

DYSFUNCTIONAL ATTITUDES AND ATTACHMENT STYLE AMONG CLINICALLY DEPRESSED ADULTS

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Abstract. Previous research has found an association between adult attachment style and symptoms of depression among university students and indicated that this relationship may be mediated by dysfunctional attitudes. The present study represents an initial step toward extending these findings to a clinical sample with more severe forms of depression. A sample of psychiatric outpatients diagnosed with major depressive disorder ($n = 54$) completed measures of adult attachment style, dysfunctional attitudes, and depression. An association was found between insecure attachment style and depression severity. This association was partially mediated by dysfunctional attitudes. These findings are consistent with cognitive-interpersonal models of depression that propose that adverse early experiences may contribute to vulnerability for depression through the establishment of dysfunctional attitudes.

Keywords. Depression, dysfunctional attitudes, attachment.

Introduction

Our understanding of mood disorders has been advanced during recent years by the development of models describing cognitive and behavioral factors contributing to the maintenance of depression (Abramson, Seligman, & Teasdale, 1978; Abramson, Metalsky, & Alloy, 1989; Beck, 1976; Rehm, 1977; Teasdale & Barnard, 1993). Although these models have generated empirical interest and have contributed to the development of effective interventions, relatively little work based on them has been completed regarding developmental pathways associated with the emergence of clinical depression. The past decade has also seen the emergence of a body of research attempting to integrate cognitive and interpersonal perspectives on depression (Gotlib & Hammen, 1992; Haines, Metalsky, Cardamone, & Joiner, 1999; Hammen, 1992). Attachment theory has become a focal point of such efforts, and provides a model for understanding the etiology of depression. The fundamental hypothesis under investigation is that sensitivity, consistency and responsiveness in early childhood experiences with caregivers plays a role in the formation of mental representations of the self and others and that these representations, in turn, are causally related to interpersonal functioning and emotional experience in adulthood.

Bowlby's ethological perspective on the emotional bonds between children and their care-

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givers proposes that consistently nurturing and protective interactions will facilitate the development of healthy relationships later in life. Disruptions in the development of a secure attachment are seen as placing the child at risk for later psychosocial problems (Belsky & Cassidy, 1994; Bowlby, 1969, 1973, 1980; Cummings & Cicchetti, 1990). Three distinct attachment styles observable in infants have been proposed by Ainsworth, Blehar, Waters, & Wall (1978) and the hypothetical manifestations of these traits in adulthood have been described by Hazan and Shaver (1987).

Although research indicates that problematic relationships with caregivers render individuals vulnerable to later psychopathology (Blatt & Homann, 1992; Burbach & Borduin, 1986; Rapee, 1997), there have been no longitudinal studies examining specific relationships between early attachment and vulnerability for depression in adulthood. Cross-sectional and retrospective studies suggest that associations may exist between early relationships, attachment style and depression. Carnelley, Pietromonaco and Jaffe (1994), for example, found that mildly depressed women reported less positive childhood experiences with their parents, characterized their mothers as “more controlling” and reported greater avoidance and preoccupation (i.e., insecure adult attachment style) in their current relationships. In a similar manner, Pearson, Cohn, Cowan and Cowan (1994) found that adults who had experienced secure attachment throughout their lives manifested lower levels of depression than individuals who were insecurely attached. Interestingly, individuals who had experienced insecure attachment in childhood but who “earned” security in adult relationships were more similar, in terms of depressive symptomatology, to those with continuously insecure attachment than those with continuously secure attachment. These findings suggest that *early* attachment experience may be critical to psychological adjustment in adulthood. Evidence of a relationship between attachment style and mood has also been provided by Rosenfarb, Becker and Khan (1994), who observed that depressed adult women reported feeling less securely attached to their parents than did nonpsychiatric controls, and by Carlson (1998) who found that attachment organization, assessed during infancy, predicted the emergence of behavior problems and psychopathology during late adolescence. Research with children and adolescents is congruent with these findings in suggesting that an association may exist between attachment style and depression (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990; Batgos & Leadbeater, 1994; Hammen, et al., 1995; Kenny, Moilanen, Lomax, & Brabeck, 1993; Kobak, Sudler, & Gamble, 1991).

These studies presume that systematic relationships exist between measures of adult attachment style and the quality of early relationships. Although controversial, there is some supportive evidence. Allen, Moore, Kuperminc and Bell (1998), for example, found that attachment organization, as measured by the Adult Attachment Interview, was related to social competence and internalizing behavioral problems during adulthood. In a similar manner, Shaver, Belsky and Brennan (2000) observed that relationships exist between measures of early attachment organization (i.e., the Adult Attachment Interview) and responses on self-report measures of adult attachment style.

How does one account for the observed relationship between early childhood experience, attachment style and depressive mood during adulthood? One possibility is that negative experiences with attachment figures early in life contribute directly to difficulties in later relationships, which both cause and maintain depressive episodes (cf., Coyne, 1976). An alternative view is that quality of attachment affects the development of cognitive structures, which then act as vulnerability factors to (or buffering agents against) depressive episodes.

Dysfunctional attitudes have been postulated to serve as vulnerability factors in cognitive diathesis-stress models of depression (Clark & Beck, 1999; Ingram, Miranda, & Segal, 1998). Although associations have been reported between beliefs such as these and depression (Dobson & Shaw, 1986; Eaves & Rush, 1984; Olinger, Kuiper, & Shaw, 1987), the specific nature of this relation is unclear (Blackburn & Smyth, 1985; Dykman, 1997; Miranda, Persons, & Byars, 1990; Miranda, Gross, Persons, & Hahn, 1998; Persons & Miranda, 1992). Dysfunctional attitudes have been found to interact with stress to predict increases in dysphoria (Dykman & Johll, 1998), and individuals who continue to demonstrate dysfunctional attitudes after recovery from a depressive episode are at greater risk for subsequent episodes (Hollon, Evans, & DeRubeis, 1990; Thase et al., 1992).

Summary of integrative studies

Although there is a mounting body of evidence that early experiences, internal working models of self and others, and dysfunctional attitudes may be associated with depression among adults, few studies have examined these variables simultaneously. Ingram and colleagues, for example, reported that insecurely attached individuals are more likely to attend to negative stimuli than are securely attached individuals (see Ingram et al., 1998, p. 212). This pattern was apparent following a negative mood induction, and is consistent with studies examining dysfunctional attitudes in depression-prone and never-depressed individuals (e.g., Miranda et al., 1990). These findings suggest that performance on information processing tasks can be predicted by attachment style. In a similar manner, Randolph and Dykman (1998) reported that parental characteristics, including perfectionism and criticism, predicted the development of dysfunctional attitudes, which in turn predicted severity of depression. It is worth noting that the partial correlations among these variables remained significant when level of current depression was controlled. This argues against the possibility of state-dependence in measures of dysfunctional attitudes and reports of early experience. In a study of young adults, Whisman and Kwon (1992) observed that recollections of quality of parental care were associated with levels of dysphoria, and that this relationship was mediated by depressogenic beliefs. Finally, Whisman and McGarvey (1995) examined relationships among retrospectively recalled quality of childhood attachment, cognitive measures, and dysphoria in a sample of college students. Perceived attachment was related to dysfunctional attitudes and dysphoria. Dysfunctional attitudes, specifically those regarding performance evaluation and approval of others, partially mediated the association between attachment and dysphoria. Although suggestive of a relationship between attachment style, dysfunctional attitudes and depression, these studies are limited in that they were conducted with non-clinical samples, parenting style was rated retrospectively by the participants, and they used cross-sectional designs. Roberts, Gotlib and Kassel (1996) attempted to address the latter problem by conducting a prospective study of college undergraduates. They found that adult attachment security, particularly fear of loss or abandonment, predicted levels of dysphoria several weeks later and that this relation was mediated by dysfunctional attitudes and low self-esteem.

The present research represents an attempt to replicate the findings of Whisman and McGarvey (1995) and Roberts et al. (1996) by testing the mediational model in a sample of clinically depressed adult outpatients. We hypothesized that insecure attachment style will be associated with severity of dysphoria among depressed adults, and that the relationship of

attachment style and depression will be mediated by enduring cognitive structures (e.g., dysfunctional attitudes).

Method

Participants and procedure

The Structured Clinical Interview for DSM-IV (SCID; First, Spitzer, Gibbon, & Williams, 1995) was administered to 67 patients consecutively referred to an outpatient clinic at the University of Chicago for evaluation and treatment of mood disorder. Exclusion criteria included psychosis or an organic brain syndrome. Structured interviews were completed by a licensed clinical psychologist or a trained graduate student during subjects' initial appointment. Fifty-four (23 male) of these 67 patients were identified as meeting DSM-IV criteria for major depression and served as the sample for this study.

Sixty-one percent of the subjects were Caucasian and 35% were African-American. Thirty-nine percent were married, 46% were single, 13% were divorced, and 2% (1 subject) was widowed. The majority of individuals also met criteria for a comorbid psychiatric disorder. Nineteen percent of subjects met criteria for dysthymic disorder, 19% for generalized anxiety disorder, 15% for panic disorder, 13% for post-traumatic stress disorder, 11% for social phobia, 4% for specific phobia, and 4% for obsessive-compulsive disorder.

Measures

The following measures were administered to each patient at the time they presented to the clinic:

Adult attachment style. The Revised Adult Attachment Scale (RAAS; Collins & Read, 1990) is an 18-item self-report measure proposed to assess three dimensions of adult attachment style: fears of being rejected or abandoned (anxiety dimension), comfort with closeness to others (close dimension), and perceived dependability of others (depend dimension). Each dimension is assessed with six items and agreement with each item is rated on a 5-point scale. Collins and Read (1990) report that the close and depend scales are moderately correlated with each other but not with the anxiety scale (see Table 2 for intercorrelations in the present sample). Secure attachment is said to be reflected by high scores on the close and depend scales and a low score on the anxiety scale. In the present study, each scale demonstrated an acceptable level of internal consistency (coefficient alphas were .85 for anxiety, .72 for close, and .71 for depend).

Dysfunctional attitudes. The Dysfunctional Attitudes Scale (DAS; Weissman & Beck, 1978) is a 40-item measure of a person's maladaptive contingencies of self-worth. It utilizes a 7-point Likert scale. In the present sample, internal consistency was high (coefficient alpha = .92).

Depressive symptomatology. The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a widely used 21-item self-report measure of depression. Internal consistency of the scale in the present sample was high (coefficient alpha = .90).

Results

Descriptive statistics

Means and standard deviations of the variables measured are presented in Table 1. As might be anticipated for an outpatient sample, subjects demonstrated moderately elevated levels of depression and dysfunctional attitudes. As can be seen in Table 2, the correlations among the three RAAS scales, the DAS, and the BDI were significant. Dysfunctional attitudes and depressive symptoms were moderately correlated with each other ($r = .44$) and each of these factors correlated with attachment dimensions in the predicted direction. The close and depend dimensions of attachment were moderately positively correlated with each other ($r = .45$), and the depend dimension was negatively correlated with the anxiety dimension of the RAAS ($r = -.63$). The latter finding stands in contrast to Collins and Read (1990).

Table 1. Descriptive statistics

Variable	Mean	SD	Range
Age (years)	38.0	13.6	18–76
Education (years)	14.4	3.1	8–23
Anxiety dimension	13.9	6.3	6–30
Close dimension	13.4	5.3	1–22
Depend dimension	10.3	5.1	0–19
DAS	127.0	34.0	51–206
BDI	21.0	11.5	1–47

Table 2. Correlation matrix of variables

Measures	1	2	3	4
1. Anxiety				
2. Close	-.21			
3. Depend	-.63**	.45**		
4. DAS	.61**	-.42**	-.63**	
5. BDI	.40**	-.26*	-.35*	.44**

* $p < .05$; ** $p < .01$

Because of the covariation among the three dimensions of attachment style and the consequent possibility of multicollinearity, scores on the 3 RAAS subscales were aggregated to yield a general insecure attachment factor. The subscales were aggregated by reversing the signs on the depend and close scales, then adding the totals. Higher scores, as such, indicated greater insecurity of attachment. In the event that dysfunctional attitudes mediated the effect of insecure attachment style on depression, follow-up analyses were designed to examine whether that effect was maintained for each dimension of attachment style.

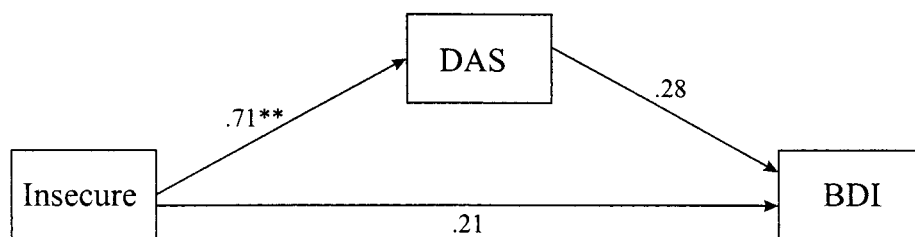
Results of regression analyses

The general model under investigation is that the relationship between attachment style and depression is mediated by dysfunctional attitudes. Following recommendations by Baron

and Kenny (1986), a series of three regression analyses were conducted. First, the general insecure attachment style factor was entered as a predictor variable and dysfunctional attitudes as the dependent variable. This equation was significant, $r = .71$, $R^2 = .50$, standardized $\beta = .71$, $F = 49.6$, $t = 7.0$, $p < .001$. The standardized correlation coefficient is shown in the left half of Figure 1. Dysfunctional attitudes appear to be associated with insecure attachment style.

In the second analysis, the insecure attachment style factor was entered as a predictor variable with severity of depressive symptoms as the dependent variable. This equation was significant, $r = .43$, $R^2 = .18$, standardized $\beta = .43$, $F = 11.5$, $t = 3.4$, $p \leq .01$. Thus, individuals with insecure attachment style reported higher levels of depressive symptoms.

In the third analysis, attachment style was entered into a hierarchical regression equation first, followed by dysfunctional attitudes, as predictors of depression severity. The standardized partial correlation coefficients for these analyses are shown in Figure 1. This equation was significant, $r = .46$, $R^2 = .21$, $F = 6.4$, $p \leq .01$. The effect of insecure attachment style on depression was not significant when controlling for dysfunctional attitudes, standardized $\beta = .21$, $t = 1.2$, $p \geq .1$. That the effect of insecure attachment style on depression was reduced to non-significance suggests that dysfunctional attitudes partially mediates the relationship.

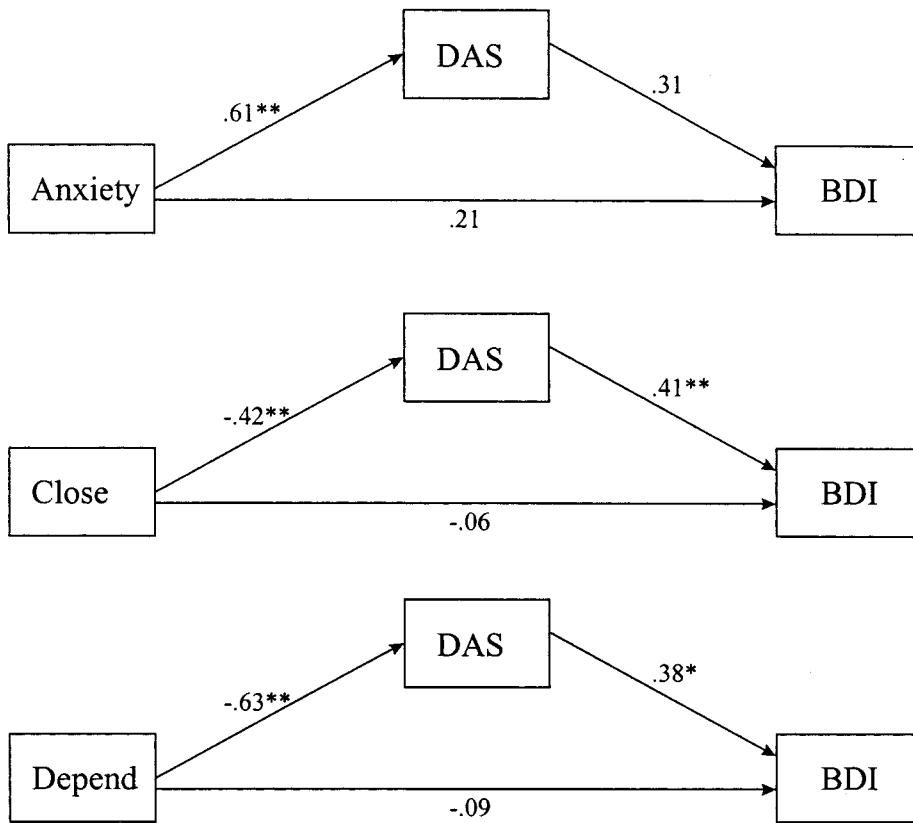


** $p < .01$

Figure 1. Path model of the relationships among insecure attachment, dysfunctional attitudes (DAS), and depression severity (BDI)

Separate hierarchical regression analyses were conducted to examine relationships between each attachment dimension and scores on the DAS and BDI. These analyses were included as previous reports (e.g., Roberts et al., 1996) suggest that differential relations may exist between specific aspects of attachment style and dysfunctional attitudes. As noted, the correlation coefficients between each dimension of attachment style and dysfunctional attitudes were significant. The correlations between each dimension of attachment style and depression severity were also significant. It is reasonable, then, to test whether dysfunctional attitudes mediate the relationships between each of the attachment style dimensions and depression severity.

The standardized partial correlation coefficients in the paths from attachment style (i.e., anxiety, close, depend) and dysfunctional attitudes to severity of depression are shown in Figure 2. In each case, the effect of the attachment style on intensity of depression was non-significant when severity of dysfunctional attitudes was controlled. This indicates that

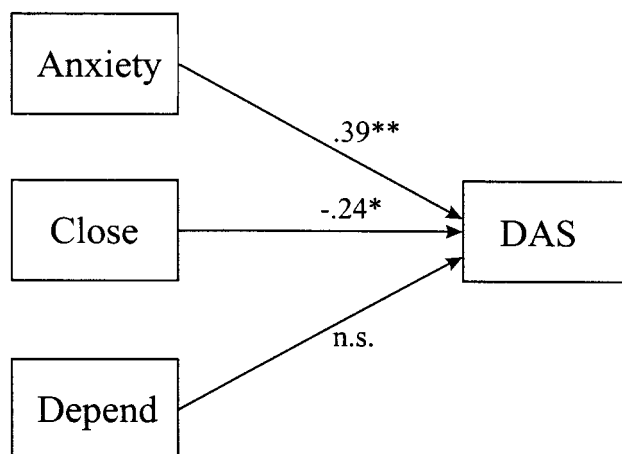


* $p < .05$; ** $p < .01$

Figure 2. Path models of the relationships among each dimension of insecure attachment, dysfunctional attitudes (DAS), and depression severity (BDI)

the mediating effect of dysfunctional attitudes is maintained regardless of the specific attachment style dimension under consideration.

Finally, a multiple regression analysis was conducted to determine which components of adult attachment style are most closely linked with dysfunctional attitudes. The three attachment dimensions were entered simultaneously as predictor variables and dysfunctional attitudes served as the dependent variable. This equation was significant $R^2 = .52$, $F = 16.2$, $p \leq .001$. The standardized Beta-weights of the significant predictors are presented in Figure 3. Our findings are consistent with those of Roberts et al. (1996) in suggesting that fears of being abandoned and difficulties feeling comfortable with emotional closeness may be associated with the severity of depressogenic beliefs.



* $p < .05$; ** $p < .01$

Figure 3. Results of multiple regression with three attachment dimensions as predictors of dysfunctional attitudes (DAS)

Discussion

The present findings suggest that anxiety about abandonment, discomfort with closeness, and discomfort with depending on others each bear a relationship to maladaptive contingencies of self-worth and severity of depression. Furthermore, the impact of attachment style on depression was largely accounted for by its relationship to dysfunctional attitudes. Thus, the present study provides evidence consistent with the hypothesis that attachment style influences the development of depression through the establishment of depressogenic beliefs. It represents an initial effort to generalize findings from previous research to populations with clinically severe levels of depression.

Whisman and McGarvey (1995) demonstrated this effect in a non-clinical sample with a cross-sectional design similar to the one presented here. Roberts et al. (1996) utilized a prospective design to demonstrate that attachment style and dysfunctional attitudes predict future dysphoric symptoms in a non-clinical sample even when controlling for initial dysphoria. Future research might usefully employ prospective designs to examine relationships among these variables in symptomatic and remitted clinical populations, as well as high-risk populations who are not clinically depressed.

Limitations

Although consistent with cognitive-interpersonal models of depression (Gotlib & Hammen, 1992), we cannot draw firm conclusions about causal relationships between attachment style and vulnerability for depression. Given the cross-sectional design used, our data speak to relationships between attachment style and *severity* of dysphoria or state depression. Longitudinal studies of the stability of early attachment classification, as well as their relationships

to measures of adult attachment style, cognitive processes, life events and mood, are needed before conclusions can be made about whether these stand as etiological factors or are simply correlates of dysphoric mood.

Several additional limitations of this study are worthy of note. First, controversies exist as to what self-report measures of adult attachment style actually measure. A number of investigators have questioned the validity of self-report measures of adult attachment (Brennan, Clark, & Shaver, 1998; Crowell & Treboux, 1995; Sperling, Foelsch, & Grace, 1996). It is not clear whether instruments, such as the RAAS, are better conceptualized as measures of attachment style or social cognition. Hammen et al. (1995), for example, argued that the RAAS is “a useful measure of cognitive vulnerability” and rightfully noted that “whether it actually does relate to attachment established during infancy or childhood remains to be demonstrated.” They suggest that “adult attachment cognitions” may usefully be viewed as a cognitive vulnerability factor for depression – along with negative self-schema and dysfunctional attitudes – rather than as a distal risk factor.

There is evidence, however, that measures of adult attachment style reflect, at least in part, enduring attachment patterns established in childhood (see Brewin, Andrews, & Gotlib, 1993). Longitudinal studies suggest some continuity in attachment from infancy through early adulthood, and indicate that discontinuities may be related to the occurrence of specific stressful life events (van Ijzendoorn & Bakermans-Kranenburg, 1997). Attachment styles, as such, need not be fixed from early childhood, but may vary in response to separations, losses and rejections over the course of development (Sroufe, 1978). Measures of adult attachment style may, as such, reflect both the quality of early relationships and more recent life events.

Although it is possible that dysfunctional attitudes are enduring cognitive characteristics of an individual, we do not assume that measures commonly used to assess them are adequate. There is evidence, for example, that the DAS may be a mood-dependent measure of depressogenic beliefs, rather than a stable index of cognitive vulnerability (e.g., Miranda et al., 1990; Segal, 1988), and that specific constructs assessed by the DAS may interact with stressful life events to place individuals at risk (Brown, Hammen, Craske, & Wickens, 1995). With this in mind, future research would do well to use a multi-method approach to examine the relations between attachment style, cognition, and depression. Information-processing measures such as the Stroop task and incidental recall tasks may be more sensitive measures of cognitive vulnerability than are self-report questionnaires (Hedlund & Rude, 1995; Clark & Beck, 1999).

Third, it cannot be concluded that the relationships observed among attachment style, dysfunctional attitudes, and severity of dysphoria are specific to major depression. It is possible that insecure attachment style serves as a vulnerability factor for other forms of psychopathology. Relationships between early experience, adult attachment style, dysfunctional attitudes and adjustment among patients with non-affective disorders are largely unexplored, as are their relationships to adjustment among at-risk populations and remitted depressed patients. It is possible that early experience and attachment style are not related to depression per se, but to the development of affect regulation capacities (Cassidy, 1994) and social competence (Koback & Sceery, 1988). In a similar manner, relationships between early experience, attachment and schema among subgroups of depressed individuals has received little study.

Finally, it is unclear whether specific dysfunctional attitudes (e.g., perfectionism, need for

control, interpersonal dependency) mediate the relation between adult attachment style and dysphoria. It is also unclear whether other cognitive factors (e.g., attributional style, self-focused attention, social problem-solving, sociotropy-autonomy, self-esteem) may also be related to early experience and attachment style. The possibility exists, as well, that gender differences may exist in the relationship between markers of cognitive vulnerability and depression (Nolen-Hoeksema & Girgus, 1994). Studies of separate samples of clinically depressed men and women may be useful in clarifying how gender differences in depression develop.

Conclusion

Our findings suggest that attachment theory can usefully inform cognitive theories of psychopathology. Although attempts have been made to integrate attachment theory with psychoanalytic models of psychotherapy, few attempts have been made to examine the implications of attachment theory for the practice of cognitive therapy. As Slade (1999) notes, one of the fundamental assumptions of attachment theory is that “distortions in feeling and thinking stem from early disturbances in attachment [which] occur most often in response to the parents’ inability to meet the child’s needs for comfort, security, and emotional reassurance.” This notion, that early experiences of loss, inconsistent or punitive caregiving, and unpredictable support may be internalized in the form of generalized expectations, attitudes, and coping styles is entirely consistent with cognitive-behavioral models of psychopathology. It allows us to identify and address factors that may place individuals at risk for later psychopathology, and to provide clients with a coherent way of understanding the development of maladaptive attitudes, coping strategies and beliefs. Attachment theory may be consistent with interpersonal approaches to cognitive-behavioral therapy (Safran, 1990; Gotlib & Hammen, 1992).

In conclusion, our observations extend those of previous researchers in providing evidence consistent with the hypothesis that insecure attachment relationships in childhood may represent a vulnerability to psychological problems in adulthood and that the causal relation between attachment and adjustment may be mediated by cognitive structures and processes. This two-part statement, though simple, provides a conceptual context for empirical findings on negative interpersonal events and depression and provides a needed developmental perspective to cognitive models of depression.

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