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Children Facing Maternal Breast Cancer: Examining Relations between Maternal Functioning  
and Child Psychiatric Symptoms

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## Abstract

Breast cancer is the second most common cancer among women in the United States. Although previous studies have examined psychological distress in cancer patients and their children, few studies have specifically examined maternal functioning as a predictor of child psychiatric symptoms in this population. Therefore, little is known about the ways in which maternal factors (i.e., their own psychological distress) may contribute to psychiatric symptoms in children facing maternal cancer. Preliminary results from the current study revealed a non-significant association between child depression and mother's overall depression. However, children's depression scores on the Short Mood and Feelings Questionnaire were positively and significantly associated with specific depression domains as measured by the Beck Depression Inventory, particularly maternal somatization and associated items. Additionally, children's externalizing problems on the Child Behavior Checklist were positively and significantly associated with mothers' Total Scores on the Beck Depression Inventory. Findings suggest that children's depressive symptoms are more strongly associated with mothers' Somatic-Performance subscale of the Beck Depression Inventory than mothers' Cognitive-Affective subscale. Clinical implications of these findings suggest the further exploration of the somatization of maternal depression as potential targets for intervention when attempting to reduce children's distress.

*Keywords:* Maternal cancer, maternal functioning, somatization, child psychiatric symptoms

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The psychological well-being of children facing parental cancer is often overlooked despite evidence suggesting its stressful and traumatic effects. This is of increasing concern as approximately 3 million children in the United States face parental cancer (Weaver, Rowland, Alfano, & McNeel, 2010). The effects of parental cancer on *children* have rarely been examined, despite a relatively large body of research regarding psychological adjustment of cancer patients and their partners (Compas et al., 1994; Faulkner & Davey, 2002; Welch, Wadsworth, & Compas, 1996). The present study examines the relationship between maternal depression (including specific depressive symptoms) in mothers with cancer and their children's psychiatric symptoms. It is hypothesized that poor maternal functioning, specifically depression, will be positively related to greater psychiatric symptoms in youth.

Approximately 1 in 8 (12%) women will develop breast cancer throughout the course of their lifetime (American Cancer Society, 2013). It is estimated that almost 300,000 women in the United States will be diagnosed with breast cancer throughout 2014 (American Cancer Society, 2013). There are currently 2.8 million breast cancer survivors in the United States, many who are of child bearing age (Zahils, 2001). Of these women, 25% present with clinical levels of depression for up to one year following diagnosis (Lewis, Hammond, & Woods, 1993). Elevated levels of depression are associated with frequent fears of death, recurrence, uncertainty, daily disruptions, emotional distress and mood disturbances (Lewis, Hammond, & Woods, 1993). Although the substantial prevalence rate and associated psychiatric burden on women are concerning, equally as important are the potential impacts of the disease on patients' children, as

approximately 30% of women diagnosed with breast cancer have a least one child living in the home (Faulkner & Davey, 2002).

### **General Literature on Maternal Depression and Child Functioning**

Existing literature broadly examines the psychological effects of children and adolescents facing parental cancer and only touches on the effect of maternal depressed mood on children. Preliminary studies have found that children facing parental cancer were at higher risk for anxiety and depression than normative samples (Compas et al., 1994). Additionally, girls whose mothers had cancer were at increased risk for anxiety and depression compared to girls whose fathers had cancer, or to boys when either parent had cancer (Compas et al., 1994; Grant & Compas, 1995; Welch et al., 1996). More generally, it is recognized that parental depressive symptoms including sadness, pessimism and negative self-perception negatively affect children's psychological processes, as nearly one-third of children of clinically depressed parents experience symptoms of depression (Tyra, 1997). This is of increasing concern as approximately 25% to 33% of women with breast cancer experience clinical levels of depressed mood (Lewis, 1997).

The few existing studies that examine breast cancer patients and the effects of poor maternal functioning on their children are unclear. Some studies suggest that poor maternal functioning is a predictor of children's emotional distress, adjustment difficulties, decreased self-esteem and adjustment, internalizing problems and Total Problems (Faulkner & Davey, 2002; Hoke, 2001; Compas et al., 1994; Osborn, 2007). In addition, studies have indicated an association between maternal depression and child psychiatric outcomes, although findings remain unclear whether the association is attributed to mothers' depressive tendencies to report

more child problems or whether maternal depression predicts child outcomes (Osborn, 2007). Other studies indicate that children's distress has no association to that of the ill parent, and found no significant relationship between parental depression and child psychiatric outcomes (Compas et al., 1994). The inconsistencies amongst findings demonstrate the need to further examine specific maternal factors that may contribute to child psychiatric symptoms when facing maternal cancer.

Studies have suggested some candidate risk factors or mediators that may play a role in children's functioning. Children of cancer patients reported increased levels of emotional distress, with stress-response and anxiety or depressive symptoms varying as a function of the child's age and gender (Faulkner & Davey, 2002). Both internalizing and externalizing problems are often evident amongst children of cancer patients; however several familial and maternal factors may contribute to how children present such problems. For example, maternal stress and depression have been found to significantly predict children's internalizing problems, whereas poor family functioning has been associated with child externalizing problems (Watson et al., 2006; Edwards et al., 2008). While current research suggests an inverse relationship between overall maternal functioning and child psychiatric symptoms, little is known about how children of mothers with cancer identify or respond to their mothers' own depressive symptoms.

### **Current Study**

Although it is recognized that poor maternal functioning of breast cancer patients can have adverse psychiatric effects on children, no research to date has directly examined specific expressions of maternal depression with regard to child psychiatric symptoms. Evidence suggests that poor maternal functioning is predictive of mental health outcomes in children facing

maternal breast cancer (Lewis, Hammond, & Woods, 1993). More specifically, the preceding studies suggest a positive relationship between maternal depression and children's psychopathology (Edwards et al., 2008).

To our knowledge, no studies have directly examined children's functioning in relation to facets of maternal depression among women who have breast cancer. Thus, the first aim of the current study is to determine whether maternal depression is associated with children's psychiatric symptoms. The second aim is to investigate which maternal depression domains (i.e., symptom clusters) are positively associated with children's psychiatric symptoms (i.e., behaviors or emotions). Results of this study may provide preliminary information that can help identify specific correlates of adverse psychiatric symptoms in order to develop appropriate intervention for children facing maternal cancer.

## **Method**

### **Participants**

Data for the present study are obtained from the cross-sectional study known as the FAMILY (Facing Maternal Illness in Latency Years) Study that investigates the psychological and behavioral effects of maternal breast cancer on children (PI: Kaplow). Participants in the FAMILY Study were recruited through the Breast Care Center and the Breast and Ovarian Evaluation Program at the University of Michigan Comprehensive Cancer Center, member hospitals affiliated with the Grand Rapids Clinical Oncology Program (Saint Mary's Health Care, Spectrum Health, and Metro Health) and the Gilda's Club of Grand Rapids. Inclusion criteria required that children be between the ages of 6 and 13, and have a mother or primary female caregiver diagnosed with breast cancer in the previous 6 months.

### **Demographics**

Forty seven child participants were enrolled in the study between July 2011 and May 2012. This sample was composed of 51% boys ( $n = 24$ ) and 49% girls ( $n = 23$ ). The mean age was 9.23 years ( $SD = 2.19$ ). Racial/ethnic composition was 74.5% White ( $n = 35$ ), 8.5% African American ( $n = 4$ ), 6.4% Middle Eastern ( $n = 3$ ), 6.4% “Other” ( $n = 3$ ) and 4.3% Asian ( $n = 2$ ). Caregiver’s stage of cancer ranged from Stage 0 to Stage 4 (10.9% Stage 0, 26.1% Stage 1, 23.9% Stage 2, 34.8% Stage 3, and 4.3% Stage 4). Caregiver’s age ranged between 34 and 57 ( $M = 43.83$ ,  $SD = 5.77$ ).

### **Procedure**

Participating caregivers provided informed consent and children gave verbal assent. All participants were provided monetary compensation. Parent and child interviews were conducted separately by master's-level clinicians. Children participated in open-ended and semi-structured videotaped interviews that focused on their thoughts and feelings regarding their mother’s breast cancer diagnosis. In addition, children were administered standardized questionnaires. All measures were read aloud to child participants and visual aids were provided to ensure understanding of all measure items. Mothers were also interviewed and administered similar questionnaires to assess their own thoughts and feelings about their illness.

### **Measures**

The FAMILY Study obtained data from numerous standardized questionnaires (10 child measures and 9 mother measures), saliva samples, videotaped interviews and demographic information. Demographic information and family history were collected during semi-structured



interviews with the primary caregiver. The current study only examined demographic data and three measures relevant to the study hypotheses.

**Child Depression-- Short Mood and Feelings Questionnaire (SMFQ).** The SMFQ is a 13-item scale derived from a 34-item depression questionnaire (SMFQ; Angold et al., 1995). It rapidly assesses for core depressive symptoms among children and adolescents. The frequency of depressive symptoms experienced is rated on a 3-point scale: 0 = never; 1 = sometimes; 2 = always. Responses are based on the past two weeks and yield a maximum total score of 26 (Sharp, Goodyer & Croudace, 2006). Sample items include “I felt miserable or unhappy” and “I didn’t enjoy anything at all”. The measure yielded good internal consistency in the current study ( $a = .86$ ).

**Child Behavioral and Emotional Problems-- Child Behavior Checklist (CBCL).** The CBCL for school-age children is a 120 item parent-report questionnaire rating maladaptive behavioral and emotional problems in children (CBCL; Achenbach, 1991). Children's emotional, behavioral and social aspects of life are assessed. The current study uses the measure to examine children's Total Problems as well as externalizing and internalizing problems. A three-point rating scale is used to evaluate how true each item is during the time of assessment or within the past 6 months: 0 = never; 1 = sometimes; 2 = always. Sample items include “Your child feels worthless or inferior” and “Your child is impulsive or acts without thinking”.

**Maternal Depression-- Beck Depression Inventory (BDI).** The BDI assesses depression in adults. It consists of 21 items that are completed through self-report (BDI; Beck et al., 1961). A group of attitudes and symptoms indicative of depression are presented that compile the Cognitive-Affective subscale, which consists of items that assess negative thoughts and

feelings, and the Somatic-Performance, which evaluates somatic symptoms and performance decrements (Spielberger, Ritterband, Reheiser & Brunner, 2003). Respondents specify the severity of each statement on a numerical scale from 0 (least severe) to 3 (most severe). Responses are summed to create a Total Score to determine the severity. The measure demonstrated good internal consistency in the current study ( $\alpha = .88$ ).

### **Data Analytic Plan**

All analyses were completed using SPSS 20.0. Relationships between continuous variables were examined via Pearson correlations.

## **Results**

### **Descriptive Statistics**

Table 1 presents the descriptive statistics for all continuous variables in the present study. Independent-sample t-tests were conducted to assess for differences in demographic variables in children. Analyses indicated no significant differences in psychiatric symptoms as a function of demographic variables (i.e., ethnicity, gender, age) in youth. In addition, there were no significant differences in depressive symptoms as a function of any demographic variables (i.e., ethnicity, gender, age) in caregivers. Therefore, the sample was analyzed without controlling for these demographic variables.

### **Correlation Matrix**

#### **Depressive symptoms.**

Table 2 presents Pearson correlation coefficients among all of the variables of interest. No significant correlations are evident between overall maternal depression and child depression scores. However, children's total depression scores are positively and significantly correlated

with mothers' Somatic-Performance subscale scores of the BDI ( $r = .31; p < .05$ ), as well as subscale items including maternal irritability ( $r = .35; p < .05$ ).

### **Internalizing and externalizing symptoms.**

Children's Total Problems on the CBCL and mothers' Total Scores on the BDI are significantly correlated ( $r = .30; p < .05$ ), yet not with the Somatic-Performance subscale of the BDI, as seen in Table 2. However, Children's Total Problems are positively correlated with various *items* of the Somatic-Performance Subscale including: Loss of energy, irritability, and difficulty concentrating ( $r = .31; r = .31; p < .05$  and  $r = .38; p < .01$ ).

Table 2 also presents correlations among children's externalizing problems and maternal somatization ( $r = .35, p < .05$ ). In addition, children's externalizing problems are positively correlated with several items of maternal somatization: Loss of energy, loss of interest in sex, irritability and difficulty concentrating ( $r = .35; r = .30; p < .05$  and  $r = .40; r = .41; p < .01$ ), which are shown in Table 2.

No significant correlations are present among internalizing problems and any facets of maternal depression.

### **Discussion**

The illness of a caregiver is a hardship that many youth will face during their childhood. Although there is a growing body of literature examining the impact of maternal cancer on child mental health, findings are somewhat inconclusive. To our knowledge, the current study is the first to specifically examine various domains of maternal depression in relation to child mental health outcomes in children facing maternal cancer. Such research may help to identify maternal

depressive symptoms that most significantly influence child psychiatric symptoms, which could yield meaningful contributions to the development of intervention efforts for this population.

### **Childhood Depression**

Total scores on the SMFQ for children and the BDI for mothers demonstrated no significant correlation, indicating no association between overall childhood and maternal depression. This is consistent with some studies of children facing parental and/or maternal cancer (e.g.: Clemmens, 2009; Compas et al., 1994; Lewis & Hammond, 1996). However, Total Scores on the SMFQ and the Somatic-Performance subscale of the BDI were positively correlated, indicating a significant relationship between childhood depression and mothers' somatic domain of depressed mood. This suggests that mothers' somatization of depression may have a more negative impact on children's mental health than the Cognitive-Affective domain.

However, it is important to note that these are bivariate relationships and do not account for other confounding variables. The preceding data offer a more nuanced picture regarding specific domains of maternal depression that may play an important role in children's depression symptoms, as previous studies have not generally included specific depression subscales (e.g., Compas et al., 1994; Lewis and Darby, 2004). Thus, it appears that children recognize and perceive various somatic facets of maternal depression, but fail to acknowledge affective domains.

### **Maladaptive Behaviors**

Maternal depressed mood was significantly associated with child behavioral problems. Specifically, current findings indicate that mothers' depressed mood was associated with children's Total Problem behaviors as well as externalizing problems on the CBCL. These

findings are partially consistent with previous studies (e.g., Lewis & Darby, 2004), which also observed a significant association between mothers' depressed mood and children's Total Problems in addition to externalizing problems. Although, unlike Lewis & Darby, 2004, our findings demonstrate a non-significant association between maternal depressed mood and internalizing problems, as was also noted in Edwards et al., 2008. In particular, CBCL Total Scores and externalizing scores were positively associated with the *Somatic-Performance* subscale of the BDI, yet not the Cognitive-Affective subscale. Again, these preliminary findings suggest that mothers' somatic domains of depression more negatively affect children's mental health in regard to problem behavior. In addition, children may be more likely to notice mothers' somatic complaints compared to mothers' own internal experience of affective mood dysregulation (i.e., pessimism, worthlessness, guilty feelings, etc.).

### **Conclusion**

The current study suggests a significant relationship between somatic expressions of maternal depression and children's psychiatric symptoms. There are several potential reasons why somatic expressions or overt behaviors have a greater effect on children's psychiatric symptoms. One possibility is that children actively perceive mothers' overt behavioral and somatic expressions of depression more easily than emotional expressions of depression. Secondly, the mean age of our sample ( $M = 9.23$ ) may have influenced results from the current study in that preadolescent children may struggle to interpret the emotions of others, which are complex and not directly observable, like somatic expressions of mothers' depression.

### **Clinical Implications**

Findings from this study suggest several noteworthy clinical implications that can benefit existing interventions in children facing maternal cancer. First, study findings demonstrate children's tendency to more commonly perceive somatic symptoms of maternal depression more than affective symptoms. Therefore, clinicians should consider the importance of examining the various facets of maternal depression rather than mothers' overall depression in relation to children facing maternal cancer. The recognition of multiple aspects of maternal depression, specifically somatization, will aid in the development of preventative measures to reduce the adverse impact of mothers' somatic symptoms on children's psychological well-being.

Secondly, study findings highlight the need for psychoeducational materials that clinicians could provide to families at the time of breast cancer diagnosis. Such materials might provide mothers with appropriate information to alleviate and manage their own psychological distress, thus reducing the distress on their children. Additionally, support groups for mothers and children may further prevent poor psychiatric outcomes in children as well as mothers. Again, such an intervention method may provide patients and their children with techniques to reduce and manage psychological distress, and maintain a positive familial environment.

### **Limitations and Future Research Directions**

Given the cross-sectional nature of the data, causality cannot be determined, and it is possible that other untested factors may affect child mental health. Data from the present study were obtained from primarily middle-class, well-educated, Caucasian families throughout Michigan. Thus, the results may not be generalizable to other groups. In addition, prior maternal functioning and severity of children's psychiatric symptoms were not assessed in the current study. Therefore, further studies using demographically diverse samples and longitudinal designs

are necessary to evaluate the mental health of mothers and children prior to, at the time of, and following breast cancer diagnoses. Additionally, most of the mothers in this sample were not diagnosed with Stage 4 cancer. It is possible that our results would differ if more of these mothers were reaching the end of life.

Despite these limitations, preliminary findings support the idea that certain expressions of maternal functioning influence depression and problem behaviors in children, and thus warrant exploration in a larger sample. In addition, future research that compares psychiatric symptom severity amongst breast cancer patients and their children at time of diagnosis and later assessments is warranted. Children along with their mothers may experience increased psychiatric symptoms and decreased functioning as mothers receive various treatments including chemotherapy, radiation and surgeries. Therefore, a future longitudinal design could provide further insight into the impact of maternal depression on children's long-term psychopathology (or resiliency) in the context of maternal cancer.

## References

- Achenbach, T. M. (1991). *Manual for Child Behavior Checklist/ 4-18 and 1991 Profile*.  
Burlington, VT: University of Vermont, Dept. of Psychiatry.
- American Cancer Society (2013). *Cancer Facts & Figures 2013*. Atlanta: American Cancer Society. Retrieved from  
<http://www.cancer.org/acs/groups/cid/documents/webcontent/003090-pdf.pdf>.
- Angold, A., Costello, E. J., Lesser, S. C., Pickles, A., Winder, F., & Silver, D. (1995).  
Development of a short questionnaire for use in epidemiological studies of depression in  
children and adolescents. *International Journal of Methods in Psychiatric Research*, 5,  
237-249.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for  
measuring depression. *Archives of General Psychiatry*, 4, 561-571. doi:  
10.1001/archpsyc.1961.01710120031004.
- Clemmens, D. A. (2009). The significance of motherhood for adolescents whose mothers have  
breast cancer. *Oncology Nursing Forum*, 36(5), 571-577. doi: 10.1188/09.ONF.571-577.
- Compas, B. E., Worsham, N. L., Epping-Jordan, J. E., Grant, K. E., Mireault, G., Howell, D. C.,  
& Malcarne, V. L. (1994). When mom or dad has cancer: Markers of psychological  
distress in cancer patients, spouses, and children. *Health Psychology*, 13(6), 507-515. doi:  
10.1037/10338-011.
- Edwards, L., Watson, M., St. James-Roberst, I., Ashley, S., Tilney, C., Brougham, B., Osborn, T.,  
Baldus, C., & Romer, G. (2008). Adolescent's stress responses and psychological



- functioning when a parent has early breast cancer. *Psycho-Oncology*, *17*, 1039-1047. doi: 10.1002/pon.1323.
- Faulkner, R. A., & Davey, M. (2002). Children and adolescents of cancer patients: The impact of cancer on the family. *The American Journal of Family Therapy*, *30*(1), 63-72. doi: 10.1080/019261802753455651.
- Grant, K. E., & Compas, B. E. (1995). Stress and anxious-depressed symptoms among adolescents: Searching for mechanisms of risk. *Journal of Consulting and Clinical Psychology*, *63*, 1015-1021. doi: 10.1037/0022-006X.63.6.1015.
- Hoke, L. A. (2001). Psychological adjustment in children of mothers with breast cancer. *Psycho-Oncology*, *10*, 361-369. doi: 10.1002/pon.515.
- Lewis, F. M. (1997). Behavioral research to enhance adjustment and quality of life in adults with cancer. *Preventive Medicine*, *26*(5), S19-S29. doi: 10.1006/pmed.1997.0206.
- Lewis, F. M., & Darby, E.L. (2004). Adolescent adjustment and maternal breast cancer. *Journal of Psychosocial Oncology*, *21*(4), 81-104. doi: 10.1300/J077v21n04\_05.
- Lewis, F. M., & Hammond, M. A. (1996). The father's, mother's and adolescent's functioning with breast cancer. *Family Relations*, *45*, 456-465. doi: 10.2307/585176.
- Lewis, F. M., Hammond, M.A., & Woods, N.F. (1993). The family's functioning with newly diagnosed breast cancer in the mother: The development of an explanatory model. *Journal of Behavioral Medicine*, *16*(4), 351-370. doi: 10.1007/BF00844777.
- Osborn, T. (2007). The psychosocial impact of parental cancer on children and adolescents: A systematic review. *Psycho-Oncology*, *16*, 101-126. doi: 10.1002/pon.1113.

- Sharp, C., Goodyer, I., & Croudace, T. (2006). The Short Mood and Feelings Questionnaire (SMFQ): A unidimensional item response theory and categorical data factor analysis of self-report ratings from a community sample of 7-through 11-year-old children. *Journal of Abnormal Child Psychology*, *34*(3), 279-391. doi: 10.1007/s10802-006-9027-x.
- Spielberger, C. D., Ritterband, L. M., Reheiser, E. C., & Brunner, T. M. (2003). The nature and measurement of depression. *International Journal of Clinical Health and Psychology*, *3*(2), 209-234.
- Tyra, T. L. (1997). Self-esteem of children from depressive families. *Psychiatria Polska*, *28*, 335-344.
- Watson, M., St. James-Roberts, I., Ashley, S., Tilney, C., Brougham, B., Edwards, L., Baldus, C., & Romer, G. (2006). Factors associated with emotional and behavioral problems among school age children of breast cancer patients. *British Journal of Cancer*, *94*, 43-50. doi: 10.1038/sj.bjc.6602887.
- Weaver, K. E., Rowland, J. H., Alfano, C. M., & McNeel, T. S. (2010). Parental cancer and the family: A population based estimate of the number of US cancer survivors residing with their minor children. *Cancer*, *116*(18), 4395-4401. doi: 10.1002/cncr.25368.
- Welch, A. S., Wadsworth, M. E., & Compas, B. E. (1996). Adjustment of children and adolescents to parental cancer: Parents and children's perspectives. *Cancer*, *77*, 1409-1418.
- Zahlis, E. H. (2001). The child's worries about the mother's breast cancer: Sources of distress in school-age children. *Oncology Nursing Forum*, *28*(6), 1019-1025.

Table 1

*Descriptive Statistics for Included Items and Total Scores on the BDI, the SMFQ, the CBCL and its Relevant Subscales*

Variable	Mean	Standard Deviation	Range
<b>Maternal Depression</b>			
BDI Total	12.26	6.99	0-33
Affective Subscale			
Somatic Subscale			
<b>Somatic Subscale Items</b>			
Loss of Energy	1.24	.60	0-2
Changes in Sleep	1.22	.73	0-3
Irritability	.63	.71	0-2
Changes in Appetite	1.15	.92	0-3
Concentration Difficulty	.83	.64	0-2
Tiredness	1.33	.67	0-3
Loss of Interest in Sex	.93	.85	0-3
<b>Child Depression</b>			
SMF Total	5.22	4.94	0-21
<b>Child Problems</b>			
CBCL Total Problems	18.63	17.29	0-75
CBCL Externalizing Problems	4.80	5.68	0-31

Table 2

*Correlation Matrix for Mental Health Measures*

Variable	SMFQ Total Score	CBCL Total Problems	CBCL Externalizing Problems	CBCL Internalizing Problems
<b>Maternal Depression</b>				
BDI Total	.23	.30*	.35*	.21
Affective Subscale	.12	.25	.27	.18
Somatic Subscale	.31*	.29	.34*	.18
<b>Somatic Subscale Items</b>				
Loss of Energy	.11	.30*	.35*	.17
Changes in Sleep	.55	-.07	-.03	-.05
Irritability	.35*	.31*	.40**	.19
Changes in Appetite	.26	.06	.07	.06
Concentration Difficulty	.25	.38**	.41**	.23
Tiredness	.26	.05	-.01	.14
Loss of Interest in Sex	.04	.25	.30*	.07

Note:  $N = 47$ , \* $p < .05$ , \*\* $p < .01$ , SMFQ = Short Mood and Feeling Questionnaire, CBCL = Child Behavior Checklist, BDI = Beck Depression Inventory