles. Bartholmoew and Horowitz interpreted this as being ambiguous with regard to their attachment style. We have examined the concept of ambivalent attachment style in this study of children of depressed mothers.

### **Attachment style and depressive symptoms**

The evidence suggests that there is an association between insecure attachment styles and depressive vulnerability. For example, insecure style has been shown to be associated with low self esteem (Mickelson et al., 1997; McCarthy, 1999), as does depression (Bifulco, Moran, Ball & Bernazzani, 2002).

Of greater interest to our study is Bifulco and colleagues' (2002) findings which indicated that teenage depression was highly related to a double, or ambiguous, classification of attachment style, and suggested that this might lead to a more "disorganized" expression of attachment. There is theoretical evidence that "disorganized" attachment might contribute to depression. For example, according to Hammen and Brennan (2002) interpersonal problems are a stable feature of depression, which may contribute to, as well as result from, depressive episodes. We feel that frequent interpersonal problems may reflect a disorganized attachment style.

### **Intergenerational aspects of attachment**

Infants often form insecure attachment bonds to parents with insecure attachment styles (Priel & Besser, 2000). According to attachment theory, attachment styles are formed during childhood and adolescence as a result of experiences with attachment figures. Rholes, et al. (1995) postulate that the cognitive and affective predisposition that generate problematic mother-child relationships may have their roots in experiences that occur long before individuals have children of their own, thus children of ambivalently attached women may experience considerable inconsistency and unpredictability in their relationships with their mothers. This supports attachment theory (Ainsworth, 1989) which postulates that unpredictability in the

mother-child relationship- especially unpredictability in the form of maternal availability and care, is a major contributing factor to the development of ambivalent attachment styles in childhood.

Priel and Besser (2000) proposed that parental sensitive responsiveness is the main mechanism through which attachment security is transmitted. More specifically, Mickelson, Kessler and Shaver (1997) suggested that adversities in which an adult directly betrayed the trust of a child were most likely to affect the child's adult attachment style, and that personal behaviour that parents could not easily control (e.g., depression, substance abuse) tended to be associated with avoidant adult attachment style in their offspring. This suggests that individuals with troubled parents may learn that it is not safe to depend on others, which may also make them vulnerable to depression (Hammen, 1998). For depressed mothers, an insecure attachment style could mimic or exacerbate the symptoms of depression, making the child more vulnerable to adverse mental health outcomes.

### **Purpose of this study**

Our study proposed to examine the effect of maternal attachment styles on child attachment in depressed and not depressed mothers. This should provide information about the extent to which children of depressed mothers 'inherit' the attachment style of their mothers, thereby maintaining the intergenerational transference of risk to their own children. The study focused on the following four main hypotheses: -

1. Offspring attachment style is congruent with maternal attachment style.
2. Depressed mothers have a higher incidence of disorganized attachment style than non-depressed mothers
3. Adolescent offspring of depressed mothers have a higher incidence of insecure/disorganized attachment style than those with non-depressed mothers.
4. Adolescent offspring of securely attached depressed mothers have a higher incidence of secure attachment than offspring of insecurely attached depressed mothers.

## **Method**

Data for this study comes from the Mater-University Study of Pregnancy and Outcomes (MUSP) a prospective cohort study that began in 1981. Mothers were enrolled in the study when they presented to the Mater Hospital at their first antenatal clinic visit and mother and child were followed up at the birth (n=7,661), when the baby was 6 months old, 5 years and 14 years of age.

A follow-up of a selected sub-sample of was undertaken when the children were aged 15 years (n=816). The sub-sample was selected on the basis of mother's answers to self-reported measures of depression at first clinic visit and follow-ups until the child was 5.

## **Instruments**

Mothers were classified as depressed or not depressed according to their responses on the Delusion-Symptom-States-Inventory (DSSI)(Bedford and Foulds, 1978). The DSSI was administered at first clinic visit, birth of their child, when their baby was 6 months old and again when the child was 5 years of age. Mothers who reported severe depression one or more times and moderate depression two or more times during the child's first five years were classified as "depressed".

The Bartholomew and Horowitz Attachment Prototype Questionnaire (1991) was used to determine attachment style for mothers and their offspring at the 14-year follow up. Participants were asked to rate each of four prototypes on a seven-point scale from 'not at all like me' to 'very much like me'. The highest of the four ratings was considered to be the best-fitting category for that subject. An additional category, disorganized attachment, was developed to identify participants who scored equally highly on two or more prototypes.

## Results

The first hypothesis was that offspring attachment style is congruent with maternal attachment style. A series of Chi square analyses indicated that there was no difference between mother and youth attachment styles.

Table 1: Attachment style distribution (whole sample, N= 816)

<b>Attachment style</b>	<b>Mother n (%)</b>	<b>Youth n (%)</b>	<b>Sig</b>
<b>Secure</b>	363 (44.5)	442 (54.2)	Ns
<b>Insecure attachment</b>			
<b>Dismissive</b>	77 (9.4)	77 (9.4)	Ns
<b>Preoccupied</b>	23 (2.8)	47 (5.8)	Ns
<b>Fearful</b>	63 (7.7)	38 (4.7)	Ns
<b>Disorganized</b>	289 (35.5)	212 (26.0)	Ns

This table supports the hypothesis that offspring attachment is congruent with maternal attachment style. The majority of both mothers and youth identified mostly with the secure attachment prototype. Rates of insecure attachment were similar for both mothers and their offspring. Notably, a significant minority of both mothers (35.5%) and youth (26%) were classified as having disorganized attachment, which is the focus of the next series of analysis.

The second hypothesis was that depressed mothers have a higher incidence of disorganized attachment style than non-depressed mothers. A series of chi-squares indicated that there were some significant differences in attachment style between depressed and non-depressed mothers.

Table 2: Mother's attachment style and maternal depression

	<b>Depressed (n=556)</b>	<b>Not Depressed (n=260)</b>	<b>Sig</b>
	<b>n (%)</b>	<b>n (%)</b>	
<b>Secure</b>	210 (37.8)	153 (58.8)	<0.001
<b>Insecure attachment</b>			
<b>Dismissive</b>	59 (10.6)	18 (6.9)	Ns
<b>Preoccupied</b>	17 (3.1)	6 (2.3)	Ns
<b>Fearful</b>	54 (9.7)	9 (3.5)	P<0.01
<b>Disorganized</b>	216 (38.8)	74 (28.5)	P<0.01

As can be seen in table 2, over half of the undepressed mothers had a secure attachment style compared to one third of the depressed mothers. Of the insecurely attached mothers, those with depression had almost three times the proportion of fearful attachment style than non-depressed mothers. In addition, in answer to the hypothesis, we found that there were significantly more depressed mothers with disorganized attachment than non-depressed mothers.

We then investigated the attachment style of adolescent offspring of depressed and non-depressed mothers (Table 3).

Table 3: Youth attachment style and maternal depression

	<b>Child of Depressed</b>	<b>Child of Not</b>	
<b>Youth Attachment</b>	<b>Mother (N=556)</b>	<b>Depressed Mother</b>	<b>Sig</b>
<b>Style</b>	<b>n (%)</b>	<b>(N=260)</b>	
	<b>n (%)</b>	<b>n (%)</b>	
<b>Secure</b>	294 (52.9)	148 (56.9)	Ns
<b>Insecure attachment</b>			
<b>Dismissive</b>	55 (9.9)	22 (8.5)	Ns
<b>Preoccupied</b>	30 (5.4)	17 (6.5)	Ns
<b>Fearful</b>	32 (5.8)	6 (2.3)	P<0.05
<b>Disorganized</b>	145 (26.1)	67 (25.8)	Ns

In contrast to mother's attachment style, no significant difference in rates of secure attachment were recorded for children of depressed mothers and children of not depressed mothers. The only significant difference was for those youth with fearful attachment. Children of depressed mothers were twice as likely to have a fearful attachment style than children of mothers who did not have depression in the child's first five years.

Finally, we investigated the children of the depressed mothers. We hypothesized that adolescent offspring of securely attached depressed mothers have a higher incidence of secure attachment than offspring of insecurely attached depressed mothers.

Table 4: Attachment style of children of depressed mothers by mother's attachment style

	<b>Mothers' Attachment Style</b>		<b>Sig</b>
	<b>Secure (N=210)</b>	<b>Insecure (N=130)</b>	
<b>Youth Attachment Style</b>	<b>n (%)</b>	<b>n (%)</b>	
<b>Secure</b>	118 (56.2)	69 (53.1)	Ns
<b>Dismissive</b>	23 (11.0)	9 (6.9)	Ns
<b>Preoccupied</b>	10 (4.8)	7 (5.4)	Ns
<b>Fearful</b>	5 (2.4)	11 (8.5)	P<0.05
<b>Disorganized</b>	54 (25.7)	34 (26.2)	Ns

In this series of chi squares, we found around half of the youth had secure attachment, irrespective of whether their mothers had secure or insecure attachment. Of the depressed mothers with insecure attachment, there was only one significant effect. Insecurely attached depressed mothers were twice as likely to have children with fearful attachment than securely attached mothers.

## Discussion

In terms of intergenerational transference of attachment type, we found that in the sample as a whole, the incidence of offspring attachment style parallels that of the previous generation.

The second hypothesis, that depressed mothers have a higher incidence of insecure, specifically disorganized attachment style than non-depressed mothers, was supported. Indeed, we found that depressed mothers were almost twice as likely to have an insecure attachment style than non-depressed mothers. This supports the crisis generation theory of depression that Hammen (2002) has developed; that poor interpersonal relationships initiate crises which lead to low self-esteem and depressive episodes. It would make sense that insecurely attached individuals would have problematic interpersonal relationships. In support of this are Bifulco's (2002) findings that depression was highly related to a double, or ambiguous, classification of attachment style (Bifulco et al., 2002).

Our findings also indicated that the children of depressed mothers were almost twice as likely to exhibit fearful attachment styles than children of mothers who were not depressed in the child's first five years. In terms of attachment theory, this is a reasonable finding, since the fearful style results from negative models of self and others (Bartholomew & Horowitz, 1991). If the mother's depressive symptoms prevent her from attuning to her child's needs, the child is likely to form a working model that others are not able to meet his needs and that his needs are therefore not worth meeting. It has recently been hypothesized that parental sensitive responsiveness is the main mechanism through which attachment security is transmitted (Mickelson et al., 1997; Priel & Besser, 2000).

However, our third hypothesis, that adolescent offspring of depressed mothers have a higher incidence of disorganized attachment style than those with non-depressed mothers was not supported. This could be due to the uneven sample size (556 youth had depressed mothers compared to 260 whose mothers were not depressed), or the fact that we operationalised disorganized attachment as equally high scores on two or more attachment styles. It is possible that mothers that scored equally highly on

secure attachment and one of the insecure attachment styles were not genuinely exhibiting a disorganized attachment style, rather than the disorganized style described by Bifulco and colleagues (2002).

Finally, in our examination of children of depressed mothers, we found that there was little difference in youth attachment style of securely and insecurely attached mothers, with one exception. Youth of insecurely attached depressed mothers had higher rate of fearful attachment than youth of securely attached mothers. This suggests that mothers' depression in the first five years of a child's life does have an adverse affect on the child's attachment at 14 years. However, the numbers of children in this particular analysis are very small (5 youth with fearful attachment had a securely attached depressed mother, and 11 fearful youth had an insecurely attached depressed mother). Therefore, we are taking this significant finding very cautiously indeed. We don't think that these findings warrant adding further potential strain to already stressed and overburdened depressed mothers.

## **Recommendations**

Our research suggests that the category of disorganized attachment be the focus of future research into intergenerational effects of maternal depression and attachment style. However, we recommend that mothers who scored equally highly on secure attachment and one of the insecure attachment styles are not included as having a disorganized (insecure) attachment style.

Our finding that maternal insecure attachment and depression might be related to fearful child attachment style has important clinical implications. The first one is that depressed mothers with preschool children might need guidance about how to attune to and meet their child's needs. Secondly, we believe that other people in the community, professionals and lay people, have the ability to provide examples to the vulnerable child that promote secure attachments. According to attachment theory, an insecure attachment style is not set in stone. If a vulnerable child has the benefit of supportive relationships with others, they have the opportunity to develop a working model of self and others that is positive. This underlines the absolute importance that

childcare workers, family workers, teachers and mental health professionals have in their every day contact with mothers and children.

Finally, in the very long term, the more we can help children learn positive models of themselves and others, the more securely attached parents they will become. Then everybody wins.

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