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## Research report

# Self-Esteem and Depression: ten year follow-up of mothers and offspring

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### Abstract

*Objective.* The association between maternal bonding style, offspring low self-esteem and offspring depression status was assessed by maternal depression status. *Subjects.* Sixty mothers and 137 offspring were independently assessed over the course of a ten year follow-up study. *Method.* Assessments included the Schedule for Affective Disorders and Schizophrenia (SADS-LA), Schedule for Affective Disorders and Schizophrenia for School-Aged Children (K-SADS), the Coopersmith Self-Esteem Inventory (CSEI) and the Parental Bonding Instrument (PBI). *Results.* Among daughters of mothers with a history of depression, maternal affectionless-control was associated with daughter low self-esteem which was associated with daughter depression at ten year follow-up. Among daughters of mothers without a history of depression, maternal affectionless-control was not associated with daughter low self-esteem, which was not associated with daughter depression at ten year follow-up but which was associated with a history of childhood depression. None of these associations were found to be significant among sons. *Limitations.* As self-esteem was not measured at ten year follow-up, among offspring the stability of self-esteem could not be assessed, nor could the association between adult self-esteem and adult depression. *Conclusion.* Clinical presentation of low self-esteem in girls should be assessed in the context of maternal depression status. © 1999 Elsevier Science B.V. All rights reserved.

*Keywords:* Self-esteem; Depression; Mothers and offspring

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## 1. Introduction

Despite substantial research on the topic, controversy remains surrounding the role of self-esteem

in depression. Results from some studies suggest that low self-esteem is merely a symptom of depression while other studies find it to be predictive of a later depressive episode (for a review see Bernet et al., 1993).

Lewinsohn et al. (1981) conducted the first longitudinal investigation of the effects of self-esteem on

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the onset of clinical depression. The researchers recruited a large non-representative community sample (approximately 1000 subjects) which they assessed for self-esteem and clinical depression (using RDC criteria), and then followed-up one year later. Low self-esteem was not found to predict onset of depressive disorder at one year follow-up, but rather co-occurred with the onset of depression. As the authors indicate, however, the findings are limited by the low rate of subject participation (only 5%) at follow-up and the small number of new cases of depression ( $N = 9$ ) at follow-up, leaving open the possibility that those subjects with low self-esteem who developed depression selectively dropped-out of the study.

The strongest evidence for a depressogenic effect of low self-esteem is presented in a series of articles by (Brown et al., 1990a, 1990b) who studied working-class mothers of young children. At one year follow-up, low self-esteem was shown to predict onset of clinical depression if the mother had experienced a negative life event in the interim period. The authors conclude that the effect of stressful life events on depression may be moderated by low self-esteem.

The discrepancy between the findings of Lewinsohn et al. as compared to those of Brown et al., might be understood on methodological grounds. Whereas Lewinsohn et al. looked at a non-representative community sample (with a range of ages and SES, including both sexes, with or without children), Brown et al. looked at a sample both at risk for the onset of depression (female, ages 18–36 years, lower SES, mothers of young children) and particularly prone to stressful life events. The greater vulnerability to depression and higher prevalence of stressful life events among Brown's sample may have augmented the possibility of detecting an effect of self-esteem on depression. A more general explanation of the disparity in the findings derived from a quasi-community sample versus a high risk sample, is that an effect of self-esteem on depression may occur only in the presence of other risk factors for depression.

The mechanism through which self-esteem moderates the association between life events and depression has been understood from both an interpersonal and a cognitive perspectives. Brown et al. (1990b) focused upon the association between low self-es-

teem and a paucity of social support, showing through use of a path analysis that low self-esteem leads to decreased social support, which during times of crisis results in an increased risk for depression. In contrast to this line of research, in the majority of the literature self-esteem has been conceptualized from a cognitive perspective as a mood-moderator. Specifically, self-blaming schema and an internal-stable-global attributional style in the face of negative life events have been shown to lead to an exaggerated inward focus, rumination and a worsened view of the self, which in turn precipitate depression (Abramson et al., 1988; Abramson and Alloy, 1990; Beck, 1987; Peterson et al., 1984; Nolen-Hoeksema, 1991).

### *1.1. Risk factors for low self-esteem*

Studies attempting to identify risk factors for the development of low self-esteem generally have focused upon childhood experience of trauma, social ostracism or isolation, and parenting. While all of these risk factors have been shown to be associated with childhood low self-esteem, consistently parenting has been implicated as the greatest risk factor (Brown et al., 1990b; Parker, 1984, 1993; Rosenberg, 1979).

### *1.2. Limitations to current research*

Developmental theory on the etiology of depression suggests that empirical research should find a longitudinal association between childhood parenting, childhood self-esteem and adult depression (Cicchetti and Aber, 1986). However, to date the effect of childhood self-esteem on adult depression has not been studied in the context of a longitudinal design. Current findings on the association between childhood parenting, self-esteem and adult depression are limited to cross-sectional studies which generally rely on the report of adult psychiatric patients (for a review see Blatt and Homann, 1992). Other studies have assessed low self-esteem and depression in children, rather than exploring the long term effects of childhood low self-esteem on later adulthood depression (Burbach and Borduin, 1986; Goodman et al., 1994).

Another limitation in the literature to date, is that we know of no published study which takes into account maternal depression status. This limitation is

somewhat surprising given that: (i) maternal depression status has been associated with differential risk factors for offspring depression (Weissman et al., 1987, 1997), and (ii) previous research suggests that the effect of self-esteem on depression may be mediated by other risk factors for depression.

We had an opportunity to investigate whether maternal depression status may impact upon some of the previously established findings on self-esteem. Using Weissman's ten year follow-up data on offspring at high and low risk for depression (Weissman et al., 1997), the association between maternal bonding, offspring self-esteem and offspring depression was explored by maternal depression status.

## 2. Method

### 2.1. Subjects

Subjects were mothers and offspring who participated in a ten year follow-up study of offspring at high and low risk for depression by virtue of maternal diagnosis of depression. An extensive description of the sample has been published elsewhere (Weissman et al., 1997). In 1982 (Time 1), the original sample of 91 mothers and 220 offspring were assessed for a life-time diagnosis of MDD using the Schedule for Affective Disorders and Schizophrenia, Life-Time (SADS-L) (Endicott and Spitzer, 1978) and the K-SADS (Orvaschel et al., 1982), respectively. Offspring were asked to report on the Coopersmith Self-Esteem Inventory (CSEI) (Coopersmith, 1967). Two years later (Time 2), the sample was reassessed using the same methods as at Time 1 (which we mention for the sake of completeness). Ten years later, of these subjects 73 mothers and 158 offspring (90 of whom were daughters) were again assessed for MDD (Weissman et al., 1987, 1997).

Of the 158 offspring participants, the 137 offspring (80 of whom are daughters) who completed the Time 1 CSEI are examined, and of their 73 mothers, the 60 mothers who completed the Time 1 PBI are examined. Twenty-one offspring were excluded for this analysis because they did not complete the Time 1 CSEI. Thirteen mothers were excluded from this analysis because they did not complete the Time 1 PBI.

The mean age of the 60 mothers who completed the Time 1 PBI on themselves was 46.6 years at Time 10, 86% had graduated from high school, 54% were of higher SES (levels I, II and III) as measured by the Hollingshead Index. Table 1 presents the demographic characteristics of offspring at Time 10.

There were no significant differences in mean age or in rate of Time 1 MDD between the 137 offspring included and the 21 offspring excluded from this analysis. There were no significant differences in mean age or rate of Time 1 MDD between the 60 mothers included in the analysis and the 13 mothers excluded from the analysis.

### 2.2. Assessments

Offspring self-esteem was measured by the Coopersmith Self-Esteem Inventory (CSEI) (Coopersmith, 1967) at Time 1. The CSEI is a self-report measure which consists of 58 binary questions yielding a possible range from 0–58. Offspring

Table 1  
Demographic characteristics of offspring at time 10

Characteristic	Number (%) N = 137
Female, No. (%)	80 (58)
Age, No. (%)	
17–20 years	9 (7)
21–28 years	63 (46)
29–36 years	65 (47)
Current marital status, No. (%)	
Single, never married	59 (43)
Married, remarried	68 (50)
Divorced, now single	10 (9)
Educational level completed, No. (%)	
< High school	11 (8)
High school	48 (35)
Some college or trade	44 (32)
> 4 years college	44 (32)
Employment status, No. (%)	
Full-time (> 35 h)	85 (62)
Part-time (< 35 h)	24 (17)
Irregular, not employed	28 (21)
Mean (SD) annual income, \$	
Individual	23,871 (19,035)
Household	51,375 (24,041)
No. of children, mean (SD)	1.9 (0.9)

report on the CSEI was made into a dichotomous variable (high self-esteem  $\geq 39$ , low self-esteem  $< 39$ ) based upon previously established cut-off (Ziller et al., 1973).

Maternal bonding style was measured with the Parental Bonding Instrument (PBI) (Parker et al., 1979) administered to the mothers and offspring at both Time 1 and Time 10. As mothers have been shown to under-report affectionless-control on the PBI (Brewin et al., 1993) and offspring report of maternal bonding might be confounded by offspring low self-esteem, both mother and offspring report on maternal bonding were used.

The PBI consists of 25 4-point items assessing perception of parenting behaviors along two dimensions, affection and control. The dimension of affection measures the extent to which a parent is caring and emotionally available. The dimension of control measures the extent to which a parent is overprotective, harsh or arbitrarily punitive. A parent high on both dimensions is said to exhibit a parental bonding style of affectionless-control. Although the individual dimensions of affection and control each have been found to be associated with psychopathology in offspring, it is the combination of both low affection and high control which has been shown to be particularly predictive of offspring depression (1989). For this reason the categorical variable of affectionless-control was used to indicate a depressogenic parental bonding style. Mothers who met criteria for the categorical variable of affectionless-control based upon Parker (1989) previously established cut-offs (low maternal care  $< 27$ ; high maternal overprotection  $> 13.5$ ) were given a score of 1, while mothers reporting any other combination of affection and control were given a score of 0.

Time 1 maternal clinical status (life-time MDD versus no life-time MDD) was based upon the SADS-L semi-structured clinical interview (Endicott and Spitzer, 1978) which yielded RDC diagnoses. Time 1 offspring clinical status (life-time MDD versus no life-time MDD) was based upon the K-SADS semi-structured clinical interview (Orvaschel et al., 1982) which yielded DSM III diagnoses. Time 10 offspring clinical status (MDD between Time 1 and Time 10 versus no MDD between Time 1 and Time 10) was based upon the SADS-LA (Manzuzza et al., 1986) which yielded DSM III-R diagnoses. As part of these structured interviews, at

both Time 1 and Time 10 mothers and offspring also were assessed for a current episode of MDD.

### 3. Results

Fifty-three percent of mothers had a life-time diagnosis of MDD at Time 1 and 26% reported themselves as exhibiting affectionless-control at Time 1.

Although there was no significant association between Time 1 offspring report of maternal bonding and Time 1 maternal depression status, there was a significant association between Time 1 maternal report of affectionless-control and Time 1 maternal depression status (40% (12/31) of depressed mothers versus 9% (3/29) of non-depressed mothers; Chi-Square = 17.3,  $df = 1$ ,  $P < 0.001$ ). As this discrepancy between mothers and offspring may suggest a potential confounding of maternal report on the PBI with severity of maternal depression status, all subsequent analyses rely exclusively on offspring report of maternal bonding.

Of the 137 offspring who at Time 1 completed the CSEI, at Time 1 60% (48/80) of the daughters and 67% (38/57) of the sons reported low self-esteem. At Time 1 40% (32/80) of daughters and 21% (12/57) of sons had a life-time diagnosis of MDD. Among those offspring with a Time 1 life-time diagnosis of MDD, 28% (9/32) of daughters had a current episode of MDD and 16% (2/12) of sons had a current episode of MDD. At Time 10 47% (15/32) of daughters had a recurrence of MDD and 8% (1/12) of sons had a recurrence of MDD. At Time 10 19% (9/48) of daughters had an incidence of MDD and 9% (4/45) of sons had an incidence of MDD.

There was a significant association between Time 1 low self-esteem and Time 1 current episode of MDD among daughters, but the analyses lacked sufficient statistical power to assess the association among sons (due perhaps to an insufficient number of male offspring with a Time 1 current episode of MDD). Eighty-nine percent (8/9) of daughters with a Time 1 current episode of MDD reported low self-esteem, as compared to 56% (40/71) of daughters without a Time 1 current episode of MDD (Chi-square = 4.1,  $df = 1$ ,  $P < 0.05$ ). One of two

sons with a Time 1 current episode of MDD reported low self-esteem.

Subtracting out those offspring with a Time 1 current episode of MDD, the association between Time 1 life-time diagnosis of MDD and Time 1 low self-esteem was not significant among daughters nor among sons. Seventy percent (16/23) of daughters with a Time 1 life-time diagnosis of MDD (excluding those with a current episode of MDD) reported low self-esteem and 50% (24/48) of the daughters without a Time 1 life-time diagnosis of MDD reported low self-esteem (Chi-square = 2.4,  $df = 1$ ,  $P = 0.12$ ). Eighty percent (8/10) of the sons with a Time 1 life-time history of depression (excluding those with a current episode of MDD) reported low self-esteem and 64% (29/45) of the sons without a Time 1 life-time history of depression reported low self-esteem (Chi-square = 0.9,  $df = 1$ ,  $P = 0.34$ ).

To eliminate the possibility that Time 1 offspring current episode of MDD (potentially a proxy of severity of long-term depression status) was associated with Time 10 follow-up MDD, offspring with a Time 1 current episode of depression were eliminated from all subsequent analyses.

### 3.1. Overall role of self-esteem in depression

Logistic regression was used to determine whether Time 1 offspring report of maternal affectionless-control was associated with Time 1 offspring self-esteem, Time 1 offspring life-time diagnosis of MDD or Time 10 follow-up offspring MDD. Overall Time 1 offspring report of maternal affectionless-control was significantly associated with daughter

low self-esteem (OR = 16.2, 95%CI = 1.9–131.1,  $P < 0.01$ ), but was not significantly associated with either Time 1 daughter life-time diagnosis of MDD nor Time 10 follow-up daughter MDD.

Logistic regression was then used to determine whether Time 1 offspring self-esteem was associated with Time 1 offspring life-time diagnosis of MDD and Time 10 follow-up offspring MDD. Time 1 daughter low self-esteem was not significantly associated with Time 1 daughter life-time diagnosis of MDD but was significantly associated with Time 10 follow-up daughter MDD (OR = 6.2, 95%CI = 1.6–23.9,  $P < 0.01$ ), controlling for Time 1 daughter MDD.

There were no significant associations between maternal affectionless-control, offspring self-esteem and offspring depression among sons.

The above analyses were then repeated while stratifying the data by Time 1 maternal life-time diagnosis of MDD (See Table 2 and Table 3). Lastly, Time 1 offspring self-esteem was used to predict Time 1 offspring life-time diagnosis of MDD and Time 10 follow-up offspring MDD while stratifying by both Time 1 maternal life-time diagnosis of MDD and Time 1 offspring report of maternal affectionless-control.

### 3.2. Among offspring of depressed mothers

Among daughters of mothers with a Time 1 life-time diagnosis of MDD, Time 1 daughter report of maternal affectionless-control was significantly associated with Time 1 daughter low self-esteem (OR = 8.4, 95%CI = 1.1–75.4,  $P < 0.05$ ), but was not

Table 2

Effect of Time 1 maternal affectionless-control on Time 1 daughter low self-esteem, Time 1 daughter life-time diagnosis of MDD, or Time 10 follow-up daughter MDD by Time 1 maternal life-time diagnosis of MDD

	Time 1 maternal MDD		Time 1 no maternal MDD		Overall	
	OR	95%CI	OR	95%CI	OR	95%CI
T1 Daughter low self-esteem	8.4*	1.0–75.4	–		16.2**	1.9–131.3
T1 Daughter MDD	1.1	0.2–5.1	–		1.3	0.4–4.5
T10 Daughter MDD <sup>a</sup>	1.0	0.2–4.5	1.1	0.1–12.8	1.0	0.3–3.7

\*,  $P < 0.05$ ; \*\*,  $P < 0.01$ .

<sup>a</sup> Model: T10 Daughter MDD = T1 Daughter MDD + T1 maternal affectionless-control by T1 maternal MDD.

Note: Daughters with a Time 1 current episode of MDD were eliminated from all analyses.

Table 3

Effect of Time 1 daughter low self-esteem on Time 1 daughter life-time diagnosis of MDD or Time 10 follow-up daughter by Time 1 maternal life-time diagnosis of MDD

	Time 1 maternal MDD		Time 1 no maternal MDD		Overall	
	OR	95%CI	OR	95%CI	OR	95%CI
T1 Daughter MDD	1.3	0.3–5.6	4.1 +	0.9–19.9	2.3	0.8–6.5
T10 Daughter MDD <sup>a</sup>	11.9*	1.3–107.2	1.8	0.2–13.4	6.2**	1.6–23.9

<sup>a</sup> Model: T10 Daughter MDD = T1 Daughter MDD + T1 Daughter low self-esteem by T1 maternal MDD.

Note: Daughters with a Time 1 current episode of MDD were eliminated from all analyses.

significantly associated either with Time 1 daughter life-time diagnosis of MDD or with Time 10 follow-up daughter MDD.

Time 1 daughter low self-esteem was not significantly associated with Time 1 daughter life-time diagnosis of MDD, but was significantly associated with Time 10 follow-up daughter MDD (OR = 11.9, 95%CI = 1.3–107.2,  $P = 0.03$ ), controlling for Time 1 daughter MDD.

Daughters of mothers with a Time 1 life-time diagnosis of MDD were then stratified by Time 1 daughter report of maternal affectionless-control. Among daughters of depressed mothers who reported Time 1 maternal affectionless-control, Time 1 daughters self-esteem was not significantly associated with Time 1 daughter life-time diagnosis of MDD, but the analysis lacked sufficient power to assess the association between Time 1 daughter low self-esteem and Time 10 daughter MDD. Among daughters of depressed mothers who did not report Time 1 maternal affectionless-control, Time 1 daughter self-esteem was not significantly associated with Time 1 daughter life-time diagnosis of MDD, but was significantly associated with Time 10 follow-up daughter MDD (OR = 16.2, 95%CI = 1.6–162.2,  $P < 0.02$ ).

There were no significant associations between offspring report of maternal affectionless-control, offspring self-esteem or offspring depression among sons.

### 3.3. Among offspring of non-depressed mothers

Among daughters of mothers without a Time 1 life-time diagnosis of MDD, Time 1 daughter report of maternal affectionless-control was not significant-

ly associated Time 1 daughter self-esteem, Time 1 daughter life-time diagnosis of MDD, nor Time 10 follow-up daughter MDD.

Time 1 daughter low self-esteem was marginally associated with Time 1 daughter life-time diagnosis of MDD (OR = 4.1, 95%CI = 0.9–19.9,  $P = 0.07$ ), but not with Time 10 follow-up daughter MDD.

Daughters of mothers without a Time 1 life-time diagnosis of MDD were then stratified by Time 1 daughter report of maternal affectionless-control. Among daughters of non-depressed mothers who reported Time 1 maternal affectionless-control, the analysis lacked sufficient power to assess the association between Time 1 daughters self-esteem and either Time 1 daughter life-time diagnosis of MDD or Time 10 daughter MDD. Among daughters of non-depressed mothers who did not report Time 1 maternal affectionless-control, Time 1 daughter self-esteem was significantly associated with Time 1 daughter life-time diagnosis of MDD (OR = 6.6, 95%CI = 6.5,  $P < 0.03$ ), but was not significantly associated with Time 10 daughter MDD.

There were no significant associations between offspring report of maternal affectionless-control, offspring self-esteem or offspring depression among sons.

## 4. Discussion

The findings suggest differential associations between maternal bonding, offspring self-esteem and offspring depression status among daughters by maternal depression status. There were no significant findings in this study among sons, which is consistent with previous research on maternal bonding,

self-esteem and depression (Blatt and Homann, 1992).

Note that Time 1 offspring current episode of depression was associated with low self-esteem, indicating that low self-esteem may be a symptom of depression. To investigate the role of self-esteem in depression, outside of a current episode of depression, all subsequent analyses excluded offspring with a Time 1 current episode of depression. The findings must therefore be interpreted with the understanding that the sample is no longer representative of the overall sample (Weissman et al., 1997).

Among those daughters whose mothers met criteria for a Time 1 life-time diagnosis of MDD, maternal affectionless-control was cross-sectionally associated with daughter low self-esteem, which in turn was associated with increased prevalence of daughter MDD at ten year follow-up. Note that among daughters of depressed mothers, there was no cross-sectional association between daughter low self-esteem and daughter childhood depression.

Among those daughters whose mothers did not meet criteria for a Time 1 life-time diagnosis of MDD, maternal affectionless-control was not cross-sectionally associated with daughter self-esteem, which in turn was not significantly associated with daughter MDD at ten year follow-up. However, daughter low self-esteem was cross-sectionally associated with daughter life-time history of MDD.

The findings suggest that the role of self-esteem in depression may differ by maternal depression status. Only among offspring whose mothers have a history of depression was an association found between maternal affectionless-control and low self-esteem. Offspring of mothers with a history of depression may be particularly sensitive to parenting style, or more prone to internalize a rejecting parenting style in the form of low self-esteem. This 'sensitive child' explanation gains support from the finding that maternal history of depression per se was not associated with offspring low self-esteem, only in the presence of maternal affectionless-control are children of mothers with a history of depression at risk for developing low self-esteem. It is also possible that the inherently sensitive child suffers even greater reactivity to negative interpersonal experiences as she develops low self-esteem, which would be consistent with previous research on the development

of depressogenic cognitive style (Seligman et al., 1984).

Among daughters of depressed mothers, a childhood sensitivity may be carried into adulthood in the form of low self-esteem, which in turn is risk factor for depression. The notion of low self-esteem as a form of interpersonal sensitivity is consistent with the construct of low self-esteem as a mood moderator in the face of negative life events (Abramson et al., 1988).

The findings may be interpreted to shed light on the intergenerational transmission of depression between mothers and daughters. It may be that the poor social functioning of a depressed mother (including maternal bonding style) is particularly depressogenic in a daughter if she has a 'sensitive' predisposition. This interpretation is consistent with previous research which finds maternal social functioning, rather than symptoms of depression, to be associated with offspring depression (Rutter and Quinton, 1984; Hammen et al., 1987).

Among daughters whose mothers did not have a history of depression, low self-esteem was not associated with adult depression status, however low self-esteem was associated with a history of childhood depression. This finding may suggest that among daughters of mothers without a history of depression, low self-esteem either may be a 'scar' of a past depression or a symptom of a lingering sub-clinical depression.

#### *4.1. Limitations*

A limitation of this study is that the stability of self-esteem over ten years could not be assessed, as it was not measured at Time 10. Based strictly upon the findings from this study, the possibility remains that childhood self-esteem predicts some variable other than self-esteem in adulthood, which in turn is associated with adult depression. Previous research, however, has found self-esteem to be relatively stable across development (Bernet et al., 1993).

Another limitation associated with assessment, is that offspring report of maternal bonding may be confounded with offspring self-esteem. Unfortunately this concern could not be overcome through use of maternal report of maternal bonding, as its association with maternal depression status renders it

potentially confounded with severity of maternal depression. The association between maternal bonding and self-esteem is therefore a less convincing finding than the association between self-esteem and offspring depression status.

A limitation in the study design is that the precise mechanism through which self-esteem predicts depression among daughters of depressed mothers could not be assessed. For instance, the hypothesis that the depressogenic effect of self-esteem is mediated by social support, or the construct of self-esteem as a cognitive mood-moderator, could not be tested based upon available data.

Perhaps the most pressing limitation in this study is that Time 1 self-esteem, shown to predict Time 10 MDD among daughters of depressed mothers, might simply be a symptom of a Time 1 sub-clinical depression. If this is so, then the findings only show that a sub-clinical depression predicts and full blown depression over ten years. The data do not support this possibility, however, in that Time 1 self-esteem was not associated with a history of Time 1 MDD among daughters of depressed mothers. Although the data from this study cannot conclusively address whether self-esteem is merely a symptom of a mild depression, the unresolved question does not mitigate the clinical implications of the findings. Identification of a daughter with low self-esteem and a maternal history of depression, presents an opportunity for prevention against adult MDD.

#### 4.2. Relationship to previous research

This study builds upon previous research in that: (i) the ten-year longitudinal design created the opportunity to investigate the association between childhood parenting, childhood self-esteem and adult depression status, and (ii) the high risk design created the opportunity to investigate the effects of maternal depression history on the association between parenting, self-esteem and depression.

In this study, the findings among daughters of mothers with a history of depression are consistent with the findings of Brown et al. (1990a, 1990b), but the findings among daughters of mothers without a history of depression are not. The discrepancy in the findings between this study and that of Browne support the possibility that Browne's findings reflect

a sample of women who have a number of risk factors for depression, possibly including high rates of maternal depression. In other words, a high prevalence of maternal depression among Browne's sample would yield findings which look like those among the daughters of depressed mothers in this study.

## 5. Conclusion

Among daughters of mothers with a history of depression, maternal affectionless-control was associated with low self-esteem which in turn predicted depression at ten-year follow-up. This finding may suggest that daughters of mothers with history of depression are 'sensitive' in the presence of maternal affectionless-control to developing low self-esteem which may carry forth as a vulnerability to adult depression.

Among daughters whose mothers do not have a history of depression, low self-esteem may be merely a symptom of a sub-clinical depression or a scar from a past episode of depression. In the absence of maternal depression history, maternal bonding style was associated neither with daughter low self-esteem nor with daughter history of childhood depression.

From a clinical perspective, the prognostic value of low self-esteem in girls may be improved through consideration of maternal depression history.

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