

Anxious and Avoidant Attachment to Parents and Psychological Distress
in Early Adolescence and Young Adulthood

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ABSTRACT

Anxious and Avoidant Attachment to Parents and Psychological Distress
in Early Adolescence and Young Adulthood

Katayoun Kamkar Parsi, Ph.D.
Concordia University, 2006

Depression increases in adolescence and reaches its highest rate in adulthood. Identifying processes operative developmentally prior to the increase is essential to understanding the causes. This research includes two studies in which processes linking adolescents' insecure attachment to parents to psychological distress are examined. The first study examined the association of insecure attachment to parents with depressive symptoms among early adolescents ($n=140$) and assessed the mediating roles of attributions and self-esteem. Adolescents more anxiously attached to both mother and father reported most depressive symptoms. Anxious attachment to mother was associated with depression for adolescent girls only, and maladaptive attributions to negative events partially mediated the association. For girls, self-esteem also mediated between anxious attachment to mother and depression.

The second study investigated the role of attributional processes to stressful interpersonal events as a process linking insecure attachment and psychological distress among early adolescents ($n=164$) and young adults ($n=132$). Because working models are hypothesized to crystallize with age and cognitive rigidity is expected to increase, the association between insecure attachment and negative attributions was expected to be stronger for young adults than for adolescents, and negative attributions were expected to mediate more strongly for the older age. More anxious attachment to mother was

associated with higher dysphoria whereas more avoidant attachment to mother was associated with lower dysphoria. Negative attributions mediated between anxious attachment to mother and dysphoria. Negative attributions were more strongly associated with psychological distress for young adults than for adolescents, and thus, attributions to interpersonal stressors mediated more strongly between attachment and dysphoria at the older age.

In conclusion, results of both studies support cognitive models of depression and highlight the importance of quality of attachment to mother in adolescence, in particular attachment anxiety. Attributional processes are indicated as one pathway from anxious attachment to mother to psychological distress for girls in study 1 and for both boys and girls in study 2, a pathway that the results of study 2 suggest is stronger at older ages. Study 1 found self-esteem as another pathway for adolescent girls.

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On my first day of the Introduction to Psychology class, as a first year undergraduate university student, I promised to myself that I would get my Ph.D. in Clinical Psychology. Ten years later, I finished my Ph.D. thesis. Motivation, ambition, and hard work helped me to achieve my dream. But this dream could not have become true on my own. I would like to express my profound respect and gratitude to my very dear supervisor, Dr. Anna-Beth Doyle. I would like to thank you Anna-Beth from the bottom of my heart for helping me achieve my goal. Your continuous encouragement, invaluable help, unfailing support, brightness, patience, and kindness have helped me to complete my Ph.D. thesis successfully. As well, I am deeply grateful to my co-supervisor, Dr. Dorothy Markiewicz for her continuous help, support, advice, and warmth. I also would like to express my sincere gratitude to Dr. Michel Dugas, for accepting to be a member on my thesis defense committee, for his generous time in reading my thesis, for his very helpful comments, and his unique kindness.

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I would like to dedicate this thesis to my mother and father.

CONTRIBUTIONS OF AUTHORS

The thesis comprises two manuscripts

Kamkar, K., Doyle, A.B., & Markiewicz, D. (2005). Insecure attachment to parents and depressive symptoms in early adolescence: Mediating roles of attributions and self-esteem. Manuscript submitted for publication.

Kamkar, K., Doyle, A.B., & Markiewicz, D. (2005). The association between parent-child attachment and psychological distress among early adolescents and young adults: Mediating role of attributions to interpersonal stressors. Manuscript submitted for publication.

I contributed to the research on the younger adolescent sample in collaboration with my supervisor Dr. Anna-Beth Doyle and my co-supervisor Dr. Dorothy Markiewicz who both designed the larger study. The Attribution measure (CASQ-R) was used in study 1 on my initiative and I collected the data. Drs. Markiewicz and Doyle designed study 2 and the undergrad data was collected by other graduate students. I played the principal role in the processing and analysis of data for both studies under Dr. Doyle's supervision, including the complex task of transferring and summarizing the E-Prime data to SPSS. The internal thesis committee was composed of Dr. Anna-Beth Doyle, Dr. Dorothy Markiewicz, and Dr. Michel Dugas. The co-authors served in an advisory capacity in the formulation of the research questions and the revisions of the articles. Dr. Michel Dugas provided helpful comments on both manuscripts. I conducted all data analyses, wrote all manuscripts, and revised the articles based on my supervisors comments and editing.

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INTRODUCTION

Depression, considered an emotional, cognitive, behavioural, and physiological state (Craighead, 1980), is an affective disorder and a major health problem. It encompasses psychological symptoms (e.g., depressed mood, loss of interest or pleasure, guilt) and physical symptoms (e.g., sleep disturbance, fatigue, low energy; American Psychiatric Association, 1994; Emery, 2000). Rates of depression are found to increase with age, for both boys and girls particularly from middle to late adolescence (Hankin, Abramson, & Moffitt, et al., 1998). With respect to sex differences, the prevalence of depression is equal for boys and girls in childhood (Angold & Worthman, 1993) and from early to middle adolescence, girls begin to show significantly higher rates of depressive symptoms than boys (e.g., Hankin & Abramson, 1998; Nolen-Hoeksema & Girgus, 1994).

Identifying processes prior to the increase in depression and to the appearance of gender differences in depression becomes essential. This research project includes two studies in which processes linking insecure attachment to parents to psychological distress are examined in non-clinical samples, one study among early adolescents and a second study comparing early adolescents with young adults. These two age periods are studied because during adolescence and emerging adulthood, individuals make many choices and engage in behaviors that can have a lasting impact on their future (Eccles, Templeton, Barber, & Stone, 2003). Understanding, therefore, the processes that help them stay on a healthy pathway becomes crucial. A critical emphasis is placed on attachment theory to understand the developmental trajectory of vulnerability to

depression. By integrating cognitive and interpersonal processes, attachment theory provides a greater understanding of the mechanisms that produce depression vulnerability (e.g., see Ingram, Miranda, & Segal, 1998).

Theories of depression are first outlined, followed by gender differences in depression. Attachment theory including internal working models of self and others are then reviewed. The relation between attachment and depression is also discussed. Finally, the goals of this research project are outlined.

Depression: proposed models

Two major cognitive theories of depression, Beck's (1967, 1987) theory and the hopelessness theory (Abramson, Metalsky, & Alloy, 1989; Alloy, Abramson, Metalsky, & Hartlage, 1988) have been proposed to explain the risk for depression. Both theories posit that maladaptive cognitive patterns increase an individual's likelihood of developing an episode of depression. Beck's cognitive theory (e.g., Beck, 1967, 1976) highlights the importance of negative self-schemas (i.e., stable and enduring cognitive structures revolving around themes of inadequacy, failure, loss, and worthlessness) as constituting vulnerability factors for depression. The negative schemas are represented as a set of dysfunctional attitudes (e.g., "I am nothing if a person I love doesn't love me") and are hypothesized to be activated by negative life events. Once the negative schemas are activated, their filtering of information leads to negatively biased perceptions of the self, world, and future (hopelessness), which then contribute to depression. Empirical support for dysfunctional attitudes has been equivocal. Some researchers, for instance, have concluded that dysfunctional attitudes are causally related to depression (Segal & Shaw, 1986a, 1986b, for a review), others that dysfunctional attitudes are concomitants of

depression (Barnett & Gotlib, 1988, for a review; Coyne & Gotlib, 1983, 1986, for a review), and yet others that the causal role of dysfunctional attitudes has not been properly tested because methods suitable for priming latent beliefs (i.e., rendering a particular schema available and accessible for use in information processing) have not been used (Haaga, Dyck, & Ernst, 1991, for a review; Persons & Miranda, 1992, for a review). Further, the majority of research in this area has been conducted with adults (Abela, 2001). Because of developmental changes in cognition, emotion, and behavior, as well as physical development, theories about processes in adolescence must be tested with that age group (see Digdon & Gotlib, 1985).

One cognitive theory that has been tested in both children and adults is the reformulated learned helplessness theory of depression (Abramson, Seligman, & Teasdale, 1978) that posited that individuals with a depressotypic attributional style are more likely to become depressed. More specifically, individuals who tend to make internal, stable, and global attributions for negative life events are hypothesized to be at increased risk for depression when confronted with stressful life events. The hopelessness theory of depression (Abramson, Metalsky, & Alloy, 1989) posits that individuals with negative inferential styles are likely to be vulnerable to developing hopelessness depression when they encounter negative life events. More specifically, the depressogenic inferential style consists of the tendency to attribute negative events to stable (enduring) and global (widespread) causes, to infer that further negative consequences will follow from current negative events, and to infer that one is flawed or worthless from the occurrence of negative events. The hopelessness theory has gained strong support from empirical studies among adults (see Abramson, Alloy, & Metalsky,

1995), and the cognitive vulnerability-stress component of the hopelessness theory of depression also applies to middle to late adolescents (Hankin, Abramson, & Siler, 2001), and early adolescents (Abela, 2001). Although Beck's theory and the hopelessness theory of depression differ in some of their specifics, both hypothesize that maladaptive cognitive styles increase vulnerability to depression through their influence on appraisals of negative life events (Alloy, Abramson, Gibb, et al., 2004).

Gender differences in depression

Numerous studies have examined the development of gender differences in depression. For example, cross-sectional studies (see Rudolph & Hammen, 1999; Windle, 1992) show that negative life events are associated with depressive symptoms for girls, but not boys, with the strongest association found for interpersonal events. The timing of advanced pubertal status is also found to be associated with depressive symptoms for girls (Ge, Conger, & Elder, 2001). Girls who experience their menarche at a younger age than their peers are found to be at increased risk for depressive symptoms. In particular, early maturing girls with a greater number of negative life events reported higher depressive symptoms in 8th and 9th grades. The discrepancy between physical and cognitive maturity is likely to render early maturing girls vulnerable to life stresses (Ge et al., 2001). That is, early maturing girls are likely to face environmental stressors and behavioral expectations prior to being psychologically prepared for such various challenges. As well, adolescent girls are found to experience more negative interpersonal events after puberty than boys (e.g., Ge, Lorenz, Conger, Elder Jr., & Simons, 1994). One explanation offered for these findings is that girls are especially aware of conflict in interpersonal friendships and such conflict increases throughout adolescence (Laursen,

1996). Similarly, females are socialized to be more sensitive to interpersonal situations than males (Zahn-Waxler, Cole, & Barrett, 1991). This greater sensitivity is, in turn, likely to render them more vulnerable to relationship difficulties and make them feel guilty and empathic. As well, mothers are found more controlling of their daughters than sons, and this gender socialization partially mediated girls' more negative self-evaluations, particularly their tendency to take responsibility for failure compared with boys (Pomerantz & Ruble, 1998).

Also, girls are shown to recall more negative childhood emotional memories and to recall them more quickly than boys (Davis, 1999). Further, girls are found to have depressive affect both in response to negative events involving themselves (e.g., academic failures) and significant interpersonal others (e.g., family illness), whereas boys are found to react only to events involving themselves (e.g., Gore, Aseltine, & Colten, 1993). Girls' greater cognitive vulnerability, which in turn increases their sensitivity to negative events, also contributes to them becoming more depressed than boys. Using a measure of attributional style with adolescents, the Adolescent Cognitive Style Questionnaire, Hankin and Abramson (2002) found that cognitive vulnerability mediated the gender difference in depressive symptoms. That is, girls' greater levels of general negative cognitive style (i.e., negative inferences for causal attributions, negative inferences for consequences, and negative inferences for self) accounted for their higher levels of depressive symptoms when compared with boys. A gender difference in ruminative response style is also found with girls showing more rumination than boys (e.g., Broderick, 1998). A ruminative response style also partially mediated the gender difference in adolescent depressed mood (e.g., see Hart & Thompson, 1996).

Attachment Theory: Internal working models of self and others

Attachment theory conceptualizes the universal human need to form meaningful emotional bonds (Bowlby, 1969, 1973, 1980, 1982). Bowlby (1969, 1973, 1980) proposes that the quality of infant-caregiver interactions results in mental working models that organize cognitions, affects, and behavior, guide affect regulation, and shape self-image. More specifically, two interrelated mental representations or internal working models have been identified, models of the self and other, which are mental representations centering on the worthiness of the self and the availability and responsiveness of others (Bowlby, 1969). The former characterizes the self as worthy or unworthy of love and support, and the latter characterizes whether the caregiver will be available and responsive in times of stress and need. Early working models are, therefore, composed of schemas that represent a child's attempt to gain comfort and security (Main, Kaplan, & Cassidy, 1985). One important aspect of working models is that they are used to predict the behavior of others in social situations and to organize one's own behavior. In other words, working models organize past experience and guide social interaction over time (e.g., Bretherton & Munholland, 1999). This assumption provides the foundation for the association between attachment security and the development of personality (Thompson & Raikes, 2003). Thus, individual differences in infant behavioral patterns represent underlying differences in internal working models (Main et al., 1985) and form the basis for categorizing infants into secure and insecure attachment styles (Ainsworth, Blehar, Waters, & Wall, 1978).

A central function of working models is that they involve interpersonal schemas (e.g., Safran, 1990a) or relational schemas (Baldwin, 1992). The latter are defined as

cognitive structures representing typical patterns of interpersonal relatedness. Relational schemas are hypothesized to encompass generalized representations of self and others as well as a script for an expected pattern of interaction resulting from memories of past relationship experiences (Baldwin, 1992, 1995). Thus, in addition to focusing on self-schemas and the perception of other persons, relational schemas focus on cognition about relationships.

Parents remain the primary attachment figures until late adolescence. Attachment figures are used primarily to fulfill three functions, proximity maintenance, safe haven (i.e., seeking the attachment figure for reassurance and safety in times of stress), and a secure base from which to explore the environment (Hazan & Shaver, 1994). In a cross-sectional study, Hazan and Zeifman (1994) found that the proximity-seeking function was transferred to friends and romantic partners in early childhood, the safe-haven function in adolescence and young adulthood, and the secure-base function in early adulthood. Further, among a sample of young adults, participants were found to be primarily attached to their parents (Fraley & Davis, 1997). Specifically, the majority of young adults were likely to use their parents as a secure base, their peers for proximity maintenance, and the safe-haven component from parent to peer was in the process of being transferred.

Bowlby (1973) viewed nonverbal and verbal communication patterns as the processes through which internal working models of secure and insecure attachment are generated, maintained, and transmitted to the next generation. Attachment styles in infants and young children are shown also to apply to adults' styles of relating. The adult attachment interview was developed to assess adults' current state of mind with respect to

attachment (George, Kaplan, & Main, 1985; Main & Goldwyn, 1988). The interviews revealed that adult attachment groups paralleled the three childhood attachment categories (e.g. Crowell & Feldman, 1987). Moreover, these same categories have been identified in young adults' self and other (to mother, father, peer, and romantic partner) representations (Kobak & Sceery, 1988). Self-report procedures have also been developed to classify adults into three categories presumed to correspond to the attachment styles of childhood (Hazan & Shaver, 1987). In a three-category model of attachment, an avoidant attachment style (i.e., fear or mistrust of others) and anxious/ambivalent style (i.e., fear of abandonment) have been differentiated from secure attachment (i.e., beliefs in the worthiness of the self and in others' dependability and availability).

Subsequently, a four-category model of attachment has been proposed where attachment categories have been conceptualized as derived from the interaction between the two dimensions, self and other, each ranging from positive to negative (Bartholomew & Horowitz, 1991). The positivity of the self model is the degree to which individuals have internalized a sense of their own self-worth (including self-esteem, self-efficacy, acceptability, and lovability) and, thus, expect others to respond to them positively. The positivity of the other model is the degree to which others are generally expected to be available and supportive. Individuals are considered to have a secure attachment when they have a positive view of both self and other. These individuals see the self as worthy of love and expect the other to be available when needed. Individuals with positive model of self and negative model of other are said to have a dismissing style of attachment. These individuals see the self as worthy of love and tend to avoid others and any close

relationships in order to protect themselves against any disappointment. They like being independent since they do not perceive attachment to others as valuable. Individuals with a negative model of self and positive model of other have a preoccupied style of attachment. They see the self as unworthy of love and they gain self-acceptance when they obtain acceptance from another. Individuals having a fearful style of attachment have a negative model of both self and other. They see the self as unworthy of love and expect the other to be rejecting and untrustworthy.

Recently, variability in attachment organization has been seen to fall along two dimensions, anxiety, which represents the variability in fear of abandonment, rejection, and loss, and avoidance, which represents the degree to which people are uncomfortable with intimacy, closeness, and dependence (Brennan, Clarke, & Shaver, 1998). These two dimensions, anxiety and avoidance, coincide with the attachment dimensions in Bartholomew's models of self and other where the anxiety dimension parallels a more negative model of self and the avoidance dimension represents a more negative model of others (Brennan et al., 1998). The defensive processes of anxiously versus avoidantly attached individuals have also been studied (e.g., Kobak & Sceery, 1988; Mikulincer & Orbach, 1995; Shaver & Hazan, 1993). Anxiously attached individuals are found to use maximizing or hyperactivating strategies where they turn their attention to their own distress and ruminate on their negative thoughts, memories, and affect. Avoidant individuals are found to use deactivating or minimizing strategies where they turn their attention away from their distress and have limited access to negative thoughts, memories, and affect.

Although updated and changed with new experiences and new events, the internal working models are resistant to change, particularly by late adolescence (Bowlby, 1973). Adolescence is suggested to be a period where internal working models become stable and resistant to change. That is, whether the actual experiences with the attachment figure provide support or rejection, internal working models are likely to become less tested, and thus, more stable. Longitudinal studies from infancy to childhood revealed stability of infant attachment organization. The stability of the caregiving conditions was an important factor contributing to the stability of attachment in childhood (see George & Solomon, 1999; Grossmann, Grossmann, & Zimmermann, 1999). With respect to stability of attachment security from childhood to adulthood, long-term longitudinal studies have examined the correspondence between childhood (assessed with the strange situation paradigm) and adult attachment classifications (assessed with the Adult Attachment Interview). Although some studies have found little correspondence between childhood and adult attachment classifications (Lewis, Feiring, & Rosenthal, 2000; Weinfeld, Sroufe, & Egeland, 2000), other studies showed significant correspondence (Hamilton, 2000; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000). Major family life events such as loss of a parent, parental divorce, child maltreatment, and parental psychopathology are found to be associated with change toward insecurity (e.g., Waters et al., 2000; Weinfeld et al., 2000).

Using techniques for mathematically modeling stability and change (see Haefner, 1996; Huckfeldt, Kohfeld, & Likens, 1982; van Geert, 1994) on the basis of longitudinal data obtained from meta-analysis, Fraley (2002) found that attachment security is moderately stable across the first 19 years of life. This finding suggests that the mental

representations developed in infancy likely continue to influence interactions throughout the life span.

Attachment to parents and depression

Attachment theory offers a conceptual model for understanding how the relationship between the parent and the child may constitute a risk factor for the development of depression (e.g., Bowlby, 1969/1982, 1973, 1980; Bretherton & Waters, 1985; Cummings & Cichetti, 1990; Margolese, Markiewicz, & Doyle, 2005). It provides a developmental model of depression that integrates both cognitive (i.e., the role of maladaptive thought processes) and interpersonal (i.e., the role of interpersonal conflict, loss, or lack of social support) approaches to depression. In childhood, distress during times of threat, for instance, stress, or illness, leads to seeking and maintaining proximity to the caregiver. A child securely attached to his or her parents is likely to seek them out and he or she is likely to have parents who reliably provide comfort, help, and protection. Seeking and receiving comfort when needed, in turn, form the basis for the construction of secure internal working models of self, other, and relationships. A child insecurely attached to his or her parents, however, develops working models which are thought to be related to risks for depression (Cummings & Cichetti, 1990). Insecure working models are composed of schemas, which once activated as a result of stress might result in fear of abandonment, hopelessness, diminished self-esteem, and self-criticism. Further, insecure attachment to parents has been found to be related to lower self-esteem (e.g., Greenberg, Siegel, & Leitch, 1983; McCormick & Kennedy, 1994; Man & Hamid, 1998).

A number of studies have examined the relation between parent-child attachment and depression. Using the Inventory of Parent and Peer Attachment (IPPA; Armsden &

Greenberg, 1987), Nada Raja, McGee, and Stanton (1992) found that adolescents insecurely attached to their parents (the lowest 15% of the scores) reported higher scores for depression than those with a more secure attachment to their parents (the highest 85% of the scores). Similarly, early adolescents securely attached to their mother and father, as assessed with the Relationship Questionnaire (Bartholomew & Horowitz, 1991), reported fewer depressive symptoms than insecurely attached adolescents (Doyle, Brendgen, Markiewicz, & Kamkar, 2003).

Retrospective studies of depressed individuals have found that low levels of nurturance, support, and affection characterize the parent-child relationships. Also, depressed individuals report their parents being rejecting and critical, and having more negative experiences with their parents when compared to nondepressed controls. Parents of depressed children are also viewed as being more angry, punitive, and abusive than parents whose children are not depressed (e.g., Blatt & Homann, 1992, for a review; Brewin, Andrews, & Gotlib, 1993; Burbach & Borduin, 1986; Gerlsma, Emmelkamp & Arrindell, 1990).

Internal working models are hypothesized to account for both the continuity of attachment behavior and later psychosocial functioning. In other words, working models may act as a protective or risk factor for later functioning via multiple pathways. For instance, Hammen, Burge, Daley, and Davila (1995) found that insecure interpersonal cognitions (measured with the Revised Adult Attachment Scale; Collins & Read, 1990), interpersonal events, and their interactions were associated with more depressive symptoms and other general symptomatology among a sample of high school senior women. Thus, insecure attachment moderated the influence of life stress and

psychological distress. In other words, insecure attachment can make an individual more susceptible to interpersonal stressors, and, thus, increase vulnerability to depression and other disorders. As well, insecure attachment in late adolescence has been found to be associated with low self-esteem, which in turn was associated with poor interpersonal problem solving (Davila, Hammen, Burge, Daley, & Paley, 1996).

Cognitive processes are also found to be important mechanisms linking insecure attachment and psychological distress. For instance, an association has been found between security of parent attachment (measured with the Armsden and Greenberg's [1987] Inventory of Parent and Peer Attachment), attributional style, and depression among a sample of psychiatric early adolescents (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990). Students' retrospective accounts of parental care have also been found associated with dysfunctional attitudes and depressotypic attributional style, with depressotypic cognitions partially mediating the relation between parental care and dysphoria (Whisman & Kwon, 1992). As well, middle adolescents, in particular girls, with more negative models of self and of other in relation to mother were found to make more negative attributions about themselves and the other in response to stress, which, in turn, were associated with greater depressive symptoms (Margolese et al., 2005). Further, the association between adult attachment security, assessed with the Adult Attachment Scale (Collins & Read, 1990), and symptoms of depression has been found to be mediated by dysfunctional attitudes and low self-esteem (Roberts, Gotlib, & Kassel, 1996). Specifically, adults who were anxious about their attachment relations and those who reported difficulties becoming close to attachment figures, endorsed higher dysfunctional attitudes, which in turn were associated with lower levels of self-esteem

and depressive symptoms, both measured 8 weeks later, even after controlling for initial depressive symptoms. Thus, these studies provide evidence suggesting that insecure parent-child attachment relationships produce risk factors for depression and that some of these risk factors are cognitive (Ingram, 2003).

Attachment insecurity might also be a risk factor for the development of depression through attributional processes and low self-esteem. Given the strong associations of depression with attachment insecurity, negative attributions, and low self-esteem, it seems important to examine the interactive roles of attachment insecurity and maladaptive attributions and of attachment insecurity and low self-esteem in the prediction of depressive symptoms. Because an insecurely attached individual expects others to be untrustworthy, unavailable, and rejecting, he or she might be more likely than a securely attached individual to make negative attributions and/or report lower self-esteem to stressful events, which can increase the risk for psychological distress. Thus, attachment insecurity might strengthen the relationship between negative attributions and depressive symptoms, and similarly between low self esteem and depressive symptoms.

The impact of specific type of insecurity on depression has also been investigated. For instance, Bowlby (1969, 1973, 1977, 1980) distinguished between the predisposition to depression of anxiously attached individuals and avoidantly attached (compulsively self-reliant) individuals. Anxiously attached individuals search for interpersonal contact and are excessively dependent on others whereas compulsively self-reliant individuals avoid others and show contempt at individuals wishing to have intimate relationships. Interestingly, there are similarities between theories of attachment and the two personality dimensions (sociotropy/dependency and autonomy/self-criticism) that

function as vulnerability factors in depression (Beck, 1983; Blatt, 1974). Anaclitic or dependent depression is characterized by feelings of loneliness, helplessness, and weakness, and a constant fear of abandonment (e.g., Blatt, 1974; Blatt, D’Afflitti, & Quinlan, 1976, 1979; Blatt & Shichman, 1983; Blatt et al., 1982). Thus, such individuals rely on others to provide and maintain a sense of well-being. Introjective or self-critical depression is characterized by self-criticism and feelings of unworthiness, inferiority, failure and guilt, and a chronic fear of disapproval and criticism. These individuals strive for achievement and perfection.

Similarly, sociotropic or socially dependent individuals place a great deal of importance on “positive interchange with others”, expressed in both “passive-receptive” wishes (acceptance, intimacy, understanding, support, guidance) and “narcissistic wishes” (admiration, prestige, status; Beck, 1983). Autonomous individuals are, on the other hand, particularly invested in maintaining their independence, personal rights, and attaining meaningful goals (Beck, 1983, p. 272). For sociotropic individuals, depression is likely to result from perceived loss or rejection in social relationships whereas for autonomous individuals, depression is likely to result from perceived achievement failure or lack of control over the environment (Robins & Block, 1988). Although elevated levels of personality traits may reflect the severity of depressive symptoms (e.g., Segal & Ingram, 1994), both sociotropy and autonomy are found to be relatively unaffected by the severity of depressed mood and both personality dimensions are found to be stable across time (Bagby et al., 2001).

Similarities between these depressive personality styles and attachment dimensions have been shown. For instance, among a sample of undergraduate students,

sociotropy and dependency were found to be associated with anxious attachment, measured with the adult attachment style (AAS; Collins & Read, 1990), whereas self-criticism and autonomy were found to be related to avoidant attachment (Zuroff & Fitzpatrick, 1995). Similarly, among a sample of undergraduate students, anxious attachment was found to be particularly related to dependency and avoidant attachment to be related to self-critical attitudes (Zuroff, Quinlan, & Blatt, 1990). These data provide support for the hypothesis that anxious attachment is more related to excessive dependency, whereas avoidant attachment is more related to the development of self-critical attitudes both in childhood and later in adolescence and adulthood (e.g., Blatt & Homann, 1992). Similar to anxious attachment, excessive dependency may also parallel a negative model of self where individuals who experience relationship conflicts may feel rejected and lose their self-acceptance. As well, similar to avoidant attachment, self-critical attitudes may parallel a negative model of other where individuals are likely to compare themselves with others to define success or failure in their achievement.

Although a consistent link is found between insecure attachment and depression, no consistency has been found between a more specific style of attachment and severity of depression. Some studies, for instance, have found that the more anxious/ambivalent styles such as preoccupied/enmeshed (see Gerlsma & Luteijn, 2000) and fearful (Murphy & Bates, 1997) are related to depression. Other studies have found avoidant styles to be more related to depression (McCarthy, 1999). Others, however, have found no differentiation between insecure attachment styles in level of depression (Mickelson, Kessler, & Shaver, 1997). Numerous reasons have been offered to explain the lack of greater specificity of individual attachment styles in relation to depression (Bifulco,

Moran, Ball, & Bernazzani, 2002). There are issues related to methodology (e.g., the use of different types of samples such as volunteers and community based samples across studies), to measurement (e.g., the use of different types of measures to assess attachment; categorical versus dimensional approaches to attachment style assessment), to the overlap of style characteristics (e.g., fearful style has elements of both anxious and avoidant styles; participants can express a mixed or double non-standard style with elements of more than one style), and to the failure to distinguish between internalizing and externalizing symptoms of depression (i.e., preoccupied state of mind is linked with internalizing symptoms whereas dismissing is more associated with externalizing symptoms; Cole-Detke & Kobak, 1996).

Current research

In this research project, we examined the processes linking insecure attachment to parents and psychological symptoms. In study 1, early adolescents' attributions to negative events and/or self-esteem were examined as potential mediators of the relation between insecure attachment to parents and depressive symptoms. Specifically, the aim of the study was to examine whether early adolescents more anxiously and/or more avoidantly attached to mother and father reported more internal, stable and global attributions to negative events and/or reported lower self-esteem, both of which, in turn, were expected to be associated with greater depressive symptoms. This study also examined whether the association of maladaptive attributions with depressive symptoms was stronger for adolescents more anxiously or more avoidantly attached to their parents (see Appendix A). Also examined, was whether the association of low self-esteem with

depressive symptoms was stronger for adolescents more anxiously or more avoidantly attached to their parents (see Appendix A).

The aim of study 2 was to examine the development from early adolescence to young adulthood of processes (i.e., negative attributions about self and about attachment figures to hypothetical interpersonal stressful events) linking insecure attachment and negative emotions following the stressful events. Participants more anxiously attached and those more avoidantly attached were expected to make more negative global-stable attributions about themselves and others. These maladaptive attributions were, in turn, expected to be associated with more negative emotions following the stressful events. Because of the crystallization of working models and increasing cognitive rigidity with age (e.g., Bowlby, 1973; Fiske & Taylor, 1991), the association between insecure attachment and negative attributions was expected to be stronger for young adults than for adolescents, and these negative attributions were expected to mediate more strongly between attachment and negative emotions for young adults than for early adolescents. This study also examined age and sex differences in the associations of anxious versus avoidant attachment to parents with the stressfulness of interpersonal events. Also examined, was the relation between insecure attachment to parents and familiarity of interpersonal stressors (Appendix B).

Abstract

Insecure Attachment to Parents and Depressive Symptoms in Early Adolescence:**Mediating Roles of Attributions and Self-Esteem**

This study examined the associations of anxious and avoidant attachment to mother and father (assessed dimensionally) with depressive symptoms among early adolescents ($N= 140$), and the mediating roles of attributional styles and/or self-esteem. As expected, adolescents more anxiously attached to both mother and father reported most depressive symptoms. Anxious attachment to mother was associated with depression for girls only and maladaptive attributions to negative events partially mediated this association. Self-esteem fully mediated the association between anxious attachment to mother and depression for adolescent girls but not for boys. This study indicates the importance of considering attributions and self-esteem as pathways through which anxious attachment to mother might lead to depressive symptoms for girls.

Rates of depression are found to increase with age, particularly in adolescence, with adolescent girls showing significantly more depressive symptoms than adolescent boys (Hankin et al., 1998). Given these trends, it is important to identify processes operative developmentally prior to this increase in depression. Both attachment theory and the hopelessness theory of depression offer important theoretical insights into the processes that produce vulnerability to depression (e.g., Ingram, Miranda, & Segal, 1998), highlighting attributions and self-esteem. Support has been found for the mediating role of attributions among middle adolescent girls (e.g., Margolese, Markiewicz, & Doyle, 2005). The purpose of the present investigation was to examine whether attributions and/or self-esteem mediate the relations between insecure attachment to parents and depressive symptoms in early adolescence, expanding upon this earlier work.

Brief Overview of Attachment Theory

Attachment theory explains how parental closeness is protective and a source of security (Ainsworth, Blehar, Waters, & Wall, 1978). According to attachment theory, the role of the attachment figure is to provide a secure base and to be responsive when needed in times of danger. The quality of early attachment relationships is defined by the strategy the infant uses in seeking out attachment figure as a source of security in times of danger (Ainsworth et al., 1978). Three patterns of infant attachment, secure, insecure-anxious-resistant, and insecure-avoidant, have been identified (e.g. Ainsworth, 1969) based on infants' responses to separation from caregivers and reunion to them. More specifically, securely attached children seek proximity and comfort when the caregiver returns after separation. Anxious-resistant infants show ambivalent behavior and have

difficulties gaining comfort after reunion. Avoidant infants avoid proximity with the caregiver after reunion.

Attachment theory provides a valuable framework for understanding the developmental origins of cognitive vulnerabilities for depression (Bowlby, 1969/1982, 1973, 1980; Bretherton & Waters, 1985; Cummings & Cichetti, 1990). Bowlby (1969) identified two interrelated mental representations or internal working models, models of the self and of others, which center on the worthiness of the self and the availability and responsiveness of others. For instance, when the attachment figure is appropriately responsive, the child comes to believe that the self is worthy of love and support, and that others are trustworthy and reliable. When parents fail to adequately meet attachment needs, the child comes to believe that the self is not worthy of love or comfort and/or that others are unavailable and rejecting (Bretherton, 1985). A basic principle of attachment theory is that early working models of self, other, and relationships persist into adulthood and, as a result, the effects of early attachment relationships continue their importance throughout the life span (Ainsworth, 1982). Although significant negative life events (e.g., loss of a parent) are found to change attachment toward insecurity (e.g., Waters, Merrick, Treboux, Crowell, & Albersheim, 2000), attachment security is found to be moderately stable across the first 19 years of life, suggesting that representations of early experiences are likely to be retained over time and continue to influence interactions throughout the life span (Fraley, 2002).

Variability in attachment organization has been described recently as falling along two dimensions, anxiety (i.e., variability in fear of abandonment, rejection, and loss) and avoidance (i.e., degree of discomfort with intimacy, closeness, and dependence; Brennan,

Clarke, & Shaver, 1998). Although the two scales were reported to be uncorrelated (Brennan et al., 1998), similar subscales have been found to correlate positively and significantly (e.g., Sibley, Fisher, & Liu, 2005).

Until late adolescence, parents remain the primary attachment figures (Hazan & Zeifman, 1994). Young adolescents frequently report themselves as closer to and relying more on their mothers than fathers (e.g., Cubis, Lewin, & Dawes, 1989; Paterson, Field, & Pryor, 1994; Youniss & Smollar, 1985). Mother is consistently the preferred figure to turn to in times of stress and need (e.g., Hunter & Youniss, 1982; Kandel & Lesser, 1969), particularly for adolescent girls who talk more to their mothers and less to their fathers than male adolescents (e.g., Burke & Weir, 1979; Youniss & Smollar, 1985) and who perceive their fathers as less caring than do adolescent boys (Cubis, Lewin, & Dawes, 1989; Kon & Losenkov, 1978; Kroger, 1983). Although the attachment relationships between the father and the adolescent become more limited in communication and emotional quality over time, the adolescent continues to view his or her father as an important attachment figure (Paterson et al., 1994). Given that the quality of the parent-adolescent relationship typically differs with the gender of the parent and the child, it is important to study adolescents' attachment to mother and father separately, and to take child gender into account.

Hopelessness Theory of Depression

The reformulated learned helplessness theory of depression (Abramson, Seligman, & Teasdale, 1978) proposes that individuals whose explanatory styles are internal (due to self), stable (enduring over time), and global (affecting outcomes in many life domains) for negative outcomes are vulnerable to developing depression when

confronted with stressful life events (e.g., Gladstone & Kaslow, 1995). The hopelessness theory of depression (Abramson, Metalsky, & Alloy, 1989) elaborates by positing that individuals with negative cognitive style (i.e., making negative inferences about the cause of an event, the consequences following an event, and the implications for one's self), when experiencing negative life events, are vulnerable to becoming hopeless (low self-esteem and interpersonal dependency) and, in turn, to developing depression. Although hopelessness was not found to mediate the association between the cognitive-vulnerability stress interaction and increases in depression among middle to late adolescents, the cognitive vulnerability-stress aspect of the hopelessness theory was found to be associated with increases in depression in this age group (Hankin, Abramson, & Siler, 2001). The relation between maladaptive attributional styles and depression has received substantial empirical support (e.g., Metalsky, Abramson, Seligman, Semmel, & Peterson, 1982; Metalsky, Halberstadt, & Abramson, 1987) across age groups, in both boys and girls, and in clinical and nonclinical samples (e.g., Joiner & Wagner, 1995). Factor analytic studies also show that attributions and depressive symptoms are distinct constructs, that is, attributions are not measures of the depression itself (Joiner & Rudd, 1996). Although most studies have not found gender differences in attributional style (e.g., Hankin et al., 2001), one study using an attribution measure designed for adolescents (i.e., ACSQ; The Adolescent Cognitive Style Questionnaire¹) found that girls' greater level of negative cognitive style explained their higher depressive symptoms compared with boys (Hankin & Abramson, 2002).

¹ This measure was not used in the current study as our data were collected prior to Hankin and Abramson's (2002) publication of the psychometric properties of the ACSQ.

Attachment and Depression

A number of studies have examined the relation between the parent-child relationship and depression and found that early adolescents securely attached to their parents report fewer depressive symptoms than insecurely attached adolescents (e.g., Doyle, Brendgen, Markiewicz, & Kamkar, 2003; Hammen et al., 1995; Nada Raja, McGee, & Stanton, 1992). The predisposition to depression of anxiously attached individuals and avoidantly attached individuals has also been distinguished (Bowlby, 1969, 1973, 1977, 1980). Anxiously attached individuals are excessively dependent on others, are unable to distance themselves from conflictual relationships, and become vulnerable particularly to internalizing symptoms of unipolar affective disorders (e.g., self-blame, self-deprecation), in the presence of loss and abandonment (Blatt & Homann, 1992, for a review; Cole-Detke & Kobak, 1996; Mikulincer & Orbach, 1995). Anxious individuals also cope with stressful events by directing their attention toward distress in a hypervigilant manner and by ruminating on negative thoughts, memories and affect (Kobak & Sceery, 1988; Mikulincer & Orbach, 1995; Shaver & Hazan, 1993). Avoidant (i.e., compulsively self-reliant) individuals avoid others and show contempt at individuals wishing to have intimate relationships. Self-isolation and self-criticism make them vulnerable to depression, particularly to the externalizing symptoms of unipolar affective disorder (e.g., interpersonal hostility; Blatt & Homann, 1992, for a review; Cole-Detke & Kobak, 1996). Avoidant individuals also tend to dismiss the importance of the source of stress, and inhibit access to negative affect and thoughts (Mikulincer & Orbach, 1995).

Anxious attachment has been found to be associated with depressive symptoms more for adolescent girls than boys (Cooper, Shaver, & Collins, 1998). Various reasons

are offered to explain the latter finding. For instance, girls are hypothesized to be subjected to more socialization pressures to conform to gender role norms (see Hill & Lynch, 1983, for a review) and are shown to respond more negatively than boys to stressful interpersonal events (e.g., Crick, 1995). Moreover, anxiously attached individuals are shown to have heightened stress reactivity (e.g., Feeney & Kirkpatrick, 1996). Thus, anxiously attached adolescent girls are likely to be more vulnerable to psychological distress than anxiously attached adolescent boys.

Relations among Attachment, Attributions, and Depression

Insecure attachment to parents is theorized to play a role in the development of cognitive vulnerabilities to depression. Early attachment experiences may create a filter (such as internal working models) through which the child interprets the social world. An insecurely attached child is more likely to attend to negative features of events and perceive the world as unpredictable or threatening than a securely attached child, which, in turn, might increase the probability of further negative experiences (e.g., losses, disappointments). On the other hand, a securely attached child, who sees the self as worthy of love and competent, and others as available and trustworthy, is likely to show more exploration and less likely to perceive the world as threatening, which, in turn, might enhance resilience to stress. Further, a securely attached child may be more likely to make internal, stable, and global attributions to positive events and less likely to do so for negative events (Greenberger & McLaughlin, 1998). For psychiatric depressed early adolescents, security of parent attachment (assessed dimensionally with the Armsden and Greenberg's (1987) Inventory of Parent and Peer Attachment), attributional style and depression were found to be associated (Armsden, McCauley, Greenberg, Burke, &

Mitchell, 1990). As well, current attachment security (to nonparental others), measured with both the Hazan and Shaver's (1987) attachment prototypes and Bartholomew and Horowitz's (1991) four-category model of attachment styles, has been found to be associated positively with internal, stable and global attributions to positive events and negatively with attributions to negative events for late adolescent females (although not for males; Greenberger & McLaughlin, 1998). However, using the Inventory of Adult Attachment (assesses probable history with a primary caregiver and present state of mind about early attachment experiences; Lichtenstein & Cassidy, 1991), Whisman and McGarvey (1995) found that attachment during childhood was not related to depressotypic attributional style (i.e., stable and global attributions for negative events) in a sample of undergraduate students. The inconsistent findings may result from the different types of measures used to assess attachment (e.g., attachment to parental versus nonparental figures), the different ages studied, and the age at which attachment was assessed.

Negative attributions were also found to mediate between attachment to mother (assessed dimensionally with the Relationship Questionnaire; Bartholomew & Horowitz, 1991) and depression in middle adolescence (Margoless et al., 2005). Attributions were assessed using a vignette task where adolescents were presented with hypothetical interpersonal stressful events and asked to indicate their thoughts about themselves and about the other person in the situation. Adolescent girls with more negative models of self and of other in relation to mother made more negative attributions about themselves and the other in response to stress, which, in turn, were associated with greater depressive

symptoms. Models of self and other with mother were not significantly associated with depression for boys.

The present study aimed to investigate the mechanisms by which anxious and avoidant attachment are associated with depressive symptoms among early adolescents. One mechanism explored was negative attributions and the present study expanded on Margolese et al. (2005) in several ways. First, given that the prevalence of depression increases and that sex differences in depression emerge from early to middle adolescence, the mediating role of attributions between attachment and depression was studied at an earlier age, among early adolescent boys and girls. Second, whereas Margolese measured attributions to specific hypothetical interpersonal vignettes, in the present study, general attributional styles were assessed using the widely used Children Attributional Style Questionnaire-Revised (Kaslow & Nolen-Hoeksema, 1991) to permit comparability with other studies using that measure. Third, social desirability response bias, a tendency to project favorable images of one's self (Crowne & Marlowe, 1960), which is negatively associated with depressive symptoms (e.g., Beck Depression Inventory scores; Clarke, Crewdon, & Purdon, 1998) was taken into account.

Relations among Attachment, Self-Esteem, and Depression

In addition to maladaptive attributional styles, low self-esteem has been found to be both an important factor involved in the etiology of depression and another key mechanism linking attachment and depression. Bowlby (1980) hypothesized that self-esteem arises through the development of attachment relationships with parents. When the parent is responsive, accepting, and available in times of stress and need, the child develops a secure working model of self, which is hypothesized to lead to positive

feelings of self-worth. However, an unresponsive caregiver is viewed as leading to a working model of self as unworthy of love and support. The activation of these cognitive structures following the occurrence of attachment-relevant events then leads to negative feelings about oneself, that is, negative self-esteem. Further, self-esteem is similar to working models in that it refers to an evaluative attitude toward oneself and in which both cognitive and affective components are involved (e.g., Coopersmith, 1967; Man & Hamid, 1998; Rosenberg, 1965). Working models differ from self-esteem, however, particularly in the generality of the evaluation. That is, working models involve an evaluative attitude toward oneself, another, and particularly relationships.

Security of attachment to parents has been found to be related to self-esteem across adolescence (Doyle, Markiewicz, & Brendgen, 2000; Doyle et al., 2003; Greenberg, Siegel, & Leitch, 1983; McCormick & Kennedy, 1994). As well, in a two-year longitudinal study, early adolescents more insecurely attached to their parents, in particular those more anxiously attached, reported an increase in internalizing problems and decrease in self-esteem over time (Doyle & Markiewicz, 2005). Further, in a community sample of adolescents 13 to 19 years old, anxiously attached adolescents reported poorer self-concepts than securely and avoidantly attached adolescents (Cooper et al., 1998). Among young adults, dismissing (avoidantly attached) individuals are found to report higher self-esteem than preoccupied (anxiously attached) individuals (Man & Hamid, 1998).

Adolescent girls are found to report lower self-esteem than boys in community samples (see Allgood-Merten & Stockard, 1991). Low self-esteem is also found to be an antecedent to depression among both adolescents and adults, suggesting that negative

self-schemas may constitute a vulnerability factor (e.g., Allgood-Merten, Lewinsohn, & Hops, 1990). Factor analytic studies have also shown self-esteem loading on a separate factor of self-regard in addition to loading on depressive symptoms (Joiner & Rudd, 1996). Further, self-esteem is suggested to be an underlying mechanism linking insecure attachment and depression (Roberts & Monroe, 1999). In support of this hypothesis, dysfunctional attitudes and low self-esteem were found to mediate the association between adult attachment security, assessed with the Adult Attachment Scale (a dimensional inventory measuring adult attachment security; Collins & Read, 1990), and symptoms of depression (Roberts, Gotlib, & Kassel, 1996). The findings revealed that adults who were more anxious about their attachment relations and those who reported more difficulties becoming close to attachment figures endorsed higher dysfunctional attitudes, which in turn were associated with lower levels of self-esteem and more depressive symptoms 8 weeks later, even after controlling for initial depressive symptoms. Because early adolescence is the period when a significant decrease in self-esteem is noticed (Orvaschel, Beeferman, & Kabacoff, 1997) as well as an increase in depression, it is important to investigate whether self-esteem also mediates between attachment and depression during that age period. Insecure adolescents, who see the self as unworthy of love and support and/or others as unavailable and rejecting, are likely to have lower self-esteem, which, in turn, is likely to be associated with depression. Thus, early adolescents more anxiously or more avoidantly attached to their parents are expected to report lower self-esteem, which, in turn, would be associated with more depressive symptoms.

Objectives of the Present Study

The present study assessed whether the association of anxious and avoidant attachment to mother and father with psychological distress among early adolescents was mediated by attributional styles and/or self-esteem. First, more anxiously attached adolescents, in particular girls, were expected to report more internalizing symptoms of depression. As well, because anxiously attached individuals direct their attention more toward distress than avoidantly attached individuals and are also more vulnerable to internalizing symptoms of depression, the association between avoidant attachment and depressive symptoms was expected to be stronger at higher levels of attachment anxiety than at lower levels of attachment anxiety. Further, because mother is typically the primary attachment figure and the preferred figure to turn to in times of stress and need, we expected anxious attachment to father to be associated with depressive symptoms only at higher levels of anxious attachment to mother. Similarly, we expected avoidant attachment to father to be associated with depressive symptoms only at higher levels of avoidant attachment to mother.

Second, adolescents with more anxious attachment to parents were expected to make more internal, stable and global attributions to negative events. Because anxiously attached individuals tend to focus their attention towards distress and stressful events, anxious attachment, in particular to mother, was expected to be associated with more maladaptive attributions to negative events, which, in turn, were expected to be associated with greater depressive symptoms. Because avoidantly attached individuals tend to suppress their negative thoughts and affect, we did not expect a strong association between avoidant attachment and maladaptive attributions.

Finally, the relation between self-esteem and depressive symptoms was examined with items pertaining to self-regard removed from the depression measure to decrease the artifactual overlap between the two measures. Anxious attachment was expected to be associated negatively with self-esteem. Because anxiously attached girls are likely to be more vulnerable to psychological distress than anxiously attached boys, we expected, participants, in particular girls more anxiously attached in relation to mother to report lower self-esteem, which in turn was expected to be associated with greater depressive symptoms.

Method

Participants

Participants included 140 seventh-grade and eighth-grade students (87 girls), ages 12-15 years ($M= 12.65$; $SD= .70$), attending an English language high school in Montreal, Quebec. Participation was voluntary and by written consent (see Appendix C and D). Of the 358 participants contacted, 239 participants returned the consent forms. Of these 144 agreed to participate (consent rate= 40%, refusals= 20%, no response= 33%). Four students were not included because of repeated absences ($N=2$) and withdrawal of consent ($N= 2$). Based on information obtained from a demographic questionnaire (see Appendix E), 69% of adolescents were from two-parent homes, of which 88% were intact and 12% were reconstituted ($N=10$ stepfather, $N= 2$ stepmother). For single parent families (29%), 36 adolescents lived with their mother only, and 5 with their father only. Students reported primarily English Canadian or European descent (50% English Canadian, 18% French Canadian, 24% other European), and 8% specified other ethnicities (2% African, 3% Asian, 1% Middle Eastern, 1% Aboriginal, and 1% Latin

American). Participants endorsing two (19%) or three (8%) ethnic backgrounds primarily indicated English or French Canadian, and/or European. Mean socioeconomic status (SES) was 31.48 ($SD= 9.99$; characteristic of skilled craftsmen, clerical, and sales workers) based on Hollingshead's (1975) four factor index of social status, itself based on education and occupation of the working parent(s).

Measures

Adolescent Relationship Scale Questionnaire (ARSQ; Scharfe, 1997). An adaptation of the ARSQ was given to examine adolescents' attachment (see Appendix F). The ARSQ utilized 17 statements representing the four subscales (i.e., secure, preoccupied, dismissing, and fearful) for the attachment patterns as defined by Bartholomew (1990). Scharfe's (1997) 17 ARSQ items were adapted from the parallel adult measure, the Relationship Scale Questionnaire (RSQ; Griffin & Bartholomew, 1994). The 17 items were taken from the Bartholomew and Horowitz (1990) Relationship Questionnaire paragraphs. Participants responded on a five-point Likert scale (1=not at all like me; 5=very much like me). Each participant completed the questionnaire four times, once for each of the four targets of interest: mother, father, best friend and current or most recent romantic partner, in counterbalanced order. For the present study, only attachments to mother and father were utilized. Students living with only one parent were instructed to skip the questionnaire about the other parent. Students in reconstituted families chose whether to rate their biological or step-parent ($N= 4$ for stepfather; $N=0$ for stepmother). Because internal consistencies for the ARSQ and RSQ subscales have been found to be quite low, and because recent research has established that two dimensions, anxiety and avoidance underlie self-report measures of attachment (Brennan, Shaver, &

Tobey, 1991), for each parent, anxiety and avoidant attachment dimensions, were obtained based on Feeney and Hohaus' (2001) measurement model for the 30-item Relationship Scale Questionnaire (Griffin & Bartholomew, 1994). In that study, six of the RSQ items loaded on the anxiety dimension (e.g., "I worry that I will be hurt if I become too close to my mother") and seven items loaded on the avoidance dimension (e.g., "I find it hard to count on my mother"). Four RSQ items did not load on either dimensions, and thus, were not used². In the present study, one additional item with poor item-total correlation on the anxiety scale ("I worry about being without my mother/father") and another on the avoidance scale ("It is very important to me to feel independent of my mother/father") were dropped from each measure. The internal consistencies of the revised five-item anxiety dimensions were moderate with alphas of .72 for mother ($M=1.60$, $SD=.72$) and .76 for father ($M=1.77$, $SD=.87$). The internal consistencies of the revised six-item avoidance dimensions were moderate, with alphas of .68 for mother ($M=2.11$, $SD=.77$) and .77 for father ($M=2.52$, $SD=.95$). ARSQ anxious and avoidant attachment dimensions correlated with the secure base use of the mother/father, the fundamental attachment function (Hazan & Shaver, 1994), assessed with the attachment-related functions measure, the WHOTO Questionnaire (Hazan, Hutt, Sturgeon, & Bricker, 1991) where the data were also available for our sample. Specifically, anxious and avoidant attachment to mother were associated with using mother as a secure base ($r=-.46$, $p<.001$ and $r=-.34$, $p<.05$, respectively) and avoidant attachment to father

² The four items were: I am comfortable having my mother/father depend on me; It is very important to me to feel able to do things on my own without my father; I'd rather not have my father depend on me; I am kind of uncomfortable being emotionally close to my father.

tended to be associated with using father as a secure base ($r = -.28, p < .10$; $r = -.20, n.s.$ for anxious attachment to father).

The Children's Attributional Style Questionnaire-Revised (CASQ-R; Kaslow & Nolen-Hoeksema, 1991). The CASQ-R is an adaptation of the Children's Attributional Style Questionnaire (CASQ; Seligman, Peterson, Kaslow, Tanenbaum, Alloy, & Abramson, 1984), the common measure of attributional style used for children ages 8 to 18 (48 items), see Appendix F. The CASQ-R consists of short hypothetical situations (24 items; 12 positive and 12 negative) and participants select one of the two possible causal attributions. For example, a positive event item is "You get an "A" on a test", and the two possible causal attributions are "I am smart" (i.e., global attribution) and "I am good in the subject that the test was in" (i.e., specific attribution). An example of a negative event item is "You get a bad grade in school", and the two possible causal attributions are "I am not a good student" (i.e., internal attribution) and "Teachers give hard tests" (i.e., external attribution). Internal, stable, and global causal attributions are scored 1 and four items tap each of the three dimensions: internal-external, global-specific, or stable-unstable, for positive and negative events. Composite scores for positive and negative events reflect the degree to which the respondent rates the positive/negative events as more internal, stable, and global. The lower the composite score for positive events and the higher the composite score for negative events, the more negative the attributional style. The psychometric properties of the CASQ and CASQ-R indicate poor to moderate internal consistency in normal samples (.47 to .73 for positive composite scores, and .42 to .67 for negative composite scores; e.g., Nolen-Hoeksema, Girgus, & Seligman, 1986, 1992). In

the present study, one item correlating poorly with the positive composite score and three items with the negative composite score were dropped. The internal consistencies of both revised scores were poor to moderate with alphas of .48 and .63 on the positive and negative scores, respectively. Because of the low internal consistency of attributions to positive events, only attributions to negative events were examined.

Self-Description Questionnaire, General Self-Esteem (GSE) Scale (SDQ-II; Marsh, 1990). Five items from the GSE scale of the SDQ-II (e.g., "Overall I have a lot to be proud of"; $M= 4.82$, $SD= .86$; $\alpha = .78$) were used in this study (see Appendix F). Participants rated each item on a six-point Likert-type scale (1=false, 6=true). The GSE scale from the preadolescent version of SDQ correlates well with other similar measures, such as the general self-worth of the Perceived Self-Competence Scales ($r= .57$, $p<.01$; Harter, 1982).

The Children's Depression Inventory (CDI; Kovacs, 1985). The CDI is a self-report instrument measuring the level and nature of depression in youths ages 7-17 (see Appendix F). It contains 27 items on which students endorse, for each item, one of three sentences reflecting degrees of a symptom (e.g., 0 = "I am sad once in a while" or 1 = "I am sad many times" or 2 = "I am sad all the time"). As is often the custom in normative studies, because of ethical concerns by the school board, the suicide item was omitted. The current study used, therefore, 26 items tapping negative mood, ineffectiveness, interpersonal problems, anhedonia, and low self-esteem. The total item raw score was used with higher scores indicating more symptoms of depression ($M= 8.21$, $SD= 6.61$; $\alpha = .87$, possible range from 0 to 33). For the analyses involving self-esteem, the self-

esteem component (four items) of the CDI was removed ($M= 7.06$, $SD= 5.44$; $\alpha = .83$, possible range from 0 to 25).

Social Desirability Scale (SDS; Strahan & Gerbasi, 1972). A 15-item version of the Marlowe-Crowne Social Desirability Scale (Strahan & Gerbasi, 1972) was given to participants in order to assess their tendency to project favorable images of themselves (see Appendix F). An example of an item is: "No matter who I'm talking to, I'm always a good listener". Participants were asked to indicate True or False for each of the 15 items. This abbreviated form correlates highly with the original scale ($r= .90$; Strahan & Gerbasi, 1972), which has been established as assessing the tendency to respond with social defensiveness (Lobel & Teiber, 1994), with similar reliability coefficients, ranging from .73 to .83. The internal reliability in the present study was .66.

Procedure

Data were collected during two sessions (about 45 minutes each) arranged at the teacher's convenience. During the first session, students, taken in groups of about 20, were asked to complete questionnaires about their relationships with parents, their self-esteem, and their mood. During the second session (about seven weeks later), students, taken in groups of 10, completed the attribution and attachment questionnaires followed by a computer vignette task not part of the present study. For reasons unrelated to the present paper, the CDI was administered in session one. Test-retest reliability of the CDI in normal children ($M= 9.6$ years) ranges from .82 over two weeks to .66 and .67 over four and six weeks (Finch, Saylor, Edwards, & McIntosh, 1987). Because the present sample was older, the test-retest reliability of the CDI was expected to be above .67.

Results

Preliminary Analyses

Intercorrelations of all predictor variables with criterion variables are shown in Table 2.1. Because social desirability correlated significantly with most predictor and criterion variables, it was controlled for in all analyses.

To examine gender and target differences in the two attachment dimensions, a 2 (sex of child) x 2 (target figures: Mother/Father) multivariate analysis of variance, with social desirability as a covariate, was conducted on the two ratings, anxiety and avoidance, with target as a within-participants factor. Using Wilk's criterion, results revealed a multivariate main effect for Target, $F(1, 127) = 5.22, p < .01$, with a univariate target effect for avoidance, $F(1,127) = 9.76, p < .01$. Adolescents reported being more avoidantly attached to their father ($M = 2.52, SD = .95$) than their mother ($M = 2.11, SD = .76$). No significant main effects or interactions for gender were found in the two attachment dimensions.

Relation between Attachment and Depression

Hypotheses concerning predictions from attachment to depression were tested via hierarchical multiple regressions. In the first set of analyses, gender and social desirability were first entered as control variables. Attachment dimensions, anxiety and avoidance, to mother and father were entered on the second step, and their interactions with sex of the child on the third step³. In the second set of analyses, two sets of two-way interaction terms were entered on the third step in separate analyses (McClelland & Judd,

³ Because of the difficulty of detecting interaction effects in multiple regressions, the nonsignificant interactions were dropped and only the significant and/or trend interactions were retained (Jaccard, Turrisi, and Wan, 1990).

Table 2.1

Partial Correlations, controlling for Social Desirability, between Predictor Variables and Criterion Variables.

	2	3	4	5	6	7	8 ^a	9 ^b	10 ^b
1. Anxiety Mother	.44***	.45***	-.01	.25**	-.12	.30***	.29***	-.20*	.07
2. Anxiety Father		.09	.46***	.21*	-.17*	.25**	.23**	-.19*	.09
3. Avoidance Mother			.20*	.10	-.14 ^t	.21*	.22*	-.12	.20*
4. Avoidance Father				.07	-.19*	.14	.13	-.27**	.01
5. Attributions Negative Events					-.19*	-.38***	.37***	-.22**	.04
6. Self-Esteem						-.56***	-.55***	.32***	.13
7. Depression							.98***	-.38***	-.16 ^t
8. Depression ^a								-.39***	-.14 ^t
9. Social Desirability ^b									.01
10. Gender ^b									---

^a Self-esteem component (4 items) of the CDI was removed.

^b Zero-order correlations; females= 0 and males =1.

^t $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

1993), interactions between anxious attachment to mother and father and between avoidant attachment to mother and father, and interactions between anxious and avoidant attachment to mother and between anxious and avoidant attachment to father. Only significant interactions are reported.

As shown in Table 2.2, as expected, girls reported more depressive symptoms than boys and adolescents with higher social desirability reported fewer depressive symptoms than those with lower social desirability, $F(12, 117) = 5.10, p < .001$. The attachment dimensions entered at step 2 predicted depressive symptoms significantly, with anxious attachment to mother ($\beta = .32, sr^2 = .04, p < .05$) as a significant unique predictor. The interaction terms between attachment and sex of the child entered at step 3 were not significant as a block, and thus, only the trend for the interaction between sex and anxious attachment to mother ($\beta = -.19, sr^2 = .02, p < .10$) was examined at step 3⁴. Only for adolescent girls, did anxious attachment to mother predict more depressive symptoms ($\beta = .32, p < .05; \beta = -.09, ns$ for adolescent boys). In the second set of analyses of interaction effects (3b in Table 2.2), interactions between attachment dimensions for each target as a block significantly predicted depressive symptoms. More specifically, the interaction between anxiety to mother and anxiety to father was a unique predictor ($\beta = .24, sr^2 = .04, p < .01$). Only at high levels of anxious attachment to mother, did anxious attachment to father predict depressive symptoms significantly ($\beta = .29, p < .01; \beta = -.13, ns$ at low levels of anxiety to mother). Adolescents appeared to report the most depressive

⁴ For all analyses, when regression analyses revealed two-way interactions, the relationship between the predictor and criterion variables was examined at two levels of the moderator variable (i.e., one standard deviation above the mean and one standard deviation below the mean; Aiken & West, 1996).

Table 2.2

Hierarchical Multiple Regressions examining predictions from Attachment Dimensions to Depression.

Step	Predictors	R ²	ΔR ²	Beta Weights	
				Entry	Last Step ^b
1	Sex ^a	.17***	.17***	-.16 ^t	-.20*
	Social Desirability			-.38***	-.30***
2	Anxiety to Mother	.27**	.10**	.21 ^t	.32*
	Anxiety to Father			.10	.13
	Avoidance to Mother			.08	.09
	Avoidance to Father			.07	.03
3a	Sex x Anxiety Mother	.29 ^t	.02 ^t	-.19 ^t	-.19 ^t
3b	Anx Mother x Anx Father	.32*	.05*	.24**	.24**
	Avoid Mother x Avoid Father			.04	.04

^tp<.10, *p<.05, **p<.01, ***p<.001.

^a Gender was a dichotomous variable with 0 and 1 representing females and males, respectively.

^b Beta weights for variables in steps 1 and 2 are taken from step 3a.

symptoms at high levels of anxious attachment to both mother and father ($\beta = .08$, $t(130) = 4$, $p < .01$ at high level of anxiety to mother, versus $\beta = -.02$, $t(130) = -.5$, *n.s.* at low level of anxiety to mother; see Figure 2.1).

Thus, as hypothesized, attachment to parents as a block, with anxious attachment to mother a unique predictor, was associated with depressive symptoms. Only for adolescent girls was anxious attachment to mother associated with greater depressive symptoms. Adolescents more anxiously attached to both parents appeared to be the most vulnerable to depression.

Relation between Attachment and Attributions

Hypotheses concerning predictions from attachment to maladaptive attributions to negative events were tested via hierarchical multiple regressions, similar to those outlined above. Because no interactions were significant, they were dropped from analyses.

Social desirability at step 1 was significant with adolescents with higher social desirability making fewer internal, stable, and global attributions to negative events, $F(6, 124) = 2.91$, $p < .05$ (see Table 2.3). The attachment dimensions as a block, entered at step 2, significantly predicted attributions to negative events, with anxious attachment to mother tending to be a unique predictor ($\beta = .20$, $sr^2 = .04$, $p < .10$).

Thus, anxious attachment to mother was positively associated with internal, stable, and global attributions to negative events. No gender differences emerged in attributions to negative events.

Relation between Attachment and Self-Esteem

Hypotheses concerning predictions from attachment to self-esteem were tested via hierarchical multiple regressions. Similar analyses as outlined above for depression were

Figure Caption

Figure 2.1. Anxiety to Mother x Anxiety to Father Interaction predicting Depression.

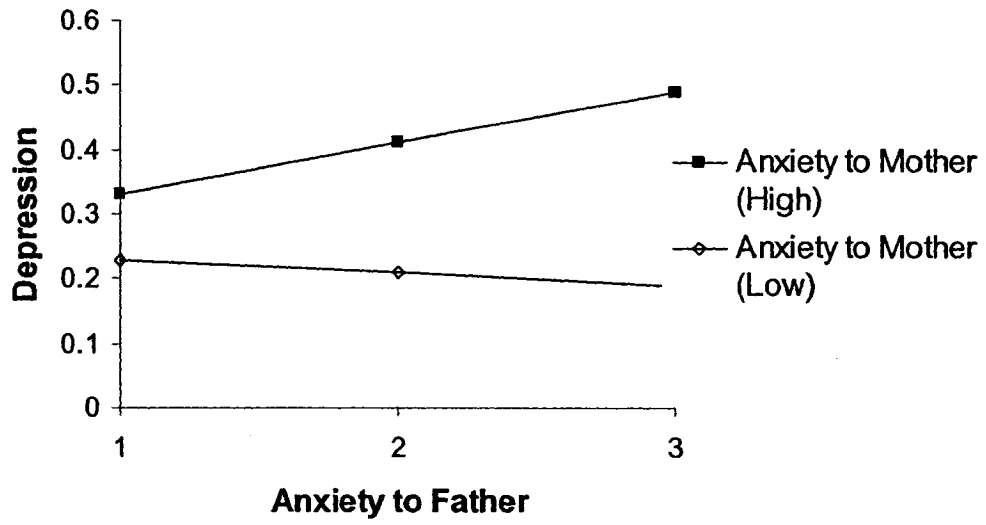


Table 2.3

Hierarchical Multiple Regressions examining predictions from Attachment Dimensions to Attributions to Negative Events.

Step	Predictors	R ²	ΔR ²	Beta Weights	
				Entry	Last
1	Sex	.05*	.05*	.04	.02
	Social Desirability			-.22*	-.15 ^t
2	Anxiety to Mother	.12*	.07*	.20 ^t	.20 ^t
	Anxiety to Father			.12	.12
	Avoidance to Mother			-.00	.00
	Avoidance to Father			.02	.02

^tp<.10, *p<.05, **p<.01, ***p<.001.

conducted. Only significant interactions are reported. Both gender and social desirability entered at step 1 predicted self-esteem significantly, $F(10, 119) = 5.22, p < .001$ (see Table 2.4). Girls reported lower self-esteem than boys and adolescents with higher social desirability reported higher self-esteem than those with lower social desirability. The attachment dimensions entered at step 2 did not significantly predict self-esteem. The interaction between the attachment dimensions and sex of the child as a block predicted self-esteem significantly with the interaction between sex and anxious attachment to mother ($\beta = .40, sr^2 = .04, p < .01$) as a significant unique predictor. Only for adolescent girls was anxious attachment to mother associated with lower self-esteem ($\beta = -.29, p < .05$; $\beta = .29, ns$ for boys; Aiken & West, 1996).

Attachment and Depression: Attributions and Self-Esteem as potential Mediators

The mediating roles of attributions to negative events and self-esteem in the association of attachment to parents with depressive symptoms were examined according to the criteria of Baron and Kenny (1986). As shown previously, anxious attachment to mother for girls only, and the interaction between anxious attachment to mother and father predicted depression (see Table 2.2). As well, the interaction between anxious attachment to mother and father did not predict attributions to negative events significantly. As only anxious attachment to mother was found to predict both attributions to negative events and for girls only to depression, attributions to negative events was tested as a possible mediator of the association between anxious attachment to mother and depression for girls only.

A hierarchical multiple regression was performed to predict attributions to negative events from anxious attachment to mother alone for girls. After controlling for

Table 2.4

Hierarchical Multiple Regressions examining predictions from Attachment Dimensions to General Self-Esteem.

Step	Predictors	R ²	ΔR ²	Beta Weights	
				Entry	Last
1	Sex	.17***	.17***	.17*	.19*
	Social Desirability			.37***	.33***
2	Anxiety to Mother	.22	.04	-.05	-.29*
	Anxiety to Father			-.07	-.22
	Avoidance to Mother			-.02	.00
	Avoidance to Father			-.15	-.08
3	Sex x Anxiety to Mother	.31**	.09**	.40**	.40**
	Sex x Anxiety to Father			.10	.10
	Sex x Avoidance to Mother			-.06	-.06
	Sex x Avoidance to Father			.03	.03

*p<.05, **p<.01, ***p<.001.

social desirability at step 1 ($\Delta R^2 = .02$, $F(2, 82) = 4.95$, *n.s.*), anxious attachment to mother predicted attributions significantly ($R^2 = .11$, $\Delta R^2 = .09$, $\beta = .30$, $sr^2 = .09$, $p < .01$). Another hierarchical multiple regression was performed to predict depression from attributions to negative events. After controlling for social desirability at step 1 ($\Delta R^2 = .11$, $F(2, 82) = 15.46$, $p < .01$), attributions to negative events predicted depression significantly ($R^2 = .27$, $\Delta R^2 = .16$, $\beta = .41$, $sr^2 = .16$, $p < .001$). A final hierarchical multiple regression was conducted to examine the mediation effect, $F(3, 81) = 13.98$, $p < .001$ (see Table 2.5). The beta coefficient for anxious attachment to mother dropped from $.37$ ($p < .001$) in step 2 to $.28$ ($p < .01$) in the last step. To demonstrate that the reduction in the magnitude of the beta coefficients was significant, Sobel's tests were performed in the final step (Baron & Kenny, 1986). Sobel's test allows us to obtain a z score to evaluate whether the indirect path from the independent to the dependent variable (i.e., the mediation path) is greater than zero when the direct path from the independent to the dependent variable is controlled. A z score of 2.18 ($p < .05$) was found indicating that the indirect path from anxious attachment to mother to depression was statistically significant when the direct path was taken into account. Thus, attributions to negative events partially mediated the association between anxious attachment to mother and depressive symptoms for girls and accounted for 9% of the variance ($sr^2 = .09$, $p < .001$; see Figure 2.2). In other words, adolescent girls more anxiously attached to their mother were more likely to make internal, stable, and global attributions to negative events, which, in turn, were associated with greater depressive symptoms.

As shown previously, only for adolescent girls, did anxious attachment to mother predict depressive symptoms and self-esteem. Thus, we examined whether self-esteem

Table 2.5

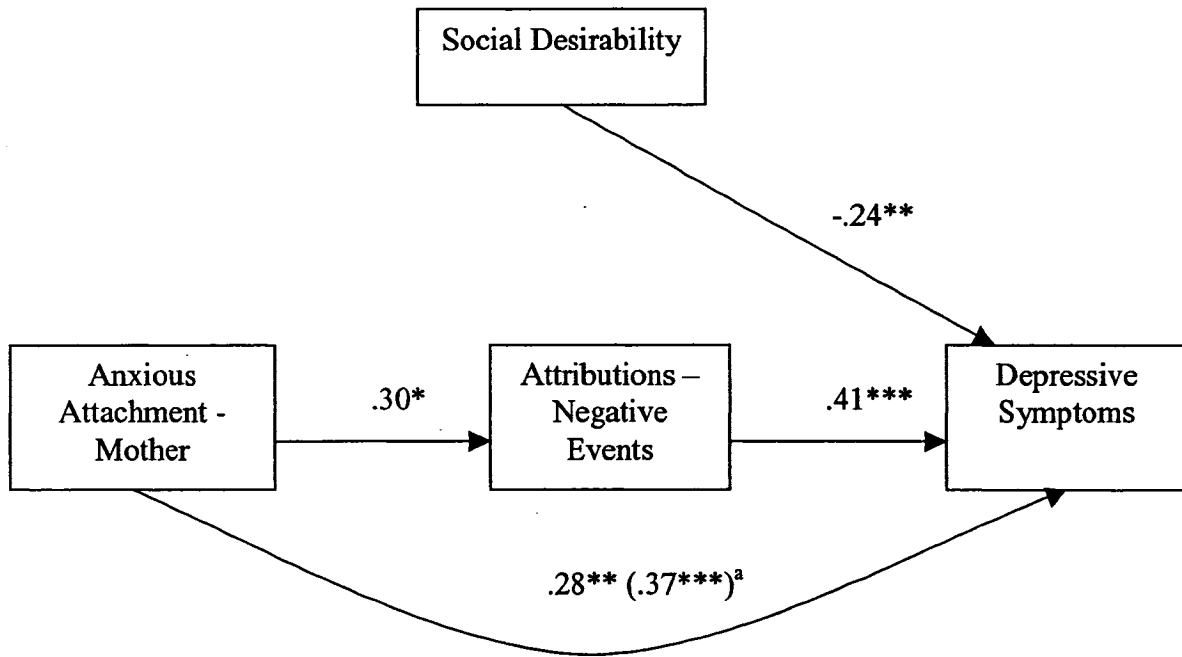
Hierarchical Multiple Regressions examining the prediction from Attachment and Attribution to Negative Events as potential mediator to Depression for Girls.

Step	Predictors	R ²	ΔR ²	Beta Weights	
				Entry	Last
1	Social Desirability	.11**	.11**	-.33**	-.24**
2	Anxiety to Mother	.25***	.14***	.37***	.28**
3	Attributions - Negative Events	.34***	.09***	.33***	.33***

*p<.05, **p<.01, ***p<.001.

Figure Caption

Figure 2.2. Attributions to Negative Events as a potential mediator between Attachment to Mother and Depressive Symptoms for Girls.



Note. Beta weights shown are based on regression analyses; ^a Beta weight in brackets is without the mediator.

mediated the relation between anxious attachment to mother and depressive symptoms for girls only. A hierarchical multiple regression was performed to predict depression from self-esteem. After controlling for social desirability at step 1 ($\Delta R^2 = .13$, $F(2, 83) = 37.08$, $p < .001$), self-esteem predicted depressive symptoms significantly ($R^2 = .47$, $\Delta R^2 = .34$, $\beta = -.63$, $sr^2 = .34$, $p < .001$). A final hierarchical multiple regression was conducted to examine the mediation effect, $F(3, 81) = 24.97$, $p < .001$ (see Table 2.6). The beta coefficient for anxious attachment to mother dropped from .33 ($p < .001$) in step 2 to .10 (*n.s.*) in the last step. Using Sobel's test, a *z* score of 3.59 ($p < .001$) was found. Thus, we conclude that self-esteem fully mediated the association between anxious attachment to mother and depressive symptoms for girls and accounted for 24% of the variance ($sr^2 = .24$, $p < .001$; see Figure 2.3). In other words, girls more anxiously attached to their mother reported lower self-esteem which, in turn, was associated with greater depressive symptoms. Although attributions to negative events were significantly correlated with self-esteem ($r = -.19$, $p < .05$), they did not significantly predict self-esteem ($\Delta R^2 = .01$, *n.s.*) when sex and social desirability were controlled.

Discussion

The present study revealed that attachment to parents, particularly to mother, is associated with early adolescents' adjustment. Anxious attachment to mother was associated with depressive symptoms and low self-esteem for adolescents girls, and with maladaptive attributions to negative events for all adolescents. As hypothesized, attributions to negative events partially mediated the relation between anxious attachment to mother and depressive symptoms for early adolescent girls. Also, self-esteem fully

Table 2.6

Hierarchical Multiple Regressions examining the prediction from Attachment and Self-Esteem as potential mediator to Depression^a for Girls.

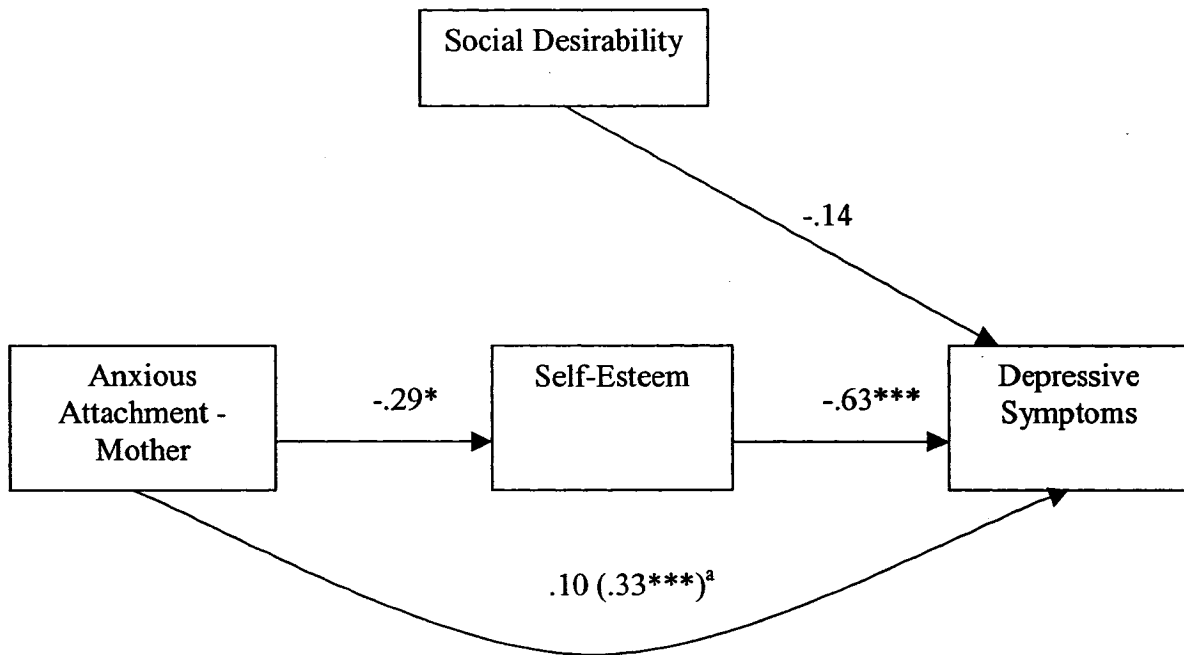
Step	Predictors	R ²	ΔR^2	Beta Weights	
				Entry	Last
1	Social Desirability	.13***	.13***	-.36***	-.14
2	Anxiety to Mother	.24***	.11***	.33***	.10
3	Self-Esteem	.48***	.24***	-.58***	-.58***

^aSelf-esteem component (4 items) of the CDI was removed.

*p<.05, **p<.01, ***p<.001.

Figure Caption

Figure 2.3. Self-Esteem as a potential mediator between Attachment to Mother and Depressive Symptoms for girls.



Note. Beta weights shown are based on regression analyses; ^a Beta weight in brackets is without the mediator.

mediated the relation between anxious attachment to mother and depressive symptoms for adolescent girls.

Relation between attachment to parents and adolescent adjustment

Girls more anxiously attached to mother (but not boys) reported more depressive symptoms. Interestingly, in addition, adolescents more anxiously attached to their father reported more depressive symptoms only if they were also more anxiously attached to their mother, indicating that adolescents who were more anxiously attached to both parents were the most vulnerable to depressive symptoms.

The finding of a relation between attachment and depression for girls is consistent with previous findings among early adolescents that insecure parental attachment is a risk factor for the development of depression (e.g., Armsden et al., 1990; Kenny, Moilanen, Lomax, & Brabeck, 1993). The present study, however, extends those findings by distinguishing type of insecurity (i.e., anxious versus avoidant attachment) and adolescents' attachment relationships with mother and father. Further, the finding of a link between anxious attachment and depression supports the hypothesis that anxious attachment constitutes a general risk factor in the development of depression (Kobak, Sudler, & Gamble, 1991). Consonant with the hypothesis that having multiple secure relationships is more developmentally enhancing than having a single secure relationship (Howes, 1999), our findings also suggest that having insecure attachment relationships to both parents is more detrimental to adjustment than having one insecure attachment relationship, in particular to father. Anxious attachment to father is associated with depressive symptoms only in the context of high levels of anxious attachment to mother.

Being anxiously attached to both parents, as opposed to just mother, can be seen as increasing the risk factors contributing to the development of depression.

Consistent with the literature on depression (e.g., Hankin et al., 1998), gender differences in depression were found, with adolescent girls reporting more depressive symptoms than boys. As well, with respect to the relation between attachment and depression, whereas Kenny et al. (1993) unexpectedly found the association to be stronger for boys than for girls, we found the association stronger for girls than for boys. These mixed findings may be due to the fact that Kenny assessed security of parental attachment (i.e., affective quality of attachment, autonomy, and emotional support), whereas we assessed insecure attachment and distinguished both the type of insecurity and the attachment relationship with mother and father. Our results are consistent with Margolese et al.'s (2005) findings of an association between insecure attachment to mother and depression for middle adolescent girls only. Further, our findings also support Cooper et al.'s (1998) results that anxiously attached adolescent girls reported greater psychological distress than anxiously attached boys and securely and avoidantly attached adolescent boys and girls. We found that although anxious attachment to both parents is associated with depressive symptoms for adolescent boys and girls, anxious attachment to mother is the major risk factor for adolescent girls.

The finding of a relation between anxious attachment to mother and attributions is consistent with previous findings that parental secure attachment is associated negatively with attributions to negative events (e.g., Armsden et al., 1990; Margolese et al., 2005). Future research examining the relation between attachment and attributions might study further the reasons for the stronger relation between anxious attachment to mother in

particular (as opposed to anxious attachment to father and avoidant attachment to mother/father) and negative attributions, and explore the processes underlying the association between these two variables. For instance, given that anxious adolescents are found to report the poorest self-concept and the highest levels of symptomatology (e.g., higher levels of anger and hostility) compared to secure and avoidant adolescents (Cooper et al., 1998), self-efficacy as well as emotion regulation might be possible mechanisms underlying the association between anxious attachment and negative attributions.

Congruent with the results of a number of studies (e.g., Gladstone, Kaslow, Seeley, & Lewinsohn, 1997; Hankin et al., 2001; Joiner & Wagner, 1995) showing no gender differences in depression-related attributional processes, we did not find gender differences in attributional styles. The poor internal consistency reliability of the CASQ-R might explain the finding of no gender differences in attributional style. As mentioned before, using the more internally reliable measure of cognitive vulnerability to depression with adolescents (ACSQ), Hankin and Abramson (2002) found that girls' negative cognitive style accounted for their higher levels of depressive symptoms when compared with boys. Although we did not find gender differences in attributional styles, we did find gender differences in the association between anxious attachment and depressive symptoms. That is, only girls more anxiously attached to their mother reported more depressive symptoms, not boys. Because attachment style can also be viewed as a cognitive risk factor (Rogers, Reinecke, & Setzer, 2004) and anxious attachment to mother represents a negative cognitive representation of self in relation with mother, our results suggest that girls' (but not boys) negative inferences about self in relation with

mother might contribute to their depressive symptoms. This is further supported by the findings that self-esteem mediated this association for girls. Consonant with previous studies showing insecure attachment to be related to low self-esteem (e.g., McCarthy, 1999; McCormick & Kennedy, 1994; Murphy & Bates, 1997), and extending previous results, we found that anxious attachment to mother was associated with low self-esteem only for adolescent girls. This result suggests that girls' view of their relationship with their mother influenced their view of themselves. This latter finding might be due females being more sensitive to interpersonal relationships than males (Zahn-Waxler, Cole, & Barrett, 1991) and their greater tendency to take responsibility for relationship conflicts (Pomerantz & Ruble, 1998).

Attachment and depression: Mediating roles of Attributions and Self-Esteem

Attributions to negative events were found to partially mediate the relation between anxious attachment to mother and depression for girls. Consistent with Margolese et al.'s (2005) findings among middle adolescent girls, we found that early adolescent girls with more negative models of self and of their mother made more maladaptive attributions to negative events, which, in turn, were associated with greater depressive symptoms. These findings suggest that the mediating role of attributions to negative events might provide one explanation for the increase in depression rates among girls from early to middle adolescence. Given that making maladaptive attributions to negative events is a mechanism through which anxious attachment is associated with depression for girls in both early and middle adolescence, it would be important for future research to examine whether this attributional process is a stronger mediator in young adulthood where rates of depression are higher.

Self-esteem was found to fully mediate the relation between attachment and depression for girls. Adolescent girls more anxiously attached to their mother reported lower self-esteem, which, in turn, was associated with greater depressive symptoms. This finding is consistent with Roberts and Monroe's (1999) hypothesis that difficulties in self-esteem regulation and maintenance might be important mechanisms mediating the association between insecure attachment and depression. Our results offer support for Roberts et al.'s (1996) findings that adults who were anxiously attached and those who were avoidantly attached endorsed higher dysfunctional attitudes, which, in turn, led to lower levels of self-esteem and depression. Our finding suggests that self-esteem is another process through which anxious attachment to mother is related to depressive symptoms for early adolescent girls. Because girls are more sensitive to and more affected by interpersonal conflicts than boys (e.g., Ge, Lorenz, Conger, Elder Jr., & Simons, 1994), the fear of rejection, loss, and abandonment by mother might be more detrimental for girls than boys, and as a result be more strongly associated with lower self-worth and depressive symptoms for girls. Boys are less likely than girls to be sensitive to and subsequently affected by their attachment quality with mother, and, in turn, less likely to have low self-esteem and to report more depressive symptoms when anxiously attached to mother. This might provide one explanation for the finding that the association between anxious attachment to mother and depression is significant for girls only, and that both maladaptive attributions and low self-esteem are important mechanisms explaining this association.

Although attributions to negative events correlated with self-esteem, they did not significantly predict self-esteem when gender and social desirability were controlled.

This result is inconsistent with Schwartz, Kaslow, Seeley, and Lewinsohn (2000) who found that maladaptive attributions were associated with changes in self-esteem one year later among middle to late adolescents. The low reliability of the attribution measure may explain this lack of association. However, it is also possible that in early adolescence, maladaptive attributions to negative events might not yet significantly affect adolescents' self-esteem.

Differential contributions of attachment to mother and father

Our data with respect to the relation between attachment to parents and adolescents' adjustment reveal the greater importance of the adolescents' attachment relationship with mother compared to father in predicting adjustment. These results are in line with Bowlby's (1982) idea of monotropy, that mother serves as a child's primary attachment figure and that mother is the preferred attachment figure to turn to in times of stress and need. We found that adolescents' attachment relationship to mother, in particular, was associated with depressive symptoms, attributions, and self-esteem. Adolescents also reported being more avoidantly attached to their father than mother, consistent with previous findings that adolescents describe themselves as closer to mothers than fathers (e.g., see Youniss & Smollar, 1985). Consistent with Searle and Meara's (1999) results that young adult men and women report themselves to be more alike than different within the same attachment categories, we did not find gender differences in attachment relationships with parents.

Consonant with Margolese et al.'s (2005) results, we found that adolescent girls with more negative models of self and of other in relation to mother reported more depressive symptoms. We also found that father plays an important role in early

adolescents' adjustment, however, in the context of insecure attachment to mother. It appears that when an adolescent is insecurely attached to mother, insecure attachment to father adds vulnerability to depressive symptoms.

Implications for Interventions

Because of the importance of secure parent-child attachment relationships on early adolescents' adjustment and because attachment patterns may influence later relationships, our results suggest that cognitive behavioral interventions designed to change children's maladaptive attributions and self-esteem (e.g., Gillham, Reivich, Jaycox, & Seligman, 1995) should also consider the parent-child attachment relationship. To improve the child's view of self, of other, and of relationships, interventions should consider concurrently improving insecure parent-adolescent attachment relationships (in particular anxious attachment to mother), and include cognitive restructuring skills dealing with the child's attributions to events within the interpersonal context. More specifically, in addition to reducing children's depressotypic cognitions and depression, interventions could aim at facilitating the communication between the adolescent (particularly the adolescent girl) and the mother by helping the adolescent to express negative emotions, thoughts, and conflicts without experiencing rejection and abandonment. Thus, the adolescent could be helped at better solving interpersonal problems with mother. Further, interventions should focus on helping the mother to be more consistently available and responsive in times of stress and need, and on helping the adolescent to explore more the environment (i.e., increase autonomy) while the parent continues to provide a secure base.

Limitations

This study relied exclusively on self-report. However, the use of adolescent self-report is considered an important source of information on the parent-adolescent attachment relationship, and on adolescent depressive symptoms, attributions, and self-esteem (e.g., Kazdin, 1990). Moreover, the use of a measure of social desirability helps to ameliorate this limitation.

In addition, the direction of causal effects can not be determined from the present study. Depressive symptoms could possibly lead to negative views of relationships with parents, to maladaptive attributions, and to lower self-esteem. Longitudinal studies examining the relation between attachment to parents, attributions, self-esteem, and psychological distress might better determine the causal relationships between these variables. However, in a two-year longitudinal study, although early attachment quality was found to predict changes in self-esteem and dysphoria, initial levels of these latter two variables did not predict changes in attachment anxiety or avoidance over time among early adolescents (Doyle & Markiewicz, 2005). This finding suggests that self-esteem and dysphoria are more likely to result from insecure attachment than vice versa.

Further, the attribution measure, CASQ-R, had poor internal consistency reliability, therefore, increasing the chances of type I error. However, the findings of the associations of attributions with attachment and depression are consistent with previous studies, therefore, increasing our confidence in our results and decreasing the chance of Type I error. Although the CASQ-R is a widely used measure, future studies would be advised to use the newly created measure of cognitive vulnerability to depression (ACSQ; Hankin & Abramson, 2002) with adolescents. Furthermore, our findings cannot

generalize to clinical samples. It is possible that with a clinical sample of adolescents, similar processes would show increased vulnerability for onset of clinical depression.

Conclusions

The findings revealed that insecure attachment, in particular anxiety to mother, was associated with adolescents' emotional distress. Adolescents more anxiously attached to both their mother and father appeared to be the most at risk for depression. The link between anxious attachment to mother and depressive symptoms for girls was partially mediated by maladaptive attributions to negative events, suggesting that both negative interpersonal relationship with mother and maladaptive attributions contribute to girls' vulnerability to depressive symptoms. As well, for adolescent girls, self-esteem was found to be another pathway through which anxious attachment to mother was related to depressive symptoms. This study indicates the importance, when studying the relation between attachment and depressive symptoms in early adolescence, of examining the adolescent-mother attachment relationship, of examining anxiety separately from avoidance, and of considering attributions and self-esteem as pathways through which anxious attachment might lead to depressive symptoms for girls.

Abstract

The association between parent-child attachment and psychological distress among early adolescents and young adults: Mediating role of attributions to interpersonal stressors

This study investigated differences between early adolescents and young adults in the mediating role of attributional processes in the association between insecure attachment to parents and psychological distress. Early adolescents ($N=164$) and young adults ($N=132$) were presented with stressful interpersonal vignettes. Anxious attachment to mother was positively associated with stress for females, and anxious attachment to father in the context of low avoidant attachment to father was positively associated with stress for males. Participants with more avoidant attachment to mother reported less stress. Anxious attachment to either mother or father was associated with negative attributions following the interpersonal scenarios. Anxious attachment to mother was associated positively with dysphoria whereas avoidant attachment to mother was associated negatively with dysphoria. Negative attributions fully mediated the association between anxious attachment to mother and dysphoria, and did so more strongly for young adults than for early adolescents. This study indicates the importance of negative attributions to interpersonal stressors as a pathway through which anxious attachment to mother might lead to psychological distress for early adolescents and, in particular young adults.

Rates of depression increase rapidly from middle to late adolescence and girls become more depressed than boys by early adolescence (Hankin, Abramson, Moffitt, et al., 1998). Moreover, the highest rates of depression are in the twenty-five to forty-four year age range (Emery, 2000). Thus, identifying the depressotypic processes operative prior to the developmental increase in depression becomes important. Following the study by Margolese, Markiewicz, and Doyle (2005), the present study investigates attributional processes to stressful interpersonal events as a link between insecure attachment to parents and psychological distress. The mediating role of attributional processes is compared for adolescents versus young adults.

Attribution theories of Depression

The hopelessness theory of depression (Abramson, Metalsky, & Alloy, 1989) posits that individuals with a negative cognitive style are vulnerable to developing hopelessness depression in the presence of negative life stressors. Negative cognitive style refers to making negative inferences about the cause of an event (global and stable attributions), the consequences following an event, and the implications for the self after experiencing a negative event. Substantial empirical support exists for the relation between maladaptive attributional styles and depression (e.g., Metalsky, Abramson, Seligman, Semmel, & Peterson, 1982; Metalsky, Halberstadt, & Abramson, 1987) across age groups, in both boys and girls, and for clinical and nonclinical samples (e.g., Joiner & Wagner, 1995). Gender differences in attributional style are also found, with girls' more negative cognitive style accounting for their higher level of depressive symptoms compared with boys (Hankin & Abramson, 2002). The relation between negative cognitive style and depression has been found to be relatively stable by adolescence and

similar to those of adults (Garber, Weiss, & Shanley, 1993). Moreover, using latent factor growth modeling to examine developmental trajectories of depressive symptoms in Grades 6 through 11, Garber, Keiley, and Martin (2002) found that increase in negative attributional style was associated with increasing levels of depressive symptoms across adolescence.

Attachment Theory

Attachment theory offers a conceptual model for understanding the developmental origins of cognitive vulnerability to depression (e.g., Bowlby, 1969/1982, 1973, 1980; Bretherton & Waters, 1985; Cummings & Cichetti, 1990). According to Bowlby (1969), attachment relations are governed by internal working models that individuals construct from their experience with their primary attachment figures. Internal working models are mental representations centering on the worthiness of the self and the availability and responsiveness of others. For instance, when the attachment figure is appropriately responsive, the child comes to believe that the self is worthy of love and competent, and that others are trustworthy and reliable. However, when parents fail to adequately meet attachment needs, the child comes to believe that the self is not worthy of love or support and/or that others are unavailable and rejecting (Bretherton, 1985). Using self-report measurement of attachment, variability in attachment organization has been seen recently to fall along two dimensions, anxiety (i.e., variability in fear of abandonment, rejection, and loss) and avoidance (i.e., degree of discomfort with intimacy, closeness, and dependence; Brennan, Clarke, & Shaver, 1998). The two scales were originally reported to be uncorrelated (Brennan et al., 1998), however, in other studies, using similar measures, they have been found to correlate positively and

significantly (e.g., Sibley, Fisher, & Liu, 2005). Self-report measures of attachment anxiety and avoidance have been shown to be valid measures of working models of self and others, and to tap conscious appraisals of feelings and behaviors in close relationships as well as defensive and unconscious processes related to affect regulation and attachment system activation (Shaver & Mikulincer, 2002; Shaver & Mikulincer, 2004).

Bowlby (1973) argued that although working models are updated and changed as individuals encounter new events, the internal working models are resistant to change, particularly by late adolescence. Incoming information is hypothesized primarily to be assimilated to existing models rather than to modify the models to accommodate the information (see Fiske & Taylor, 1991). Although major stressful events (e.g., loss of a parent, child maltreatment) are associated with change toward insecurity and relatively stable social environments are important for the continuity across the life span (e.g., Waters, Merrick, Treboux, Crowell, & Albersheim, 2000; Weinfeld, Sroufe, & Egeland, 2000), attachment security is found to be moderately stable across the first 19 years of life (Fraley, 2002). This finding suggests that working models of early attachment experiences are retained over time and continue to influence interactions throughout the life span. That is, early experiences are suggested to play a major role in shaping the development of latent mental structures such as working models (Crittendon & Ainsworth, 1989), which, are, in turn, hypothesized to influence the thoughts and the beliefs individuals have about relationships (Crick & Dodge, 1994; Ingram, 2003). In other words, internal working models function as interpersonal schemas or generalized representations of self, other, and relationships that are abstracted from relationships with

attachment figures and guide the way an individual interprets relationships with others (Hammen, Burge, Daley, Davila, Paley, & Rudolph, 1995; Safran, 1990).

Parents remain the primary attachment figures until late adolescence (Hazan & Zeifman, 1994). Further, adolescents and young adults are frequently found to report themselves as closer to and relying more on their mothers than fathers (e.g., Cubis, Lewin, & Dawes, 1989; Paterson, Field, & Pryor, 1994; Youniss & Smollar, 1985). Mother is consistently the preferred figure to turn to in times of stress and need (e.g., Hunter & Youniss, 1982; Kandel & Lesser, 1969), particularly for adolescent girls who talk more to their mothers and less to their fathers and who become more distant from their fathers than male adolescents. Although the attachment relationship between the father and the adolescent becomes more limited in communication and emotional quality over time, the adolescent continues to view his or her father as an important attachment figure (Paterson, Field, & Pryor, 1994). Given that the quality of the parent-adolescent relationship typically differs with the gender of the parent, it is important to study adolescents' attachment to mother and father separately.

Attachment and Stressful Events

Research on adult attachment has examined the role of defensive processes in the functioning of working models (Fraley, Davis, & Shaver, 1998). Anxious individuals are hypothesized to cope with stressful events by directing their attention toward distress in a hypervigilant manner and also by ruminating on negative thoughts, memories and affect (Kobak & Sceery, 1988; Mikulincer & Orbach, 1995; Shaver & Hazan, 1993). Avoidant individuals, on the other hand, tend to cope with stressful events by denying emotional distress and by becoming "compulsively self-reliant" (Bowlby, 1973; Shaver & Hazan,

1993). These individuals tend to dismiss the importance of the source of stress, and inhibit access to negative affect and thoughts (Mikulincer & Orbach, 1995).

Stress resulting from interpersonal conflicts has been shown to be related to depressive symptoms and to be a better predictor of these problems than other stressors in adolescence (e.g., see Crick & Nelson, 2002; Crick & Zahn-Waxler, 2003; Rudolph & Hammen, 1999). Girls are more likely than boys to respond negatively to interpersonal stressful events (e.g., see Crick, 1995; Crick, Grotpeter, & Bigbee, 2002) and they report more negative events, particularly interpersonal, than boys after the pubertal transition (e.g., Ge et al., 1994; Rudolph & Hammen, 1999). Further, experiences with social situations and skillful and adaptive ways of dealing with conflicts and stressful life events increase with age (Crick & Dodge, 1994, for a review), with girls showing greater ability to think in complex ways than boys (e.g., Menna, 1995). Thus, girls might respond less negatively to interpersonal events with age than boys.

Relation between Attachment and Depression

A number of studies have examined the relation between the parent-child relationship and depression and found that adolescents securely attached to their mother and father report fewer depressive symptoms than insecurely attached adolescents (e.g., Doyle, Brendgen, Markiewicz, & Kamkar, 2003; Nada Raja, McGee, & Stanton, 1992). The moderating role of attachment in the association between stressful events and depression has also been examined. For instance, an individual with an insecure interpersonal schema is more likely than an individual with a secure interpersonal schema to interpret stressful interpersonal events as rejection and view the self as unworthy and unlovable, which might result in depression or other symptoms (e.g., anxiety, substance

abuse, and eating disorders; Hammen et al., 1995). This hypothesis has been supported by the finding that insecure interpersonal cognitions (e.g., close, anxious, and dependent attachments) about others in general moderated the relation between negative social events and depression or other symptoms at the end of one year among a sample of high school senior women (Hammen et al., 1995).

The predisposing factors associated with depression in anxiously attached individuals compared with avoidantly attached (i.e., compulsively self-reliant) individuals have also been differentiated (Bowlby, 1969, 1973, 1977, 1980). Anxiously attached individuals are excessively dependent on others and become vulnerable to depression in the presence of loss and abandonment (Blatt & Homann, 1992, for a review). Compulsively self-reliant individuals show contempt for individuals wishing to have intimate relationships and their self-isolation make them vulnerable to depression (Blatt & Homann, 1992, for a review).

Attachment, Attributions, and Psychological Distress

Attachment has typically been found to be related to attributional style. Individuals with different attachment styles are likely to explain and interpret events in ways consistent with their beliefs and expectations about themselves and others (Collins 1996). Because securely attached individuals have a working model of self as lovable and competent, they are hypothesized to be less likely to make maladaptive attributions. Early adolescents more anxiously attached to mother tended to report more maladaptive attributions to negative events (Kamkar, Doyle, & Markiewicz, under review). As well, attachment security (to nonparental others), measured either by the Hazan and Shaver's (1987) attachment prototypes and Bartholomew and Horowitz's (1991) four-category

model of attachment styles, has been found to be associated with cognitions about the causes of positive and negative events for late adolescent females (although not for males; Greenberger & McLaughlin, 1998). However, one study using the Inventory of Adult Attachment (IAA; Lichtenstein & Cassidy, 1991), failed to find an association between perceived attachment to one's primary caregiver in childhood and depressotypic attributional style (i.e., making stable and global attributions for negative events) in a sample of undergraduate students (Whisman & McGarvey, 1995). These mixed findings might be due to the different measures of attachment (e.g., attachment to parental vs. nonparental figures), the different ages studied, and the age at which attachment was assessed.

Maladaptive attributions were also found to mediate the association between attachment (assessed dimensionally with the Relationship Questionnaire; Bartholomew & Horowitz, 1991) and depression in middle adolescence (Margolese, Markiewicz, & Doyle, 2005). To assess attributions, adolescents were shown a vignette task where they were presented with hypothetical interpersonal stressful events and asked to indicate their thoughts about themselves and about the other person in the situation. Girls with more negative models of self and of other in relation to mother made more negative attributions about themselves and the other in response to stress, which, in turn, was associated with greater depressive symptoms. The association between models of self and other with mother and depression was not significant for boys. Negative attributions have also been found to partially mediate between insecure attachment and depressive symptoms among early adolescent girls (Kamkar et al., under review). More specifically, anxious attachment to mother was associated with internal, stable, and global attributions to

negative events (assessed with the Children Attributional Style Questionnaire-Revised; Kaslow & Nolen-Hoeksema, 1991), which, in turn, were associated with depressive symptoms. Undergraduate students' retrospective accounts of parental care have also been found to be associated with depressotypic attributional style, which partially mediated the relation between parental care and dysphoria among undergraduate students (Whisman & Kwon, 1992). Thus, insecure parent-child attachment relationships might produce negative cognitive styles, which are risk factors for depression particularly for girls (Ingram, 2003).

Objectives of the Present Study

The present study aimed to investigate the mediating role of attributions to stressful interpersonal events between insecure attachment to parents and psychological distress due to interpersonal stressors in early adolescence and young adulthood. Participants were presented with hypothetical negative interpersonal scenarios, designed to be stressful. Negative attributions to stressful interpersonal events were assessed using an experimental paradigm similar to Margolese et al. (2005). However, whereas Margolese et al. examined general depressive symptomatology using the Beck Depression Inventory, we examined negative emotions specifically resulting from the stressful events, increasing the probability of psychological distress being the consequence of the stressful events and of participants' attributions to the events. Further, multiple items from the Relationship Scales Questionnaire (Bartholomew, 1990) rather than the four-item Relationship Questionnaire were used to assess attachment.

First, with respect to the stressfulness ratings of the interpersonal vignettes, because of their lesser cognitive complexity, early adolescents, in particular those with

more insecure attachment, were expected to report greater stress than young adults. As well, because females are found to respond more negatively to interpersonal conflicts than males, female participants were expected to report greater stress than male participants. Moreover, because of the different defensive processes of anxious and avoidant attachment, anxious attachment, in particular, was expected to be positively associated with stress from the interpersonal stressors. Also, we expected anxious and/or avoidant attachment to mother and/or father to be associated more strongly with stress for girls than for boys. Further, because mother is typically the primary attachment figure, we expected anxious attachment to father to be associated with stress from the interpersonal stressors only at higher levels of anxious attachment to mother. Similarly, we expected avoidant attachment to father to be associated with stress only at higher levels of avoidant attachment to mother.

Further, because avoidantly attached individuals inhibit access to negative affect and thoughts, we hypothesized that participants with more anxious attachment to mother (and/or father) would report greater stress at lower levels of avoidant attachment to mother (and/or father) than at higher levels of avoidant attachment. That is, we expected participants with more preoccupied attachment style (i.e., high anxiety, low avoidance) to report greater stress than those with more secure (i.e., low anxiety, low avoidance), dismissing (i.e., low anxiety, high avoidance), or fearful (i.e., high anxiety, high avoidance) attachment style. The results were expected to be stronger for girls.

Second, with respect to attributions to interpersonal stressors, because girls report more negative cognitions than boys (Hankin & Abramson, 2002), female participants were expected to make more maladaptive attributions than males. Both participants more

anxiously attached and those more avoidantly attached were expected to make more negative stable-global attributions about themselves and others. Also, we expected anxious attachment, in particular to mother, to be more associated with maladaptive attributions to interpersonal stressors for females than for males. Because of the crystallization of working models and increasing cognitive rigidity with age, the association between insecure attachment and negative attributions was expected to be stronger for young adults than for early adolescents. Further, because early adolescents tend to experience more difficulties than young adults differentiating self from others (e.g., Allen & Land, 1999, for a review), the association between attributions made about self and others was also expected to be stronger for the adolescents.

Third, because the current study looked at psychological distress resulting specifically from stressful interpersonal events and anxiously attached individuals are more vulnerable to psychological distress than avoidant individuals when faced with relationship conflicts, we expected anxious attachment, in particular to mother, to be associated with more psychological distress. We did not expect a strong association between avoidant attachment and psychological distress. In addition, maladaptive attributions were expected to be associated with negative emotions. Negative attributions were also expected to be more strongly related to emotional distress for young adults. Thus, negative attributions were expected to mediate more strongly between attachment and negative emotions for young adults than for early adolescents.

Method

Participants

Early adolescent participants were 164 seventh-grade and eighth-grade students (101 girls), ages 12-15 ($M = 12.74$; $SD = .76$), attending an English language high school in Montreal, Canada. Students were contacted by letters distributed in class requiring both student and parent written consent (see Appendix C and D). Of the 383 contacted, 169 agreed to participate (consent rate= 44%, refusals=25%, no response= 31%). Five consenting students did not complete the study because of repeated absences ($N=1$), withdrawal of consent ($N=3$), and loss of data due to error ($N=1$).

Young adult participants were 132 undergraduate students (66 men, 66 women), ages 18-35 ($M = 24.4$; $SD = 3.93$), recruited using posters and sign-up tables placed throughout an English-language University in Montreal and asking for participation in a study on interpersonal relationships (see Appendix C and D). Of the 165 who signed up for the study, 33 participants were excluded because of not meeting the English fluency requirement of first language English or living more than five years in Canada/U.S. 64% of young adults lived outside home.

From information provided by adolescents and adults on a demographic questionnaire (see Appendix E), 61% of parents were in intact marriages, 7% in reconstituted marriages, and 25% were mothers who lived alone, and 7% were fathers who lived alone. Only the percentage of reconstituted families differed for the two age groups, with more of the adolescents' parents being remarried, 10% versus 4% for early adolescents and young adults, respectively.

Participants endorsing one ethnic background (72%) indicated either English Canadian (27%); French Canadian (4%); European (21%); Asian (3%); Middle Eastern

(2%); African (1%); Latin American, Aboriginal or South West Asian (less than 1% each); or other (10%). Participants endorsing two (21%) or three (6%) ethnic backgrounds primarily indicated English or French Canadian, and/or European. Only the European (39% for adolescents versus 17% for young adults) and the Asian (2% for adolescents and 8% for young adults) ethnic backgrounds differed between age groups. Mean socioeconomic status (SES) was similar for both samples and was 32.12 ($SD=11.76$, characteristic of skilled craftsmen, clerical, and sales workers), based on Hollingshead's (1975) four factor index of social status.

Measures

Relationship Scales Questionnaire (RSQ; Bartholomew, 1990). An adaptation of the RSQ was given to the young adult sample to assess attachment (see Appendix F), the 17 items representing statements from the Bartholomew and Horowitz (1991) Relationship Questionnaire paragraphs¹. Participants responded on a 5-point Likert scale (1=not at all like me; 5=very much like me). Each participant completed the questionnaire four times, once for each of the four targets of interest: mother, father, best friend and current or most recent romantic partner, in counterbalanced order². For the present study, only RSQ data pertaining to mother and father were utilized³. Because internal consistencies for the RSQ subscales have been found to be quite low, and because recent research has established that two dimensions, anxiety and avoidance underlie self-report measures of attachment (Brennan, Shaver, & Tobey, 1991), for each

¹ The original RSQ consists of 30 items, 17 taken from the RQ paragraphs and 13 taken from Collins and Read (1990). Only the 17 items from the RQ were used in this study to permit comparability to Margolese et al.'s (2005) study which used that measure.

² The RSQ is adaptable to several target figures (Bartholomew & Horowitz, 1991).

³ Students with only one parent ($N=13$) were instructed to skip the questionnaire about the other parent. Students in reconstituted families chose whether to rate their biological or step-parent ($N=2$ for stepmother and stepfather).

parent, anxiety and avoidance attachment scales were constructed based on Feeney and Hohaus' (2001) measurement model for the 30-item Relationship Scale Questionnaire (Griffin & Bartholomew, 1994). Six of the RSQ items used in the present study were found by Feeney and Hohaus (2001) to load on the anxiety dimension (e.g., "I find it difficult to trust others completely) and seven items to load on the avoidance dimension (e.g., "I find it difficult to depend on others). Four RSQ items did not load on either Feeney and Hohaus' (2001) anxious or avoidance attachment dimensions and were, therefore, dropped from analyses. Moreover, in the current study, one item with a poor item-total correlation with the anxiety dimensions (i.e., "I worry about being without my mother/father") and one with a similarly poor item-total correlation with the avoidance dimensions (i.e., "It is very important to me to feel independent of my mother/father") were dropped for both parents. The internal consistencies of the adapted 5-item RSQ anxiety dimensions were moderate with alphas of .73 for mother ($M=1.80$, $SD=.85$) and .74 for father ($M=2.13$, $SD=.94$). The internal consistencies of the adapted 6-item adapted RSQ avoidance dimensions were satisfactory with alphas of .86 for mother ($M=2.66$, $SD=1.08$) and .77 for father ($M=2.94$, $SD=.95$).

RSQ anxious and avoidant attachment dimensions correlated with the secure base use of the mother/father, the fundamental attachment function (Hazan & Shaver, 1994), assessed with the attachment-related functions measure, the WHOTO Questionnaire (Hazan, Hutt, Sturgeon, & Bricker, 1991) in our sample. Anxious and avoidant attachment to mother were associated with using mother as a secure base ($r=-.38$, $p<.001$ and $r=-.43$, $p<.001$, respectively), and anxious and avoidant attachment to father were

associated with using father as a secure base ($r = -.27, p < .01$ and $r = -.48, p < .001$, respectively).

The Adolescent Relationship Scale Questionnaire (ARSQ; Scharfe, 1997) is an adaptation of the RSQ items intended to be more suitably worded for adolescents (see Appendix F). Specifically, the wordings of certain items were changed (e.g., ARSQ: “I want to be completely emotionally close to others” versus RSQ: “...emotionally intimate with others”; ARSQ: “it is very important for me to do things on my own” versus RSQ: “it is very important to me to feel self-sufficient; see Scharfe, 1997, for details). Similar to the adapted RSQ, each participant completed the questionnaire four times and only data pertaining to mother and father were utilized. Also, as for the adapted RSQ, for each parent, two attachment dimensions, anxiety and avoidance, were obtained based on Feeney and Hohaus’ (2001) measurement model for the Relationship Scale Questionnaire (RSQ; Griffin & Bartholomew, 1994). In the present study, one ARSQ item (the same item as in RSQ) correlating poorly with the anxiety scale and one ARSQ item (the same item as in RSQ) correlating poorly with the avoidance scale were dropped. The internal consistencies of the revised 5-item ARSQ anxiety dimensions were also moderate with alphas of .72 for mother ($M = 1.65, SD = .75$) and .76 for father ($M = 1.78, SD = .86$). The internal consistencies of the revised 6-item ARSQ avoidance dimensions were moderate, with alphas of .68 for mother ($M = 2.15, SD = .80$) and .77 for father ($M = 2.57, SD = .96$).

ARSQ anxious and avoidant attachment to mother were associated with using mother as a secure base ($r = -.46, p < .001$ and $r = -.34, p < .05$, respectively; The WHOTO Questionnaire, Hazan, Hutt, Sturgeon, & Bricker, 1991). Avoidant attachment to father

tended to be associated with using father as a secure base ($r = -.28, p < .10$; $r = -.20, n.s.$ for anxious attachment to father).

Social Desirability Scale (SDS; Strahan & Gerbasi, 1972). A 15-item version of the Marlowe-Crowne Social Desirability Scale was given to participants (Strahan & Gerbasi, 1972) in order to assess their tendency to project favorable images of themselves (See Appendix F). An example of an item is: "No matter who I'm talking to, I'm always a good listener". Participants were asked to indicate True or False for each of the 15 items. This abbreviated form correlates highly with the original scale ($r = .90$; Strahan & Gerbasi, 1972), which has been established as assessing the tendency to respond with social defensiveness (Lobel & Teiber, 1994), with similar reliability coefficients, ranging from .73 to .83. In the present study the internal reliability was .67 for the early adolescent sample ($M = .51, SD = .20$) and .60 for the young adult sample ($M = .43, SD = .19$).

Vignettes of Stressful Situations. The vignette task was presented by the computer program, E-Prime (Schneider, Eschman, & Zuccolotto, 2002), which is a windows-based application that allows the order of the vignettes and the target figures within each vignette to be randomized. On average, participants required about 30 minutes to complete the computer task. They were presented with eight short descriptions of hypothetical potentially stressful situations. The vignettes consisted of interpersonal scenarios with their mother, father, best friend, and romantic partner, with two hypothetical situations per target figure. While parents are important sources of support in adolescence and young adulthood, friends and romantic partners are also important sources of support and intimacy (e.g., Paterson et al., 1994), and therefore, interpersonal

scenarios with all four target figures were examined. Each target figure appeared twice in the series of eight vignettes. Both the order of presentation of the four target figures within a vignette and the order of presentation of the eight vignettes were randomised, making the target figure independent of the vignette's content (see Appendix G). The attribution items following each vignette were identical across the vignettes, decreasing any potential confounding when assessing participants' attributions following the vignettes. An example of an interpersonal scenario was: "Imagine that you have a very important decision to make. This decision will have a big effect on your future and you are very anxious about it. You are very concerned about making the best choice by tomorrow's deadline. You go to your mom for her advice and to discuss what you should do. You really want her help. She tells you that she doesn't have the time to talk with you. She says she is too busy."

Stress Intensity Level. Following the presentation of each hypothetical situation, participants were asked to indicate "how stressful would you find this event?" on a 7-point Likert scale (1= "not at all"; 7= "extremely"). For each target figure, the stress scores for the two vignettes correlated moderately (r_s ranged from .20 to .42, $p < .001$) and were averaged. Because of the high intercorrelations between the stressfulness ratings for the four target figures (r_s ranged from .41 to .47), the stressfulness ratings of the interpersonal vignettes were obtained by averaging the scores across targets. The interpersonal vignettes were on average rated as moderately to highly stressful ($M = 4.84$, $SD = 1.18$).

Identification. Participants were then asked to indicate "how similar is this to an experience you have had?" on a 7-point Likert scale (1= "not at all similar"; 7=

“extremely similar”). The interpersonal vignettes were on average rated as moderately familiar for all participants ($M= 3.37, SD= 1.33$).

Cognitive Appraisals. Participants were also asked about what they would think if this situation with the target figure had actually happened. They answered either “Yes or No” to statements about their thoughts about themselves (e.g., “I am basically unlovable”, representing a self/stable/global attribution) and about the other person (e.g., “my dad is unreliable”, representing other/stable/global attribution) in the situation. Ten statements described their thoughts about themselves and ten statements described their thoughts about the other individual. One filler item representing attribution about self (“I can do something about this situation) correlated poorly with the total attribution for vignettes for both age groups and as such was dropped⁴. The internal consistencies of the attributions made about self/other across the vignettes were very satisfactory for both age groups (α ranged from .83 to .92). The Attributions made about Self or Other on the two vignettes were moderately to highly correlated across the two vignettes and four targets (r_s ranged from .22 to .62, $p<.001$) and, therefore, attributions to self and other were each averaged across the 8 vignettes. The internal reliability for attributions about self and other across the vignettes with the four target figures were .92 and .93, respectively.

Emotions. Participants were asked how they would feel if the situation with the

⁴ To control for a few missed attributions, for each vignette the proportion of items on the Attributions about Other scale answered “yes” was prorated to a base of 10. Similarly, the proportion of items on the Attributions about Self scale answered “yes” was prorated to a base of 9.

target figure had actually happened. They were presented with 17 emotions and were asked to indicate either “Yes or No” if they agreed or disagreed with the emotions. The 17 emotions measured hostility (4 items: annoyed, angry, resentful, irritated), depression (7 items: sad, rejected, lonely, helpless, lost, unloved, disappointed), anxiety (4 items: nervous, worried, tense, afraid) and indifference (3 items: understanding, indifferent, unemotional). The latter emotion was not examined in the current study. The emotions were selected from those that loaded highly on the corresponding MAACL-R factors ($n=11$; Zuckerman & Lubin, 1985) or were used by Collins ($n=6$; 1996). As in Zuckerman and Lubin (1985), because of the high intercorrelations between depression, anxiety and hostility (r_s ranged from .66 to .75), the scores from the three negative affect scales were summed to form a dysphoria score. For each target figure, dysphoria scores for the two vignettes were highly correlated (r_s ranged from .42 to .63) and, thus, were averaged. Further, because of the high intercorrelations between the dysphoria scores for the four targets, the current study utilized the average score of dysphoria for the vignettes with mother, father, friend, and romantic partner. The internal reliability for the average score of dysphoria was .96.

Procedure

For adolescents, data were collected during two sessions (about 45 minutes each). During the first session, students, taken in groups of about 20, were asked to complete questionnaires about their relationships with parents and friends, and their perceptions of family functioning. During the second session (about 7 weeks later), students, taken in groups of 10, completed attachment questionnaires (the ARSQs) and then the vignette task. Young adult participants first completed questionnaires on close interpersonal

relationships (the RSQs) and then the vignette task. The session lasted approximately 1 hour. For both samples, the attachment questionnaires were given prior to completing the vignette task on interpersonal stressful scenarios to heighten the accessibility of participants' attachment schemas while they were reading the scenarios.

Results

Preliminary analyses

Intercorrelations of all predictor variables with criterion variables are shown in Table 3.1. Because social desirability correlated significantly with most predictor and criterion variables, it was controlled for in all analyses. As expected, compared to young adults, early adolescents' attributions about self correlated more highly with the negative attributions about other (i.e., attributions made about the attachment figures in the interpersonal vignettes; .77 vs. .63, $p < .001$; $z = 2.42$, $p < .01$; Cohen & Cohen, 1983). This finding suggests, as predicted, that compared to young adults, early adolescents may have more difficulties separating their attributions about self and other in these situations.

To examine gender⁵, age⁶ and target differences in the two attachment dimensions, a 2(sex of participant) x 2 (age of participant: early adolescent/ young adult) x 2 (target figures: Mother/Father) multivariate analysis of variance, with social desirability as a covariate, was conducted on the two ratings, anxiety and avoidance, with target as a within-participants factor. Using the Wilk's criterion, the results revealed a multivariate main effect for gender, $F(1, 270) = 4.82$, $p < .01$, for age, $F(1, 270) = 6.65$, $p < .01$, and for target, $F(1, 270) = 3.55$, $p < .05$. The results also revealed a multivariate

⁵ Gender was a dichotomous variable with 0 and 1 representing females and males, respectively.

⁶ Age was a dichotomous variable with 0 and 1 representing adolescents and adults, respectively.

Table 3.1

Partial correlations, controlling for social desirability, between predictor variables and criterion variables for early adolescents^a and young adults^a.

	1	2	3	4	5	6	7	8	9	10 ^b
1. Anxiety Mother	---	.44***	.46***	.07	.12	.21**	.19*	.22**	.15 ^t	-.21**
2. Anxiety Father	.20*	---	.14 ^t	.46***	.12	.24**	.16*	.21**	.11	-.20*
3. Avoidance Mother	.46***	.09	---	.26***	-.03	-.06	-.03	-.04	-.14 ^t	-.14 ^t
4. Avoidance Father	-.11	.56***	.22**	---	.05	.04	.08	.06	.01	-.27***
5. Stress of Events	.11	.11	-.27**	-.21*	---	.18*	.32***	.32***	.55***	-.15 ^t
6. Attributions Self	.29***	.35***	.13	.08	.15	---	.77***	.94***	.44***	.00
7. Attributions Other	.22*	.31***	.09	.03	.31	.62***	---	.94***	.54***	-.14
8. Average Attributions	.28***	.36***	.12	.05	.27**	.86***	.93***	---	.52***	-.07
9. Dysphoria	.29***	.20*	-.01	-.12	.54***	.56***	.73***	.73***	---	-.13
10 ^b . Social Desirability	-.19*	-.14	-.13	-.08	-.14	-.23***	-.32***	-.31***	-.33***	---

^a Early adolescents above Diagonal and young adults below Diagonal.

^b Zero-order correlations

^t $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

age by target interaction, $F(1, 270) = 3.37, p < .05$. Social desirability was a significant covariate for both anxiety, $F(1, 270) = 14.67, p < .001$ and avoidance, $F(1, 270) = 12.65, p < .001$. For gender, a significant univariate effect was found for avoidance, $F(1, 270) = 5.45, p < .05$ with males reporting higher avoidant attachment ($M = 2.68, SD = .77$) than females ($M = 2.47, SD = .74$). With respect to age, a trend was found toward a univariate effect for anxiety, $F(1, 270) = 3.49, p < .06$, and a significant univariate effect was found for avoidance, $F(1, 270) = 13.16, p < .001$. Compared to early adolescents, young adults tended to report more anxious attachment ($M = 1.92, SD = .67$ vs. $M = 1.76, SD = .73$) and significantly more avoidant attachment ($M = 2.74, SD = .79$ vs. $M = 2.41, SD = .73$). The target effect revealed a significant univariate effect for avoidance, $F(1, 270) = 7.07, p < .01$, with participants reporting more avoidant attachment to father ($M = 2.75, SD = 11.11$) than to mother ($M = 2.40, SD = 11.11$). The age by target interaction revealed a trend towards a univariate effect for anxiety, $F(1, 270) = 3.22, p < .10$. Pairwise comparisons with Bonferroni corrections revealed that young adults (and not early adolescents) reported more anxious attachment to father ($M = 2.10, SD = .90$) than mother ($M = 1.75, SD = .79$). A trend was also found towards a multivariate interaction between age and gender, $F(1, 270) = 2.64, p < .10$ with a significant univariate effect for anxiety, $F(1, 270) = 4.29, p < .05$. Young adult females reported ($M = 2.04, SD = .73$) more anxious attachment than young adult males ($M = 1.80, SD = .65$), whereas adolescent females and males did not differ ($M = 1.71, SD = .70$ vs. $M = 1.81, SD = .71$).

Age and gender differences in the relation between attachment to parents and stress

Hypotheses concerning gender and age differences, as well as attachment dimension differences for mother and father in the stressfulness ratings of the

interpersonal vignettes were tested via hierarchical multiple regressions. Gender, age, and social desirability were first entered as control variables. Attachment dimensions, anxiety and avoidance, to mother and father were entered on the second step. Four sets of two-way interaction terms in two separate analyses (one analysis with gender and another with age) were entered on the third step, interactions between sex/age and anxious/avoidant attachment to each target. Four sets of three-way interaction terms in two separate analyses (one analysis involving age and one involving gender) were entered on the fourth step, interactions between age/sex and anxious attachment to each target, interactions between age/sex and avoidant attachment to each target, and interactions between age/sex and anxious and avoidant attachment to mother/father. Only significant interactions are reported. As the interaction between age and sex was not significant, it was dropped from all analyses.

Regression analyses revealed that the control variables, gender, age, and social desirability as a block, were significantly associated with the stress reported from the interpersonal scenarios, $F(15, 258) = 3.86, p < .001$ (see Table 3.2). In the final equation, as predicted, female participants tended to report greater stress from the interpersonal stressful scenarios than male participants. Initial beta weight for age was also significant with adolescents reporting more stress than young adults. Participants with higher social desirability tended to report less stress than those with lower social desirability. Attachment to parents as a block, and anxious attachment to mother and avoidant attachment to mother uniquely, significantly predicted stress from the interpersonal stressors. As expected, participants with more anxious attachment to mother reported higher stress, however, those with more avoidant attachment to mother reported lower

Table 3.2

Hierarchical Multiple Regressions examining predictions from Attachment Dimensions to Stressfulness ratings.

Step	Predictors	R ²	ΔR ²	β ^a	β ^b	sr ²
1	Sex	.09***	.09***	-.23***	-.13 ^t	.01
	Age			-.12*	-.10	.01
	Social Desirability			-.14*	-.11 ^t	.01
2	Anxiety Mother	.13**	.05**	.16*	.20*	.02
	Avoidance Mother			-.18*	-.25**	.02
	Anxiety Father			.11	.00	.00
	Avoidance Father			-.06	.07	.00
3	Sex x Anxiety Mother	.15	.02	-.11	-.23*	.01
	Sex x Avoidance Mother			.16	.15	.01
	Sex x Anxiety Father			.19 ^t	.30**	.03
	Sex x Avoidance Father			-.22*	-.27**	.02
4	Sex x Anxiety F x Avoidance F	.17*	.02*	-.24	-.24**	.03

^a Beta on entry step

^b Beta on last step

^t p<.10, *p<.05, **p<.01, ***p<.001.

stress. The interactions between gender and attachment entered at step 3 were not significant. However, the interactions between sex and anxious attachment to mother, sex and anxious attachment to father, and between sex and avoidant attachment to father were significant at step 4. The three-way interactions between gender and the attachment dimensions at step 4 were significant, with the three way interaction sex x anxious attachment to father x avoidant attachment to father as a significant unique predictor⁷. More specifically and as hypothesized, for female participants only, anxious attachment to mother ($\beta = .20, p < .05$; $\beta = -.16, ns$ for males) was associated with greater stress⁸. The three-way interaction revealed that for male participants only, anxious attachment to father was associated with greater stress only at low levels of avoidant attachment to father ($\beta = .60, p < .001$; $\beta = .12, ns$ at high levels of avoidant attachment to father; Aiken & West, 1996).

Thus, as predicted, only for females was anxious attachment to mother associated with greater stress from the interpersonal stressful vignettes. For male participants, preoccupied attachment to father (high anxiety and low avoidance) was associated with greater stress than secure attachment, whereas dismissing and fearful attachment did not differ. Also as predicted, participants with more avoidant attachment to mother reported less stress.

⁷ The nonsignificant interactions were dropped and only the significant interactions were kept in the block in order to overcome the difficulty of detecting interaction effects in multiple regressions (Jaccard, Turrisi, and Wan, 1990).

⁸ For all analyses, when regression analyses revealed two-way or three-way interactions, the relationship between the predictor and criterion variables was examined at two levels of the moderator variable (i.e., one standard deviation above the mean and one standard deviation below the mean; Aiken & West, 1996).

Age and gender differences in the relation between attachment and attributions

Given the high correlations between the attributions about self and other, the current study utilized the average attribution score (i.e., average score between negative attributions about self and attributions about other). To examine gender and age differences, as well as attachment dimension differences for mother and father in the negative stable-global attributions to interpersonal stressors, similar analyses to those outlined before were conducted. All the betas reported are from the last significant step in the regression. Only sex ($\beta = -.14$, $sr^2 = .02$, $p < .05$) entered at step 1 ($\Delta R^2 = .05$, $p < .01$, $F(11, 263) = 4.39$, $p < .01$) was a significant unique predictor. Female participants made more negative stable-global attributions to interpersonal stressors than did male participants. The attachment dimensions, anxiety and avoidance, to mother and father, entered at step 2, significantly predicted negative attributions ($R^2 = .16$, $\Delta R^2 = .09$, $p < .001$), with anxious attachment to mother ($\beta = .18$, $sr^2 = .02$, $p < .05$) and anxious attachment to father ($\beta = .24$, $sr^2 = .03$, $p < .01$) as unique predictors. Participants more anxiously attached to mother and those more anxiously to father reported more negative, stable-global attributions to interpersonal stressors. No interactions involving age or sex were significant.

Thus, consistent with hypotheses, female participants made more negative stable-global attributions to interpersonal stressors than male participants. Attachment to parents, in particular anxious attachment to mother and father, was significantly associated with negative stable-global attributions.

Negative attributions as a mediator between attachment and dysphoria

The mediating role of negative stable-global attributions in the association between attachment to parents and dysphoria among early adolescents and young adults was examined according to the criteria of Baron and Kenny (1986). All the betas reported are from the last significant step in the regression.

First, a hierarchical multiple regression was conducted to predict from the attachment dimensions, anxiety and avoidance, of mother and father to dysphoria. Sex, age, and social desirability were controlled for at step 1 ($\Delta R^2 = .09$, $F(7, 267) = 6.97$, $p < .001$), with sex ($\beta = -.16$, $p < .01$) and social desirability ($\beta = -.16$, $p < .01$) as significant predictors. Females reported more dysphoria ($M = .45$, $SD = .21$) than males ($M = .36$, $SD = .20$). Participants with higher social desirability reported lower dysphoria than those with lower social desirability. The attachment dimensions to mother and father, entered at step 2, significantly predicted dysphoria ($R^2 = .16$, $\Delta R^2 = .06$, $p < .05$), with anxious attachment to mother ($\beta = .24$, $p < .001$) and avoidant attachment to mother ($\beta = -.16$, $p < .05$) as significant unique predictors. Participants more anxiously attached to mother reported higher dysphoria whereas those more avoidantly attached to mother reported lower dysphoria.

As noted previously, anxious attachment to mother and anxious attachment to father significantly predicted negative attributions ($\beta_{\text{mother}} = .18$, $p < .05$; $\beta_{\text{father}} = .24$, $p < .01$). Thus, a hierarchical multiple regression was conducted to predict from negative attributions to dysphoria, $F(5, 289) = 37.86$, $p < .001$ (see Table 3.3). Sex, age, and social desirability were significant predictors. Early adolescents reported more dysphoria ($M = .43$, $SD = .23$) than young adults ($M = .39$, $SD = .17$). Negative attributions, entered in step 2, significantly predicted dysphoria. There was a trend towards a two-way interaction

Table 3.3.

Hierarchical Multiple Regressions examining predictions from Negative Attributions to Dysphoria.

Step	Predictors	R ²	ΔR ²	β ^a	sr ²
1	Sex	.09***	.09***	-.12**	.01**
	Age			-.10*	.01*
	Social Desirability			-.10*	.01*
2	Negative Attributions	.39***	.30***	.50***	.17***
3	Age x Negative Attributions	.40 ^t	.01 ^t	.10 ^t	.01 ^t

^a Beta on last step

^t p<.10, *p<.05, **p<.01, ***p<.001.

between age and negative attributions entered in step 3. Negative stable-global attributions to self and others were more strongly associated with dysphoria for young adults ($\beta = .68, p < .001$) than for early adolescents ($\beta = .50, p < .001$; Aiken & West, 1996; $z = -3.55, p < .001$; Cohen & Cohen, 1983).

As only anxious attachment to mother was found to predict both dysphoria and negative attributions, negative attributions as potential mediator between anxious attachment to mother and dysphoria was tested. A final regression was conducted to examine the mediation effect, $F(6, 285) = 31.47, p < .001$ (see Table 3.4). The beta coefficients for anxious attachment to mother dropped from .19 ($p < .001$) in step 2 to .06 (n.s.) in the last step. To demonstrate that the reduction in the magnitude of the beta coefficients was significant, Sobel's tests were performed in the final step (Baron & Kenny, 1986). A z score of 3.67 ($p < .001$) was found indicating that the indirect path from anxious attachment to mother to dysphoria was statistically significant when the direct path was taken into account. Hence, after controlling for sex, age, and social desirability, negative attributions and the two-way interaction between age and attributions fully mediated the negative association between anxious attachment to mother and dysphoria. Thus, negative stable-global attributions about self and other to interpersonal stressors mediated the association between anxious attachment to mother and dysphoria more strongly for young adults than early adolescents.

Discussion

The results of this study indicated that the quality of attachment relationship with parents, in particular anxious attachment to mother and father might play an important

Table 3.4

Hierarchical Multiple Regressions examining age differences in the prediction from Attachment and Negative Attributions as potential mediator to Dysphoria.

Predictors	R ²	ΔR ²	Beta Weights	
			Entry	Last Step
1				
Sex	.09***	.09***	-.21***	-.12*
Age			-.12*	-.10*
Social Desirability			-.19***	-.09 ^t
2				
Anxiety to Mother	.13***	.03***	.19***	.06
3				
Negative Attributions	.40***	.27***	.49***	.49***
Age x Negative Attributions			.10 ^t	.10 ^t

^t p<.10, *p<.05, **p<.01, ***p<.001.

role in early adolescents' and young adults' processing of stressful interpersonal events. As hypothesized, anxious attachment to mother and/or anxious attachment to father were both associated with level of reported stress following the hypothetical interpersonal events, and with negative attributions about self and others in response to stressors. Further, the results indicated that negative stable-global attributions to stressful interpersonal events mediated the association between anxious attachment to mother and dysphoria following the stressful events. In addition, this was more the case for young adults than for early adolescents. Whereas the relation between attachment to parents and attributions did not vary with age, there was a stronger association between negative attributions and dysphoria for young adults versus early adolescents.

Associations among Attachment, Attributions, and Stress from Interpersonal Events

As hypothesized, participants with more anxious attachment to mother and/or father made more negative stable-global attributions to stressful interpersonal events. Our finding is consistent with Collins (1996) and Margolese et al. (2005) who also found that more anxious individuals are more likely to interpret interpersonal events negatively. Our finding suggests that the quality of attachment relationships with mother and father, in particular anxious attachment, influences adolescents' as well as young adults' interpretation of interpersonal events with others. Specifically, we found that the association between anxious attachment and maladaptive attributions did not differ with age and that, in addition to anxious attachment to mother, anxious attachment to father also influences participants' attributions to interpersonal stressors.

For female participants, anxious attachment to mother was associated with greater reported stress from the interpersonal events. Because females are more likely than boys

to be negatively affected by stressful interpersonal events (e.g., Crick et al., 2002) and to have heightened stress reactivity (e.g., Feeney & Kirkpatrick, 1996), the fear of rejection, loss, and abandonment by mother might be more detrimental for girls than for boys, that is, more strongly associated with stress. Male participants with a more preoccupied than a secure attachment style to father (i.e., higher anxiety in the context of low avoidance) reported greater stress. Our data suggest that the quality of attachment to father is particularly important for boys' ratings of stress to interpersonal stressors. Because fathers are found to be likely to teach skills related to conflict resolution (MacDonald & Parke, 1984), boys whose fathers promote preoccupied attachment might be less effective teachers of conflict resolution skills than fathers of secure adolescents. Lesser conflict resolution skills might, in turn, affect more negatively the preoccupied boys' stress, unlike boys with more dismissing attachment style who might have dismissed the importance of the source of stress, and thus, did not rate it differently than fearful adolescents.

Further, participants with more avoidant attachment to mother reported less stress from the interpersonal stressors. Our findings support Margolese's (2002) results that anxious attachment is associated with greater stress from stressful interpersonal events whereas avoidant attachment is associated with less stress. Our findings are also consistent with this and other previous research noting that individuals with more anxious attachment tend to direct their attention toward stressful events and ruminate on negative thoughts, memories, and affect, whereas individuals with more avoidant attachment dismiss the importance of the source of stress and inhibit negative emotions (e.g., Kobak & Sceery, 1988; Mikulincer & Orbach, 1995; Shaver & Hazan, 1993). Our study

provides a greater understanding of the link between anxious attachment and stress by distinguishing the quality of the attachment relationship with mother and father and by examining gender and age differences. Specifically, whereas the association between anxious attachment to parents and stress from the interpersonal stressors differed with the gender of the parent and of the adolescent, the association did not differ with age. The finding of no age differences in the association between insecure attachment and stress suggests that although more adaptive ways of dealing with interpersonal conflicts are learned with age, they do not appear to protect insecurely attached individuals from feeling as stressed.

Although participants more avoidantly attached to mother reported less stress, they did not make fewer maladaptive attributions to negative events. Rather, there was no relation between avoidant attachment and negative attributions. This result is inconsistent with Margolese et al. (2005) who found that adolescents with more negative models of self and of their mother reported more negative attributions. Because the vignette task used was similar in both studies, this inconsistency merits further investigation before concluding that no association exists between avoidant attachment and negative attributions.

Girls reported more stress from the interpersonal stressors than boys. As well, early adolescents reported more stress than young adults. However, once attachment was taken into account, there was no age difference in the reported stress. Further and as expected, female participants made more maladaptive attributions than males and reported more dysphoria in response to the interpersonal stories than males. These results

support Hankin and Abramson's (2002) findings that girls' greater cognitive vulnerability explained their higher depressive symptoms when compared with boys.

Developmental differences in the relation between attachment and cognition

As hypothesized, when presented with hypothetical interpersonal events, early adolescents' attributions about themselves and about others were more similar than those of young adults. This result is consistent with the finding that adolescents are more egocentric (i.e., have difficulties differentiating their own thoughts or their own point of view and another's; see Flavell, 1985) than adults (Frankenburger, 2000). In adolescence, the differentiation of self from others increases and views of oneself in attachment relationships become more internally based (Allen & Land, 1999). The results of this study suggest that in interpersonal situations, adolescents' views of themselves and their own personal worthiness might be strongly related to how they perceive others in the situation. An insecurely attached adolescent who views the self as unworthy of love and support is more likely than an insecurely attached adult to view the other as unresponsive and unavailable. The differences in the construct of self in early adolescence versus young adulthood might have implications for the association between negative cognitions and depression. To have a more complete understanding of these cognitive processes, studies examining the association between cognitive symptoms such as negative self-evaluation, negative attributional style, and hopelessness, and depressive symptoms in adolescence and adulthood (e.g., see Haaga, Dyck, & Ernst, 1991; Schwartz, Kaslow, Seeley, & Lewinsohn, 2000) should also consider individuals', particularly adolescents', perceptions of others in interpersonal situations in addition to looking at the individuals' views of themselves.

Unexpectedly, the relation between attachment insecurity and negative attributions did not become stronger with age. Attachment security influences the development of internal working models, which become an interpretive filter through which individuals reconstruct their understanding of new experiences and relationships in ways consistent with their beliefs and expectations (Bretherton & Munholland, 1999; Thompson & Raikes, 2003). As children mature, attachment security becomes increasingly a characteristic of the person (Thompson & Raikes, 2003). That is, over time, individuals become characterized by the quality of the relationships they have experienced throughout infancy and childhood (Thompson & Raikes, 2003). Because attachment is postulated to become more independent of experience with age, and incoming information is hypothesized to be assimilated to existing models (see Fiske & Taylor, 1991), working models were expected to be more strongly associated with attributions for young adults than early adolescents. However, the lack of age differences in the association between attachment insecurity and negative attributions might be due to the finding that working models developed in infancy are retained somewhat over time and continue to influence attachment behaviour throughout the life span (Fraley, 2002) through the explanations that people give that are consistent with their models of self and other. Longitudinal studies using individual growth analysis for modeling change at both the individual and group levels might also better examine whether the association between attachment insecurity and negative attributions becomes stronger over time. To explore potential relations among attachment, attributions to interpersonal events and age, future studies might also include a wider age range.

Attachment and dysphoria: Age differences in the mediating role of attributions

Negative stable-global attributions to interpersonal stressors were found to fully mediate the relation between anxious attachment to mother and dysphoria. Moreover, the mediation was stronger for young adults than for early adolescents. Adolescents and young adults more anxiously attached to mother made more negative stable-global attributions to interpersonal stressful events, and, particularly for young adults, these, in turn, were related to more dysphoria following the stressors. These results also support Margolese et al.'s (2005) findings that middle adolescent girls with more negative models of self and of mother made more negative attributions about themselves and others to interpersonal events, and these negative attributions, in turn, were associated with more depressive symptoms. Unlike Margolese, however, we did not find attributions to also mediate between avoidant attachment and negative emotions. The fact that, as mentioned previously, no relation was found between avoidant attachment and attributions might be one reason for this inconsistent finding. As well, in the present study, participants' negative emotions were specific to the stressful interpersonal events, thus, making it more probable that the psychological distress was a consequence of the stressful events and of participants' attributions to the events. Thus, it seems that it is more anxiously attached individuals in particular, who have difficulties suppressing their negative thoughts, affects, and memories (Mikulincer & Orbach, 1995), who are likely, through the activation of the attachment system, to interpret interpersonal stressors in ways consistent with their negative expectations and beliefs about themselves and others (Collins, 1996). These negative interpretations are likely to confirm their low self-worthiness and their negative views of others, which in turn are associated with negative emotions.

Most importantly, because the relation between negative attributions and dysphoria was stronger for young adults than early adolescents, negative attributions mediated more strongly for young adults than early adolescents. Although Garber et al. (1993) found that the relation between cognition and depression is similar in adolescence and adulthood, our adult sample (mean age 24 years) was older than their adult sample (ages 16 to 19 years), which may explain the differences in findings. Our findings suggest that attributions might be one common underlying process explaining the relation between anxious attachment to mother and emotional distress across adolescence. Anxious attachment to mother had an indirect influence on emotional distress through maladaptive attributions. That is, anxious attachment to mother was associated with attributional processes, which in turn were found to be important factors accounting for both adolescents' and young adults' psychological distress. The stronger association between attributions and dysphoria in adulthood might partially account for the increase in depression with age.

Differential contributions of attachment to mother and father and gender differences

Our findings suggest that attachment relationships with both parents, particularly to mother, are associated with processes implicated in early adolescents' and young adults' adjustment to stressful interpersonal events. Consistent with findings showing that mother is the preferred attachment figure to turn to in times of stress and need (e.g., Youniss & Smollar, 1985), we found that it was the quality of attachment relationship with mother that was more consistently associated with both early adolescents' and young adults' emotional distress resulting from stressful interpersonal events.

Gender differences in attachment were also found with males reporting higher avoidant attachment than females, and young adult females reporting more anxious attachment than young adult males, consistent with findings of men being more dismissing (avoidant attachment) and women more preoccupied (anxious attachment; Bartholomew & Horowitz, 1991) and of females experiencing emotions more intensely than men (e.g., Fujita, Diener, & Sandvik, 1992; see Sprecher & Sedikides, 1993). Age differences in attachment were also found with young adults tending to report more anxious attachment and significantly more avoidant attachment than early adolescents. Young adults also tended to report more anxious attachment to father than mother. Both early adolescents and young adults reported more avoidant attachment to father than mother, consonant with the findings that the attachment relationship between the father and the adolescent becomes over time more limited in emotional quality (Paterson, Field, & Pryor, 1994).

Limitations

This study relied exclusively on self-report. The use of adolescent self-report is, however, considered an important source of information on parent-adolescent attachment relationship, and on adolescent depressive symptoms and attributions (e.g., Kazdin, 1990; Reynolds & Johnston, 1994). Moreover, social desirability was controlled for in all analyses, helping to ameliorate this limitation. Nevertheless, additional sources of report (e.g., parent, peers, or teachers) for dysphoria would be helpful in future research (e.g., Clarizio, 1994).

As well, the direction of causal effects can not be determined from the present study because the attachment questionnaires and the vignette task were administered

concurrently and our study was cross-sectional. General emotional distress could lead to negative perceptions of attachment relationships with parents and to maladaptive attributions to stressful interpersonal events. However, the attachment relationship questionnaires were purposely given immediately prior to participants completing the vignette task to heighten the accessibility of participants' attachment schemas while reading the scenarios. Another limitation is the slight differences in the attachment measures, RSQ and ARSQ. Nevertheless, except for the avoidance dimension for mother, the adolescent version was as reliable as the adult version. Thus, longitudinal studies might better assess the direction of causal effects as well as any age differences in the relation between attachment and attributional style. All our participants also completed the same vignette task however, decreasing, therefore, any potential differences that might be due to different attachment measures administered. Finally, although participants were presented with hypothetical (versus real) stressors and the vignettes might not capture the real effects of stress, the vignettes were rated as moderately familiar for all participants.

Conclusions

The results of this study revealed that the quality of attachment relationships with mother and father were associated with both early adolescents' and young adults' processing of stressful interpersonal events. For females, anxious attachment to mother was positively associated with stress from the interpersonal scenarios, and for male participants low on avoidant attachment to father, anxious attachment to father was positively associated with stress. Anxious attachment to either mother or father was related to negative attributions. Anxious attachment to mother was also positively

associated with dysphoria whereas avoidant attachment to mother was negatively associated with dysphoria, with negative attributions being a mediator for the association with anxious attachment to mother. Adolescents and young adults more anxiously attached to mother made more internal stable-global attributions to interpersonal stressful events, and for young adults in particular, these attributions, in turn, were associated with emotional distress following stressful events. No differences were found, however, in the relation between attachment insecurity and negative attributional style for early adolescents versus young adults. Overall, anxious attachment to mother appears to indirectly influence the psychological distress of early adolescents and young adults facing interpersonal problems through negative attributional processes.

DISCUSSION

The present research was conducted with two aims. The first aim was to test whether the associations of anxious and avoidant attachment to mother and father with psychological distress among early adolescents were mediated by attributional styles to negative events and/or self-esteem. The second goal, specific to study 2, was to assess whether negative attributions to stressful interpersonal events mediated more strongly between attachment and negative emotions for young adults than for early adolescents.

Summary of the findings

The two studies revealed that attachment to mother and father are both associated with adolescent's and young adults' adjustment. In study 1, we found early adolescents more anxiously attached to both their mother and father to be the most at risk for depressive symptoms. For girls, maladaptive attributions to negative events was a process through which anxious attachment to mother was associated with depressive symptoms. Girls more fearful of rejection and abandonment by their mother made more internal, stable and global attributions to negative events, which, in turn, were associated with greater depressive symptoms. Similarly, for girls, self-esteem was found to be another mechanism through which anxious attachment to mother was related to depressive symptoms. That is, early adolescent girls more fearful of rejection and abandonment by their mother reported lower self-esteem, which, in turn, was associated with greater depressive symptoms.

In study 2, using vignettes to assess attributions to interpersonal stressful events and participants' negative emotions following the stressful events, we also found anxious

attachment to mother or father to be related to both early adolescents' and young adults' adjustment to stressful interpersonal events. Females more anxiously attached to mother and males both more anxiously attached to father and low in avoidant attachment to father, reported greater stress with the interpersonal events. As well, anxious attachment to either mother or, unique to study 2, father was associated with negative stable-global attributions to these events. Anxious attachment to mother was also associated with dysphoria from the interpersonal stressors, this time for both males and females, and as in study 1 negative attributions were one process through which anxious attachment to mother was associated with dysphoria. Participants more fearful of rejection and abandonment by their mother made more negative stable-global attributions to the stressful interpersonal events, which, in turn, were associated with higher dysphoria from the stressful events. Most importantly, negative attributions mediated the relation of anxious attachment to mother with dysphoria more strongly for young adults than for early adolescents. Further, participants more avoidantly attached to their mother reported less stress from the interpersonal stressors and also reported less dysphoria. Age differences were found in the association between attributions and dysphoria whereas no age differences were found in the association between attachment and attributions.

Insecure attachment and depressive symptoms

Our data with early adolescents and young adults suggest that although insecure attachment to both parents is a risk factor for the development of depressive symptoms, anxious attachment to mother appears to be the strongest risk factor. In study 1, anxious attachment to mother was associated with depressive symptoms for girls whereas anxious attachment to father was associated with depressive symptoms only for adolescents who

were also more anxiously attached to mother. In study 2, both anxious and avoidant attachment to mother (albeit negatively for avoidant attachment to mother) were uniquely associated with dysphoria following the interpersonal stressful events. Moreover, anxious attachment to mother appears to indirectly influence psychological distress through negative attributions.

Although attributional styles were measured differently in the two studies, in both studies, attributions were important processes linking anxious attachment to mother and psychological distress (study 1 used the Child Attributional Style Questionnaire which assessed internal, stable and global attributions to negative events and encompassed both interpersonal and achievement events; study 2 assessed overall negative stable-global attributions about self and other to specific hypothetical stressful interpersonal events). Although in study 1 we found anxious attachment to mother to be associated with depressive symptoms for girls only, we did not find gender differences in this association in study 2. In the second study, participants' negative emotions pertained specifically to stressful interpersonal events, thus, attempting to assess psychological distress consequent to the stressful events and to the participants' attributions to the events. Thus, the different findings might be due to the participants' psychological distress being assessed differently. Further, the results of study 1 with respect to the stronger association between anxious attachment to mother and depression for girls, are consistent with Margolese, Markiewicz, and Doyle's (2005) findings. The latter study also examined general depressive symptoms as opposed to psychological distress resulting from stressful events.

These findings help explain the interpersonal antecedents of cognitive vulnerability to depression. The hopelessness theory of depression posits that when faced with negative life events, individuals with cognitive vulnerability are likely to become hopeless, which in turn leads to depression (Abramson, Metalsky, & Alloy, 1989). Many studies have shown that the depressogenic attributional style (making internal, stable and global attributions to negative events) is correlated with depressive symptoms among children, adolescents, and adults (e.g., Joiner & Wagner, 1995). Attachment theory proposes a model for the development of cognitive processes related to depression. According to the theory, early interactions with parents influence children's developing internal working models, which are suggested to reflect the cognitive representation of relationships that have been generalized through interactions with attachment figures. The internal working models influence individuals' expectations and beliefs of new experiences and relationships in ways that are consistent with past experiences with important attachment figures (Bretherton & Munholland, 1999; Ingram, 2003). Thus, working models may be thought of as a protective or risk factor for psychosocial functioning (Burge, Hammen, Davila, et al., 1997). Individuals with insecure attachment are likely to develop negative working models about self, others, and relationships (Bowlby, 1988), which are likely to affect adolescents' and adults' psychosocial functioning via multiple pathways (Burge et al., 1997). Our first study showed that attributional processes to negative events are a pathway for early adolescent girls. Assessing psychological distress resulting specifically from stressful events, our second study showed that attributional processes to negative events are a pathway common to

early adolescent and young adult females and males. Our first study also showed that self-esteem is another pathway for early adolescent girls.

The present findings should also be replicated in longitudinal studies. Future longitudinal research can better examine the relations among anxious attachment to mother, attributions, self-esteem, and changes in depressive symptoms over time, after having controlled for initial levels of depression. The moderating role of gender also needs to be further examined in order to better understand the risk factors contributing to the increasing rates of depression across adolescence, especially among girls.

Anxious attachment to mother as a cognitive risk factor

In addition to being conceptualized as an interpersonal variable, attachment style can also be viewed as a cognitive risk factor (Rogers, Reinecke, & Setzer, 2004). Our findings suggest that it is anxious attachment to mother in particular that represents a cognitive risk factor that indirectly influences depression. Because internal working models of self and of others function as generalized representations of self-other relationships and account for the continuity of attachment across the lifespan, anxious attachment to mother is likely to represent a cognitive representation of relationship which includes the belief that the self is not worthy of love and support, and the fear of rejection and abandonment by others. Thus, the negative view of self in particular and of other developed from an anxious attachment relationship with mother, is likely to influence the person's attributions to negative events, which, in turn, are associated with emotional distress.

The results of our studies offer support for the cognitive models of depression and most importantly suggest the importance of studying attachment relationship with mother

and of distinguishing the type of insecurity. In sum, whereas cognitive vulnerabilities such as maladaptive attributions to negative events directly influence negative emotions, other cognitive interpersonal vulnerabilities such as anxious attachment to mother appear to indirectly influence negative emotions through their association with attributional processes.

Avoidant attachment: its association with attributions and dysphoria

Although avoidant attachment was not associated with depressive symptoms for early adolescents in study 1, avoidant attachment to mother was associated with less dysphoria from stressful interpersonal events in study 2. Avoidant attachment to mother was also associated with less stress from the interpersonal events. Further, avoidant attachment to mother tended to be associated with lower social desirability, indicating that participants with more avoidant attachment to mother who reported less stress and less dysphoria from stressful interpersonal events also tended to respond less defensively. This finding supports the data showing that avoidantly attached individuals do not have a repressive personality style (Fraley, Davis, & Shaver, 1998). Unlike avoidant individuals, repressive individuals report low anxiety on self-report measures but also tend to report high social desirability, suggesting that their low levels of self-reported anxiety reflect defensiveness rather than an absence of anxiety (see Weinberger, 1990). Our findings suggest that low levels of self-reported stress and dysphoria among participants with avoidant attachment to mother do not reflect concern with being socially appropriate like repressive individuals but rather concern with avoiding rejection by mother with whom they could become emotionally dependent. Avoidantly attached individuals help to

deactivate the attachment system by preventing emotional attachment (Fraley et al., 1998).

Contribution of attachment to father

Our studies also show that although anxious attachment to mother appears to be one important aspect of attachment associated with psychological distress, and mediated through maladaptive attributions to negative events for early adolescent girls (study 1), for both early adolescent and young adult females and males (study 2), and through self-esteem for early adolescent girls (study 1), anxious attachment to father also appears to be associated with maladjustment. We found that early adolescents more anxiously attached to their father reported higher depressive symptoms when they were also more anxiously attached to mother (study 1). Anxious attachment to father was also associated uniquely with greater stress from interpersonal events for boys less avoidantly attached to father (i.e., preoccupied attachment) and with greater negative global-stable attributions to the stressful events (study 2). The different findings across the two studies with respect to the association of anxious attachment to father with depression and attributions are likely due to participants' attributions and psychological distress being measured differently.

Our findings suggest that although adolescents and young adults feel closer to and rely more on their mothers than fathers, the quality of attachment relationship with father is important for early adolescents and young adults facing interpersonal conflicts. Our findings are consonant with previous studies with children from two-parent families, showing that a secure attachment relationship with father is associated with children

having better conflict resolution skills (e.g., MacDonald & Parke, 1984) and experiencing less conflict with peers (Lieberman, Doyle, & Markiewicz, 1999).

Age differences in the relations among attachment, attributions, and emotional distress

Negative attributions to stressful interpersonal events were found to be a stronger mediator for young adults than for early adolescents. That is, anxious attachment to mother was associated with negative stable-global attributions to stressful interpersonal events, which were more strongly associated with negative emotions from stressful events for young adults than for early adolescents. The development of negative cognitive symptoms with age might provide some explanations for the stronger association between negative attributions and dysphoria for young adults than for early adolescents. There is evidence that negative self-evaluation, guilt, and hopelessness are reported significantly more among adults than adolescents with depression (e.g., Friedman, Hurt, Clarkin, Corn, & Aronoff, 1983).

Our finding suggests that both anxious attachment to mother and negative attributions are important risk factors that contribute to vulnerability to psychological distress and that because of a stronger association between negative attributions and dysphoria with age, attributional processes become a stronger mediator with age. Thus, the stronger association between negative attributions and emotional distress might partially explain the increasing rates of depression across adolescence.

We did not find attachment insecurity to be more strongly associated with negative attributions with age, suggesting that by early adolescence, the internal working models are already becoming crystallized and influence future social interactions through the explanations that people give and that are consistent with their internal working

models of self and other. Because our study was cross-sectional, however, longitudinal studies from early adolescence to young adulthood could better examine whether the association between attachment insecurity and negative attributions becomes stronger with age.

Assessment of Attachment Insecurity and Cognitive Vulnerability to Depression

A strength of this research was that attachment insecurity was assessed using dimensional measures. Recent studies using taxometric procedures have shown that attachment is best conceptualized in terms of continuous dimensions (Fraley & Waller, 1998). As well, the two underlying attachment dimensions can be reliably assessed by self report measures (Griffin & Bartholomew, 1994). Further, self-report measures of attachment are shown to be reasonably internally consistent and stable over time, to reliably predict responses to stressful situations (see Feeney & Ryan, 1994), and to relate to measurable unconscious processes (Shaver & Mikulincer, 2002). Nevertheless, it would be desirable to collect additional attachment measures (e.g., structured interviews) to examine further the developmental pattern of the relation between attachment and attributions.

Moreover, to further understand the association between attachment insecurity and negative attributions, future studies might assess the three vulnerability factors composing the negative cognitive style of depression (i.e., negative inferences for cause, consequence, and self) as opposed to only focusing on negative attributional style. According to the Hopelessness theory of depression, cognitive vulnerability includes not only a negative attributional style but also negative inferences about the consequences and implications for the self after experiencing a negative event. In our first study, the

CASQ-R assessed only the negative attributional style. Our second study assessed negative stable-global attributions about self and other which included both negative attributional style and negative inferences about self (e.g., “I am unlovable”, “I am not a dependable person”). Measures such as the Cognitive Style Questionnaire (Abramson, Metalsky, & Alloy, 1999) and the adolescent version, the Adolescent Cognitive Style Questionnaire (Hankin & Abramson, 2002), assess the entire construct of cognitive vulnerability to depression, including the negative inferences for cause, consequence, and self. Future studies using a longitudinal design should examine age differences in the association between attachment insecurity, cognitive appraisals, and emotional distress using cognitive measures assessing the entire construct of negative cognitive style for depression. Although the entire construct of negative cognitive style was not assessed in our studies, attachment style, as mentioned earlier, can also be viewed as a measure of cognitive vulnerability. The construct of cognitive vulnerability could, therefore, be expanded to also include insecure attachment, in particular anxious attachment to mother, as an interpersonal cognitive risk factor for psychological distress.

Attachment and psychological distress in clinical samples

The mediational models in both studies were conducted with nonclinical samples and it is possible that with a clinical sample of adolescents, similar processes would show increased vulnerability for onset of clinical depression. Most studies, up to the present time, have focused on understanding the relation between insecure attachment and psychopathology in clinical samples (e.g., Allen, Hauser, & Borman-Spurell, 1996; Cole-Detke & Kobak, 1996; Fossati et al., 2003; Nickell, Waudby, & Trull, 2002; Rosenstein & Horowitz, 1996). Much less is known about the mechanisms underlying the association

between insecure attachment and psychopathology with this population. The present findings should be replicated in a clinical sample to determine the potential mediating roles of maladaptive attributions and self-esteem in the association of anxious and avoidant attachment to parents, in particular to mother, with psychological distress in this population.

Conclusion

The purpose of this research was to examine the processes underlying the associations between insecure attachment to both parents and psychological distress among early adolescents and young adults. Anxious attachment to mother appears to be one important aspect of attachment associated with psychological distress. Anxious attachment to mother was associated with psychological distress via attributional processes to negative events for early adolescent girls (study 1), for early adolescent and young adult females and males (study 2), and via self-esteem for early adolescent girls (study 1). Attachment insecurity was not found to be more strongly associated with negative attributions with age. Negative attributions, however, were more strongly associated with psychological distress with age, making therefore attributional processes a stronger mediator with age.

Our data suggest that both anxious attachment to mother and negative attributional processes in particular are important risk factors to psychological distress in early adolescence and young adulthood. The stronger association between negative attributional styles and negative emotions with age might partially account for the increasing rates of depression across adolescence.

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Appendix A

**Moderating role of attachment in the association of attributions with depression
and of self-esteem with depression**

Negative Attributions and Depression: Moderating role of Attachment

Although substantial empirical support exists for the relation between maladaptive attributional styles and depression, less is known about whether this association is stronger for insecurely attached adolescents. Insecurely attached children develop internal working models of self as unworthy of love and view others as unreliable and untrustworthy. They are more likely to attend to negative features of events and perceive the world as unpredictable or threatening than securely attached children. Hence, through the negative working models of self and other, insecurely attached children might be more likely to make internal, stable, and global attributions to negative events. Because maladaptive attributions to negative events have been found to be associated with depressive symptoms and insecure attachment to be related to greater maladaptive attributions, the association between attributions and depressive symptoms might be stronger for adolescents more anxiously and/or more avoidantly attached to their parents. Further, given that mother is typically the primary attachment figure, the relation between maladaptive attributions and depression might be more consistently found among adolescents insecurely attached to their mother and not for those insecurely attached to their father. In sum, whether the association of maladaptive attributions with depressive symptoms was stronger for adolescents more anxiously and/or avoidantly attached to their parents, in particular to mother, was examined¹.

Self-esteem and Depression: Moderating role of Attachment

Similar to the moderating role of attachment in the relation between attributions and depression, insecure attachment might also moderate the relation between self-esteem and depression. That is, the association between low self-esteem and depression

¹ The data from study 1 are used to examine this question.

might be stronger for insecurely attached adolescents. Early attachment experiences lead to working models centering on the worthiness of the self, including self-esteem, acceptability, and lovability, and on the availability and support from others (Bretherton, 1987). When the parent is unresponsive and unavailable in times of stress and need, the child develops an insecure working model of self and other, and sees the self as unworthy of love and others as rejecting. Because low self-esteem is related to depressive symptoms, and attachment insecurity is associated with lower self-worth, the association between self-esteem and depression might be stronger for adolescents more anxiously and/or more avoidantly attached to their parents. Further, the relation between self-esteem and depression might be significant only for adolescents insecurely attached to their mother and not for those insecurely attached to their father. In sum, whether the association of low self-esteem with depressive symptoms was stronger for adolescents more anxiously and/or more avoidantly attached to their parents, in particular to mother, was examined².

Results

Attributions and depression: Attachment to Parents as Moderators

The moderating role of attachment to parents on the relation between attributions to negative events and depression was examined via a hierarchical multiple regression (see Table 1). Attributions to negative events and the interaction between anxious attachment to mother and attributions to negative events were significant predictors, $F(11, 118) = 7.17, p < .001$. Only at higher levels of anxious attachment to mother did negative attributions to negative events predict depressive symptoms significantly ($\beta = .49, p < .001$; $\beta = .06, ns$ at low levels of anxiety to mother; Aiken & West, 1996).

² The data of study 1 are used to examine this question.

In sum, anxious attachment to mother moderated the association of attributions to negative events with depression. Internal, stable and global attributions to negative events were associated more strongly with depressive symptoms for early adolescents more anxiously attached to mother.

Self-esteem and Depression: Attachment to Parents as Moderators

The moderating role of attachment to parents on the relation between self-esteem and depression was examined via a hierarchical multiple regression (see Table 2). Anxious attachment to mother, self-esteem, and the interactions between anxious attachment to father and self-esteem, and between avoidant attachment to father and self-esteem were significant predictors, $F(11, 119) = 11.74, p < .001$. There was also a trend for the interaction between anxious attachment to mother and self-esteem. Unexpectedly, self-esteem predicted depressive symptoms more strongly at lower levels of anxious attachment to father ($\beta = -.64, p < .001$) than at higher levels of anxious attachment to father ($\beta = -.46, p < .001$; Aiken & West, 1996). However, self-esteem predicted depressive symptoms more strongly at higher levels of avoidant attachment to father ($\beta = -.60, p < .001$) than at lower levels of avoidant attachment to father ($\beta = -.45, p < .001$). Moreover, self-esteem tended to predict depressive symptoms slightly more strongly at higher levels of anxious attachment to mother ($\beta = -.52, p < .001$) than at lower levels of anxious attachment to mother ($\beta = -.49, p < .001$).

Hence, attachment to parents, particularly anxious and avoidant attachment to father and anxious attachment to mother, moderated the relation between self-esteem and depression among early adolescents, indicating that the nature of the relation between

self-esteem and depression differed depending on the quality of the adolescent-parent attachment relationship.

Discussion

As expected, internal, stable, and global attributions to negative events were positively associated with depressive symptoms. The present study, however, indicated that the strength of this association differs depending on the quality of the parent-adolescent attachment relationship. More specifically, early adolescents who made more internal, stable, and global attributions to negative events reported more depressive symptoms only when they were also more anxiously attached to their mother. In other words, adolescents who both made more maladaptive attributions to negative events and were more fearful of rejection and abandonment by their mother appeared to be the most vulnerable to depressive symptoms. These results suggest that the association of maladaptive attributions to negative events with depression among early adolescents is relevant only within a specific interpersonal context, specifically within an anxious attachment relationship with mother.

The relation between self-esteem and depression was also found to be moderated by the quality of parent-adolescent attachment relationship. Lower self-esteem tended to be associated with greater depressive symptoms for early adolescents more anxiously attached to their mother and was significant for those more avoidantly attached to their father. More specifically, adolescents with lower self-esteem tended to be more vulnerable to depression when they were also more fearful of rejection and abandonment by their mother (higher anxiety) or significantly when they also felt more uncomfortable being close and dependent on their father (higher avoidance).

Surprisingly, early adolescents with lower self-esteem reported more depressive symptoms when they were less anxiously attached to their father than when they were more anxiously attached to father. Unlike secure attachment relationships, insecure parent-adolescent relationships give adolescents the message that they are unworthy of love and care, which in turn affect their self-worth. Our findings, however, if replicated, question the protective effect of secure attachment to father on an adolescent with low self-esteem. It seems that adolescents who have a less positive evaluative attitude toward themselves (lower self-esteem) but who do not have a high fear of rejection and abandonment by father might not be able to cope effectively with this inconsistency in their view of themselves and, therefore, become vulnerable to depressive symptoms. This apparent protective effect of anxious attachment to father on the relation between self-esteem and depression needs to be replicated before being regarded as meaningful.

In summary, it appears that low self-esteem might increase the risk for depression slightly when adolescents are more anxiously attached to their mother or significantly when they are more avoidantly attached to their father. This finding suggests that the association of self-esteem with depression among early adolescents tends to be relevant within an anxious attachment relationship with mother and significantly so within an avoidant attachment relationship with father. The association between low self-esteem and depressive symptoms for adolescents less anxiously attached to father needs to be replicated.

Table 1

Hierarchical Multiple Regressions examining the Moderating Role of Attachment between Attributions to Negative Events and Depression.

Step	Predictors	R ²	ΔR ²	β ^a	sr ²
1	Sex	.17***	.17***	-.19*	.03*
	Social Desirability			-.26***	.06***
2	Anxiety to Mother	.35***	.18***	.05	.00
	Anxiety to Father			.06	.00
	Avoidance to Mother			.13	.00
	Avoidance to Father			.05	.00
	Attributions to Negative Events			.29***	.06***
3	Anxiety to Mother x Att/neg ^b	.40*	.06*	.29**	.05**
	Anxiety to Father x Att/neg ^b			-.11	.01
	Avoidance to Mother x Att/neg ^b			-.07	.00
	Avoidance to Father x Att/neg ^b			.11	.01

^aBeta on last step

^bAttributions to Negative Events.

^tp<.10, *p<.05, **p<.01, ***p<.001.

Table 2

Hierarchical Multiple Regressions examining the Moderating Role of Attachment between Self-Esteem and Depression^b.

Step	Predictors	R ²	ΔR ²	β ^a	sr ²
1	Sex	.17***	.17***	-.09	.01
	Social Desirability			-.18*	.03
2	Anxiety to Mother	.47***	.30***	.18*	.02*
	Anxiety to Father			.03	.00
	Avoidance to Mother			.05	.00
	Avoidance to Father			-.01	.00
	Self-Esteem			-.47***	.16***
3	Anxiety to Mother x Self-Esteem	.52*	.05*	-.20 ^t	.02 ^t
	Anxiety to Father x Self-Esteem			.33**	.04**
	Avoidance to Mother x Self-Esteem			.04	.00
	Avoidance to Father x Self-Esteem			-.21**	.03**

^a Beta on last step

^b Self-esteem component (4 items) of the CDI was removed.

^t p<.10, *p<.05, **p<.01, ***p<.001.

Appendix B

**Age and sex differences in the association between attachment to parents and
familiarity of interpersonal stressful events**

There is evidence that when individuals are asked to recall emotional events from early childhood, avoidant individuals recall fewer emotional memories than others and their recollections take longer to retrieve (Dorfman-Botens, 1994; Mikulincer & Orbach, 1995). These findings have provided support for the hypothesis that for avoidant individuals, a defensive process is operative such that attachment-related information is less accessible, the interpersonal experiences are, thus, less likely to activate the attachment system and, in turn, the individual feels less threatened.

In the present study, because of the different defensive processes of anxious and avoidant attachment, anxious attachment, in particular, was expected to be positively associated with the familiarity of the interpersonal stressors¹. Further, because girls appear to be more affected by stressful interpersonal events, we expected anxious and/or avoidant attachment to mother and/or father to be associated with greater familiarity for girls than for boys. As more adolescents than young adults live with their parents, early adolescents, in particular those more anxiously attached, were expected to report greater familiarity than young adults.

Method

*Vignette Task*²

After rating the stress intensity level of each hypothetical situation, participants were asked to indicate “how similar is this to an experience you have had?” on a 7-point Likert scale (1= “not at all similar”; 7= “extremely similar”). For each target figure, the similarity ratings (i.e., familiarity) for the two vignettes correlated moderately ($r_{\text{mother}} = .31$, $r_{\text{father}} = .35$, $r_{\text{friend}} = .46$, $r_{\text{romantic partner}} = .31$, $p < .001$) and were averaged. The

¹ The data of study 2 are used to examine this question.

² Same Vignette Task as study 2 is used to analyze the data.

interpersonal vignettes were on average rated as moderately familiar for all participants ($M= 3.37$, $SD= 1.33$). Because of the high intercorrelations between the familiarity ratings for the four targets (r_s ranged from .37 to .45), the familiarity ratings of the interpersonal vignettes in the current study were obtained by averaging the scores for the vignettes with mother, father, friend, and romantic partner.

Results

Age and gender differences in the relation between attachment to parents and familiarity

Hypotheses concerning gender and age differences, as well as target differences in the two attachment dimensions in the familiarity ratings of the interpersonal vignettes were tested via hierarchical multiple regression. Gender, age, and social desirability were first entered as control variables. Attachment dimensions, anxiety and avoidance, to mother and father were entered on the second step. Four sets of two-way interaction terms in two separate analyses (one analysis with gender and another with age) were entered on the third step, interactions between sex/age and anxious/avoidant attachment to each target. As the interaction between age and sex was not significant, it was dropped from the analyses. All the betas reported are from the last significant step in the regression.

Age ($\beta= -.12$, $sr^2 = .01$, $p<.05$) and social desirability ($\beta= -.21$, $sr^2 = .04$, $p<.001$) entered at step 1 ($\Delta R^2 = .07$, $F(7, 267)= 4.57$, $p<.001$) were the significant predictors. Early adolescents reported greater familiarity with the interpersonal stressors than young adults. Participants with higher social desirability reported less familiarity than those with lower social desirability. The attachment dimensions, anxiety and avoidance, to mother and father, entered at step 2, significantly predicted familiarity with the interpersonal

stressors ($R^2 = .11$, $\Delta R^2 = .04$, $p < .05$), with a trend towards anxious attachment to mother ($\beta = .14$, $sr^2 = .01$, $p < .10$) and anxious attachment to father ($\beta = .14$, $sr^2 = .01$, $p < .10$) as predictors. That is, participants more anxiously attached to mother and those more anxiously attached to father tended to report greater familiarity with the stressful scenarios. No interactions involving age and sex were significant.

Discussion

As hypothesized, participants with more anxious attachment to mother and/or father tended to report greater familiarity with the interpersonal stressful events. Thus, those who were more fearful of being rejected and abandoned by their mother and/or their father tended to be more familiar with the interpersonal stressors. The greater familiarity ratings of anxiously attached individuals may be due to their difficulties in repressing negative affects and thoughts, to intense emotion linked to these memories (Mikulincer & Orbach, 1995), to their heightened stress reactivity, and/or to their actually experiencing stressful events more often. Unlike previous findings showing that avoidant individuals recall fewer emotional memories than others (e.g., Mikulincer & Orbach, 1995), we found no association between avoidant attachment and familiarity ratings. This finding was surprising because avoidant attachment to parents, in particular to mother, was found associated with lower dysphoria from the stressful events³. Further, unlike Davis (1999) who found that females recalled more emotional memories than males, we did not find gender differences in the familiarity ratings of the interpersonal scenarios even though girls reported higher stress and higher dysphoria from the events than boys³. The lack of gender differences in the familiarity ratings of the events supports the view that the hypothetical stressful interpersonal events shown are typical events usually

³ See results of Study 2.

experienced across adolescence. Further, whereas Davis assessed participants' recall of emotional memories, we assessed participants' recognition memory, which might provide another explanation for the finding of no gender differences in the familiarity ratings. Age differences were, however, found. Not surprisingly, as more adolescents lived with their parents than young adults, they reported more familiarity with the events than young adults.

In summary, the quality of attachment relationship with mother and father were associated with early adolescents' and young adults' familiarity with the interpersonal events. Specifically, participants more fearful of rejection and abandonment by mother or father tended to report higher familiarity with the interpersonal stressors.

Appendix C

Letter to Student

Center for Research in Human Development
Department of Psychology
Tel: (514) 848-7560
Fax: (514) 848-2815

October 2002 JHSc

Dear Student,

We are writing to ask for your participation in the Concordia Relationships and Well-Being Project. With this project we hope to better understand how relationship quality with others help teenagers, like you, deal with challenges in your life.

Your participation will help us a lot! We are asking you to complete questionnaires and a computer task at school. The questionnaires will ask you about your relationships with your parents and friends, and how you feel, issues that teenagers often face. You will also be answering questions on a computer about possible problems with parents and friends. You will be asked what you would think, do, and feel in these situations. The questionnaires and computer task will each take about one class period to complete, at a time that is convenient for your teacher.

Although we hope that you do, it is your choice whether or not to participate. Of course we keep all of your answers confidential. Please complete the consent form, have one of your parents sign it, and return it to your teacher as soon as possible, *even if you say no.* **All students returning the form (whether answering "yes" or "no") will have their names entered in a draw for Cineplex Odeon movie passes and HMV gift certificates!!**

Our work is funded by the Social Sciences and Humanities Research Council of Canada, and is concerned with the development of teenagers' academic performance and social well-being. If you (or your parents) have questions or wish further information to decide about participating, please indicate a convenient telephone number on the form so that we can call you. Also, please do not hesitate to call one of us at the numbers below. We look forward to hearing from you.

Sincerely,

Katy Kamkar, M.A.
Ph.D Candidate
(848-7560)

Anna Beth Doyle, Ph.D.
Professor of Psychology
(848-7538)

Dorothy Markiewicz, Ph.D.
Professor of Applied Human
Sciences and Psychology
(848-2268)

7141 Sherbrooke Street West
Montreal, Quebec H4B 1R6

DO YOU WANT \$15?

(in only 1 - 1 ½ hours)

Wanted:

18-35 year olds (for a study of young adults' relationships)

What do I need to do?

- Computer task and some questionnaires
- Computer task involves reading hypothetical problems with parents, friends, and dating partners (you'll be asked what you would think and feel in these hypothetical situations)

Confidentiality Guaranteed:

All information will be completely confidential to the research team and identified only by number.

We look forward to hearing from you very soon!

If you are interested, please call **Marcie or Sara at 848-7560.**

We will schedule an appointment time that is convenient for you.

Appendix D
Student Consent Form

Centre for Research in Human Development
Department of Psychology
 tel: (514) 848-2424 Ext. 7560 fax: (514) 848-2815

October 2002 (JHSc)

Consent Form For Students To Participate in Research

Student's name: _____

Student's Date of Birth: _____ Age: _____

School: LCCHS Grade: _____ French Teacher's name/class: _____

Check where applicable:

_____ YES, my parent(s) and I agree to **my participation** in the Relationships and Well-being study conducted by Dr. Anna Beth Doyle, and Dr. Dorothy Markiewicz.
(Student and parent please sign below).

_____ Before my parent(s) and I agree to my participation, please call to discuss the project. Name _____ and phone number _____

_____ NO, my parent(s) or I do not agree to my participation.

IF YOU AGREE TO THE STUDENT'S PARTICIPATION, please complete the following:

We have been informed that the purpose of the study is to understand students' relationships with family and peers, and well-being. Participation will involve approximately 2 periods of the student's class time during the year, completing questionnaires about friendships and family relationships. Students will also answer questions on a computer about their thoughts and feelings in possible situations with parents and friends. We understand that **all information will be confidential** to the research team and identified only by number, although if life-threatening circumstances are reported, the research team will legally have to break confidentiality. We understand that the student may withdraw consent and may discontinue participation at any time.

Student's Signature: _____

Parent's Signature: _____ **Date** _____

Parent(s) Name(s) _____

Address _____

City & Postal Code _____ Phone Number _____

Centre for Research in Human Development
Department of Psychology
tel: (514) 848-7560 fax: (514) 848-2815

Dec., 2001 (UNDERGRAD)

CONSENT FORM TO PARTICIPATE IN RESEARCH

Name (please print): _____

Street Address: _____

City and Postal Code: _____

Date of Birth: _____ Age: _____

Check where applicable:

_____ I agree to participate in the Relationships and Well-being study conducted by Marcie Dudeck, Dr. Dorothy Markiewicz, and Dr. Anna Beth Doyle (please sign below).

_____ I do not agree to participate.

IF YOU AGREE TO PARTICIPATE, please complete the following:

I have been informed that the purpose of the research is to study young adults' relationships with friends, romantic partners, and family. Participation will involve about 1 hour of my time, completing questionnaires about friendships, romantic relationships, family relationships, mood and feelings about myself, and sexual behaviour. I understand that all responses will be confidential to the research team and identified only by number. I understand that I may withdraw consent and may discontinue participation at any time.

I HAVE READ THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND AGREE TO PARTICIPATE IN THIS STUDY.

Signature: _____ Date: _____

Appendix E
General Information Form

GENERAL INFORMATION

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Please do not mark in this area

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This information will help us describe the participants in our study.

1. Age:
- Date of Birth: / /
2. Sex: Female Male
3. Grade: 7 8 9 10
4. My mom is (one box):
- Single Divorced
 Common-law Widowed
 Married Other
 Separated
5. My dad is (one box):
- Single Divorced
 Common-law Widowed
 Married Other
 Separated
6. Who lives in your house with you?
 all that apply
- Mom Sisters/Stepsisters
 Dad Brothers/Stepbrothers
 Stepmom Other (Specify) _____
 Stepdad _____
7. I have sister(s)/stepsister(s).
8. I have brother(s)/stepbrother(s).
9. What is your mother tongue (first language)?
 English French Other (specify) _____
10. What languages do you speak at home?
 English French Other (specify) _____
11. My ethnic/cultural background is
 all that apply
- English Asian
 French South-West Asian
 Aboriginal Middle Eastern
 African Latin American
 Other European Other (specify) _____
12. I have lived in Canada year(s).
13. Performance in academic subjects.
 a box for each subject that you take
- a. English
 Failing Below Average Average Above Average
- b. History or Social Studies
 Failing Below Average Average Above Average
- c. Mathematics
 Failing Below Average Average Above Average
- d. Science
 Failing Below Average Average Above Average

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Please do not mark in this area

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We would like to know a little more about your parents. Please complete the following as best you can.

PARENT INFORMATION

Please answer about the mom/stepmom who lives with you (one):

Mom OR Stepmom

1. What level of education does your mom have (the highest level completed)?

- Elementary School
 High School
 CEGEP/Technical School
 University - Bachelor's
 University - Master's or Doctorate, Law degree

2. Is your mom working now at a paid job? Yes No

If she is not currently working at a paid job, go to question # 7.

3. Does she work: Full-time (35+ hours a week) OR Part-time?

4. What does your mother do for a living (e.g., doctor, office manager, factory worker, salesperson)?

5. What are her main activities at work?

6. What industry is this in (e.g. what does the employer sell or make)?

7. If your mom is not currently working at a paid job, would you say she was looking for work, keeping house, or unable to work (one only)?

Looking for work Keeping house Unable to work



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Please answer about the dad/stepdad who lives with you (one):

Dad OR Stepdad

8. What level of education does your dad have (the highest level completed)?

- Elementary School
 High School
 CEGEP/Technical School
 University - Bachelor's
 University - Master's or Doctorate, Law degree

9. Is your dad working now at a paid job? Yes No

If he is not currently working at a paid job, go to question 14.

10. Does he work Full-time (35+ hours a week) OR Part-time?

11. What does your father do for a living (e.g., doctor, office manager, factory worker, salesperson)?

12. What are his main activities at work?

13. What industry is this in (e.g. what does the employer sell or make)?

14. If your dad is not currently working at a paid job, would you say he was looking for work, keeping house, or unable to work (one only)?

Looking for work Keeping house Unable to work

15. How well off financially is your family?

- Very well off
 Quite well off
 Average
 Not very well off
 Not at all well off



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2 of 2



Draft

GENERAL INFORMATION

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Please do not mark in this area

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Order:

This information will help us describe the participants in our study.

1. Age: 2. Date of Birth:

DAY		
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 /

MONTH		
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 /

YEAR		
------	--	--

3. Sex: Female Male4. My grades generally average (1-99) %
AND letter grade (circle one):
A+ A A- B+ B B- C+ C C- D F5. What is your mother tongue (first language)?
 English French Other (specify) _____6. What languages do you speak at home?
 English French Other (specify) _____7. My mom is (one box):

- Single
 Common-law
 Married
 Divorced
 Widowed
 Other

8. My dad is (one box):

- Single
 Common-law
 Married
 Divorced
 Widowed
 Other

9. Who lives (lived) in your house with you?
(all that apply)

- Mom Brothers
 Dad Romantic Partner
 Stepmom Roommate(s)
 Stepdad Spouse
 Sisters Other

10. My ethnic/cultural background is
(all that apply)

- English Canadian Asian
 French Canadian Middle Eastern
 Other European Latin American
 Aboriginal South-west Asian
 African Other (specify) _____

11. I have lived in Canada years.

12. How well off financially is your family?

- Very well off
 Quite well off
 Average
 Not very well off
 Not at all well off

UNDERGRAD

1 of 2

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Please do not mark in this area

13. Mom's level of education? (the highest level completed)
- Elementary School University - Bachelor's
- High School University - Master's or Doctorate
- CEGEP/Technical School
14. Is mom working now at a paid job? Yes No
If she is not currently working at a paid job, go to question # 19.
15. Does she work: Full-time (35+ hours a week) OR Part-time?
16. What does mom do for a living (e.g., doctor, office manager, factory worker, salesperson)?

17. What are her main activities at work?

18. What industry is this in (e.g. what does the employer sell or make)?

19. If mom is not currently working at a paid job, would you say she was looking for work, keeping house, or unable to work (one only)?
- Looking for work Keeping house Unable to work
20. Dad's level of education? (the highest level completed)
- Elementary School University - Bachelor's
- High School University - Master's or Doctorate
- CEGEP/Technical School
21. Is dad working now at a paid job? Yes No
If he is not currently working at a paid job, go to question # 26.
22. Does he work: Full-time (35+ hours a week) OR Part-time?
23. What does dad do for a living (e.g., doctor, office manager, factory worker, salesperson)?

24. What are his main activities at work?

25. What industry is this in (e.g. what does the employer sell or make)?

26. If dad is not currently working at a paid job, would you say he was looking for work, keeping house, or unable to work (one only)?
- Looking for work Keeping house Unable to work

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Appendix F
Questionnaires

RELATIONSHIP WITH MOTHER (ARSQM)

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If you don't have a mom or stepmom, just leave this blank and go to the next questionnaire.

Please tell us who you are thinking of when you fill out this questionnaire (one box):

Mom OR Stepmom

Think about your relationship with your (step)mother. Now read each statement below and indicate how much each describes your feelings with your (step)mother. Respond how you generally feel with your (step)mother. Put an in the box with the number that is true for you.

	Not at all like me		Somewhat like me		Very much like me
1. I find it hard to count on my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. It is very important to me to feel independent of my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. I find it easy to get emotionally close to my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. I worry that I will be hurt if I become too close to my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. I am comfortable without a close emotional relationship with my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. I want to be completely emotionally close with my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. I worry about being without my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. I am comfortable depending on my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. I find it difficult to trust my mother completely.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10. I am comfortable having my mother depend on me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
11. I worry that my mother doesn't value me as much as I value her.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
12. It is very important to me to feel able to do things on my own without my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
13. I'd rather not have my mother depend on me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
14. I am kind of uncomfortable being emotionally close to my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
15. I find that my mother doesn't want to be as close as I would like.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
16. I prefer not to depend on my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
17. I worry about having my mother not accept me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Draft

JHSC

2b

RELATIONSHIP WITH FATHER (ARSQD)

Please do not mark in this area

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Draft

If you don't have a dad or stepdad, just leave this blank and go to the next questionnaire.

Please tell us who you are thinking of when you fill out this questionnaire (☒ one box):

Dad OR Stepdad

Think about your relationship with your (step)father. Now read each statement below and indicate how much each describes your feelings with your (step)father. Respond how you generally feel with your (step)father. Put an ☒ in the box with the number that is true for you.

	Not at all like me		Somewhat like me		Very much like me
1. I find it hard to count on my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. It is very important to me to feel independent of my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. I find it easy to get emotionally close to my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. I worry that I will be hurt if I become too close to my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. I am comfortable without a close emotional relationship with my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. I want to be completely emotionally close with my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. I worry about being without my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. I am comfortable depending on my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. I find it difficult to trust my father completely.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10. I am comfortable having my father depend on me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
11. I worry that my father doesn't value me as much as I value him.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
12. It is very important to me to feel able to do things on my own without my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
13. I'd rather not have my father depend on me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
14. I am kind of uncomfortable being emotionally close to my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
15. I find that my father doesn't want to be as close as I would like.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
16. I prefer not to depend on my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
17. I worry about having my father not accept me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

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JHS-C

2b

RELATIONSHIP WITH MOTHER (RSQM)

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If you don't have a mom or stepmom, just leave this blank and go to the next questionnaire.

Please tell us who you are thinking of when you fill out this questionnaire (one box):

Mom OR Stepmom

Think about your relationship with your mother. Now read each statement below and indicate how much each describes your feelings with your mother. Respond how you generally feel with your mother. Put an in the box with the number that is true for you.

	Not at all like me		Somewhat like me		Very much like me
1. I find it difficult to depend on my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. It is very important to me to feel independent of my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. I find it easy to get emotionally close to my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. I worry that I will be hurt if I allow myself to become too-close to my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. I am comfortable without a close emotional relationship with my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. I want to be completely emotionally close with my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. I worry about being without my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. I am comfortable depending on my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. I find it difficult to trust my mother completely.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10. I am comfortable having my mother depend on me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
11. I worry that my mother doesn't value me as much as I value her.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
12. It is very important to me to feel self-sufficient with my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
13. I prefer not to have my mother depend on me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
14. I am somewhat uncomfortable being close to my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
15. I find that my mother is reluctant to get as close as I would like.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
16. I prefer not to depend on my mother.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
17. I worry about having my mother not accept me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Draft

undergrad

RELATIONSHIP WITH FATHER (RSQD)

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If you don't have a dad or stepdad, just leave this blank and go to the next questionnaire.

Please tell us who you are thinking of when you fill out this questionnaire (☑ one box):

Dad OR Stepdad

Think about your relationship with your father. Now read each statement below and indicate how much each describes your feelings with your father. Respond how you generally feel with your father. Put an ☑ in the box with the number that is true for you.

	Not at all like me		Somewhat like me		Very much like me
1. I find it difficult to depend on my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. It is very important to me to feel independent of my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. I find it easy to get emotionally close to my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. I worry that I will be hurt if I allow myself to become too close to my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. I am comfortable without a close emotional relationship with my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. I want to be completely emotionally close with my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. I worry about being without my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. I am comfortable depending on my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. I find it difficult to trust my father completely.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10. I am comfortable having my father depend on me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
11. I worry that my father doesn't value me as much as I value him.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
12. It is very important to me to feel self-sufficient with my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
13. I prefer not to have my father depend on me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
14. I am somewhat uncomfortable being close to my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
15. I find that my father is reluctant to get as close as I would like.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
16. I prefer not to depend on my father.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
17. I worry about having my father not accept me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

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Attributions (CASQ-R)

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Imagine that the situations below just happened to you. For each situation, two reasons are given for why the situation might happen. Choose the reason that best explains why the situation happened.

There are no right answers and no wrong answers.

For each question, fill the box () beside the reason that explains best.

1. You get an "A" on a test.
- a. I am smart.
- b. I am good in the subject that the test was in.
-
2. Some kids that you know say that they do not like you.
- a. Once in a while people are mean to me.
- b. Once in a while I am mean to other people.
-
3. A good friend tells you that he or she hates you.
- a. My friend was in a bad mood that day.
- b. I wasn't nice to my friend that day.
-
4. A person steals money from you.
- a. That person is not honest.
- b. Many people are not honest.
-
5. Your parents tell you something that you make is very good.
- a. I am good at making some things.
- b. My parents like some things I make.
-
6. You break a glass.
- a. I am not careful enough.
- b. Sometimes I am not careful enough.
-
7. You do a project with a group of kids and it turns out badly.
- a. I don't work well with people in that particular group.
- b. I never work well with groups.
-
8. You make a new friend.
- a. I am a nice person.
- b. The people that I meet are nice.
-
9. You have been getting along well with your family.
- a. I am usually easy to get along with when I am with my family.
- b. Once in awhile I am easy to get along with when I am with my family.
-
10. You get a bad grade in school.
- a. I am not a good student
- b. Teachers give hard tests.
-
11. You walk into a door and you get a bloody nose.
- a. I wasn't looking where I was going.
- b. I have been careless lately.
-
12. You have a messy room.
- a. I did not clean my room that day.
- b. I usually do not clean my room.

JHSc

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Attributions (CASQ-R)

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For each question, fill the box (☒) beside the reason that explains best.

13. Your mother makes you your favorite dinner.
- a. There are a few things that my mother will do to please me.
- b. My mother usually likes to please me.
-
14. A team that you are on loses a game.
- a. The team members don't help each other when they play together.
- b. That day the team members didn't help each other.
-
15. You do not get your chores done at home.
- a. I was lazy that day.
- b. Many days I am lazy.
-
16. You go to an amusement park and you have a good time.
- a. I usually enjoy myself at amusement parks.
- b. I usually enjoy myself in many activities.
-
17. You go to a friend's party and you have fun.
- a. Your friend usually gives good parties.
- b. Your friend gave a good party that day.
-
18. You have a substitute teacher and she likes you.
- a. I was well behaved during class that day.
- b. I am almost always well behaved during class.
-
19. You make your friends happy.
- a. I am usually a fun person to be with.
- b. Sometimes I am a fun person to be with.
-
20. You put a hard puzzle together.
- a. I am good at putting puzzles together.
- b. I am good at many things.
-
21. You try out for a sports team and do not make it.
- a. I am not good at sports.
- b. The other kids who tried out were very good at sports.
-
22. You fail a test.
- a. All tests are hard.
- b. Only some tests are hard.
-
23. You hit a home run in a ball game.
- a. I swung the bat just right.
- b. The pitcher threw an easy pitch.
-
24. You do the best in your class on a paper.
- a. The other kids in my class did not work hard on their papers.
- b. I worked hard on the paper.

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SELF-DESCRIPTION QUESTIONNAIRE (SDQ-II)

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Please read each sentence and choose the answer that is best for you. There are six possible answers for each question: "True", "False", and four answers in between. Make an in the box under the answer you choose.

	False	Mostly False	More False than True	More True than False	Mostly True	True
1. Overall, I have a lot to be proud of.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
2. Most things I do well.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
3. Nothing I ever do seems to turn out right.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
4. Overall, most things I do turn out well.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
5. Overall, I'm a failure.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

False Mostly False More False than True More True than False Mostly True True

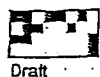
JHS-2

Draft

FEELINGS AND IDEAS (CDI)

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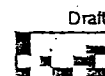
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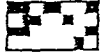


People sometimes have different feelings and ideas. This form lists feelings and ideas in groups. From each group, pick one sentence that describes you best for the past two weeks. There are no right or wrong answers. Just pick the sentence that best describes the way you have been recently.

From each group, put an next to the sentence that best describes your feelings and ideas in the past two weeks.

-
1. I am sad once in a while.
 I am sad many times.
 I am sad all the time.
-
2. Nothing will ever work out for me.
 I am not sure if things will work out for me.
 Things will work out for me O.K.
-
3. I do most things O.K.
 I do many things wrong.
 I do everything wrong.
-
4. I have fun in many things.
 I have fun in some things.
 Nothing is fun at all.
-
5. I am bad all the time.
 I am bad many times.
 I am bad once in a while.
-
6. I think about bad things happening to me once in a while.
 I worry that bad things will happen to me.
 I am sure that terrible things will happen to me.





Draft

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7. I hate myself.
 I do not like myself.
 I like myself.
-
8. All bad things are my fault.
 Many bad things are my fault.
 Bad things are not usually my fault.
-
9. I feel like crying everyday.
 I feel like crying many days.
 I feel like crying once in a while.
-
10. Things bother me all the time.
 Things bother me many times.
 Things bother me once in a while.
-
11. I like being with people.
 I do not like being with people many times.
 I do not want to be with people at all.
-
12. I cannot make up my mind about things.
 It is hard to make up my mind about things.
 I make up my mind about things easily.
-
13. I look O.K.
 There are some bad things about my looks.
 I look ugly.
-
14. I have to push myself all the time to do my school work.
 I have to push myself many times to do my school work.
 Doing school work is not a big problem.
-
15. I have trouble sleeping every night.
 I have trouble sleeping many nights.
 I sleep pretty well.
-
16. I am tired once in a while.
 I am tired many days.
 I am tired all the time.

HS-C

2 of 3



Draft



Draft

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17. Most days I do not feel like eating.
 Many days I do not feel like eating.
 I eat pretty well.
-
18. I do not worry about aches and pains.
 I worry about aches and pains many times.
 I worry about aches and pains all the time.
-
19. I do not feel alone.
 I feel alone many times.
 I feel alone all the time.
-
20. I never have fun at school.
 I have fun at school only once in a while.
 I have fun at school many times.
-
21. I have plenty of friends.
 I have some friends but I wish I had more.
 I do not have any friends.
-
22. My school work is alright.
 My school work is not as good as before.
 I do very badly in subjects I used to be good in.
-
23. I can never be as good as other kids.
 I can be as good as other kids if I want to.
 I am just as good as other kids.
-
24. Nobody really loves me.
 I am not sure if anybody loves me.
 I am sure that somebody loves me.
-
25. I usually do what I am told.
 I do not do what I am told most times.
 I never do what I am told.
-
26. I get along with people.
 I get into fights many times.
 I get into fights all the time.

Draft



MC-SD

13370

Please do not mark in this area

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For the following questions, please "T" for True and "F" for False.

	True	False
1. It is sometimes hard for me to go on with my work if I am not encouraged.	<input type="checkbox"/> T	<input type="checkbox"/> F
2. I sometimes feel resentful when I don't get my way.	<input type="checkbox"/> T	<input type="checkbox"/> F
3. On a few occasions, I have given up doing something because I thought too little of my ability.	<input type="checkbox"/> T	<input type="checkbox"/> F
4. I like to gossip at times.	<input type="checkbox"/> T	<input type="checkbox"/> F
5. There have been times when I felt like rebelling against people in authority even though I knew they were right.	<input type="checkbox"/> T	<input type="checkbox"/> F
6. No matter who I'm talking to, I'm always a good listener.	<input type="checkbox"/> T	<input type="checkbox"/> F
7. There have been occasions when I took advantage of someone.	<input type="checkbox"/> T	<input type="checkbox"/> F
8. I'm always willing to admit it when I make a mistake.	<input type="checkbox"/> T	<input type="checkbox"/> F
9. I sometimes try to get even, rather than forgive and forget.	<input type="checkbox"/> T	<input type="checkbox"/> F
10. I am always courteous, even to people who are disagreeable.	<input type="checkbox"/> T	<input type="checkbox"/> F
11. At times I have really insisted on having things my own way.	<input type="checkbox"/> T	<input type="checkbox"/> F
12. I have never been annoyed when people expressed ideas very different from my own.	<input type="checkbox"/> T	<input type="checkbox"/> F
13. There have been times when I was quite jealous of the good fortune of others.	<input type="checkbox"/> T	<input type="checkbox"/> F
14. I am sometimes irritated by people who ask favours of me.	<input type="checkbox"/> T	<input type="checkbox"/> F
15. I have never deliberately said something that hurt someone's feelings.	<input type="checkbox"/> T	<input type="checkbox"/> F

13370

UNDERGRAD

Appendix G
Vignettes of Stressful Situations

Imagine the following situations are happening to you. Picture the other person and the interaction that you are having with them. Imagine what you would see and hear, what you would think, and how you would feel.

Remember there are no right or wrong answers. Answer the way you would actually react in that situation.

Work as quickly as possible.

The first situation is for practice

Imagine that your brother or sister forgets your birthday.

How stressful would you find this event?

Choose the number which best represents how you feel by pressing the appropriate key.

1.....2.....3.....4.....5.....6.....7
 Not at all Extremely

How similar is this to an experience you have had?

Choose the number which best represents how similar this experience is to something you have experienced by pressing the appropriate key.

1.....2.....3.....4.....5.....6.....7
 Not at all Extremely
 similar similar

For each of the following statements, what would you think if the situation with your brother/sister had actually happened?

Press "Y" for "Yes" if you would have that thought, or press "N" for "No" if you wouldn't have that thought. **Please work as quickly as possible.**

- My brother/sister is forgetful Y N
- My brother/sister doesn't care about my feelings Y N
- My brother/sister will make it up to me Y N
- I am not important to him/her Y N
- I didn't remind my brother/sister of the day Y N

Please think about **how you would feel AFTER this event**, if it actually happened to you.

For each of the following items, indicate "yes" if you would feel the emotion and "no" if you wouldn't feel the emotion. **Please work quickly.**

If this situation had actually happened, would you feel:

- | | | | | | | | | |
|------|--------------------------|--------------------------|--------------|--------------------------|--------------------------|---------|--------------------------|--------------------------|
| | Yes | No | | Yes | No | | Yes | No |
| Hurt | <input type="checkbox"/> | <input type="checkbox"/> | Disappointed | <input type="checkbox"/> | <input type="checkbox"/> | Annoyed | <input type="checkbox"/> | <input type="checkbox"/> |
| Mad | <input type="checkbox"/> | <input type="checkbox"/> | Confused | <input type="checkbox"/> | <input type="checkbox"/> | | | |

Example of Mother Vignettes

1a. Imagine that you have a very important decision to make. This decision will have a big effect on your future and you are very anxious about it. You are very concerned about making the best choice by tomorrow's deadline. You go to your mom for her advice and to discuss what you should do. You really want her to help. She tells you that she doesn't have the time to talk with you. She says she is too busy.

How stressful would you find this event?

1.....2.....3.....4.....5.....6.....7
Not at all Extremely

How similar is this to an experience you have had?

Choose the number which best represents how similar this experience is to something you have experienced by pressing the appropriate key.

1.....2.....3.....4.....5.....6.....7
Not at all Extremely
similar similar

For each of the following statements, what would you think if this situation with your mom had actually happened?

Press "Y" for "Yes" if you would have that thought, or press "N" for "No" if you wouldn't have that thought. **Please work as quickly as possible.**

If this situation with your mom had actually happened, would you think:

My mom is unreliable.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My mom was annoyed with me that day.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My mom is insensitive.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My mom isn't good at comforting me.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My mom is unresponsive.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My mom can't be trusted.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My mom is cold.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My mom was distracted with other things.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My mom is rejecting me.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My mom doesn't know how to meet my needs.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I am basically unlovable.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>

I can do something about this situation.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I am not a dependable person.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I am not worthy of my mom's love and attention.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I can't fix my problems.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I can't keep my mom interested in me.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I will never get the support I need from my mom.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I wasn't thinking of my mom's feelings.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I can only depend on myself.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
It was my fault it happened.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>

Please think about **how you would feel AFTER this event**, if it actually happened to you.

For each of the following items, press "Y" for "yes" if you would feel the emotion and press "N" for "no" if you wouldn't feel the emotion. **Please work quickly.**

If this situation had actually happened, would you feel:

	Yes	No		Yes	No
Angry	<input type="checkbox"/>	<input type="checkbox"/>	Sad	<input type="checkbox"/>	<input type="checkbox"/>
Nervous	<input type="checkbox"/>	<input type="checkbox"/>	Indifferent	<input type="checkbox"/>	<input type="checkbox"/>
Unloved	<input type="checkbox"/>	<input type="checkbox"/>	Unemotional	<input type="checkbox"/>	<input type="checkbox"/>
Worried	<input type="checkbox"/>	<input type="checkbox"/>	Resentful	<input type="checkbox"/>	<input type="checkbox"/>
Annoyed	<input type="checkbox"/>	<input type="checkbox"/>	Afraid	<input type="checkbox"/>	<input type="checkbox"/>
Rejected	<input type="checkbox"/>	<input type="checkbox"/>	Irritated	<input type="checkbox"/>	<input type="checkbox"/>
Understanding	<input type="checkbox"/>	<input type="checkbox"/>	Helpless	<input type="checkbox"/>	<input type="checkbox"/>
Tense	<input type="checkbox"/>	<input type="checkbox"/>	Lost	<input type="checkbox"/>	<input type="checkbox"/>
Disappointed	<input type="checkbox"/>	<input type="checkbox"/>	Lonely	<input type="checkbox"/>	<input type="checkbox"/>

Example of Father Vignettes

- 2b. **Imagine that you lied to your dad about where you were and what you did last night. You believe that your dad would not understand or approve of your behaviour if you told him the truth. Your dad realizes that you lied to him and confronts you about it. He tells you that he is extremely disappointed that you lied to him and behaved the way you did. He didn't think you were like that.**

How stressful would you find this event?

1.....2.....3.....4.....5.....6.....7
 Not at all Extremely

How similar is this to an experience you have had?

Choose the number which best represents how similar this experience is to something you have experienced by pressing the appropriate key.

1.....2.....3.....4.....5.....6.....7
 Not at all Extremely
 similar similar

For each of the following statements, what would you think if this situation with your dad had actually happened?

Press "Y" for "Yes" if you would have that thought, or press "N" for "No" if you wouldn't have that thought. **Please work as quickly as possible.**

If this situation with your dad had actually happened, would you think:

- | | | | | |
|--|---|--------------------------|---|--------------------------|
| My dad is unreliable. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| My dad was annoyed with me that day. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| My dad is insensitive. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| My dad isn't good at comforting me. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| My dad is unresponsive. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| My dad can't be trusted. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| My dad is cold. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| My dad was distracted with other things. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| My dad is rejecting me. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| My dad doesn't know how to meet my needs. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
|
 | | | | |
| I am basically unlovable. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| I can do something about this situation. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| I am not a dependable person. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| I am not worthy of my dad's love and attention. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| I can't fix my problems. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| I can't keep my dad interested in me. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| I will never get the support I need from my dad. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| I wasn't thinking of my dad's feelings. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| I can only depend on myself. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |
| It was my fault it happened. | Y | <input type="checkbox"/> | N | <input type="checkbox"/> |

Please think about **how you would feel AFTER this event**, if it actually happened to you. For each of the following items, press “Y” for “yes” if you would feel the emotion and press “N” for “no” if you wouldn’t feel the emotion. **Please work quickly.**

If this situation had actually happened, would you feel:

	Yes	No		Yes	No
Angry	<input type="checkbox"/>	<input type="checkbox"/>	Sad	<input type="checkbox"/>	<input type="checkbox"/>
Nervous	<input type="checkbox"/>	<input type="checkbox"/>	Indifferent	<input type="checkbox"/>	<input type="checkbox"/>
Unloved	<input type="checkbox"/>	<input type="checkbox"/>	Unemotional	<input type="checkbox"/>	<input type="checkbox"/>
Worried	<input type="checkbox"/>	<input type="checkbox"/>	Resentful	<input type="checkbox"/>	<input type="checkbox"/>
Annoyed	<input type="checkbox"/>	<input type="checkbox"/>	Afraid	<input type="checkbox"/>	<input type="checkbox"/>
Rejected	<input type="checkbox"/>	<input type="checkbox"/>	Irritated	<input type="checkbox"/>	<input type="checkbox"/>
Understanding	<input type="checkbox"/>	<input type="checkbox"/>	Helpless	<input type="checkbox"/>	<input type="checkbox"/>
Tense	<input type="checkbox"/>	<input type="checkbox"/>	Lost	<input type="checkbox"/>	<input type="checkbox"/>
Disappointed	<input type="checkbox"/>	<input type="checkbox"/>	Lonely	<input type="checkbox"/>	<input type="checkbox"/>

Example of Best Friend Vignettes

- 3b. Imagine that you and your dad have plans to do something you are really looking forward to. You are very excited about going. At the last minute, your best friend cancels without telling you why. He just says that he can’t go.**

How stressful would you find this event?

1.....2.....3.....4.....5.....6.....7
Not at all Extremely

How similar is this to an experience you have had?

Choose the number which best represents how similar this experience is to something you have experienced by pressing the appropriate key.

1.....2.....3.....4.....5.....6.....7
Not at all Extremely
similar similar

For each of the following statements, what would you think if this situation with your best friend had actually happened?

Press “Y” for “Yes” if you would have that thought, and press “N” for “No” if you wouldn’t have that thought. **Please work as quickly as possible.**

If this situation with your dad had actually happened, would you think:

- My best friend is unreliable. Y N
- My best friend was annoyed with me that day. Y N
- My best friend is insensitive. Y N
- My best friend isn’t good at comforting me. Y N
- My best friend is unresponsive. Y N
- My best friend can’t be trusted. Y N
- My best friend is cold. Y N
- My best friend was distracted with other things. Y N
- My best friend is rejecting me. Y N
- My best friend doesn’t know how to meet my needs. Y N

- I am basically unlovable. Y N
- I can do something about this situation. Y N
- I am not a dependable person. Y N
- I am not worthy of my dad’s love and attention. Y N
- I can’t fix my problems. Y N
- I can’t keep my dad interested in me. Y N
- I will never get the support I need from my dad. Y N
- I wasn’t thinking of my dad’s feelings. Y N
- I can only depend on myself. Y N
- It was my fault it happened. Y N

Please think about **how you would feel AFTER this event**, if it actually happened to you. For each of the following items, press “Y” for “yes” if you would feel the emotion and press “N” for “no” if you wouldn’t feel the emotion. **Please work quickly.**

If this situation had actually happened, would you feel:

- | | | | | | |
|---------|--------------------------|--------------------------|-------------|--------------------------|--------------------------|
| | Yes | No | | Yes | No |
| Angry | <input type="checkbox"/> | <input type="checkbox"/> | Sad | <input type="checkbox"/> | <input type="checkbox"/> |
| Nervous | <input type="checkbox"/> | <input type="checkbox"/> | Indifferent | <input type="checkbox"/> | <input type="checkbox"/> |
| Unloved | <input type="checkbox"/> | <input type="checkbox"/> | Unemotional | <input type="checkbox"/> | <input type="checkbox"/> |
| Worried | <input type="checkbox"/> | <input type="checkbox"/> | Resentful | <input type="checkbox"/> | <input type="checkbox"/> |

Annoyed	<input type="checkbox"/>	<input type="checkbox"/>	Afraid	<input type="checkbox"/>	<input type="checkbox"/>
Rejected	<input type="checkbox"/>	<input type="checkbox"/>	Irritated	<input type="checkbox"/>	<input type="checkbox"/>
Understanding	<input type="checkbox"/>	<input type="checkbox"/>	Helpless	<input type="checkbox"/>	<input type="checkbox"/>
Tense	<input type="checkbox"/>	<input type="checkbox"/>	Lost	<input type="checkbox"/>	<input type="checkbox"/>
Disappointed	<input type="checkbox"/>	<input type="checkbox"/>	Lonely	<input type="checkbox"/>	<input type="checkbox"/>

Example of Romantic Partner Vignettes

4d. Imagine that you are a member of a social action group. The group is planning a special event. In order to plan your role in one part of this event you need your romantic partner's advice and help. When you ask for it, s/he refuses to talk about it or to help you and tells you that s/he is not happy with your involvement. S/he doesn't think you should go.

How stressful would you find this event?

1.....2.....3.....4.....5.....6.....7
Not at all Extremely

How similar is this to an experience you have had?

Choose the number which best represents how similar this experience is to something you have experienced by pressing the appropriate key.

1.....2.....3.....4.....5.....6.....7
Not at all Extremely
similar similar

For each of the following statements, what would you think if this situation with your romantic partner had actually happened?

Press "Y" for "Yes" if you would have that thought, or press "N" for "No" if you wouldn't have that thought. **Please work as quickly as possible.**

If this situation with your romantic partner had actually happened, would you think:

My romantic partner is unreliable.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My romantic partner was annoyed with me that day.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My romantic partner is insensitive.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My romantic partner isn't good at comforting me.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My romantic partner is unresponsive.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My romantic partner can't be trusted.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>

My romantic partner is cold.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My romantic partner was distracted with other things.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My romantic partner is rejecting me.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
My romantic partner doesn't know how to meet my needs.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I am basically unlovable.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I can do something about this situation.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I am not a dependable person.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I am not worthy of my romantic partner's love and attention.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I can't fix my problems.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I can't keep my romantic partner interested in me.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I will never get the support I need from my romantic partner.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I wasn't thinking of my romantic partner's feelings.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
I can only depend on myself.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
It was my fault it happened.	Y	<input type="checkbox"/>	N	<input type="checkbox"/>

Please think about **how you would feel AFTER this event**, if it actually happened to you. For each of the following items, mark the box "yes" if you would feel the emotion and the box "no" if you wouldn't feel the emotion. **Please work quickly.**

If this situation had actually happened, would you feel:

	Yes	No		Yes	No
Angry	<input type="checkbox"/>	<input type="checkbox"/>	Sad	<input type="checkbox"/>	<input type="checkbox"/>
Nervous	<input type="checkbox"/>	<input type="checkbox"/>	Indifferent	<input type="checkbox"/>	<input type="checkbox"/>
Unloved	<input type="checkbox"/>	<input type="checkbox"/>	Unemotional	<input type="checkbox"/>	<input type="checkbox"/>
Worried	<input type="checkbox"/>	<input type="checkbox"/>	Resentful	<input type="checkbox"/>	<input type="checkbox"/>
Annoyed	<input type="checkbox"/>	<input type="checkbox"/>	Afraid	<input type="checkbox"/>	<input type="checkbox"/>
Rejected	<input type="checkbox"/>	<input type="checkbox"/>	Irritated	<input type="checkbox"/>	<input type="checkbox"/>
Understanding	<input type="checkbox"/>	<input type="checkbox"/>	Helpless	<input type="checkbox"/>	<input type="checkbox"/>
Tense	<input type="checkbox"/>	<input type="checkbox"/>	Lost	<input type="checkbox"/>	<input type="checkbox"/>
Disappointed	<input type="checkbox"/>	<input type="checkbox"/>	Lonely	<input type="checkbox"/>	<input type="checkbox"/>