

## A Comparison of Two Measures of Parental Behavior

Scott M. Safford · Lauren B. Alloy · Antonia Pieracci

Published online: 17 January 2007  
© Springer Science+Business Media, LLC 2007

**Abstract** We compared two common measures of parenting behavior, the Children's Report of Parental Behavior Inventory (CRPBI) and the Parental Bonding Instrument (PBI), evaluating their psychometric properties and predictive ability. One hundred sixty seven college students completed the CRPBI, PBI, and measures of depression and anxiety with 123 participants returning three to six months later for follow-up evaluations. The parenting measures were found to have similar psychometric properties and to be moderately to highly correlated with each other. In addition, both measures were similar in their ability to predict depression and anxiety symptoms, although neither was significantly predictive of actual diagnoses. Given that the PBI is a shorter measure and, based on previous studies, appears to be more stable over time than the CRPBI, there is evidence to suggest that it might be a more useful measure of parenting behavior than the CRPBI.

**Keywords** Parental behavior · Parenting · Parent-child interactions · Depression · Anxiety

It has long been proposed that parent-child relationships (particularly a child's perceptions of these relationships) play an important role in child adjustment and psychological development. The role of parent-child interactions has been implicated as a contributory or causal factor in the development of psychopathology by such diverse theoretical models as attachment theory (Bowlby, 1977) and cognitive-behavioral theory (Beck, 1967). For example, according to some cognitive-behavioral theories parents' interactions with their children help shape their children's cognitive schemas which, in turn, affect their susceptibility to psychopathology later in life (Alloy et al., 2004; Alloy, Abramson, Smith, Gibb, & Neeren, 2006; Beck, 1967).

---

S. M. Safford (✉)  
Department of Psychology, Oregon State University, 204C Moreland Hall, Corvallis OR, 97331  
e-mail: scott.safford@oregonstate.edu

L. B. Alloy  
Department of Psychology, Temple University, Philadelphia, PA

A. Pieracci  
American Institute for Cognitive Therapy, New York, NY

Despite this long-standing belief and empirical evidence that supports it, there remain differences of opinion as to how to best assess these parent-child interactions (Alloy et al., 2006; Cassidy & Shaver, 1999). Of course, direct observation may be considered the gold standard, and has been used extensively in attachment research to assess parent-child interactions in infants and young children (e.g., Ainsworth, Blehar, Waters, & Wall, 1978). Regarding older children, self-report measures are commonly used. Several child-report measures have been developed to assess adolescent or adult children's perceptions of their parents' behaviors toward them during childhood. Two commonly used measures are the Children's Report of Parental Behavior Inventory (CRPBI), developed by Schaefer (1965a), and the Parental Bonding Instrument (PBI), developed by Parker and colleagues (Parker, Tupling, & Brown, 1979).

A systematic review of parent-child interaction patterns has led to the identification of two primary dimensions of parental behavior; one reflecting love versus hostility and the other reflecting autonomy versus control (Schaefer, 1965a). Schaefer (1965a) developed the CRPBI as a means of capturing the various components of these two primary dimensions, resulting in a measure with 26 different scales composed of 260 individual items. These 26 scales were believed to reflect specific concepts within the matrix formed by these two higher-order orthogonal poles. Although this significantly increases the richness of the data that can be obtained from the CRPBI, it also makes it quite lengthy, time-consuming to administer, and difficult to interpret, particularly when inconsistent results are obtained from scales that measure similar or related constructs.

To rectify this limitation, several shorter versions of the CRPBI have been developed and used since the original became available (Margolies & Wintraub, 1977; Raskin, Boothe, Reatig, Schulterbrand, & Odle, 1971; Schludermann & Schludermann, 1970). A review of the literature suggests that the Schludermann and Schludermann (1970) 108-item version is one of the more commonly used short-form versions. However, it is still lengthy and composed of 18 scales, limiting its interpretability due to the number of constructs it assesses, many of which are similar. A more appealing version of the CRPBI, due to its relative brevity in number of items and number of scales, is the 90-item version developed by Raskin et al. (1971). Using a rigorous factor analysis of items from the original CRPBI, this version contains three primary factors composed of 48 items with adequate psychometric properties, thus significantly shortening the measure from the original version of the CRPBI and increasing its ease of interpretation by reducing the number of scales to be evaluated. These three factors were identified as Positive Involvement (Acceptance vs. Rejection); Negative Control (Psychological Autonomy vs. Psychological Control); and Lax Discipline (Firm Control vs. Lax Control). The other 42 items on this scale did not fall into clearly identifiable factors. These three general factors have been consistently obtained in psychometric evaluations of various versions of the CRPBI, including Schaefer's further evaluation of his original version (Schaefer, 1965b; also see Margolies & Wintraub, 1977 for an early review).

An alternative measure of parenting behavior is the Parental Bonding Instrument (PBI), developed by Parker and colleagues a few years later (Parker, Tupling, & Brown, 1979). The PBI was developed with a more theoretically-based conceptualization of parent-child relationships than the CRPBI. Namely, the PBI was specifically developed to tap into the concept of parent-child bonding (as the name suggests), which was believed to be an intrinsic component of attachment theory (Bowlby, 1977). In fact, the PBI frequently has been described in the literature as a self-report measure of attachment style, despite the fact that it does not directly assess patterns of attachment. Using a rigorous iterative factoring process across multiple samples, Parker and colleagues winnowed the PBI from 114 initially-proposed items, to just 25 items reflecting two dimensions quite similar to the two factors originally

identified by Schaefer (1965a). These two scales were labeled Care (Care/Involvement vs. Indifference/Rejection) and Overprotection (Control/Overprotection/Intrusion vs. Encouragement of Independence). As can be seen by the names alone—it is also apparent in the items that compose the scales—these two scales reflect quite similar concepts to the first two scales of Raskin et al.'s (1971) shortened version of the CRPBI.

A review of the recent literature indicates that the PBI appears to be used much more frequently than the CRPBI in evaluating parent-child interactions (Alloy et al., 2006). However, there does not appear to be any direct comparison of these two measures to substantiate this decision. Therefore, the purpose of our current study was to directly compare Raskin et al.'s (1971) shortened version of the CRPBI and the PBI to help evaluate which measure might be most useful in assessing retrospective reports of parent-child interactions, particularly in regard to two of the most common forms of psychopathology, depression and anxiety. This comparison involved evaluating the two measures in terms of their internal consistency, the correlation between their scales, and their predictive utility with regard to depression and anxiety at both the symptom level and diagnostic level in a young adult sample.

## Method

### Participants

One hundred sixty-seven participants were evaluated from a population of undergraduate students enrolled in introductory psychology courses at a Northeastern, urban university. The demographics of this sample were as follows: approximately 48% Caucasian, 33% African American, 1% Hispanic, 10% Asian, and 8% Other; 65.3% were female, and the average age was 18.64 ( $SD = 2.3$ ; Range 17–43).

One hundred and twenty-three (73.7%) of the 167 individuals who participated at Time 1 returned for a Time 2 follow-up evaluation. The length of time between Time 1 and Time 2 varied between 2.8 and 6.3 months (mean = 4.3 months). Analyses were conducted to compare Time 2 completers and non-completers, using information reported at Time 1. In examining Time 1 report of depression and anxiety based on the Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI), completers differed from non-completers on the BAI, with non-completers reporting significantly more anxiety ( $M_{\text{completers}} = 8.42$ ,  $M_{\text{non-completers}} = 11.59$ ,  $t(165) = 2.09$ ,  $p < .05$ ). When examining the measures of parental behavior, the only significant finding was for the Parental Bonding Instrument (PBI) Father Care scale, with non-completers reporting more caring fathers ( $M_{\text{completers}} = 22.68$ ,  $M_{\text{non-completers}} = 26.05$ ,  $t(153) = 1.97$ ,  $p < .05$ ). No differences were found between completers and non-completers based on any demographic characteristics. However, among completers, there was a significant difference in anxiety symptoms at Time 2 between Caucasian ( $BAI = 7.46$ ) and non-Caucasian participants (3.74),  $t(119) = 3.04$ ,  $p < .01$ . Therefore, we entered ethnicity as a covariate in our analyses.

### Measures

#### *Demographics questionnaire*

A questionnaire was developed to obtain basic demographic information regarding age, gender, and ethnicity, as well as contact information so that participants could be reached for the follow-up evaluation.

### *Children's report of parental behavior inventory*

The Raskin et al. (1971) revised version of the CRPBI is a 90-item self-report measure of children's perceptions of parenting behavior (Raskin et al., 1971). It is administered to adult participants and each item describes a discrete sample of parental behavior (e.g., "often praised me") that the participant rates as "like," "somewhat like," or "not like" what they experienced as children and adolescents. The measure is administered twice, such that participants rate these items separately for their mother and their father. Of the 90 items, 48 items were found, based on factor analysis, to comprise three primary scales (Involvement, Negative Control, and Lax Discipline). Involvement reflects an active interest and engagement in a child's experiences and activities (e.g., "Listened to my ideas"). Negative Control reflects a parent's attempts to control a child's behavior in psychologically harmful ways (e.g., "Said I would be sorry I was bad"). Lax Discipline reflects a parent's emphasis on autonomy, but in a way that suggests lack of engagement (e.g., "Seldom insisted I do anything"). Internal consistency for these scales ranged from .81 to .94 in the Raskin et al. study, and was similar in the current study, ranging from .79 to .94.

### *Parental bonding instrument*

The PBI is a 25-item self-report instrument designed to measure an individual's perceptions of his or her parents' parenting style during that individual's childhood (Parker, Tupling, & Brown, 1979). As with the CRPBI, it is administered twice to capture mother's and father's behavior independently. Parenting style is assessed along two dimensions: perceived parental care (Care scale) and perceived parental overprotection (Overprotection scale). For example, the item "Was affectionate with me" reflects parental care for a child, while the item "Invaded my privacy" reflects overprotection. Participants rate the items on a 4-point scale ranging from "very like" to "very unlike" their parent. The PBI has been used extensively with both nonclinical and clinical populations (Parker, 1993) and has demonstrated acceptable psychometric properties, including retest reliability values of .76 and .63 for the care and overprotection scales, respectively (Parker et al., 1979). In the current study, internal consistency ranged from .87 to .94 using Cronbach's alpha. The PBI has been suggested to be a valid measure of actual, rather than merely perceived, parenting styles, based on similarities in reports from siblings and from parent's self-reports of their own parenting style (Parker, 1981; Parker, 1983; Parker & Lipscombe, 1981).

### *Beck depression inventory*

The BDI is a 21-item self-report measure of depressive symptoms (Beck, Rush, Shaw, & Emery, 1979). The BDI has demonstrated retest correlations ranging from .60 to .86, possesses high internal consistency ( $\alpha = .90$  in the current study) and discriminant validity, and possesses moderately high convergent validity with psychiatric ratings of depression (Beck, Steer, & Garbin, 1988).

### *Beck anxiety inventory*

The BAI is a 21-item measure of anxiety symptoms (Beck, Epstein, Brown, & Steer, 1988). The BAI has been shown to possess high internal consistency ( $\alpha = .92$  to .94), 1-week retest reliabilities of .67 to .75, and moderate concurrent validity when compared to other self-report anxiety measures, with correlations ranging from .47 to .58 (Beck, Epstein et al.,

1988; Fydrich, Dowdall, & Chambless, 1992). Internal consistency was .91 in the current study. The BAI has demonstrated adequate discriminant validity, with anxious individuals scoring significantly higher than depressed individuals and normal controls (Beck, Epstein et al., 1988). The correlation between the BDI and BAI in the original BAI validation study was .48. However, the correlation was higher in the current study ( $r = .56$ ).

*Modified schedule of affective disorders and schizophrenia–change interview, depression and anxiety disorders modules*

The Mod-SADS-C is a semi-structured interview used to make diagnoses of various disorders over a specified time frame (Alloy & Abramson, 1999; Spitzer & Endicott, 1978). It is designed to allow for both DSM (American Psychiatric Association, 1994) and RDC (Spitzer, Endicott, & Robins, 1978) diagnoses to be made. The original SADS interview has well established reliability and validity, and interrater reliability using the Mod-SADS-C has been reported at over .90 (Alloy & Abramson, 1999).

The Mod-SADS-C interviews were conducted by advanced clinical psychology graduate students who were blind to the parental behaviors reported by participants. The Mod-SADS-C was conducted at the second phase of this longitudinal study and was used to assess any depression and/or anxiety disorders occurring in the interval between the Time 1 and Time 2 assessments. In our study, all anxiety disorder diagnoses were grouped together as “Any Anxiety” (8 participants met criteria for generalized anxiety disorder, 3 for panic disorder, 1 for agoraphobia, 17 for specific phobia, 16 for social phobia, 4 for obsessive-compulsive disorder, and 1 for acute stress disorder), for a total of 36 participants (29.3% of sample) who met criteria for an anxiety disorder between Times 1 and 2. Likewise, all depression diagnoses (10 with DSM and RDC Major Depression Definite, 5 with RDC Major Depression Probable, and 7 with RDC Minor Depression Definite) were grouped together as “Any Depression,” for a total of 21 participants (17.1%) who met criteria for a diagnosable form of depression between Times 1 and 2.

## Procedure

At Time 1, students recruited for participation in our study were given a packet containing the demographics questionnaire, BDI, BAI, PBI, CRPBI, and other measures not used in the current study. To help prevent order of response bias, the packets were assembled with half having the symptom measures first, followed by the parental behavior measures and the other half having the parental behavior measures first. No response differences were found between these two groups. The packet was administered to students in small groups and all participants received research credits for their participation.

The Time 2 assessment was conducted three to six months later, in which a diagnostic interview was administered in addition to the self-report measures. Therefore, the second session was administered individually to each participant. Participants were paid \$20 for their participation in the follow-up.

## Results

### Internal consistency and interrelationship of scales

Table 1 contains the descriptive statistics for each of the measures. As can be seen, both the PBI and CRPBI had good internal consistency for all of their scales ( $\alpha = .79-.94$ ).

**Table 1** Means, standard deviations, and coefficient alphas for the parental bonding instrument (PBI), children's report of parental behavior inventory (CRPBI), BDI, and BAI at Time 1 ( $n = 167$ )

Instrument (and Subscales)	Mean	SD	Coefficient $\alpha$
PBI-mother			
Care	28.45	7.14	.92
Overprotection	14.74	7.57	.87
PBI-father			
Care	23.59	9.53	.94
Overprotection	13.06	8.03	.88
CRPBI-mother			
Involvement	55.00	9.03	.91
Negative control	28.81	6.98	.87
Lax discipline	16.02	3.92	.79
CRPBI-father			
Involvement	49.23	12.36	.94
Negative control	25.97	6.97	.87
Lax discipline	17.42	4.96	.83
BDI	8.66	9.15	.90
BAI	9.26	8.74	.91

Next, we wanted to evaluate the interrelationship of the scales of each measure, as well as examining how similar the two measures were to each other (Table 2). The two PBI scales (Care and Overprotection) were not highly correlated with each other ( $r = -.24$  to  $-.40$ ) and the three CRPBI scales (Involvement, Negative Control, Lax Discipline) were not highly correlated with each other ( $r = .02$  to  $-.49$ ). Further, the identical scales on the mother and father versions of each measure (e.g., PBI Mother Care and PBI Father Care) were not highly correlated with each other ( $r = .22$  to  $.42$ ). However, the two scales of the PBI did have moderate to high correlations with some of the CRPBI subscales. Specifically, the PBI Care

**Table 2** Intercorrelations of the PBI and CRPBI scales at Time 1

Instrument (and Subscales)	Intercorrelations									
	1	2	3	4	5	6	7	8	9	10
PBI-mother										
1 Care		-.40	.22	-.07	.83	-.50	.14	-	-	-
2 Overprotection	-		-.04	.42	-.44	.56	-.35	-	-	-
PBI - father										
3 Care	-	-	-	-.24	-	-	-	.86	-.38	-.04
4 Overprotection	-	-	-	-	-	-	-	-.20	.57	-.48
CRPBI - mother										
5 Involvement	-	-	-	-	-	-.49	.18	.33	-.13	-.08
6 Negative control	-	-	-	-	-	-	-.10	-.05	.37	.17
7 Lax discipline	-	-	-	-	-	-	-	-.05	.12	.38
CRPBI - father										
8 Involvement	-	-	-	-	-	-	-	-	-.27	.02
9 Negative control	-	-	-	-	-	-	-	-	-	-.33
10 Lax discipline	-	-	-	-	-	-	-	-	-	-

**Table 3** Hierarchical regression analyses to predict time 1 depression and anxiety symptomatology based on scales of the PBI and CRPBI at Time 1

	BDI		BAI	
	$\Delta R^2$	<i>p</i>	$\Delta R^2$	<i>p</i>
PBI mother				
Care	.09	.001	.04	.007
Overprotection	.04	.014	.08	.003
PBI father				
Care	.14	.001	.06	.002
Overprotection	.04	.018	.02	.059
CRPBI mother				
Involvement	.10	.001	.07	.001
Negative control	.07	.001	.03	.03
Lax Discipline	.002	.61	.006	.32
CRPBI father				
Involvement	.10	.001	.10	.001
Negative control	.07	.001	.03	.03
Lax discipline	.00	.78	.00	.98

*Note.* Ethnicity initially entered as a covariate in all analyses. The  $\Delta R^2$  values above reflect  $R^2$  change after entering ethnicity.

scale was highly correlated with the CRPBI Involvement scale for both mother ( $r = .83$ ) and father ( $r = .86$ ) and the PBI Overprotection scale was moderately correlated with the CRPBI Negative Control scale for both mother ( $r = .56$ ) and father ( $r = .57$ ).

**Predictive ability**

Another important comparison of these two measures is their ability to predict psychopathology. Measures of parenting style frequently have shown an association between certain parenting behaviors and anxiety and depression (Alloy et al., 2006; Gerlsma, Emmelkamp, & Arrindell, 1990). Is one of these two measures more highly associated with depression and anxiety than the other? Hierarchical regression analyses were conducted to evaluate the relation between parental behaviors, as perceived by the participants (PBI and CRPBI), and reported depression and anxiety symptoms (BDI and BAI). Ethnicity was entered as a covariate in these analyses because reported anxiety symptoms differed between Caucasian and non-Caucasian participants. In addition, significance was set at  $p < .01$  because of the number of analyses conducted. As can be seen in Table 3, PBI Maternal Care, PBI Paternal Care, CRPBI Maternal Involvement, CRPBI Maternal Negative Control, CRPBI Paternal Involvement, and CRPBI Paternal Negative Control were all significantly correlated with depressive symptoms. PBI Maternal and Paternal Overprotection approached significance based on these stringent criteria. With regard to anxiety, PBI Maternal Care, PBI Maternal Overprotection, PBI Paternal Care, CRPBI Maternal Involvement, and CRPBI Paternal Involvement were correlated with anxiety symptoms. It appears that the CRPBI subscale of Lax Discipline is not highly associated with either depression or anxiety symptoms.

To further assess the predictive ability of these two measures of parenting, we evaluated their level of association with actual diagnoses of depression and anxiety. Logistic regression analyses were conducted to evaluate the relationship between perceived parental behaviors (PBI and CRPBI) and depression and anxiety diagnoses, based on the Mod-SADS-C

interviews. In order to increase statistical power, we combined all depressive diagnoses and combined all anxiety diagnoses into variables labeled “any depression” and “any anxiety,” respectively. As with the hierarchical regression analyses above, ethnicity was entered as a covariate in the logistic regression analyses and significance was set at  $p < .01$ . As can be seen, none of the parental behavior scales were significantly associated with actual diagnoses of depression or anxiety (Table 4). However, PBI Maternal Overprotection was marginally predictive of any depressive disorder ( $p < .05$ ) and PBI Paternal Care, PBI Paternal Overprotection, and CRPBI Paternal Involvement were marginally predictive of any anxiety disorder ( $p < .05$ ).

## Discussion

We examined the comparative utility of two commonly used child-report measures of parent-child interactions, the Children’s Report of Parenting Behavior Inventory (CRPBI) and the Parental Bonding Instrument (PBI). Using the Raskin et al. (1971) version of the CRPBI, we compared their psychometric properties and their association with depression and anxiety symptoms and diagnoses. The results of our study indicate that the CRPBI and PBI have similar (and good) internal consistency, the PBI Care scale appears to highly correlate with the CRPBI Involvement scale, and the PBI Overprotection scale is moderately correlated with the CRPBI Negative Control scale. In addition, the PBI Care and Overprotection scales and the CRPBI Involvement and Negative Control scales are similar in their association with reported depression and anxiety symptoms, although neither measure was highly correlated with actual diagnoses of depression and anxiety in this student sample. In general, higher

**Table 4** Predicting time 2 diagnosis of depression and anxiety, based on Time 1 PBI and CRPBI scores

	Any Depression <sup>a</sup>			Any Anxiety <sup>b</sup>		
	$\beta$	<i>p</i>	OR (95% CI <sup>c</sup> )	$\beta$	<i>p</i>	OR (95% CI <sup>c</sup> )
PBI mother						
Care	-.04	.22	.96 (.90 – 1.03)	-.02	.54	.98 (.93–1.04)
Overprotection	.07	.03	1.08 (1.01 – 1.15)	.02	.54	1.02 (.96–1.07)
PBI father						
Care	-.03	.22	.97 (.92 – 1.02)	-.05	.02	.95 (.91–.99)
Overprotection	.01	.68	1.01 (.96–1.07)	.05	.04	1.06 (1.00–1.11)
CRPBI mother						
Involvement	-.04	.14	.96 (.92 – 1.01)	-.02	.46	.98 (.94–1.03)
Negative control	.02	.57	1.02 (.95–1.10)	.02	.54	1.02 (.96–1.08)
Lax discipline	.003	.97	1.00 (.89–1.13)	.03	.50	1.04 (.94–1.14)
CRPBI father						
Involvement	-.04	.07	.96 (.93 – 1.00)	-.04	.04	.97 (.93 – 1.00)
Negative control	-.02	.52	1.02 (.96 – 1.09)	.02	.40	1.03 (.97 – 1.09)
Lax discipline	.06	.22	1.06 (.97 – 1.17)	.02	.66	1.02 (.94 – 1.10)

Note. Ethnicity initially entered as a covariate in all analyses.

<sup>a</sup>Any Depression = diagnosis of major depression definite, major depression probable, or minor depression.

<sup>b</sup>Any Anxiety = diagnosis of generalized anxiety disorder, panic disorder, agoraphobia, specific phobia, social phobia, obsessive-compulsive disorder, or acute stress disorder.

<sup>c</sup>CI = confidence interval.

levels of parental care and involvement were related to lower levels of depression and anxiety symptoms, whereas more overprotection and negative control were associated with higher levels of depression and anxiety symptoms. On the other hand, the third scale of the CRPBI, Lax Discipline, appears to have less predictive power with regard to depression and anxiety. This is consistent with Raskin et al.'s (1971) conclusion that this scale “seems to have less heuristic interest than the first two dimensions” (p. 878).

Based on these results, it is suggested that the PBI might be a more useful instrument than the CRPBI in assessing children's perceptions of parental behavior, given 1) the psychometric similarities between the two measures, 2) the lack of predictive ability of the CRPBI Lax Discipline scale, at least regarding the prediction of depression and anxiety symptoms, and 3) the PBI is shorter (25 items vs. 90 items) and perhaps more reflective of the two orthogonal parenting factors (love and facilitating autonomy) initially identified by Schaefer (1965a). An additional limitation of the Raskin version of the CRPBI is that only 48 of the 90 items are used in the three primary scales derived from this measure. It, therefore, might be more practical to remove the 42 items not included in the three scales to reduce the overall length of administration if one chooses to use this version of the CRPBI as a measure of parental behavior. Use of the CRPBI is further compromised by the fact that there are multiple versions available (e.g., Margolies & Wintraub, 1977; Raskin et al., 1971; Schaefer, 1965a; Schludermann & Schludermann, 1970), yet there does not appear to be a consensus in the literature regarding which version is preferable and in which circumstances. As mentioned earlier, the Schludermann and Schludermann version appears to be the most frequently used, but the rationale for choosing it over the other versions is not clear. In further support of the suggested preference for the PBI over the CRPBI, there is also some indication in the literature that the CRPBI may be more reactive to depressive episodes (Schaefer, 1965a), whereas the PBI has been found to be stable across depressed and non-depressed states (Gotlib, Mount, Cordy, & Whiffen, 1988; Lizardi & Klein, 2005; Parker, 1981; Wilhelm, Niven, & Parker, 2005). Comparison of the PBI to other versions of the CRPBI would be helpful in further clarifying which instrument has the better utility.

One of the limitations of our study is that many of the individuals who were identified as having a diagnosis of anxiety disorder had a specific phobia or a non-generalized social phobia (e.g., fear of public speaking). Unfortunately, there were not sufficiently large numbers of individuals with more severe anxiety disorders, so all anxiety diagnoses were combined together in our analyses. As such, the current results may not be reflective of the relationship between parental behavior and more severe forms of anxiety. Likewise, we combined all depressive diagnoses together (DSM and RDC major depression definite, RDC major depression probable, and RDC minor depression) which may have limited our ability to obtain significant relationships due to diffusion of the diagnostic category. As a follow-up, logistic regression analyses were conducted using just diagnoses of DSM major depression as the criterion. This did not result in significant results either, although power to detect significance may have been limited by the sample size. Given these limitations, it would be beneficial to compare the PBI and CRPBI using clinical samples of depressed and anxious individuals to further evaluate their relative predictive power.

## References

- Ainsworth, M.D.S., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.
- Alloy, L.B. & Abramson, L.Y. (1999). The Temple-Wisconsin Cognitive Vulnerability to Depression (CVD)

- project: Conceptual background, design, and methods. *Journal of Cognitive Psychotherapy*, 13, 227–262.
- Alloy, L.B., Abramson, L.Y., Gibb, B.E., Crossfield, A.G., Pieracci, A.M., Spasojevic, J., & Steinberg, J.A. (2004). Developmental antecedents of cognitive vulnerability to depression: Review of findings from the cognitive vulnerability to depression project. *Journal of Cognitive Psychotherapy*, 18, 115–133.
- Alloy, L.B., Abramson, L.Y., Smith, J.M., Gibb, B.E., & Neeren, A.M. (2006). Role of parenting and maltreatment histories in unipolar and bipolar mood disorders: Mediation by cognitive vulnerability to depression. *Clinical Child and Family Psychology Review*, 9, 23–64.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders*. (4th. ed.). Washington, DC: Author.
- Beck, A.T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Harper & Row.
- Beck, A.T., Epstein, N., Brown, G., & Steer, R.A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, 56, 893–897.
- Beck, A.T., Rush, A.J., Shaw, B.F., & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford Press.
- Beck, A.T., Steer, R.A., & Garbin, M.G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*, 8, 77–100.
- Bowlby, J. (1977). The making and breaking of affectional bonds. *British Journal of Psychiatry*, 130, 201–210.
- Cassidy, J. & Shaver, P.R. (1999). *Handbook of Attachment: Theory, Research, and Clinical Implications*. New York: Guilford.
- Fydrich, T., Dowdall, D., & Chambless, D.L. (1992). Reliability and validity of the Beck Anxiety Inventory. *Journal of Anxiety Disorders*, 6, 55–61.
- Gerlsma, C., Emmelkamp, P.M.G., & Arrindell, W.A. (1990). Anxiety, depression, and perception of early parenting: A meta-analysis. *Clinical Psychology Review*, 10, 251–277.
- Gotlib, I.H., Mount, J.H., Cordy, N.I., & Whiffen, V.E. (1988). Depression and perceptions of early parenting: a longitudinal investigation. *British Journal of Psychiatry*, 152, 24–27.
- Lizardi, H. & Klein, D.N. (2005). Long-term stability of parental representations in depressed outpatients utilizing the Parental Bonding Instrument. *Journal of Nervous and Mental Disease*, 193, 183–188.
- Margolies, P.J. & Wintraub, S. (1977). The revised 56-item CRPBI as a research instrument: Reliability and factor structure. *Journal of Clinical Psychology*, 33, 472–476.
- Parker, G. (1993). Parental rearing style: Examining for links with personality vulnerability factors for depression. *Social Psychiatry and Psychiatric Epidemiology*, 28, 97–100.
- Parker, G. (1983). *Parental overprotection: A risk factor in psychosocial development*. New York: Grune & Stratton.
- Parker, G. (1981). Parental reports of depressives: An investigation of several explanations. *Journal of Affective Disorders*, 3, 131–140.
- Parker, G. & Lipscombe, P. (1981). Influences on maternal overprotection. *British Journal of Psychiatry*, 138, 303–311.
- Parker, G., Tupling, H. & Brown, L.B. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, 52, 1–10.
- Raskin, A., Boothe, H.H., Reatig, N.A., Schulerbrandt, J.G., & Odle, D. (1971). Factor analysis of normal and depressed patients' memories of parental behavior. *Psychological Reports*, 29, 871–879.
- Schaefer, E.S. (1965a). Children's reports of parental behavior: An inventory. *Child Development*, 36, 413–424.
- Schaefer, E.S. (1965b). A configurational analysis of children's reports of parent behavior. *Journal of Consulting Psychology*, 29, 552–557.
- Schludermann, E. & Schludermann, S. (1970). Replicability of factors in children's report of parent behavior (CRPBI). *Journal of Psychology*, 76, 239–249.
- Spitzer, R.L., & Endicott, J. (1978). *Schedule for Affective Disorders and Schizophrenia - Change Version*. Biometrics Research, New York State Psychiatric Institute.
- Spitzer, R.L., Endicott, J., & Robins, E. (1978). Research diagnostic criteria: Rationale and reliability. *Archives of General Psychiatry*, 35, 773–782.
- Wilhelm, K., Niven, H., & Parker, G. (2005). The stability of the Parental Bonding Instrument over a 20-year period. *Psychological Medicine*, 35, 387–393.

Copyright of *Journal of Child & Family Studies* is the property of Springer Science & Business Media B.V. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.