Expectant Parents’ Representations of Early Attachment Relationships: Associations With Mental Health and Family History

Shelley A. Riggs
Texas Woman’s University

Deborah Jacobvitz
University of Texas at Austin

The association between adult representations of early attachment relationships and history of individual and family mental health was examined in a sample of 233 expectant mothers and fathers. As predicted, security of attachment was linked to mental health. Parents classified as Preoccupied were more likely than other parents to report suicidal ideation, whereas parents classified as Unresolved more often reported suicidal ideation, emotional distress, and substance abuse. With respect to family history, Unresolved and Preoccupied attachment classifications were significantly related to child abuse involving a relative and parental separation or divorce. These findings support theoretical conceptualizations regarding the link between adult attachment and mental health in middle-class American adults.

A central tenet of attachment theory is that the evolution and organization of attachment bonds are principal determinants of mental health (Bowlby, 1988). Theoretically, a secure attachment organization should buffer individuals from maladaptive responses to stress, allowing them to effectively draw on support from friends, family, or mental health practitioners. People with insecure mental representations of attachment, in contrast, may be at greater risk for emotional problems because of distortions and biases in their thinking and an inability to regulate their emotions, thereby limiting their ability to respond flexibly in unfavorable situations (Carlson & Sroufe, 1995). When significant life stressors are present, a person’s defenses may escalate, resulting in maladaptive behavior and a vulnerability to cognitive disorganization and emotional disorders (Bowlby, 1973, 1980).

Studies have shown associations between adolescent or adult representations of early relationships and the presence of conduct disorder, antisocial personality, substance abuse, psychological distress, mood disturbance, and symptoms of anxiety (Allen, Hauser, & Borman-Spurrel, 1996; Cole-Detke & Kobak, 1996; Pianta, Egeland, & Adam, 1996; Rosenstein & Horowitz, 1996; see Dozier, Stovall, & Albus, 1999, for a review of this literature). Most studies investigating adult attachment and psychopathology, however, have been conducted with clinical samples and therefore are subject to what Garmezy (1974) termed the etiological error. By first identifying people suffering from symptoms of psychopathology and then examining their representations of relationships with their parents during childhood, the proportion of insecure people showing symptoms of psychopathology may be overrepresented. It is possible that just as many people who do not show symptoms of psychopathology are also insecure with respect to their relationship with their parents during childhood. What is unclear is whether associations between attachment security/insecurity and symptoms of psychopathology occur in nonclinical populations.

Empirical support has accrued for Bowlby’s (1979) suggestion that many forms of psychiatric disturbance can be traced to attachment insecurity. A growing number of studies have used the Adult Attachment Interview, or AAI, to examine the relation between adults’ current state of mind with respect to early attachment relationships and emotional disorders. The AAI is an in-depth clinical interview asking adults to describe their relationship with each parent during childhood, including what happened when they were upset, ill, or physically hurt; how they and their parents responded to separations; and the effects of early experiences on their adult personality (George, Kaplan, & Main, 1985/1996). Adults are also asked to describe traumatic childhood experiences, including instances of physical or sexual abuse and loss of important people in their lives. Formal coding procedures for AAI transcripts delineate five adult attachment classifications: Secure, Dismissing, Preoccupied, Unresolved, and Cannot Classify (Main & Goldwyn, 1998), which roughly correspond to the Secure, Avoidant, Ambivalent, and Disorganized infant attachment classifications assessed by the Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978; Main & Solomon, 1990). The adult attachment classifications are based on how interviewees talk about their childhood relationships with their parents rather than what they say happened to them. Adults are considered Secure if they can talk openly, clearly, and with ease about their relationships with their parents even when discussing negative or abusive experiences.
Because security of attachment is based on how adults describe early family relationships (i.e., their “current state of mind” with respect to attachment), adults can be classified as Secure even if they have had difficult childhood experiences.

Dismissing or Preoccupied adults, however, appear to have more difficulty discussing their relationship with their parents during childhood and use defensive strategies to shift attention away from reexperiencing the pain associated with negative early experiences. Dismissing adults minimize distress and the effects of negative childhood experiences by either idealizing their parents or refusing to answer the questions. Preoccupied adults may appear more anxious, rambling on and on about irrelevant topics, losing track of the discourse topic altogether, or becoming angrily caught up with their past as evidenced by lengthy monologues in which they entirely blame their parents for relationship difficulties. A study tracking adults’ galvanic skin response (GSR) while the AAI was in progress demonstrated that both Dismissing and Preoccupied adults showed higher GSR levels than did Secure adults when discussing negative childhood experiences (Dozier & Kobak, 1992). Because Secure vs. Insecure adults appear more comfortable discussing emotionally arousing relationship experiences and are better able to regulate their arousal when distressed, we expected that Secure adults in this study would be less likely than Insecure adults to report indices of emotional disturbance, including depressive symptoms, suicidal ideation, criminal behavior, substance abuse, diagnosed mental disorders, use of psychotropic medication, and psychiatric hospitalization.

A Dismissing attachment classification has been associated with externalizing disorders, such as conduct disorder, antisocial personality, and substance abuse (Allen et al., 1996; Cole-Detke & Kobak, 1996; Rosenstein & Horowitz, 1996). In contrast, Preoccupied adults appear predisposed to internalizing disorders, including psychological distress, mood disturbance, and symptoms of anxiety (Cole-Detke & Kobak, 1996; Pianta et al., 1996) because attention is predominantly focused on the self and the availability of others (Dozier et al., 1999). Thus, Dismissing adults in this study were expected to report substance abuse and criminal behavior more often than other adults, whereas Preoccupied adults were expected to report suicidal ideation, childhood abuse, and emotional distress.

The present study also addresses the extent to which adults classified as Unresolved with respect to trauma or loss suffer from symptoms of psychopathology. Although Unresolved trauma or loss is conceptually distinct from the other Insecure categories, this classification is assigned in conjunction with one of the three primary attachment classifications. An Unresolved state of mind is not an enduring, organized attachment strategy but rather a brief collapse of an adult’s mental organization during discussions of trauma (e.g., adults may show a sudden but brief disorientation in time or space, fall silent in mid-sentence and enter into a trance-like state for a minute or more, among other indices). Studies with clinical populations have linked the Unresolved classification to indices of serious emotional and mental disturbance, including previous psychiatric hospitalization and criminal behavior in young adulthood (Allen et al., 1996) and borderline personality disorder (Fonagy et al., 1995; Fonagy et al., 1996). In addition, Adam, Sheldon-Keller, and West (1996) reported a preponderance of Unresolved status among suicidal adolescent inpatients despite similar histories of trauma in the nonsuicidal comparison group of inpatients.

Whereas adults classified as Unresolved show a brief lapse in mental organization during discussions of loss and trauma, adults placed into the Cannot Classify group do not use any consistent strategy to discuss their childhood experiences (Hesse, 1996). Adults whose AAIs are unclassifiable are at the greatest risk for criminal behavior, psychopathological distress, and psychiatric hospitalization (Allen et al., 1996). Thus, it is expected that adults considered Unresolved or Cannot Classify in the present study will be at the greatest risk for symptoms of psychopathology.

The extent to which adults classified as Unresolved with respect to loss versus abuse show distinct symptoms of psychopathology remains unclear. Traditionally, researchers have treated loss and abuse independently with differential effects. However, both events give rise to personal trauma and might exert their effects along common developmental pathways (Adam, 1994). Bowlby (1973) suggested that recovery from bereavement requires a reorientation of thinking regarding the deceased and a reorganization of previous working models of relationships, which acknowledges the permanently altered reality of present experience without the lost figure. Following a significant loss or trauma, a lengthy period of despair and disorganization in thought and affect is expected. Until the process of reorganization is completed, the traumatic experience remains active, though often unconscious, resulting in intrusive thoughts and images, which are able to slip past defense mechanisms and manifest as lapses in reasoning or discourse in the AAI. The failure to complete the reorganization process allows the continuation of multiple contradictory models that have not been merged to form a single, coherent, whole representation and may lead to cognitive and affective symptoms in later life (Lyons-Ruth & Block, 1996). The only study comparing Unresolved trauma to Unresolved loss revealed that suicidal ideation in adolescents was linked more often to Unresolved trauma (Adam et al., 1996). The present study sought to replicate this finding in a nonclinical adult population and to examine whether Unresolved loss and Unresolved trauma independently predict emotional distress, substance abuse, and criminal behavior.

In addition to looking at a person’s own history of mental health, the present study examined the relation between adults’ attachment status and their family history of substance abuse, criminal behavior, emotional distress, child abuse, and parental separation or divorce. Although attachment strategies formed in infancy tend to persist and become increasingly resistant to change over time, they are modifiable. Evidence has accumulated showing that contextual and family factors contribute to attachment insecurity in children, including psychopathology in mothers or other close family members (Gaensbauer, Harmon, Cytryn, & McKnew, 1984; Radke-Yarrow, Cummings, Kuczynski, & Chapman, 1985), socioeconomic stress (Vaughn, Egeland, Sroufe, & Waters, 1979), early parental death or prolonged separations from parents (Bowlby, 1973), marital quality and divorce (Goldberg & Easterbrooks, 1984; Parkes, 1971), and family dysfunction (Cummings & Davies, 1996; Greenberg & Speltz, 1988). Hence, we predicted that family mental health history would be significantly related to AAI classification, with Unresolved adults more likely than other adults to report family substance abuse, emotional distress in a relative, parental separation or divorce, and child abuse involving a relative other than the participant.
One published study (Pianta et al., 1996) exists linking adult attachment status to psychopathology in a high-risk, nonclinical sample of women. The present study, however, extends previous work linking attachment processes and mental health in adolescent and adult psychiatric samples to a normative, low-risk, middle-class, nonclinical sample of both men and women. Husbands and wives were recruited primarily from birthing centers when the woman was pregnant with their first child and are representative of middle-class American adults with respect to family income, age, and ethnicity. In the present study, insecure attachment was predicted to be associated with reports of substance abuse, criminal charges, emotional distress, and suicidal ideation. We expected Dismissing attachment to be associated specifically with substance abuse and criminal history, and Preoccupied attachment to be related to self-reported emotional distress, depression, suicidal ideation, and physical or sexual abuse. The Unresolved classification, along with the Cannot Classify category, was predicted to be associated with substance abuse, depression, emotional distress, and suicidal ideation. Similarly, with respect to family of origin factors, we expected that Unresolved adults would report a family history suggestive of disorganization and dysfunction, including family substance abuse, emotional distress in a relative, parental separation or divorce, and child abuse involving a relative other than the participant.

Finally, a meta-analysis by van IJzendoorn and Bakermans-Kranenburg (1996) showed that the distribution of AAI classifications was independent of age, gender, and cross-cultural variations in industrialized countries. Although several studies using psychiatric adolescent populations show gender differences in AAI classification (Adam et al., 1996; Allen et al., 1996; Rosenstein & Horowitz, 1996), van IJzendoorn and Bakermans-Kranenburg found that the proportion of people in nonclinical samples placed into the four AAI groups was similar for mothers, fathers, and adolescents. Thus, no differences were expected in the distribution of AAI classification with respect to age, gender, or ethnicity. Moreover, because there is no clear theoretical reason or previous empirical work suggesting gender differences in the association between attachment and mental health, examining such differences in this study was exploratory.

Method

Participants

The men and women were part of a longitudinal study investigating the transition to parenthood and family relationships. A total of 125 couples in the third trimester of a first-time pregnancy were recruited through birthing classes, public service radio announcements, and flyers distributed at maternity stores in the Austin, Texas, area. In return for their participation in the study, couples were offered $150 in savings bonds for their children, a videotape of parent interactions, and bimonthly newsletters containing updates on the research project. The median family income was $30,000–$45,000, and the mean age of participants was 30.5 years. The majority reported education beyond the high school level, with 60% earning a bachelor’s or graduate degree and another 30% reporting some college or trade/business school coursework. Ethnic distribution was predominantly Caucasian (85%) but also included 8% Hispanic, 3% African American, and 4% indicating “other” or biracial heritage. The present sample consists of 233 expectant mothers and fathers. Twelve participants (5 women, 7 men) were not included in the present study because AAI s were either inaudible or could not be transcribed as a result of equipment failure. The other 5 participants had missing data on the Mental Health Survey. The 233 participants in this study did not differ from the entire sample on any of the demographic characteristics.

Procedures and Instruments

Data were collected during the couple’s third trimester of pregnancy. The visit, approximately 90 to 120 min in length, took place in a laboratory setting where participants completed a consent form, the Center for Epidemiological Studies Depression Scale (CES–D; Radloff, 1977), and the Mental Health Survey. After completing these measures, participants were individually administered the AAI (George et al., 1985/1996).

Mental Health Survey. The Mental Health Survey is a self-report measure specifically designed for the larger longitudinal study to collect information regarding participants’ personal history of mental health and therapy, as well as the history of mental health and mental health-related factors in participants’ families of origin. Participants were asked to provide information about their personal and family histories of mental health by indicating whether they or any family members had experienced the following concerns or problems: diagnosed mental disorder, medication for emotional or behavioral problems, hospitalization for emotional difficulties, suicidal inclinations or attempts, alcoholism, drug abuse (other than alcohol), criminal charges, physical or sexual abuse of the participant or other family member, and parental separation or divorce. If participants indicated a history of diagnosed mental disorder or psychotropic medication, they were asked to identify the mental disorder and type of medication. To assess family mental health problems, we asked participants to indicate their relationship to the relevant family member, which included first- and second-degree biological relatives as well as stepparents. In addition, with respect to separation or divorce, participants indicated each occurrence of parental separation or divorce, duration of the separation if applicable, and the participant’s age(s) at the time of the parents’ marital realignment(s).

The mental health concerns and problems were categorized as present or absent, and coding guidelines were provided for the follow-up questions. For example, the coding of diagnosed mental disorders was based on a list of major Diagnostic and Statistical Manual of Mental Disorders (4th ed., DSM–IV; American Psychiatric Association, 1994) diagnostic categories. Similarly, the type of psychotropic medication was categorized as antidepressant, antianxiety, mood stabilizer, stimulant, and other psychotropic medication using an extensive list of psychotropic medications commonly prescribed by doctors. Over-the-counter medications such as sleeping aids were excluded.

Diagnosed mental disorder among participants was limited to depression ($n = 4$) and bipolar disorder ($n = 1$). Psychotropic medications used by participants were predominantly antidepressant medication ($n = 8$) but also included antianxiety ($n = 4$), stimulant ($n = 1$), mood stabilizer ($n = 1$), and other psychotropic medication ($n = 1$). Infrequent reporting of these and other mental health variables resulted in the decision to collapse related variables. Seven individual mental health factors were collapsed to form a set of four individual mental health-related variables: substance abuse (combined alcoholism and drug abuse), suicidal ideation, criminal charges, and emotional distress (combined diagnosed mental disorder, use of psychotropic medication, and psychiatric hospitalization). Participants’ self-reported experiences of physical and sexual abuse in childhood were also collapsed to create a single category of childhood abuse. Similarly, 11 family mental health factors were collapsed to create a set of five family variables consisting of family substance abuse (combined family alcoholism and drug abuse), family child abuse (combined reports of a victim or perpetrator of sexual or physical abuse in family of origin), criminal charges against a family member, emotional distress in a relative (combined diagnosed mental disorder, suicide, or psychiatric hospitalization of a family member), and parental separation or divorce.

CES–D. The CES–D is a 20-item structured self-report scale designed to measure depressive symptomatology in the general population (Radloff,
The CES–D has high internal consistency using coefficient alpha and the Spearman–Brown split-halfes methods in both the general (about .85) and patient (about .90) populations (Radloff, 1977). Because the CES–D is intended to measure current levels of depression, the level of reported symptomatology is expected to vary over time, thus lowering test–retest correlations. By taking into account life events, however, Radloff was able to demonstrate adequate test–retest reliability (r = .54) for participants reporting no negative environmental stressors. As expected, the reliability was lower for participants reporting one negative life event and lowest for participants reporting negative life events at both testing times.

The CES–D has excellent concurrent validity using both clinical and self-report criteria. The instrument discriminates psychiatric inpatient samples from the general population and differentiates among levels of severity within patient groups. The CES–D also has moderate correlations (.44 to .54) with clinician rating scales at admission and higher correlations (.69 to .75) with these same scales after 4 weeks of treatment. Additional evidence for discriminant validity lies in the pattern of correlations with interviewer ratings of depression and other scales designed to measure symptoms of depression or general psychopathology. Finally, Radloff reported that the scale is suitable for use with Black and White English-speaking participants of both sexes with a wide range of ages and socioeconomic status.

AAI. The AAI is a semistructured clinical interview designed to assess adults’ representations of their relationships with their parents during childhood (George et al., 1985/1996). Administered in a relaxed, conversational manner and generally lasting 60 to 90 min, the interview focuses on early attachment experiences and the adult’s current state of mind regarding the influences of these experiences on the individual’s personality and parenting. Adults are asked to describe their childhood relationships with both parents and other significant attachment figures (e.g., stepparents), in particular about their parents’ and their own responses when upset, ill, injured, or separated from parents. The interviewer probes participants’ current perceptions of the effects of these experiences on their development, why their parents may have behaved in the way described, trauma and loss experiences, and changes in their relationships with parents.

Interviews were administered in a university laboratory, audiotaped, and later transcribed verbatim, retaining all dysfluencies, grammatical errors, stuttering, and mispronunciations and marking any interruptions and pauses. Coding is heavily influenced by the individual’s style of discourse, including the language used to describe past experiences and the ability to provide an integrated, credible account of early experiences and their meaning. Coding of the AAIs in this sample was conducted by coders trained for reliability in the use of the adult attachment classification system (Main & Goldwyn, 1998). One half of the transcripts were double-coded. Disagreements between two coders on transcripts in the present study were resolved by conferencing with a third coder. Coders were unaware of all hypotheses and had no knowledge of participants’ responses on the Mental Health Survey. Exact agreement between the two raters on the overall four-way attachment classification was 84% (k = .72) and rose to 90% when only the three primary classifications were considered (k = .80).

Four major AAI classifications can be assigned: Secure, Dismissing, Preoccupied, and Unresolved. Secure individuals value attachment relationships and recognize the importance of attachment-related experiences while remaining relatively autonomous and objective with regard to relationships experiences. These transcripts are coherent and fluid, showing balanced views of relationships and openness to the topic or possible alterations of their point of view. In contrast, insecure individuals (Dismissing or Preoccupied) do not discuss early memories coherently. Dismissing adults minimize the influence of early negative experiences by repeatedly insisting they cannot remember their childhood or by providing very positive descriptions of their parents that they cannot support when asked to do so. Preoccupied individuals appear entangled or still caught up with their parents, as shown by an inability to focus fruitfully on the interview topic or angry speech occurring during discussions of their relationship with their parent.

The Unresolved category can be specified as Unresolved loss or Unresolved trauma (abuse). This category is unique to the coding system in that the judge considers only transcript passages that directly relate to the interviewee’s experience with the loss of a significant figure through death or frightening/abusive experiences involving parental figures. Specific criteria set forth by Main and Goldwyn (1998) were used to determine if an experience qualified as abusive. For example, physical beatings harsh enough to leave bruises or severely threaten the child’s sense of safety and any form of sexual contact with the child would be considered abuse, whereas spankings that did not leave marks and were not reported as painful or frightening to the child would be excluded. After the trauma or loss is established, participants’ responses when discussing these experiences are rated on the Unresolved loss or Unresolved trauma scales (1 = low, 9 = high).

The Unresolved scales assess disorganization or disorientation in thinking or discourse, termed lapses in the monitoring of reasoning or discourse, during discussions of trauma. Lapses include indications of disbelief that a person is dead, disorientation in space or time, a sense of being causal in a traumatic experience, disoriented speech, and prolonged silences. The Unresolved status is also assigned to those who report extreme behavioral reactions to the trauma without convincing evidence of resolution.

The Unresolved status is assigned in conjunction with the best-fitting primary classification (i.e., Secure, Dismissing, or Preoccupied). Scores higher than 5 on the 9-point Unresolved Loss or Unresolved Trauma scales automatically place adults into the Unresolved group, and scores lower than 5 indicate that the adult is not Unresolved. For scores equal to 5, judges determine the appropriateness of the Unresolved classification. Directions for this decision are not clearly specified in the AAI coding manual. Therefore, we had a third coder, who previously had achieved reliability on 30 transcripts with Mary Main and Erik Hesse, code each of the 15 transcripts in which one or both coders had assigned a 5 for Unresolved Loss and/or Unresolved Trauma. Differences were resolved by using the decision made by two of the three judges.

A fifth classification sometimes used is Cannot Classify, which is represented by low coherence scores and an unusual mixture of secure, preoccupied, and dismissing indices that indicate a collapse of an organized strategy for discussing childhood relationships with parents. Like the Unresolved classification, the Cannot Classify category suggests disorganization in the state of mind with respect to attachment. However, the disorganization involves a broader collapse present throughout the interview rather than only during discussions of trauma. Seven participants were placed into the Cannot Classify group. Because both the Unresolved and Cannot Classify groups show lapses in mental disorganization, these groups were combined in analyses using the four attachment groups. The Unresolved adults display brief lapses in the monitoring of discourse and reasoning and are therefore assigned to the best-fitting alternative classification. This best-fitting classification was used when conducting analyses using the three primary attachment groups. However, because people in the Cannot Classify group, by definition, cannot be put into a best-fitting alternative classification, they were omitted from analyses using the three AAI groups.

The AAI has adequate test–retest reliability over 2 months (Bakermans-Kranenburg & van IJzendoorn, 1993) through a year and a half (Fonagy, Steele, & Steele, 1991). Research has established the independence of AAI classifications from social desirability bias (Bakermans-Kranenburg & van...
IJzendoorn, 1993). Waters et al. (1993) also reported that narrative style in the AAI differs from general conversational style when discussing topics unrelated to attachment relationships. The distribution of AAI classifications in a combined sample (meta-analyses) of 584 nonclinical women remains consistent in samples from different countries, averaging 16% Dismissing, 55% Secure, 9% Preoccupied, and 19% Unresolved in nonclinical samples (van IJzendoorn & Bakermans-Kranenburg, 1996). A similar distribution was found for men in a meta-analysis of five samples (see Hesse, 1996, for a review of the psychometric properties of the AAI).

**Results**

**Preliminary Analyses**

The distribution of AAI classifications was fairly consistent with proportions for other middle-class samples reported in the literature (e.g., van IJzendoorn & Bakermans-Kranenburg, 1996), with slightly fewer Preoccupied and slightly more Dismissing adults than generally reported. With the four-way AAI coding system, 50% of the adults were Secure, 22% Dismissing, 6% Preoccupied, and 22% Unresolved. When Unresolved adults were placed into the best-fitting primary classification, the three-way distribution yielded 61% Secure, 27% Dismissing, and 12% Preoccupied. Of the 52 parents in the Unresolved group, 24 were classified as Unresolved for loss only, 13 were classified as Unresolved for abuse only, 8 were classified for both Unresolved loss and abuse, and 7 were Cannot Classify.

AAI classification was not associated with age, ethnicity, or family income level. However, education level significantly predicted the three-way attachment classification, with Secure adults more likely to report completion of a college degree than Dismissing adults, who more often reported some college or business/trade school education. Of 233 adults, who more often reported some college or business/trade school education, $\chi^2(2, N = 226) = 11.35, p < .03$. Surprisingly, in contrast to predictions, gender was significantly related to AAI classification in four-way analyses, $\chi^2(3, N = 233) = 10.39, p < .02$, and three-way analyses, $\chi^2(2, N = 226) = 13.51, p < .001$, with mothers more often classified as Secure and fathers more often classified as Dismissing. Because of these gender differences, attempts were made to account for gender in subsequent statistical analyses by performing separate gender analyses when sufficient power existed.

**Individual Mental Health**

To account for the potential nonindependence of data in this study, we used the Proc Genmod program in SAS for analyses conducted with the adult attachment classifications and the Mental Health Survey. Each couple was treated as a cluster, and the adult attachment classification and mental health indices were then nested within couples. Proc Genmod allows for analyses to be conducted with nominal outcome data. The first set of analyses was conducted to examine the association between adults’ adult attachment classification and their report of the presence or absence of mental health indices. Results of analyses with the four attachment groups showed a significant association between AAI status and emotional distress, $\chi^2(3, N = 233) = 17.48, p < .001,$ and suicidal ideation, $\chi^2(3, N = 233) = 11.98, p < .01.$ Follow-up analyses revealed that Unresolved adults were significantly more likely than other groups to report emotional distress and suicidal ideation. In addition, there was a nonsignificant trend linking AAI classification to criminal charges, $\chi^2(3, N = 233) = 7.05, p < .10.$ Follow-up analyses showed that Dismissing adults were more likely to report criminal charges than were Preoccupied adults. In the analyses involving the three primary attachment classifications (Secure, Dismissing, and Preoccupied), AAI status was again significantly associated with suicidal ideation, $\chi^2(2, N = 226) = 0.71, p < .001,$ with follow-up demonstrating that Preoccupied adults more often reported suicidal ideation than did Secure or Dismissing adults (see Tables 1 and 2).

By definition, AAI Unresolved status should be related to trauma, which proved to be the case when examined in relation to childhood abuse reported on the Mental Health Survey, $\chi^2(4, N = 233) = 20.01, p < .001.$ Of 23 participants reporting a history of physical or sexual abuse, 52% were classified as Unresolved. It is interesting that when we examined the concordance of self-reported physical or sexual abuse on the Mental Health Survey and coded child abuse on the AAI, all 11 participants who did not report the mental health variable.

Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total sample (N = 233)</th>
<th>Secure (n = 116)</th>
<th>Preoccupied (n = 13)</th>
<th>Dismissing (n = 52)</th>
<th>Unresolved (n = 52)</th>
<th>$\chi^2(3)$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual mental health</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional distress</td>
<td>18 (8%)</td>
<td>7 (6%)</td>
<td>0</td>
<td>2 (4%)</td>
<td>9 (17%)</td>
<td>17.48***</td>
</tr>
<tr>
<td>Suicidal ideation</td>
<td>11 (5%)</td>
<td>2 (2%)</td>
<td>0</td>
<td>0</td>
<td>9 (17%)</td>
<td>11.98**</td>
</tr>
<tr>
<td>Criminal charges</td>
<td>7 (3%)</td>
<td>2 (2%)</td>
<td>0</td>
<td>4 (8%)</td>
<td>1 (2%)</td>
<td>7.05†</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>26 (11%)</td>
<td>8 (7%)</td>
<td>1 (8%)</td>
<td>7 (13%)</td>
<td>10 (19%)</td>
<td>5.35</td>
</tr>
<tr>
<td><strong>Family of origin factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorce/separation</td>
<td>84 (36%)</td>
<td>39 (34%)</td>
<td>5 (38%)</td>
<td>12 (23%)</td>
<td>28 (54%)</td>
<td>10.59**</td>
</tr>
<tr>
<td>Physical/sexual abuse</td>
<td>32 (14%)</td>
<td>13 (11%)</td>
<td>4 (31%)</td>
<td>2 (4%)</td>
<td>13 (25%)</td>
<td>15.03***</td>
</tr>
<tr>
<td>Emotional distress</td>
<td>53 (23%)</td>
<td>30 (26%)</td>
<td>4 (31%)</td>
<td>9 (17%)</td>
<td>10 (19%)</td>
<td>2.44</td>
</tr>
<tr>
<td>Criminal charges</td>
<td>20 (9%)</td>
<td>8 (7%)</td>
<td>2 (15%)</td>
<td>4 (8%)</td>
<td>6 (12%)</td>
<td>2.72</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>105 (45%)</td>
<td>53 (46%)</td>
<td>6 (46%)</td>
<td>20 (38%)</td>
<td>26 (50%)</td>
<td>1.72</td>
</tr>
</tbody>
</table>

*Note. Percentages represent proportion of relevant column reporting the mental health variable.*

† $p < .10$. ** $p < .01$. *** $p < .001$. 
report abuse on the Mental Health Survey but in interviews described childhood experiences that met the criteria for abuse in the AAI coding manual had an underlying insecure attachment strategy (Dismissing/Preoccupied, and 73% (8/11) were fathers.

An interesting division in the associations between lack of resolution and individual mental health variables occurred when Unresolved-loss and Unresolved-trauma (abuse) adults were compared with the group of non-Unresolved adults who received scores for similar loss or abuse on the AAI. Unresolved trauma (abuse) was significantly related to substance abuse, $\chi^2(1, N = 21) = 12.07, p < .001$. In contrast, Unresolved loss was significantly associated with criminal charges, $\chi^2(1, N = 32) = 7.49, p < .01$, and showed a nonsignificant trend with emotional distress, $\chi^2(1, N = 32) = 3.25, p < .06$.

As shown in Table 3, results of a repeated measures analysis of variance (ANOVA) for couples data indicated that level of reported depression in the total sample was significantly associated with the four-way attachment classification, $F(3, 233) = 3.01, p < .05$. Planned comparisons revealed that Dismissing adults reported significantly lower levels of depression than did Secure and Unresolved adults.

### Family History

Results supported the second prediction that family history would be significantly associated with AAI classification. Specifically, four-way AAI status was significantly associated with reported physical or sexual abuse involving a relative, $\chi^2(3, N = 233) = 15.03, p < .01$, and parental divorce or separation during childhood, $\chi^2(3, N = 233) = 10.59, p < .01$. Follow-up analyses revealed that Unresolved and Preoccupied adults reported a higher incidence of physical or sexual abuse involving a relative other than the respondent and were more likely to come from homes in which parents had been separated or divorced than the participants in the Dismissing or Secure groups. When Unresolved adults were placed in their alternative primary classification group (see Table 2), AAI classification was again significantly associated with

### Table 2

**Associations Between Three-Way Attachment Classification and Adult Mental Health and Family of Origin Factors**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total sample (N = 226)</th>
<th>Attachment classification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Secure (n = 137)</td>
<td>Preoccupied (n = 28)</td>
</tr>
<tr>
<td>Individual mental health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional distress</td>
<td>17 (8%)</td>
<td>11 (8%)</td>
</tr>
<tr>
<td>Suicidal ideation</td>
<td>9 (4%)</td>
<td>5 (4%)</td>
</tr>
<tr>
<td>Criminal charges</td>
<td>7 (3%)</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>24 (11%)</td>
<td>12 (9%)</td>
</tr>
<tr>
<td>Family of origin factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical/sexual abuse</td>
<td>30 (13%)</td>
<td>18 (13%)</td>
</tr>
<tr>
<td>Divorce/separation</td>
<td>79 (35%)</td>
<td>47 (35%)</td>
</tr>
<tr>
<td>Emotional distress</td>
<td>51 (23%)</td>
<td>35 (26%)</td>
</tr>
<tr>
<td>Criminal charges</td>
<td>19 (8%)</td>
<td>8 (6%)</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>101 (45%)</td>
<td>63 (46%)</td>
</tr>
</tbody>
</table>

Note. Percentages represent proportion of relevant column n reporting the mental health variable. Unresolved adults are placed in the best-fitting primary classification; Cannot classify adults are excluded.

† $p < .10$. * $p < .05$. ** $p < .01$.

### Table 3

**Associations Between Depression and Attachment Classification**

<table>
<thead>
<tr>
<th>Group</th>
<th>Attachment classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total sample</td>
<td>Secure</td>
</tr>
<tr>
<td>$M$</td>
<td>9.73a</td>
</tr>
<tr>
<td>$SD$</td>
<td>6.71</td>
</tr>
<tr>
<td>Mothers (n = 119)</td>
<td>$M$</td>
</tr>
<tr>
<td>$SD$</td>
<td>6.47</td>
</tr>
<tr>
<td>Fathers (n = 115)</td>
<td>$M$</td>
</tr>
<tr>
<td>$SD$</td>
<td>5.73</td>
</tr>
</tbody>
</table>

Note. Means with different subscripts differ significantly at $p < .05$ or more in planned comparisons.

* $p < .05$. 

200 RIGGS AND JACOBVITZ
family sexual or physical abuse, $\chi^2(2, N = 226) = 8.27, p < .01$, and parental separation or divorce, $\chi^2(2, N = 226) = 6.20, p < .05$. Follow-up analyses showed that adults classified as Preoccupied more often reported the occurrence of sexual or physical abuse in their families and parental separation or divorce than did adults classified as Secure or Dismissing. Finally, a nonsignificant trend was found linking AAI status and emotional distress in the family, $\chi^2(2, N = 226) = 3.86, p < .10$, and a follow-up revealed that Dismissing adults were less likely than Secure adults to report emotional distress in a family member.

**Gender Analyses**

When depression levels in mothers and fathers were analyzed separately, the one-way ANOVA for women alone reached significance, $F(3, 119) = 2.85, p < .05$. Planned comparisons showed that Dismissing women reported significantly lower levels of depression than Secure, Preoccupied, and Unresolved women, whereas the latter three groups did not significantly differ from each other in reported depression level. No significant differences in levels of depression were found among men in the four attachment groups. Low reported incidences of the remaining dichotomous mental health and family variables prevented analyses for the four- and three-way attachment distributions. Adequate power for these analyses was achieved by combining Dismissing and Preoccupied adults into the single category of Insecure attachment to create a 2 x 2 design. The separate secure and insecure analyses for women and men were nonsignificant, with the exception that substance abuse was more often reported by insecure women than secure women (Fisher’s exact test, $p < .04$). (For all Fisher’s exact tests, $N = 119$, $df = 1$.)

Similarly, to separately consider the Unresolved classification in men and women, we compared Unresolved adults with Not-Unresolved adults (combined Secure, Dismissing, and Preoccupied). Analyses for Unresolved men were nonsignificant. However, Unresolved women were more likely than Not-Unresolved women to report suicidal ideation (Fisher’s exact test, $p < .006$), emotional distress (Fisher’s exact test, $p < .009$), and substance abuse (Fisher’s exact test, $p < .05$), as well as family substance abuse, $\chi^2(1, N = 199) = 3.94, p < .05$; family sexual/physical abuse, $\chi^2(1, N = 119) = 4.72, p < .03$; and parental separation/divorce, $\chi^2(1, N = 119) = 5.71, p < .02$. In addition, when looking at Unresolved loss and Unresolved trauma (abuse) for women alone, Unresolved-trauma status was related to substance abuse (Fisher’s exact test, $p < .002$), suicidal ideation (Fisher’s exact test, $p < .02$), family physical or sexual abuse (Fisher’s exact test, $p < .004$), and parental separation or divorce (Fisher’s exact test, $p < .004$). In contrast, Unresolved loss was significantly associated with emotional distress (Fisher’s exact test, $p < .02$) and showed a nonsignificant trend for suicidal ideation (Fisher’s exact test, $p < .10$). Separate analyses of Unresolved loss for men were prevented by low cell count, whereas Unresolved-trauma analyses were nonsignificant, although a trend was noted for substance abuse and Unresolved trauma, $\chi^2(1, N = 21) = 5.22, p < .10$.

**Discussion**

The present study examined associations between adult attachment organization and psychopathology in a nonclinical middle-class population. As expected, Secure adults were unlikely to report mental health problems, either personally or in the family of origin. Insecurity of attachment, however, was associated with indices of psychological disturbance and a greater likelihood of growing up in a family in which parents separated or divorced and a first- or second-degree relative was involved in sexual or physical abuse. Unresolved trauma was associated specifically with alcohol and drug abuse. Specific associations between the various insecure attachment categories and each of the mental health indices are discussed.

The Unresolved AAI classification was significantly associated with a history of psychological difficulty. Consistent with recent studies reporting associations between the Unresolved classification and indices of serious psychopathology in clinical populations (Adam et al., 1996; Allen et al., 1996; Fonagy et al., 1996; Rosenstein & Horowitz, 1996), Unresolved adults in this middle-class sample were more likely than other adults to report suicidal ideation and emotional distress as indexed by hospitalization for or a diagnosis of a mental disorder and placement on psychotropic medication. Such findings are consistent with previous studies linking suicidal ideation and other forms of emotional distress to Unresolved attachment classification (e.g., Adam et al., 1996; Rosenstein & Horowitz, 1996). The separate examination of Unresolved classification for loss versus abuse provided support for the idea that the effects of unresolved trauma may differ depending on whether the source of trauma is childhood abuse or loss. Whereas adults classified as Unresolved with respect to trauma (as opposed to other adults) were significantly more likely to report a history of alcohol or drug abuse, those who were Unresolved with respect to loss more often reported criminal charges. Although clinical investigations have previously documented an association between substance abuse and Dismissing attachment organization (Allen et al., 1996; Rosenstein & Horowitz, 1996), the present finding of a greater likelihood of substance abuse among adults unresolved with respect to abuse has not previously been reported in the literature. Hence, replication of these results would further confirm this finding. Clinicians generally consider the abuse of drugs or alcohol as an attempt to deny or escape from internal conflict or overwhelming stress. Thus, it is possible that the denial and altered state of mind associated with substance abuse function defensively to keep a person from evaluating and reexperiencing the painful and confusing reality of having been abused and thereby contribute to the failure to resolve trauma. This finding is intriguing and lends weight to the view that the disorganization of reasoning and discourse some adults experience around trauma might be useful to consider in treating chemical dependency.

Current findings generally support the validity of the Unresolved loss or trauma scale’s attention to lapses in reasoning and discourse in both clinical and nonclinical populations and suggest that Unresolved adults, as a group, experience significant disorganization and psychological distress related to prior trauma or loss. Consequently, Unresolved adults may require therapeutic intervention to assist them in constructing and integrating a coherent account of their traumatic experience. It is important to note that approximately half (48%) of the adults reporting physical or sexual abuse on the Mental Health Survey did not demonstrate the lapses of reasoning and discourse characteristic of being Unresolved. Although a history of child abuse is a risk factor in the development of psychopathology, current findings suggest that it is a
present state of mind characterized by a lack of resolution to trauma, rather than the trauma itself, that engenders the experience of psychological distress. When only the three primary categories were considered, only one significant association remained (i.e., suicidal ideation and Preoccupied status). This suggests that among middle-class adults, a disorganized state of mind with respect to trauma may be a primary pathway to various forms of psychopathology. Thus, the clinical usefulness of the Unresolved classification lies in its ability to detect lapses in reasoning or discourse that cut across all primary attachment classifications, providing meaningful support for the idea that disorganization in response to loss and abuse has a tremendous impact on functioning regardless of prevailing relational strategy. The relation between criminal charges and Unresolved loss was not predicted and, given the low incidence of reports of criminal charges (3%) in this nonclinical sample, this finding requires replication for confirmation.

Dismissing women in this sample endorsed significantly lower levels of depression than did the other women in the study. One explanation for this finding is that Secure women were experiencing unusually high levels of depression stemming from their advanced stage of pregnancy. However, the proportion of Secure participants meeting the criteria for clinically significant levels of depression (14%) is not excessive and is consistent with reported prevalence rates of depressive symptoms for community samples (American Psychiatric Association, 2000; Boyd & Weissman, 1981; Jacobvitz & Bush, 1996). In addition, finding lower levels of depression among Dismissing adults is consistent with the idea that Dismissing adults minimize emotion and may express distress in other ways. Pennebaker (1995) suggested that suppressing strong emotions or not talking about difficulties may lead to prolonged arousal, which in turn may result in persistent somatic symptoms. To test this idea, future studies investigating the mental health of Dismissing adults should include an assessment of somatic symptoms of depression. Another possibility is that Dismissing adults may not experience dysphoric mood, per se, but may instead express psychological distress through externalizing behaviors, such as criminal behavior.

Alternatively, Dismissing adults may simply be less open than other adults about their symptomatology. Dozier and Lee (1995) found that individuals with dismissing states of mind reported less symptomatology than did others, but expert raters reported more psychopathology for these individuals than for others. Such data suggest that one must be cautious about relying on self-report measures when assessing the mental health of Dismissing adults. However, the negative relation between a dismissing state of mind and reports of depressive symptoms by women was not found for the men in this study. It may be important for other studies to explore the accuracy of some types of self-report data for Dismissing adults and for men versus women.

One area that merits further exploration is the extent to which Dismissing adults are less likely than other adults to report physical or sexual abuse. It is interesting to note that 11 of the 21 adults classified as Unresolved for abuse on the AAI did not themselves endorse having experienced physical or sexual abuse on the Mental Health Survey. Most of these adults were fathers (72%), and most of these fathers (75%) were given an alternative best-fitting classification of Dismissing. It is also possible that discrepancies in reported abuse on the AAI and Mental Health Survey occurred because the criteria for abuse on the AAI differ somewhat from the “legal” markers of abuse. For example, being repeatedly locked in a closet, or hit repeatedly in the face, or hit on the legs leaving bruises are markers of abuse in Main and Goldwyn’s (1998) AAI coding manual but are not generally legal markers of abuse, and people who describe these experiences may not consider themselves to have been abused.

Preoccupied adults were significantly more likely than Secure or Dismissing adults to report childhood abuse involving a relative and parental separation or divorce on the Mental Health Survey. Interaction patterns involving role reversal or parentification, whereby children are expected to care for the parent at the expense of receiving help and guidance themselves, are common to both single-parent families (Dawson, 1980) and sexually abusive families (Gelinas, 1988). Current findings are consistent with the suggestion by several researchers that parent–child interactions involving role reversal are expected to produce an ambivalent or preoccupied attachment (Alexander, 1992; Main & Goldwyn, 1998).

Unresolved adults in this study, compared with those classified as Secure or Dismissing, also reported parental separation or divorce and childhood abuse involving other members of their family of origin. Further research is needed to understand the link between parental separation or divorce and the Unresolved classification. Block and his colleagues’ work (Block, Block, & Gjerde, 1986) suggests that divorce is symptomatic of strife in the family that could then increase the likelihood that children experience trauma or contribute to their difficulty resolving loss or abuse. Another possibility is that an early, prolonged separation from parents in itself disrupts the attachment relationship. Wallerstein (1983) believed that, like bereavement and child abuse, the stress of divorce “engenders profound distress and is potentially disorganizing in its impact because it demands complex, rapid recognition of a major life change and a rapid adaptation to changed circumstances” (p. 269). Separations and divorces may increase people’s vulnerability to having difficulty resolving experiences of loss or abuse. The present results are consistent with Adam, Sheldon-Keller, and West’s (1995), who reported that a significant portion of a clinical adolescent sample showed discourse disorganization around discussion of unwilling and unexpected separations from parents, including parental separation and divorce. Adam et al. argued that loss of the home as a familiar base might lead to disorientation and confusion and suggested that Preoccupied adults are more vulnerable than other adults to becoming Unresolved in response to trauma.

It is interesting to note that both the Preoccupied and Unresolved adults in this study reported a history of divorce or parental separation during childhood. Such experiences may be related to the Preoccupied state of mind, which in turn places people at risk for becoming Unresolved, or divorce or parental separation during childhood may independently contribute to adult’s propensity to become Unresolved and Preoccupied. Prospective longitudinal studies examining conditions and childhood experiences that give rise to Unresolved loss or trauma are needed to understand more fully why some insecurely attached adults are at greater risk for mental health problems. A larger sample or one with a higher proportion of Preoccupied adults is needed to further compare the childhood experiences of adults classified as Preoccupied and Unresolved versus those classified as Preoccupied but Not Unresolved.
Associations between attachment status and mental health differed for women and men. When the Preoccupied, Dismissing, and Unresolved groups were combined into one Insecure group, many of the associations between attachment status and mental health found for the entire sample were also found for the women but not the men. It is possible that Insecure women are more likely to experience indices of psychopathology. It is equally likely, however, that finding such gender differences is due to underreporting of symptoms by the disproportionately higher number of Dismissing men in this sample. An alternative explanation for the gender differences is that collapsing all three insecure categories obscured the findings. Insufficient power precluded conducting gender analyses using all four attachment groups. Studies with larger samples are needed to look at the association of men and women’s mental health history with all of the attachment categories.

Several potential limitations to the present study should be noted. The study’s reliance on a retrospective self-report instrument to assess history of individual and family mental health may have introduced subjective biases leading to distorted memories or lack of self-disclosure. In addition, husbands’ and wives’ AAI status may have been influenced by the wives’ advanced stage of pregnancy. However, the one study examining AAI status among men whose wives were pregnant was conducted in Great Britain (Steele, Steele & Fonagy, 1996), and the AAI distribution for these men was comparable with Bakermans-Kranenburg and van IJzendoorn’s (1993) AAI distribution among men whose wives were not expecting a baby. Finally, our distribution of AAI classifications among women is similar to that reported in van IJzendoorn and Bakermans-Kranenburg’s (1996) meta-analysis of 267 nonclinical mothers in the United States, suggesting that it is unlikely that the mothers’ pregnancy influenced her AAI classification. A higher percentage of men in our sample were classified as Dismissing compared with the AAI distribution for men in the one nonclinical U.S. sample (N = 27; Cohn, Silver, Cowan, Cowan, & Pearson, 1992) included in van IJzendoorn and Bakermans-Kranenburg’s meta-analysis. It is unclear which of the two samples is more representative of the AAI distribution for American men. It is possible that gender socialization practices interact with parenting practices to influence the strategies adults use to regulate their emotion with respect to early attachment relationships. However, because other nonclinical adult samples have not identified gender differences in attachment organization, these results should be interpreted with caution.

References


