The Role of Attachment Style with Mother and Father in Adolescents' Ways of Coping with a Romantic Break up

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ABSTRACT

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Adolescent romantic relationships have significant implications for emotional adjustment and mental health. Thus, it is important to understand how adolescents cope with romantic loss. This study examined the extent to which middle adolescents' attachment to mothers and fathers is associated with their ways of coping with a romantic break up. A sample of 51 adolescents completed self-report measures of coping with a romantic breakup and attachment. Hierarchical regressions revealed that attachment to mother (although not father) was positively related with adolescents' ways of coping; and some of these relationships appear to be mediated by stress. As hypothesized, more anxiously attached adolescents coped by using more social support, problem solving, rumination, and confrontive behaviors. More insecurely attached adolescents in general (high on anxiety and/or avoidance dimensions) used more escape-avoidant coping. The findings underscore the importance of attachment to mother in the development of coping strategies for affect regulation in romantic relationships. Implications for prevention and interventions programs for youths are discussed.

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The Role of Attachment Style with Mother and Father in Adolescents' Ways of Coping with a Romantic Break up

Human beings have a universal drive to form and sustain significant interpersonal relationships. The need to belong is a fundamental aspect of human nature, as evidenced through the variety of intimate relationships experienced throughout the life span (Baumeister & Leary, 1995). Given the importance of such attachments, losing an intimate relationship may cause severe distress especially in adolescence where romantic relationships are a central aspect in adolescents' lives. Thus, an important area of concern for developmental psychologists is the particular coping processes adolescents' use when dealing with romantic loss. The present study sought to examine the role of attachment to mother and father in predicting the ways adolescents cope with a romantic break up. Pertinent literature regarding adolescent relationships, attachment and coping is reviewed below.

Adolescence has been purported as a transitional period of considerable challenge, where teens are continuously required to adjust to physiological and psychological changes as well as changes in their close interpersonal relationships (Larson, Richards, Moneta, & Holmbeck, 1996; Lerner & Spanier, 1980). In childhood, relationships with parents are frequently described as most significant, while in mid-to late adolescence, relationships with romantic partners gradually gain in importance (Furman & Wehner, 1994; 1997), eventually emerging as their major source of social support (Furman, & Buhrmester, 1992). Wilson-Shockley (1995) found that adolescents focus more on romantic relationships than any other life issues including family, peers and school. In fact, dating is considered normative and essential in middle adolescence as

it prepares adolescents for the developmental task of forging intimate relationships in early adulthood (Erikson, 1959; Sullivan, 1953). Early adolescent relationships are believed to shape relational schemas that impact the course of subsequent relationships, including marriages (Sullivan, 1953).

Research suggests that adolescents dating a steady romantic partner have higher self-esteem and sex role identity than those who do not (Samet & Kelly, 1987). Thus, after the relationship dissolves, these adolescents may feel a sense of identity loss. A relationship break up that is experienced as a negative event might be perceived as a personal failure, and as such impact an individuals' well-being (Krantzler, 1973). Research has established a link between relationship break ups and mental health. Romantic break ups have been found to be a major predictor of depressive symptoms and suicidal attempts in adolescence (Joyner & Undry, 2000; Monroe, Rohde, Seeley, & Lewinsohn, 1999). In fact, relationship stressors have been found to be the main source of stress experienced by adolescents (Seiffge-Krenke, 1995). Understanding how adolescents cope with such stress is particularly important for counsellors and psychologists working with adolescents, in order to help them foster resiliency in response to relational stress. Thus far, research has focused primarily on the causes (e.g., Feeney & Noller, 1992), and factors associated with adult relationship break ups (e.g., Sprecher, Felmee, Metts, Fehr, & Vanni, 1998). Although the importance of attachment in adolescents' development and adjustment is well established both empirically and theoretically, the contribution of attachment to adolescents' coping responses following a romantic rupture has received little attention by developmental psychologists.

Attachment Theory

Attachment theory (Bowlby, 1973,1980, 1969/1982) provides a useful conceptual framework for understanding the function of affect regulation. Bowlby postulates that attachment behaviours (i.e., protest, crying and clinging to attachment figure) are adaptive, universal responses that serve an evolutionary function of seeking and maintaining proximity to a primary attachment figure (usually the mother) in order to ensure survival. In early life, the quality of attachment of an infant is based on interactions with their caregiver, particularly the extent to which the attachment figure is accessible, and provides comfort and support when the infant is distressed. When infants' needs are consistently met and responded to by a sensitive caregiver, infants are more likely to establish positive mental representations or "internal working models" about themselves and others, which is maintained throughout the lifespan (Bowlby, 1973). When an infant gains confidence in the availability of the caregiver when in need, this increases his/her ability for affective self-regulation and nurtures the beliefs that one is worthy and competent and promotes the development of a secure attachment (Ainsworth, 1989; Bowlby, 1969). Conversely, if an infant's needs are inconsistently responded to or ignored by the caregiver, an infant is more inclined to perceive him/herself and others negatively resulting in a reduced sense of competence and self-worth, and insecure attachment.

Proximity seeking, secure base, and safe haven behaviors serve affective-regulatory functions that promote the growth of attachment security. Securely attached infants seek proximity to a primary attachment figure, who is used as a secure base from which to explore and learn about their world. Attachment figures also provide an

emotional and physical safe haven to which infants can return for comfort when distressed. Research consistently supports the role of secure attachment in protecting against the experience of distress (Howard & Medway, 2004; Simpson, 1990; Simpson, Rholes, & Nelligan, 1992). Based on relational experiences with their attachment figures, children will generate patterns of expectations, and beliefs about self and others that extend to other relationships, with affect-regulation strategies attuned to those beliefs. Bowlby asserts that close attachments "characterize human beings from the cradle to the grave," (Bowlby, 1977, p. 202).

Using systematic observations of infant-mother interactions, Ainsworth, Blehar, Waters and Wall (1978) expanded on attachment theory by identifying three styles of attachment: secure (comfort with intimacy), avoidant (avoidance of intimacy) and anxious-ambivalent (fear about abandonment). Brennan, Clark and Shaver (1998) more recently devised a highly reliable measure of attachment consisting of two continuous dimensions of insecurity: attachment-related avoidance and anxiety. An adaptation of this measure was used in the present study. Earlier research identified four attachment styles: secure (low on anxiety and avoidance), preoccupied (high on anxiety, low on avoidance), dismissing (high on avoidance, low in anxiety) and fearful (high on anxiety and avoidance; Barthlomew & Horowitz, 1991).

Attachment styles are relatively stable from infancy through early adulthood (Waters, Weinfield, & Hamilton, 2000), but changeable with disconfirming life experiences (Bowlby, 1988). For example, research has found that adolescents still use their parents as a secure base for exploration and frequently seek support from them when distressed (Allen & Land, 1999; Kenny, 1987; Kerns, Klepac, & Cole, 1996; Markiewicz,

Lawford, Doyle, & Haggart, 2006). Although adolescents gradually transfer dependence on parents to mutually reciprocal relationships such as with romantic partners, this does not entail detachment from parents. According to Hazan and Zeifman (1994), the complete transfer of attachment functions does not happen until adulthood following the formation of stable, romantic relationships. Fraley and Davis (1997) found 60% of young adults continue to use their parents as primary attachment figures. Mothers in particular may hold a preferential attachment role. Paterson, Field and Pryor (1994) have shown that adolescents and young adults describe being closer to and depending more on their mothers than on their fathers. Similarly, Lieberman, Doyle, and Markiewicz (1999) found that adolescent females describe their fathers as being less available and report depending less on them than mothers. In fact, research has found mothers and romantic partners to be the two most prominent attachment figures in adolescents' hierarchical relationships (Freeman & Brown, 2004; Trinke & Bartholomew, 1997).

Attachment and Loss

Bowlby's (1982/1969, 1973, 1980) classic trilogy, *Attachment and Loss* describes the normative responses to separation and loss. He postulated that the grieving response from the loss of a romantic partner would be akin to that of a child permanently losing a primary attachment figure. Upon separation, protest responses are triggered where individuals attempt to re-establish contact with the attachment figure by exhibiting intense anger, panic and vigilance. When protest pleas are unsuccessful and reunion becomes improbable, desperation soon follows in the form of sadness, anguish and listlessness. The extent of the despair will depend on the attachment style and the emotional attachment to the attachment figure. The final phase of mourning consists of

gradual detachment from the attachment figure and reorganization of the individuals' working models that integrates the new but modified version of attachment. Activation of the attachment system will occur throughout the lifespan whenever an individual feels threatened or is in danger and/or when the individual's relationship with its attachment figure is threatened. During those moments the internal working models are activated and security from an attachment figure is sought (Bowlby, 1973). Based on Bowlby (1982/1969, 1973, 1980), typical reactions to loss were formulated: Working models of insecure adolescents tend to be based on accommodating the caregivers' inadequacies by reverting to two primary coping strategies: adherence and avoidance.

The anxiously attached. Given that anxious individuals experienced unpredictable parenting as children, they are likely to yearn for love and attention from their attachment figure. Anxious individuals often lack self-confidence and are prone to ambivalent feelings towards their lost partner and are likely to experience intense love and dependency, and low levels of trust. When threatened with the break up, secondary strategies of affect regulation called *hyperactivating strategies* are expected to be used by individuals with high levels of attachment anxiety in which they exaggerate negative affect so as to elicit support from others (e.g., Cassidy, 2000; Lopez & Brennan, 2000; Mikulincer, Shaver, & Pereg, 2003; Shaver & Mikulincer, 2002). These strategies include clinging, pleading and protesting behaviours with clear manifestation of distress (i.e., crying) and aggressive outbursts. They will often display extreme behaviours, fluctuating between the desire to be close to their partner and the desire to angrily confront/punish him/her for abandoning them. They may also show excessive rumination and heightened vigilance (to cues from the partner). Given their fear of abandonment, anxious

adolescents will experience great distress when alone, so they will likely try to work things out with their former partner even if they may be the only one to compromise, and may seek social support to re-establish the relationship.

The avoidantly attached. Individuals who have an avoidant attachment style are uncomfortable with interpersonal closeness and dependence (Brennan et al., 1998). Avoidant individuals have learned to emotionally distance themselves from others and suppress any negative affect by activating specific secondary strategies called *deactivating strategies*, which diminishes the need for attachment and promotes self-reliance (e.g., Cassidy, 1988; 2000; Lopez & Brennan, 2000; Mikulincer, et al., 2003; Shaver & Mikulincer, 2002). This allows them to avoid the frustration caused by the unavailability of others. As such, an avoidant adolescent will display minimal signs of affect or emotional stress after the break up. In fact, these individuals will distance themselves from the lost partner and avoid thinking about him/her, using various diversions (e.g., keeping busy with activities/school, using food, alcohol/drugs).

Attachment and Coping

Coping has been defined in terms of reactions, responses, strategies, cognitions, and behaviors. According to Lazarus (1991, p.112), coping " consists of cognitive and behavioral efforts to manage specific external or internal demands (and conflicts between them) that are appraised as taxing or exceeding the resources of a person." Coping can be further conceptualized using the following precepts: (a) coping is not necessarily effective behavior but does require an effort; (b) efforts consist of particular behaviors and/or cognitions; and (c) coping is a process resulting from a cognitive appraisal of a stressor (Schwarzer & Schwarzer, 1996). Coping reactions will depend principally on

how a person cognitively appraises a stressful situation. Lazarus and Folkman (1984) describe an appraisal as encompassing two components: 1) a primary appraisal and 2) a secondary appraisal. The primary appraisal includes the judgment of whether the situation encountered is a threat or a challenge and determines what is at stake. The secondary appraisal includes an evaluation of available coping options. Two distinct functions of coping have been widely recognized: 1) regulating stressful emotions (*emotion-focused*; i.e., seeking social support, escape-avoidance, rumination and distancing), which is thought to be more cognitively-based, and 2) decreasing the conflict between the person and the environment (*problem-focused*; i.e., planful problem solving and confrontive coping) which is thought to be more instrumentally-based. Research has shown that coping generally involves both functions. Approximately 96% of self-reports completed by college students revealed that when confronted with a stressful exam both emotion-focused and problem-focused strategies are endorsed (Folkman & Lazarus, 1985).

Although research on adolescent coping is scant, a number of researchers have examined the relationship between coping and adult attachment styles. One such study conducted by Simpson and colleagues (1992) found that when secure women experienced a stressful event they reported seeking more social support from their romantic partners as they became increasingly anxious, as compared with avoidant women who sought less support as their anxiety level increased. Investigators theorized that although avoidant women may have needed the support from their partners, based on their previous experience with their caregivers, they did not expect them to be available or responsive to their pleas.

Another study conducted 2 weeks after the Gulf War in Israel found comparable findings using a sample of college students (Mikulincer, Florian, & Weller, 1993). When faced with a stressful experience (i.e., war), avoidantly-attached students sought less social support and used more distancing strategies and ambivalent students reported more stress and emotion-focused strategies than students who were securely attached.

Ognibene and Collins (1998) found results consistent with the above findings. In response to hypothetical vignettes depicting a social or achievement related stressor, individuals with a preoccupied (anxious) attachment style were more likely to use social support and escapist strategies and use more confrontive coping when dealing with stress. In contrast, individuals with a dismissive (avoidant) attachment style were less likely to use social support but were more likely to endorse interpersonal distancing. Preoccupied (anxious) individuals are thought to have positive models of others (relational schemas based on their interpersonal experiences) in contrast to avoidant or dismissing individuals. This is consistent with their tendency to seek more social support when faced with a stressor.

A recent study by Davis, Shaver, and Vernon (2003), examined adult attachment style and predicted reactions to breaking up via an Internet survey. Attachment anxiety was found to be related to greater preoccupation with the lost partner, greater persistence over the loss, exaggerated struggles to restore the relationship, angry and vengeful behaviors, and more extreme emotional distress. Those anxious adults higher in emotional involvement with their partner displayed more emotional distress and more protest and despair behaviors. Moreover, attachment anxiety was positively associated with social coping whereas avoidance was positively related to avoidant coping, (which

consisted of avoiding the former partner). Surprisingly, attachment anxiety was also associated with avoiding the partner but only for those who initiated the break up. Both anxiety and avoidance were associated with alcohol and drug use post dissolution especially in those individuals high in anxiety and who were more emotionally involved with their former partners.

Taken together, the literature reveals a characteristic pattern associated with attachment style: Avoidant individuals tend to cope using more distancing and preoccupied/anxious individuals tend to seek more social support, and use confrontive and escape-avoidant coping when faced with a stressor. Both highly anxious and avoidant individuals were found to use avoidance and escapist strategies such as alcohol and drugs. Relationship stressors and the manner adolescents cope with them are closely interrelated.

Although the knowledge of which coping strategies might promote emotional well-being is important, determining the effectiveness of coping is deemed a difficult task (Somerfeild & McCrae, 2000), because specific coping strategies might be adaptive in some contexts, while detrimental in others. Features of the context and fit between these and the ways of coping will determine the effectiveness of each strategy, and is beyond the scope of the present research. Thus far, research has shown that attachment style may predispose individuals to activate specific coping responses under stress and these will be the focus of our hypotheses.

Proposed Study and Hypotheses

The first objective of the present study was to investigate the separate contributions of attachments to mother and to father and their associations with

adolescents' coping strategies. Mothers have been found to fulfill adolescents' attachment–related functions more than have fathers (Freeman & Brown, 2004; Markiewicz, et al., 2006; Trinke & Bartholomew, 1997). Thus, mothers were expected to be uniquely associated with coping strategies employed by adolescents. Based on attachment theory (Bowlby 1982/1969, 1973, 1980), anxiously attached adolescents were expected to be more likely to ruminate about their lost partner, attempt to persuade the romantic partner to return to the relationship and/or to express anger if rejected. Some anxious adolescents are also inclined to try to work things out with their partner and to seek assistance from others if unsuccessful (Davis, et al., 2003). Thus, higher attachment anxiety to mother was predicted to be positively related to planful problem solving, escape-avoidance, rumination, seeking social support, and confrontive coping (e.g., Mikulincer et al., 1993). Females were expected to endorse more rumination (e.g., Nolen-Hoeksema, 1987) and to cope by seeking social support more than males (e.g., Kemp & Neimeyer, 1999).

Emotional avoidance and self-reliance are characteristic of avoidant attachment. Thus, after the break up, avoidant adolescents are likely to distance themselves from their partner using various modalities, including food, alcohol and drugs (e.g., Mikulincer et al., 1993). Thus, distancing and escape-avoidant coping were expected to be associated to more attachment avoidance. Both highly anxious and highly avoidant adolescents are more likely to use withdrawal or escapist strategies as a way to control negative affect (e.g., Brennan & Shaver, 1995).

The second and third objective of this research was to examine the relationship between attachment style and perceived stress and to explore whether stress mediates the

relationship between attachment and coping. According to attachment theory, the experience of stress should activate attachment-specific behaviours and cognitions. That is, anxiously attached adolescents are likely to use hyperactivating strategies that cognitively over appraise a stressful situation as a threat, as opposed to avoidantly-attached adolescents who will likely use deactivating strategies that under-appraise a stressful situation. Thus, it was expected that anxiously attached adolescents would primarily appraise the romantic break up as a threat and potentially harmful to their self-esteem and report higher levels of stress following the romantic rupture. Conversely, more avoidantly-attached adolescents would report less emotional stress as their primary appraisal would not construe the romantic break up as a threat. Given girls are socialized in expressing emotions more freely than boys, it was also expected that females would appraise the dissolution as a threat and report more stress than males.

Method

Participants

The present study employs a sample of concurrent data collected as part of the third wave of data collection for a larger study investigating adolescents' close relationships and well-being. Participants were drawn from an initial sample of 203 adolescents who had participated three years earlier in the first year of the larger study and were recruited from an English-speaking public high school in a suburb of Montreal. Participation rate was at approximately 85%, with 12% no responses, 3% were lost to follow up, and 1% were due to repeated absenteeism during testing. A total, 172 participants participated in the current study. One hundred and twenty one adolescents indicated not having experienced a steady relationship break up over the last 4 months and did not complete the Ways of Coping questionnaire. A final sample of fifty-one adolescents: 30 females (59%) and 21 (41 %) males completed measures of coping with a romantic break up and were retained for analyses. Forty-five (88%) of the 51 participants (M = 15.76 years, SD = .74), aged 14-17 years indicated having experienced a break up in the past 4 months and the remaining six did not specify time. Approximately thirty, (60%) students were in grade 11, 16 (32%) were in grade 10, and 4 (8%) were in grade 9 and one student did not report a grade. The majority of participants endorsed one ethnicity (approximately 59% English, 27%, French, 6% Asian, 6% South West Asian, and 2% Latin American) and approximately 59% reported English as their mother tongue. Of the 28% who reported two ethnicities, 12% reported being both English and French Canadians, and 16% reported having a diverse combination. Family socio-economic status (SES) was construed from information regarding parent(s)' education, occupation, job activities, and employment (Hollingshead, 1975). The sample was found to be

predominantly middle-class (*Mean SES* = 33.55, *SD* = 11) characteristic of skilled craftsmen, and clerical and sales workers. Most adolescents (62.5%) were from two-parent homes, of which 92.9% were intact, 7.1% were reconstituted, and the remaining 37.5% were single-parent (primarily mother only) homes. Of the 51 participants, 20 (39.2%) indicated currently having a steady romantic partner.

Procedure

Authorization to test was obtained from the school administrator. Prior to data collection, investigators attended a class, briefly described the study, and distributed consent forms (see Appendix A) to be signed by students. Students were informed that participation was voluntary and that they could discontinue the study at any time. All students, including those who chose not to participate, were encouraged to return the consent forms. The names of students who returned completed consents were entered into a draw to win gift certificates from a music shop. Those students who agreed to participate in the study were entered in an additional draw to win an MP3 player.

Testing consisted of adolescents completing a package of questionnaires regarding their close interpersonal relationships and coping in two separate sessions. Session I occurred in the fall and Session II occurred in the winter using similar testing procedures. Investigators were trained using a testing protocol with specific oral instructions.

The general procedure was as follows: At each testing session, (scheduled at the teachers' convenience), participants were excused from their classes, led to a closed room in the school library in groups of 10 to 15, and asked to complete a series of questionnaires. Students were ensured complete confidentiality of their responses, and

instructed to abstain from talking to classmates during testing. Investigators sat nearby to monitor students and answer potential questions. Participants completed demographic information, coping, and a measure of social desirability in response to bias in session I and attachment measures in session II. Following the completion of questionnaires, participants were thanked, offered a chocolate treat, and returned to their respective classes. At the end of the second session, students were asked in their questionnaire package, whether they desired to be contacted by the school psychologist, and were provided with the research laboratory's contact information if they had any questions or concerns. Each testing session lasted approximately 45 minutes.

Measures

General Information Form (Appendix B). This form was used to gather information about the participants' age, sex, grade, ethnicity, mother tongue, parents' marital status, and current living arrangements. Information on family socio-economic background (i.e., parental education, occupation, job activities, employment) was obtained in Year 1 of the study.

Coping. Coping strategies following a romantic break up were measured using a 24-item, adapted version of the Ways of Coping scale (WOC; adapted from Folkman & Lazarus, 1985; 1988; Appendix C). The original 56-item self-report measure was designed to assess the cognitions and behaviours individuals typically use to deal with stress. Original items were empirically selected from interviews conducted with individuals who described how they coped with a recent stressor. Interview items were factor analyzed (Folkman & Lazarus, 1985) yielding 8 subscales. Based on a second factor analysis (see Voss, 1999) items with the highest-item-scale correlations were

retained yielding five of the eight original subscales: *planful problem solving* (e.g., "I made a plan of action and followed it"), *confrontive coping* (e.g., "I expressed anger to the person(s) who caused the problem"), *seeking social support* (e.g., "I accepted sympathy and understanding from someone"), *escape-avoidance* (e.g., "I hoped for a miracle"), and *distancing* (e.g., "I tried to forget the whole thing'). Four items assessing *rumination* (e.g., " I went away by myself and thought why I felt that way"; Nolen-Hoeksema & Morrow, 1991) were also included. Each of the adapted subscales is comprised of four items with alphas of .70, .60, .69, .81, .57, and .70 respectively. Participants rated items on a 4-point Likert scale (0 = "Does not apply, not used" to 3 = "Used a great deal").

Measure of romantic relationship break up and stress. Participants also responded to questions regarding break up and stress: "Over the last four months, has a steady relationship of yours broken up (for at least one month)?" "Are you currently in a steady romantic relationship (you and your partner agree to date only each other)?" Participants rated items as either "Yes" or "No". Respondents also rated appraisals of stress; "How stressful was this break up for you?" (M = 3.81 on 5-point scale from 1 = "not at all stressful" to 5 = "extremely stressful"). See Appendix C.

Social Desirability. A shortened 15-item Marlowe-Crowne Social Desirability Scale (MC-SD; Strahan & Gerbasi, 1972; Appendix C) was used to control for defensive responding. The MC-SD has been empirically recognized as measuring the propensity to respond to self–report questionnaires with social defensiveness (Lobel & Teiber, 1994). Participants were asked to rate the 15 items (e.g., " I'm always willing to admit it when I make a mistake") as either "true" or "false". The abridged version shows adequate

internal consistency (α = .73), and has been found to correlate highly with the original scale (*r* =. 90, Strahan & Gerbasi, 1972).

Attachment. Attachment to mother and attachment to father were measured using two short-form adaptations of the original, 36-item Experiences in Close Relationships questionnaire (ECR; adapted from Brennan, Clark, & Shaver, 1998; Appendix C). The ECR self-report was intended to measure attachment to romantic partner. In the present study, the wordings of items were adapted to refer to mother and father. The revised 24-item, ECR-Mom and ECR-Dad versions were developed by selecting items with the highest item-scale correlations from longer 36-item adaptations, yielding 4 attachment scores; both 24-item versions contained the same items which generated two, 12-item subscales (see Doyle & Markiewicz, 1998): *anxiety* about abandonment (α: Mom = .86; Dad = .86; e.g., "I worry about being abandoned by my mother /father") and *avoidance* of closeness (α: Mom = .93; Dad = .92; e.g., "I get uncomfortable when my mother /father wants to be very close"). The two versions were administered separately in counterbalanced order. Using a 7-point Likert scale (1 = disagree strongly, 7 = agree strongly), respondents rated the extent to which the ECR items characterized their feelings in their relationships with their mothers/fathers. Lower scores on both anxiety and avoidance dimensions reflect more attachment security. The original ECR has demonstrated excellent internal consistency (α avoidance = .94, α anxiety = .91; Brennan et al., 1998), and has been found to correlate with existing self-report measures of attachment (Brennan et al., 1998).

Results

Preliminary Analyses

Variables were screened for skewness, kurtosis and normality of distribution. Questionnaires were verified for unusual patterns in responses (i.e., diagonally answered items, and where responses conflict with reverse coding). If participants had unusual patterns for a few questionnaires, those scale scores were substituted by the mean score of the participants' gender on the given measure. However, if more than fifty percent of the questionnaire package was answered with unusual patterns, the participants' data was eliminated from the analyses. Variables used in this study include the four attachment subscales, the 6 Ways of Coping subscales and the stress rating score.

Mean ratings and standard deviations for WOC scales are shown in Table 1. Partial correlations for the WOC scales controlling for gender and social desirability are presented in Table 2. As expected, the WOC subscales were significantly associated, with correlations ranging from low to moderate (minimum $r = .17$ to maximum $r =. 65$, median $r =. 39$). In order to delineate variability in coping as a function of attachment style, one needs to measure the different ways of coping separately (Carver & Scheier, 1989). Thus, the distinctive characteristics of each subscale justified keeping them separate. Intercorrelations were computed for predictor, criterion and control variables and are presented in Table 3. Given that gender was significantly associated with anxiety with mother and in order to control for response bias, both gender and social desirability were used as control variables in all of the subsequent analyses. All predictors were centered so as to be able to explore potential interaction effects (Aiken & West, 1991). Females were coded as 0 and males as 1.

Table 1

Means (and Standard Deviations) for Ways of Coping (WOC), Attachment, and Stress Rating Subscales

Scales/subscales	M	SD
WOC		
Planful Problem Solving	1.09	.78
Confrontive Coping	1.11	.74
Seeking Social Support	1.57	.77
Escape-Avoidance	1.24	.91
Rumination	1.29	.80
Distancing	1.32	.71
Anxiety with Mother	2.66	1.02
Avoidance with Mother	2.94	1.55
Anxiety with Father	2.71	1.12
Avoidance with Father	3.48	1.34
Stress Rating	3.81	1.12

Note. $N = 50$

Table 2

Partial Correlations of the Ways of Coping (WOC) Subscales

	1	2	3	4	5	6
1. Planful Problem Solving		.65***	.39*	.53**	.48**	-.19
2. Confrontive Coping			.28*	.61**	.37**	-.17
3. Seeking Social Support				.65**	.62**	-35*
4. Escape-Avoidance					.61**	-.34*
5. Rumination						-.30*
6. Distancing						

*p <0.05, **p <0.01, ***p <0.001

Note. Gender and social desirability were used as control variables.

Table 3

Intercorrelations of Control, Predictor, and Criterion Variables

	1	2	3	4	5	6	7
1. Anxiety with Mother		.05	.55**	.39**	.36*	-.18**	-.06
2. Avoidance with Mother			-.01	.26	.16	.05	-.24
3. Anxiety with Father				.41**	.19	-.23	-.27
4. Avoidance with Father					.17	-.05	-.19
5. Stress Rating						-.40**	-.18
6. Gender							.27
7. Social Desirability							

*p <0.05, **p <0.01

Note. Control variables = gender and social desirability; Predictor variables = anxiety with mother, avoidance with mother, anxiety with father, avoidance with father; Criterion variables = Stress rating.

Analytic Strategy

Hierarchical regressions were used to assess attachment with mother and father as predictors of each of the ways of coping scales. Only attachment to mother, not to father, emerged as a significant predictor. Thus, the role of father is not discussed further. For all regressions, gender and social desirability were entered on block one as control variables. Because interactions effects were analyzed in an exploratory manner, non-significant interaction terms were not reported in the tables or in the text. Only significant regression blocks are reported in the text.

First objective: Attachment predicting ways of coping

Six regression analyses were conducted to examine the relationship between attachment to mother and each of the 6 strategies of coping. Predictor variables were entered in three blocks: control variables were entered on block one, measures of attachment to mother were entered on block two, and two-way interactions of attachment with gender were entered on block three. Each coping strategy was the criterion variable in each regression.

1) Planful Problem Solving. Block two was significant ($\Delta R^2 = .26, p < .01$), indicating that attachment predicted planful problem solving. As expected, anxiety about abandonment by mother uniquely predicted planful problem solving ($\beta = .52, sr^2 = .26, p < .001$). More anxious attachment was associated with more coping by planful problem solving (See Table 4).

2) Escape-Avoidance. As expected, attachment predicted escape-avoidance on block two, ($\Delta R^2 = .18, p < .01$), with both anxious and avoidant attachment to mother being unique predictors, ($\beta = .33, sr^2 = .10, p < .01; \beta = .28, sr^2 = .06, p < .05$). Both

Table 4

Attachment with Mother as Predictor of Coping by Planful Problem Solving

	Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1		.00				
	Gender		.04	.00	.15	.02
	Social Desirability		-.08	.00	-.06	.00
Block 2		.26**				
	Anxiety with Mother		.52***	.26	.52***	.26
	Avoidance with Mother		-.00	.00	.00	.00
	R^2= .27, F(4, 42)= 3.82*					

[a] when entered, [b] on last significant block

*p <0.05, **p <0.01, ***p <0.001

more anxious and more avoidant attachment were related to escape-avoidant coping. Social desirability was significant on block one ($\Delta R^2 = .26, \beta = -.48, sr^2 = .21, p < .01$) (See Table 5).

3) Rumination. As expected, attachment significantly predicted rumination on block two ($\Delta R^2 = .24, p < .01$), with anxious attachment with mother being the unique predictor ($\beta = .50, sr^2 = .24, p < .001$). More attachment anxiety was associated with more rumination. On the first block, ($\Delta R^2 = .14, p < .05$), both gender ($\beta = -.22, sr^2 = .04$, n.s.), and social desirability ($\beta = -.24, sr^2 = .05$, n.s.), combined were significant predictors as a block, but not separately (See Table 6).

4) Seeking Social Support. Attachment significantly predicted seeking social support on block two ($\Delta R^2 = .10, p < .05$), with anxiety with mother accounting for unique variance ($\beta = .29, sr^2 = .08, p < .05$). More attachment anxiety was related to seeking more social support. On block one ($\Delta R^2 = .25, p < .01$), a significant effect of gender was also found ($\beta = -.47, sr^2 = .21, p < .01$) such that females reported seeking more social support than males (See Table 7).

5) Confrontive coping. As expected, attachment significantly predicted confrontive coping on block two ($\Delta R^2 = .13, p < .05$), with anxiety about abandonment accounting for unique variance ($\beta = .29, sr^2 = .08, p < .05$). More anxious attachment was associated with more confrontive coping. On block one, ($\Delta R^2 = .14, p < .05$), social desirability was also significant ($\beta = -.35, sr^2 = .12, p < .05$) (See Table 8).

6) Distancing. Attachment significantly predicted distancing coping on block two ($\Delta R^2 = .14, p < .05$), but neither anxious nor avoidant attachment was a significant

Table 5

Attachment with Mother as Predictor of Coping by Escape-Avoidance

	Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1		.26**				
	Gender		-.10	.01	-.15	.01
	Social Desirability		-.48**	.21	-.38**	.12
Block 2		.18**				
	Anxiety with Mother		.33**	.10	.33**	.10
	Avoidance with Mother		.28*	.06	.28*	.06
	R^2= .45, F(4, 42)= 8.49***					

[a] when entered, [b] on last significant block

*p <0.05, **p <0.01, ***p <0.001

Table 6

Attachment with Mother as Predictor of Coping by Rumination

	Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1		.14*				
	Gender		-.22	.04	-.11	.01
	Social Desirability		-.24	.05	-.26	.05
Block 2		.24**				
	Anxiety with Mother		.50***	.24	.50***	.24
	Avoidance with Mother		-.06	.00	-.06	.00
	R^2= .37, F(4, 43)= 6.30***					

[a] when entered, [b] on last significant block

*p <0.05, **p <0.01, ***p <0.001

Table 7

Attachment with Mother as Predictor of Coping by Seeking Social Support

	Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1		.25**				
	Gender		-.47**	.21	-.46**	.16
	Social Desirability		-.09	.00	-.04	.00
Block 2		.10*				
	Anxiety with Mother		.29*	.08	.29*	.08
	Avoidance with Mother		.13	.01	.13	.01
	R^2= .35, F(4, 42)= 5.70**					

[a] when entered, [b] on last significant block

*p <0.05, **p <0.01, ***p <0.001

Table 8

Attachment with Mother as Predictor of Confrontive Coping

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.14*				
Gender		-.04	.00	-.07	.00
Social Desirability		-.35*	.12	-.28	.06
Block 2	.13*				
Anxiety with Mother		.29*	.08	.29*	.08
Avoidance with Mother		.21	.03	.21	.03
R^2= .26, F(4, 43)= 3.85**					

[a] when entered, [b] on last significant block

*p <0.05, **p <0.01, ***p <0.001

unique predictor, (β = -.27, sr^2 = .07, n.s.; β = -.27, sr^2 = .06, n.s.). Notably, however, for avoidant attachment the association was opposite in direction to that predicted, such that both more anxious and avoidant attachment were associated with less distancing (See Table 9).

Second objective: Attachment predicting reported stress

A regression analysis was conducted to assess the relationship between attachment and reported stress. Predictor variables were entered in three blocks: control variables were entered on block one, measures of attachment to mother were entered on block two, and two-way interactions of attachment with gender were entered on block three. Stress was the criterion variable.

As predicted, attachment anxiety significantly predicted reported stress on block two (ΔR^2 = .15, p < .05), with anxiety about abandonment accounting for the unique variance (β = .28, sr^2 = .07, p < .05) and avoidant attachment was marginally significant (β = .27, sr^2 = .06, p < .08). More anxiety was associated with more reported stress. On block one (ΔR^2 = .15, p < .05), a significant effect was also found with gender (β = -.36, sr^2 = .12, p < .05). As expected, more females reported experiencing more stress than males. No significant attachment X gender effect was found (See Table10).

Third objective: Stress as a potential mediator between attachment and coping

Four steps must be met for a variable to be considered a complete mediator (Baron & Kenny, 1986): 1) the predictor (i.e., attachment anxiety) must be significantly correlated with the criterion variable (i.e., coping), and 2) the predictor must be significantly correlated with the potential mediator (i.e., stress). Both of these have been

Table 9

Attachment with Mother as Predictor of Coping by Distancing

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.02				
Gender		.05	.00	.09	.01
Social Desirability		.13	.02	.03	.00
Block 2	.14*				
Anxiety with Mother		-.27 ^{t}	.07	-.27 ^{t}	.07
Avoidance with Mother		-.27	.06	-.27	.06
R^2= .16, F(4, 42)= 2.01					

[a] when entered, [b] on last significant block

$^t p<0.10$, $*p<0.05$, $**p<0.01$, $***p<0.001$

Table 10

Attachment with Mother as Predictor of Reported Stress

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.15*				
Gender		-.36*	.12	-.41	.13
Social Desirability		-.09	.01	.00	.00
Block 2	.15*				
Anxiety with Mother		.28*	.07	.28*	.07
Avoidance with Mother		.27	.06	.27	.06
R^2= .30, F(4, 41)= 4.30**					

[a] when entered, [b] on last significant block

*p <0.05, **p <0.01, ***p <0.001

established for the current sample: anxious attachment to mother was significantly associated with levels of stress and most strategies of coping. Attachment anxiety was not significantly predictive of distancing coping. As such, coping by distancing was eliminated from further analyses. As suggested by Baron and Kenny (1986), two additional regression analyses were conducted to test the remaining two steps of mediation: step 3) the mediator must be significantly correlated with the criterion variable when the predictor is controlled, and step 4) the effects of the predictor on the criterion variable must be reduced when the mediator is controlled. Specifically, a) stress must make a significant independent contribution to the prediction of coping after controlling for anxious attachment to mother and b) stress once controlled, must significantly reduce the ability of attachment to predict coping, thereby demonstrating its role in the association between anxious attachment and the five coping strategies for which step 3 was fulfilled. If stress completely mediates the association between attachment and coping, the predictor is no longer significant on step 4. If the predictor remains significant, then partial mediation may be assumed. As recommended in Baron and Kenny (1986) the Aroian version (1944; 1947) of the Sobel test (1982) is conducted to examine if the changes in the unstandardized[1] regression coefficient of the predictor (i.e., attachment) at step 3 is significantly reduced so to conclusively establish mediation. For simplicity, only significant blocks required for testing Baron and Kenny (1986) indirect effects are reported.

Step 3: Stress predicting coping when controlling for attachment. Five regression analyses were conducted to examine the relationship between stress and coping after anxious attachment with mother was controlled. Predictor variables were entered in three

blocks: control variables were entered on block one, attachment to mother was entered on block two, and stress was entered on block three. Each regression analysis assessed a coping strategy as a criterion variable.

1) Planful Problem Solving. Block three was significant ($\Delta R^2 = .07, p < .05$), indicating that stress predicted planful problem solving ($\beta = .30$, $sr^2 = .07, p < .05$) even after controlling for the effects of gender, social desirability and anxious attachment to mother. Adolescents who reported more stress coped by using more planful problem solving (See Table 11).

2) Escape-Avoidance. Stress predicted escape-avoidance on block three, ($\Delta R^2 = .27, p < .001$; $\beta = .60$, $sr^2 = .27, p < .001$) after controlling for gender, social desirability and attachment anxiety. Adolescents who reported more stress adopted more escape avoidant coping strategies (See Table 12).

3) Rumination. Stress significantly predicted rumination on block three ($\Delta R^2 = .13, p < .01$; $\beta = .50$, $sr^2 = .41, p < .01$) once the effect of gender, social desirability and anxious attachment was controlled. Adolescents who reported more stress endorsed in more rumination (See Table 13).

4) Seeking Social Support. Stress did not significantly predict seeking social support coping after controlling for gender, social desirability and anxious attachment, $\Delta R^2 = .04$, n.s. (See Table 14). As such, seeking social support was eliminated from further analyses.

5) Confrontive coping. Stress significantly predicted confrontive coping on block three ($\Delta R^2 = .16, p < .01$; $\beta = .46$, $sr^2 = .12, p < .05$) after gender, social desirability and

attachment to mother was controlled. Adolescents who reported more stress engaged in more confrontive coping (See Table 15).

Table 11

Stress Affects Coping by Planful Problem Solving when Attachment was controlled

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.00				
Gender		.04	.00	.23	.02
Social Desirability		-.07	.00	-.03	.00
Block 2	.27***				
Anxiety with Mother		.52***	.27	.43**	.16
Block 3	.07*				
Stress		.30*	.07	.30*	.07
R^2= .34, F(4, 41)=5.24**					

[a] when entered, [b] on last significant block

*p <0.05, **p <0.01, ***p <0.001

Table 12

Stress Affects Coping by Escape-Avoidance when Attachment was controlled

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.26**				
Gender		-.11	.01	.14	.02
Social Desirability		-.48**	.21	-42***	.16
Block 2	.13**				
Anxiety with Mother		.36**	.12	.18 [t]	.03
Block 3	.27***				
Stress		.60***	.27	.60***	.27
R^2= .66, F(4, 41)=19.51***					

[a] when entered, [b] on last significant block

[t] p <0.10, *p <0.05, **p <0.01, ***p <0.001

Table 13

Stress Affects Rumination Coping when Attachment was controlled

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.14*				
Gender		-.22	.05	-.01	.00
Social Desirability		-.24	.05	-.20 ^{t}	.04
Block 2	.24***				
Anxiety with Mother		.49***	.24	.37**	.12
Block 3	.13**				
Stress		.41**	.13	.41***	.13
R^2= .50, F(4, 41)=10.11***					

[a] when entered, [b] on last significant block

$^t p$ <0.10,*p <0.05, **p <0.01, ***p <0.001

Table 14

Stress Affects Coping by Seeking Social Support when Attachment was controlled

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.24**				
Gender		-.46**	.20	-.34**	.09
Social Desirability		-.09	.01	-.06	.00
Block 2	.09*				
Anxiety with Mother		.31*	.09	.24[t]	.05
Block 3	.04				
Stress		.23	.04	.23	.04
R^2= .37, F(4, 41)=6.10**					

[a] when entered, [b] on last significant block

[t] p <0.10, *p <0.05, **p <0.01, ***p <0.001

Table 15

Stress Affects Confrontive Coping when Attachment was controlled

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.15*				
Gender		-.08	.00	.11	.00
Social Desirability		-.36*	.12	-.32*	.09
Block 2	.08*				
Anxiety with Mother		.29*	.08	.15	.02
Block 3	.16**				
Stress		.46**	.16	.46**	.16
R^2= .39, F(4, 41)=6.58***					

[a] when entered, [b] on last significant block

*p <0.05, **p <0.01, ***p <0.001

Step 4: Attachment predicting coping when controlling for stress. Four regression analyses were conducted to examine the relationship between anxious attachment to mother and the remaining four coping strategies after stress was controlled. Predictor variables were entered in three blocks: control variables were entered on block one, stress was entered on block two, and attachment anxiety was entered on block three. Each regression analysis assessed a coping strategy as a criterion variable.

1) Planful Problem Solving. Anxious attachment to mother was significantly and positively related to planful problem solving on block three ($\Delta R^2 = .16, p < .01; \beta = .43,$ $sr^2 = .16, p < .01$) even after gender, social desirability and stress was controlled. Notably, however, the Sobel test (1982) was significant ($z = 2.40, p < .05$) indicating that the reduction in the beta coefficients from .53 to .45 is significantly reduced thereby fulfilling Baron and Kenny's (1986) conditions for partial mediation. Stress significantly partially mediates the ability of anxious attachment to mother to predict coping by problem solving (See Table 16).

2) Escape-Avoidance. On block three, attachment anxiety was only marginally significant ($\Delta R^2 = .03, p < .10; \beta = .18, sr^2 = .03, p < .10$) indicating that the effect of gender, social desirability and stress once controlled, reduced the ability of attachment to mother to a level that no longer reached statistical significance. However, the reduction in the beta coefficients from .37 to .19 was non-significant ($z = 1.51, p <$ n.s.) by Sobel test (1982), failing to establish that stress partially mediated the ability of anxious attachment to mother to predict coping by escape-avoidance. Step 4 of Baron and Kenny's (1986) conditions was not met thus; no form of mediation can be concluded (See Table 17).

Table 16

Attachment Predicts Coping by Planful Problem Solving when the Mediator (Stress) was controlled

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.00				
Gender		.04	.00	.23	.04
Social Desirability		-.07	.00	-.03	.00
Block 2	.17**				
Stress		.45**	.17	.30*	.07
Block 3	.16**				
Anxiety with Mother		.43**	.16	.43**	.16
R^2= .34, F(4, 41)=5.24**					

[a] when entered, [b] on last significant block

*p <0.05, **p <0.01, ***p <0.001

Table 17

Attachment Predicts Coping by Escape-Avoidance when the Mediator (Stress) was controlled

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.26**				
Gender		-.11	.01	.14	.02
Social Desirability		-.48**	.21	-.42***	.16
Block 2	.36***				
Stress		.66***	.36	.59***	.27
Block 3	.03 ^{t}				
Anxiety with Mother		.18 ^{t}	.03	. 18 ^{t}	.03
R^2= .66, F(4, 41)=19.51***					

[a] when entered, [b] on last significant block

$^t p<0.10$,*$p<0.05$, **$p<0.01$, ***$p<0.001$

3) Rumination. Attachment was significantly and positively associated to rumination on block three, ($\Delta R^2 = .12, p < .01$) even after controlling for gender, social desirability and stress ($\beta = .33$, $sr^2 = .10, p < .01$). Notably, however, the Sobel test (1982) was significant ($z = 2.45, p < .05$) indicating that the reduction in the beta coefficients from .49 to .38 is significantly reduced thereby establishing Baron and Kenny's (1986) conditions for partial mediation. Stress significantly partially mediates the ability of anxious attachment to mother to predict rumination (See Table 18).

4) Confrontive coping. On block three, anxious attachment was not significantly associated with confrontive coping ($\Delta R^2 = .02, p <$ n.s.; $\beta = .15$, $sr^2 = .02, p <$ n.s.) indicating that the effect of gender, social desirability and stress once controlled, reduced the ability of attachment to mother to a level that no longer reached statistical significance to a level that no longer reached significance. However, the reduction in the beta coefficients from .32 to .16 was non-significant ($z = .951, p <$ n.s.) by Sobel test (1982), failing to establish that stress partially mediated the ability of anxious attachment to mother to predict confrontive coping. Step 4 of Baron and Kenny's (1986) conditions was not met thus; no form of mediation can be concluded (See Table 19).

Table 18

Attachment Predicts Rumination Coping when the Mediator (Stress) was controlled

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.14*				
Gender		-.22	.05	-.01	.00
Social Desirability		-.24	.05	-.20[t]	.04
Block 2	.24***				
Stress		.54***	.24	.41**	.13
Block 3	.12**				
Anxiety with Mother		.37**	.12	.37**	.12
R^2= .50, F(4, 41)=10.11***					

[a] when entered, [b] on last significant block

[t] p <0.10, *p <0.05, **p <0.01, ***p <0.001

Table 19

Attachment Predicts Confrontive Coping when the Mediator (Stress) was controlled

Predictor	ΔR^2	β^a	sr^{2a}	β^b	sr^{2b}
Block 1	.15*				
Gender		-.08	.01	-.11	.00
Social Desirability		-.36*	.12	-.32*	.09
Block 2	.22***				
Stress		.51***	.22	.46**	.15
Block 3	.02				
Anxiety with Mother		.15	.02	.15	.02
R^2= .39, F(4, 41)=6.58***					

[a] when entered, [b] on last significant block

*p <0.05, **p <0.01, ***p <0.001

Discussion

The purpose of this study was to examine theoretically predicted associations of attachment to mother and father with middle adolescents' coping strategies, and their response to stress following a romantic break up. It was hypothesized that attachment insecurity with mother would be positively related to characteristic coping behaviours in response to stress. Overall, results largely supported hypotheses. Attachment to mother (although not father), as expected, was found to be associated with coping responses to a break up; and some of these associations appear to be partially mediated by how much stress adolescents reported experiencing.

Attachment style, coping and stress

Individuals who display anxious attachments tend to use more hyperactivating strategies by exaggerating threat appraisals and intensifying emotional stress. These individuals are more likely to be dependent on others, respond with anger if rejected, ruminate on threat-related worries, attempt to re-establish the relationship and seek assistance from others if unsuccessful. Consequently, it was expected that anxious adolescents would be more vulnerable to high emotional distress after the rupture (e.g., Mikulincer et al., 1993). Also, it was expected that more anxiously attached adolescents would cope by using more planful problem solving, escape-avoidance, rumination, social support, and confrontive behaviours (e.g., Mikulincer et al., 1993). Girls were expected to use more rumination (e.g., Nolen-Hoeksema, 1987) and more social support than boys (e.g., Kemp & Neimeyer, 1999).

Individuals who display avoidant attachments tend to use deactivating strategies so as to minimize emotional stress by disregarding and underestimating threat-related

cues. Self-reliant by nature, these individuals are more prone to emotionally remove themselves from stressful situations, use emotion-focused strategies by diminishing their need for social support and favoring the use of more avoidant strategies, thereby protecting themselves from experiencing severe distress. Thus, more distancing and escape-avoidant coping was expected to be associated to more attachment avoidance (e.g., Mikulincer et al., 1993). Because of their tendency to under-appraise threat, it was also expected that more avoidantly-attached adolescents would report less emotional stress (Davis et al., 2003). Finally, it was expected that more insecurely attached individuals in general (high on anxiety and/or avoidance dimensions) would use more escape-avoidant coping in an attempt to control intense negative affect (e.g., Brennan & Shaver, 1995).

First, as predicted, anxious attachment was positively associated with higher levels of planful problem solving, social support, rumination and confrontive coping. Females, as expected, reported coping by seeking more social support than males. This finding is in line with Kemp and Neimeyer (1999) linking females with higher levels of social support seeking as compared to males. Given females have a tendency to be more sensitive to negative interpersonal stressors (Hankin, Mermelstein, & Roesch, 2007), they might be inclined to seek more social support than males.

As predicted, both anxious and avoidant attachment with mother were associated with more use of escape and avoidant coping, which include the use of alcohol and drugs and is consistent with recent research (Davis, et al., 2003; Howard & Medway, 2004; Torquati & Vazsonyi, 1999). Patterns of coping in the present study reveal that anxious adolescents endorse a wide variety of coping strategies in response to a break up. A

considerable body of research found similar findings with anxious attachment (Cooper et al., 1998; Davis, et al., 2003; Mikulincer, et al., 1993; Mikulincer & Florian, 1995; Ognibene & Collins, 1998). Such adolescents are likely to experience profound distress when faced with abandonment, and appear to be motivated to try every form of coping strategy associated with their attachment style in an attempt to alleviate distress, including escapist strategies.

With regard to distancing coping, the more insecurely attached adolescents were with their mother, either in terms of anxiety or avoidance, the less distancing coping they used, although the individual directional associations were not significant. The hypothesized positive association between avoidant attachment and distancing coping was not found. This finding does not support theoretical formulations and is inconsistent with the literature (Mikulincer et al., 1993; Mikulincer & Florian, 1995; Ognibene & Collins, 1998). However, our results are congruent with the findings of Kemp and Neimeyer (1999) who also found no significant associations between dismissing attachment and distancing coping as measured by the WOC scale. One explanation for this discrepancy may be the low Cronbach alpha (α=.57) of the distancing subscale, which may have obscured results. Another reason may be that some adolescents who participated in the study were in their last phase of mourning, which entails that they detach from their former partners in order to resume their activities as well as form new relationships.

Theoretically, the attachment behavioural system is activated in times of perceived threat and the level of stress experienced is contingent on attachment style. Anxiously attached individuals are likely to cope with stress by appraising the stress as

being more uncontrollable and more threatening, experiencing it with intense emotionality. Consistent with theory and research, more anxious attachment, as expected, was found to be associated with higher levels of reported stress (Davis, et al., 2003; Gurit, Orr, Mikulincer, & Florian, 1997; Kemp & Neimeyer, 1999; Seiffge-Krenke, 2006). Females reported experiencing significantly more stress post dissolution. This finding is compatible with the literature (Davis et al., 2003; Sprecher et al., 1998) showing that males and females experience different levels of distress after a romantic rupture. Nolen-Hoeksema (1987) posited that females are less active in their coping and tend to reflect more than males. The tendency for females to endorse in more cognitive-focused coping might dispose them to be more attentive to their emotional reactions and in turn would present a more accurate appraisal of their stress level.

Stress partially mediated the relationship between anxious attachment and planful problem solving and rumination but not coping by distancing, escape-avoidance, seeking social support or by confrontive coping. Because the stress evaluation was higher for anxious adolescents as they fear abandonment, it is possible they might have felt the pressing need to repair the broken relationship by problem solving. Given a romantic break up involves the loss of a loved one it is often experienced with great distress, which may not be conducive to detaching oneself emotionally. Rather, post-break up stress might promote rumination, as some anxious adolescents are likely to feel anger and suppress it. Consistent with this view, our results revealed that perceived stress was found to partially mediate the relationship between anxious attachment and rumination. This finding is consistent with prior research linking stress and suppressed anger to rumination (Martin & Dahlen, 2005). Unexpectedly, no significant gender differences were found.

Although participants were predominately female, it appears that they did not ruminate more than males. A possible reason may be that some of these females may have initiated the break up thus; they might not feel ashamed or angry about the loss. In fact, Dennison and Stewart (2006) found a positive relationship between shame and rumination. Thus, if the partner is the one who initiates the break up it may cause more severe shame and be experienced as more distressing (Sprecher, et al., 1998). In their early years, anxious individuals experienced dissatisfaction in the availability and support of their caregiver when in need and are likely to have the same expectations of others. The quality of maternal attachment might determine the use of particular coping strategies such as seeking emotional support when faced with a relationship stressor. This is consistent with Ognibene and Colins (1998) findings of no difference between preoccupied attachment under low or high conditions of stress, indicating that stress does not differentiate the need for support seeking.

Sprecher, et al. (1998) found that how much post break-up stress is experienced depends on who was left by the other. Thus, the role adolescents' play in the break up may determine how they may feel about it and what coping strategies will be triggered. Research has shown that less social support will be sought if the break up involved threat to self-esteem (Folkman et al., 1986). This may occur if the break up was initiated by the former partner resulting in embarrassment/shame, and the abandoned person may tend to avoid company from others. In these circumstances, adolescents who were left may appraise the break up as being highly threatening and be overwhelmed by negative feelings, which may destabilize their defences, leaving them vulnerable in face of the situation.

Although attachment styles generate specific coping responses, the specific demands of the stressor as well as the context in which it occurs are also important. Variability in coping has been shown to be partly dependent on an individual's cognitive appraisal of what is at stake when faced with a stressor and what they perceive as their options (and capabilities) for coping (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). In general, individuals with anxious and avoidant attachment tend to appraise their coping capabilities across situations as more inadequate (Wei, Heppner, & Mallinckrodt, 2003). Both coping and attachment involve a cognitive interpretation of an event as being "stressful" and "a threat" and is the result of perception which triggers specific coping processes (Roesch, Weiner, & Vaughn, 2002). Stressors that involve threats to self-esteem or where a person has to hold back in an effort to keep things from getting out of hand result in more use of escape-avoidance and confrontive coping (Folkman, et al., 1986), which may be a reasonable explanation of why these two coping strategies are typically endorsed by anxiously attached individuals, irrespective of how stressed that are. The concurrent use of these two opposing coping strategies by anxious individuals may imply that when faced with a relationship stressor these individuals may want to partake in aggressive altercations with the former partner while desiring to escape their emotional pain (Folkman, et al., 1986). Alternatively, when a relationship is at stake, some individuals may panic switching back and forth from an engaging strategy to a disengaging one.

Lazarus (1993) postulates that coping is a process that has a tendency to change with the social context and over time according to the circumstances of the stressful situation. The cognitive appraisal component of the coping process as described by

Lazarus and Folkman (1984) can be understood in terms of attachment style. That is, how an individual cognitively appraises a stressor and the personal resources they believe they have available to cope with it. For example, confrontive coping, planful problem solving and seeking social support (e.g., seeking advice) tend to be used more with stressful situations appraised as changeable by the individual (Folkman et al., 1986). In these instances, coping would involve staying focused on the situation: confront, problem solve or consult. For example, adolescents who believed they could successfully mend the relationship via an action of some kind are more likely to use problem-focused strategies such as planful problem solving. Adolescents generally perceive not having a boyfriend or girlfriend as extremely stressful (Seiffge-Krenke, 2006). As a result, they are likely to consolidate their efforts to preserve the relationship and make things work so as to avoid being single. Effective planful problem solving is aimed at reducing emotional distress (Folkman & Lazarus, 1988). However, given exposure to extreme stress is liable to deteriorate problem-solving abilities, anxious adolescents may be compelled to try out different strategies, which might explain why they adopt various (and at times contradictory) forms of coping when confronted with relational stress. Conversely, adolescents who feel they have no choice and must accept the break up, would tend to use strategies that focus away from the situation (i.e., emotion-focused) and adopt distancing and escape-avoidant coping strategies (Lazarus, 1993). Avoidant individuals characteristically endorse these two forms of coping, as they are associated with deactivating strategies, which are aimed at minimizing distress by inattention to threatening cues. However, when a relationship is appraised as irreparable, the use of distancing might be deemed adaptive for individuals when there is no hope for

reconciliation (Folkman et al., 1986). These explanations reflect both attachment theory and Lazarus's (1993) transactional approach, which determines the characteristic use of particular coping strategies when dealing with real-life stressful situations.

Limitations, implications and suggestions for future research

This study provides empirical support for the importance of maternal attachment in middle adolescence and its associations with coping and emotional functioning following a romantic break up. The present findings further validate the theoretical formulations that suggest that attachment style predisposes people to appraise and cope in particular ways with relational stress. However, there are several limitations that should be addressed in future research.

First, adolescents who report a break up experience that took place weeks or months ago are liable to memory bias. Gentzler and Kerns (2006) found that memory processes could be understood by how working models function in attachment-related perceptions and their maintenance over time. Specifically, memory of negative interpersonal experiences were found to be underestimated for both anxious and avoidant attachment but even more so for individuals who scored higher on anxiety. Given that relationships are central for anxious individuals, it can be reasoned that they may tend to reinterpret negative personal experiences in a more favourable manner over time. Correspondingly, Pietromonaco and Barrett (1997) found that in immediate reports of highly conflictual interactions, anxious individuals demonstrated more positive emotions and less distress. In contrast, avoidant individuals showed less emotionality and distress and denial in retrospective reports but in their immediate report were less likely to repress negative emotions about conflictual interactions. Sbarra and Emery (2005) explained the

process of emotional recovery following a break up as a function of attachment style: Highly fearful individuals reported a quicker reduction of sadness as compared to highly dismissing individuals who reported a slower reduction of anger over time. These findings support the view of Bowlby's (1980) normative responses to separation and loss, which describes three phases of mourning: protest (i.e., anger), despair (i.e., sadness) and detachment. Thus, time elapsed since the romantic dissolution will elicit differences both in recall and emotional recovery for anxious and avoidant adolescents, and these differences may have masked experienced stress and favoured the use of particular coping strategies.

Current relationship status may also affect retrospective recall. The findings of this study revealed that nearly 40% of adolescents indicated having a steady romantic partner at the time they completed the measures. Experiences of positive emotions following a stressful event may dampen the effect of stress (Folkman & Moskowitz, 2000).

Second, this study did not investigate specific relationship characteristics (e.g., Sprecher et al., 1998) that can further our understanding of adolescent romantic relationships, attachment and emotional adjustment (e.g., who initiated the relationship break up, duration and quality of relationship, time elapsed since break up and emotional involvement). Indeed, Simpson (1987) found that individuals who experienced high levels of distress post dissolution were likely to be more emotionally involved and have dated for longer periods than those who experienced less distress. Similarly, Moller, Fouladi, McCarthy and Hatch (2003) found that time since relationship break up was the most significant predictor when assessing college students' current distress

symptomatology. Conversely, a recent study has found no significant associations between duration and quality of romantic relationship with emotional disturbance (defined as psychological stress, depressive mood, and dissatisfaction with life; Overbeek, Vollebergh, Engels, & Meeus, 2003). Future studies should assess how emotional involvement and duration of relationship affect attachment-related reactions to breaking up. Studies should also investigate the predictive ability of who initiated the break up (participant, partner or both) and its association with stress and coping.

Third, given this study's reliance on self-report questionnaires, it may be possible that response bias, monomethod, and mood effects distorted results. However, the bias in responding in this study was minimized by controlling for social desirability. Associations between variables may be inflated by method variance when data are acquired from a single source and via the same method (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). Using a second source and adding observational measures to assess coping strategies in a relationship setting may be advantageous. With respect to mood effects, anxiously attached adolescents are likely to perceive their attachment to mother as more unsatisfactory and rate their stress as high thereby creating a negative bias that may confound findings. Because attachment and coping was assessed in two separate sessions, negative bias was somewhat attenuated. By measuring the constructs at two different points in time, one can better clarify the contribution of attachment to mother to adolescents' appraisal and coping strategies. Nonetheless, for the purpose of this study, adolescent self-reports are the best method of information gathering given the importance of subjective experience, particularly when measuring coping processes and perceived stress.

Forth, although the single-item measure of stress used in the study revealed indirect effects, the usage of multiple-item measures of stress and multiple measures of coping in future research may provide a more reliable and sensitive measurement.

Fifth, a relatively small sample of adolescents experienced a rupture of a steady relationship, which restricted the analyses to hierarchal regressions only, which increases the risk of Type I errors ensuing from conducting numerous analyses. Furthermore, due to power limitations, detection of potential interaction effects was constrained. Thus, generalizabilty of findings are somewhat limited.

Finally, because of the correlational nature of the study and its reliance on concurrent data, causation cannot be inferred. Thus, the direction of association between the variables (i.e., attachment, stress, coping) cannot be determined. It would be important to follow with a longitudinal study with a larger sample where firmer conclusions about causality can be deduced.

Implications. Despite the limitations, the findings of this study underscore the importance of attachment to mother, in particular attachment anxiety, in the development of affect regulation strategies and perceived stress in romantic relationships. The findings suggest that internal working models once formed in infancy may continue to function as a relationship schema throughout adolescence, which bears both theoretical and practical implications. This study support predictions concerning attachment as an organizational construct for coping and emotional functioning. Further knowledge on the mediational mechanisms between attachment and coping can be useful knowledge for mental health professionals in developing prevention and interventions programs for youths. For example, cognitive-behavioural therapies that focus on altering internal working models

may be beneficial for insecurely attached teenagers. Some adolescents may need more specialized interventions that target coping, stress appraisal and management (self-regulation) and problem solving and coping skills development. Also, parenting classes can be designed to promote attachment security where consistencies in responding to youths are emphasized. Further research on how attachment to mother influences the process of affect regulation is warranted in order to better identify dysfunctional coping in youths, and to assist counsellors and psychologists working to help adolescents foster more adaptive ways of coping with relational stress.

Summary. Attachment to mother, specifically anxious attachment was found to be closely associated with predicted coping reactions to breaking up a romantic relationship and some of these associations were partially mediated by perceived stress. Stress partially mediated the association between attachment anxiety and planful problem solving and rumination but not coping by distancing, escape avoidance, seeking social support or confrontive coping. Consistent with our hypotheses, attachment anxiety was positively associated with rumination, social support, problem solving, and confrontive coping. Both anxious and avoidant attachment were positively associated with more use of escapist and avoidant coping. As an attempt to alleviate intense distress, anxious adolescents employed a variety of strategies related to their attachment style to cope with the break up. This study did not investigate specific relationship characteristics (e.g., emotional involvement, duration of relationship and who initiated the break up) that may affect perceived stress and coping. Thus, future studies should address these limitations using longitudinal designs in order to better understand relationships between attachment, coping and emotional functioning.

Content Note

[1] Standardized Beta coefficients are presented in the regression tables, however, unstandardized Beta coefficients are required to calculate the Sobel test (Aroian version, 1944; 1947) thus, a slight discrepancy between the text coefficients and tables might be noted.

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

Ainsworth, M. D .S. (1989). Attachments beyond infancy. *American Psychologist, 44*, 709-716.

Ainsworth, M. D .S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation.* Hillsdale, NJ: Lawrence Erlbaum.

Allen, J. P., & Land, D. (1999). Attachment in adolescence. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 319-335). New York: Guilford Press.

Aroian, L. A. (1944/1947). The probability function of the product of two normally distributed variables. *Annals of Mathematical Statistics*, *18*, 265-271.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.

Bartholomew, K., & Horowtz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61*, 226-244.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497-529.

Bowlby, J. (1969/1982). *Attachment and loss. Vol. I: Attachment*. London: Tavistock.

Bowlby, J. (1973). *Attachment and loss. Vol. II: Separation.* New York: Basic Books.

Bowlby, J. (1977). The making and breaking of affectional bonds. *British Journal of Psychiatry, 130,* 201-210.

Bowlby, J. (1980). *Attachment and loss. Vol. III: Loss.* New York: Basic Books.

Bowlby, J. (1988). *A secure base.* New York: Basic Books.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measures of adult romantic attachment: An integrative overview. In J.A. Simpson and W.S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46-76). New York: Guilford Press.

Brennan, K. A., & Shaver, P. R. (1998). Attachment styles and personality disorders: their connections to each other and to parental divorce, parental death and perceptions of parental caregiving. *Journal of Personality, 66,* 835-878.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56,* 267-283.

Cassidy, J. (2000). Adult romantic attachments: A developmental perspective on individual differences. *Review of General Psychology, 4,* 111-131.

Cooper, M. L., Shaver, P. R., & Collins, N. L. (1998). Attachment styles, emotion regulation, and adjustment in adolescence. *Journal of Personality and Social Psychology, 74,* 1380-1397.

Davis, D., Shaver, P. R., & Vernon, M. L. (2003). Physical, emotional, and behavioral reactions to breaking up: The roles of gender, age, environmental involvement, and attachment style. *Personality and Social Psychology Bulletin, 29,* 971-884.

Dennison, S. M., & Stewart, A. (2006). Facing rejection: new relationships, broken relationships, shame and stalking. *International Journal of Offender Therapy and Cmparative Criminology, 50*, 324-337.

Doyle, A. B., & Markiewicz, D. (1998). Social Sciences and Humanities Research Council Grant.

Erickson, E. H. (1959). Identity and the life cycle. New York: International University Press.

Feeney, J. A., & Noller, P. (1992). Attachment style and romantic love: Relationship dissolution. *Australian Journal of Psychology*, *44*, 69-74.

Feldman Barrett, L., & Peitromonaco, P. R. (1997). Accuracy of the five-factor model in predicting perceptions of daily social interactions. *Personality and Social Psychology Bulletin, 23,* 1173-1188.

Fraley, R. C., & Davis, K. E. (1997). Attachment formation and transfer in young adults' close friendships and romantic relationships. *Personal Relationships, 4,* 131-144.

Fraley, R. C., & Shaver, P. R. (1997). Adult attachment and the suppression of unwanted thoughts. *Journal of Personality and Social Psychology*, *73*, 1080-1091.

Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48*, 150-170.

Folkman, S., & Lazarus, R. S. (1988). *Manual for the Ways of Coping Questionnaire: Research Edition.* Palo Alto, CA: Consulting Psychologist Press.

Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. J. (1986).

Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology, 50*, 992-1003.

Folkman, S., & Moskowits, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology, 55*, 745-774.

Freeman, H., & Brown, B. (2001). Primary attachment to parents and peers during adolescence: Differences by attachment style. *Journal of Youth and Adolescence, 30*, 653-674.

Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child Development, 63,* 103-105.

Furman W., & Wehner, E. A. (1994) Romantic views: Toward a theory of adolescent romantic relationships. In R. Montremayor, G. R. Adams, & G. P. Gullota (Eds.), *Advance in Adolescent Development, Volume 6, Relationships during Adolescence,* (pp. 168-175). Thousand oaks, CA: Sage.

Furman W., & Wehner, E. A. (1997) Adolescent romantic relationships: A developmental perspective. In S. Shulman , & W. A. Collins (Eds.), *Romantic Relationships in Adolescence: Developmental Perspectives,*(pp. 21-36). San Francisco, CA: Jossey-Bass.

Gentzler, A., & Kerns, K. (2006). Adult attachment and memory of emotional reactions to negative and positive events. *Cognition and Emotion, 20,* 20-42.

Gurit, E. B., Orr, I., Mikulincer, M., & Florian, V. (1997). When marriage breaks up-Does attachment style contribute to coping and mental health? *Journal of Social and Personal Relationships, 14*, 643-654.

Hankin, B. l., Mermelstein, R., & Roesch, L. (2007). Sex differences in adolescent

depression: stress exposure and reactivity models. *Child Development, 78*, 279-295.

Hazan, C., & Zeifman, D. (1994). Sex and psychological tether. In K. Bartholomew and D. Perlman (Eds.), *Advances in personal Relationships. Vol. 5. Attachment Processes in Adulthood* (pp. 151-177). London: Jessica Kingsley.

Hollingshead, A. B. (1975). Four factor index of social status. Unpublished manual.

Howard, M., & Medway, F. J. (2004). Adolescents' attachment and coping with stress. *Psychology in the Schools, 41*, 391-402.

Joyner, K., & Udry, J. R. (2000). You don't bring me anything but down: Adolescent romance and depression. *Journal of Health and Social Behavior, 41*, 369-391.

Kemp, M. A., & Neimeyer, G. J. (1999). Interpersonal attachment: Experiencing, expressing, and coping with stress. *Journal of Counseling Psychology, 46*, 388-394.

Kenny, M. E. (1987). The extent and function of parental attachment among first-year college students. *Journal of Youth and Adolescence, 16*, 17-27.

Kerns, K. A., Klepac, L., & Cole, A. K. (1996). Peer relationships and preadolescents' perceptions of security in the child-mother relationship. *Developmental Psychology, 32*, 457-466.

Krantzler, M. (1973). Creative divorce. New York: New American Library.

Lazarus, R. S. (1991). *Emotion and adaptation.* London: Oxford University Press.

Lazarus, R. S. (1993). Coping theory and research: Past, present and future. *Psychosomatic Medicine, 55*, 234-247.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer.

Larson, R. M., Richards, M. H., Moneta, G., & Holmbeck, G. (1996) Changes in adolescents' daily interactions with their families from age 10 to 18: Disengagement and transformation. *Developmental Psychology, 32,* 569-801.

Lerner, R. M., & Spanier, G. B. (1980). Adolescent development: a life-span perspective. New York: McGraw-Hill.

Lieberman, M., Doyle, A. B. & Markiewicz, D. (1999) Developmental patterns in security of attachment to mother and father in late childhood and early adolescence: Associations with peer relations. *Child Development, 70,* 202-213.

Lobel, T., & Teiber, A. (1994). Effects of self-esteem and need approval on affective and cognitive reactions: Defensive and true self-esteem. *Personality and Individual Difference, 16,* 315-321.

Lopez, F. G., & Brennan, K. A. (2000). Dynamic processes underlying adult attachment organization: Toward attachment theoretical perspective on the healthy and effective self: Attachment and counseling psychology. *Journal of Counseling Psychology, 47,* 283-300.

Markiewicz, D., Lawford, H., Doyle, A. B. & Haggart, N. (2006). Developmental differences in adolescents' and young adults' use of mothers, fathers, best friends and romantic partners to fulfill attachment needs. *Journal of Youth and Adolescence, 35,* 121-134.

Martin, R. C., & Dahlen, E. R. (2005). Cognitive emotion regulation in the prediction of depression, anxiety, stress and anger. *Personality and Individual Differences, 39,* 1249-1260.

Mikulincer, M., Florian, V., & Weller, A. (1993). Attachment styles, coping strategies,

and posttraumatic psychological distress: The impact of the Gulf War in Israel. *Journal of Personality and Social Psychology, 64*, 817-826.

Mikulincer, M., & Florian, V. (1995). Appraisal of and coping with a real-life stressful situation: The contribution of attachment styles. *Personality and Social Psychology Bulletin, 21*, 406-414.

Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation & Emotion, 27*, 77-102.

Moller, N. P., Fouladi, R. T., McCarthy, C. J., & Hatch, K. D. (2003). Relationship of attachment and social support to college students' adjustment following a relationship breakup. *Journal of Counseling and Development, 81,* 354-369.

Monroe, S. M., Rohde, P., Seeley, J. R., & Lewinsohn, P. M. (1999). Life events and depression in adolescence: Relationship loss as a prospective risk factor for first onset of major depressive disorder. *Journal of Abnormal Psychology, 108*, 606-614.

Nolen-Hoeksema, S., & Morrow, J. (1991). A prospective study of depression and posttraumatic stress symptoms after a natural disaster: The 1989 Loma Prieta earthwake. *Journal of Personality and Social Psychology, 61*, 115-121.

Ognibene, T. , & Collins, N. L. (1998). Adult attachment styles, perceived social support and coping strategies. *Journal of Social and Personal Relationships, 15*, 323-345.

Overbeek, G., Vollebergh, W., Engels, R. C. M. E. & Meeus, W. (2003). Parental

attachment and romantic relationships: Associations with emotional disturbance during adolescence. *Journal of Counseling Psychology, 50*, 28-39.

Roesche, S. C., Weiner, B., & Vaughn, A. A. (2002). Cognitive approaches to stress and coping. *Current Opinion in Psychiatry, 15,* 627-632.

Samet, N., & Kelly, E. W. Jr. (1987). The relationship of steady dating to self-esteem and sex role identity among adolescents. *Adolescence, 22,* 231-245.

Sbarra, D. A., & Emery, R. E. (2005). The emotional sequelae of nonmarital relationship dissolution: Analysis of change and intraindividual variability over time. *Personal Relationships*, *12*, 213-232.

Schwarzer, R., & Schwarzer, C. (1996). A critical survey of coping instruments. In M. Zeidner, N.S. Endler, et al. (Eds.), *Handbook of coping: Theory, research, and applications* (pp. 107-133). New York: John Wiley & Sons.

Seiffge-Krenke, I. (1995). *Stress, coping, and relationships in Adolescence.* Erlbaum, Mahwah, NJ.

Seiffge-Krenke, I. (2006). Coping with relationship stressors: The impact of different working models of attachment and links to adaptation. *Journal of Youth and Adolescence, 35*, 25-39.

Shaver, P. R., & Mikulincer, M. (2002). Attachment-related psychodynamics. *Attachment and Human Development, Special Issue: the Psychodynamics of Adult Attachments – Bridging the Gap between Disparate Research Traditions, 4,* 133-161.

Simpson, J. A. (1990). The influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology*, *59*, 971-980.

Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support seeking and support giving within couples in an anxiety-provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology, 62*, 434-446.

Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equations models. In S. Leinhart (Ed.), *Sociological methodology 1982* (pp.290-312). San Francisco: Jossey-Bass.

Somerfield, M. R., & McCrae, R. R. (2000). Stress and coping research: Methodological challenges, theoretical advances, and clinical applications. *American Psychologist, 55*, 620-625.

Sprecher, S., Felmlee, D., Metts, S., Fehr, B., & Vanni, D. (1998). Factors associated with distress following the breakup of a close relationship. *Journal of Social and Personal Relationships, 15*, 791-809

Strahan, R., & Gerbasi, K. C. (1972). Short, homogeneous versions of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology, 28,* 191-193.

Sullivan, H. S. (1953). The interpersonal theory of psychiatry. New York. Norton.

Paterson, J. E., Field, J., & Pryor, J. (1995). Adolescents' perceptions of their attachment relationships with their mothers, fathers and friends. *Journal of Youth and Adolescence, 23*, 579-600.

Podsadoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsadoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879-903.

Torquanti, J. C., and Vazsonyi, A. T. (1999). Attachment as an organizational construct

for affect, appraisals, and coping of late adolescent females. *Journal of Youth and Adolescence, 28*, 545-562.

Trinke, S. J., & Bartholomew, K. (1997). Hierarchies of attachment relationships in young adulthood. *Journal of Personality and Social Psychology, 14,* 603-625.

Voss, K. (1999). Understanding Adolescent Antisocial Behaviour from Attachment theory and Coercion Theory Perspectives. Unpublished doctoral dissertation. Concordia University, Montreal, QC.

Waters, E., Hamilton, C. E. & Weinfield, N. S. (2000). The stability of attachment security from infancy to adolescence and early adulthood: General introduction. *Child Development, 71,* 678-683.

Wei, M., Heppner, P. P., & Mallinckrodt, B. (2003). Perceived coping as a mediator between attachment and psychological distress: A structural equation modelling approach. *Journal of Counseling Psychology, 50*, 438-447.

Wilson-Shockley, S. (1995). Gender differences in adolescent depression: the contribution of negative affect. Unpublished master's thesis, University of Illinois at Urbana-Champaign, Champaign, IL.

Appendix A

Consent Form

Centre for Research in Human Development
Department of Psychology
tel: (514) 848-2424 ext 7560 fax: (514) 848-2815*
October 2004 (JHSiv)

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:_____

1. Check one line:

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

_____ Before I agree to participate, please call me or my parents to discuss the project.
Name_____ and phone number _____.

_____ NO, I do not agree to participate.

2. Check one line:
I agree that the researchers are allowed to obtain my school grades, for research purposes only

YES _____ NO _____

IF YOU AGREE TO PARTICIPATE, please complete the following:

I have been informed that the purpose of the study is to understand my relationships with family and peers, adjustment and well-being. Participation will involve approximately 1 ½ hours of my class time during the year, completing questionnaires about friendships and family relationships, self-perceptions and emotional and behavioural adjustment. I understand that **all information will be confidential** to the research team and identified only by number, although if I report life-threatening circumstances, the research team will legally have to break confidentiality. I understand that general results may be published. I also understand that I may withdraw consent and may discontinue participation at any time.

Student's Signature:_____Date_____

Parent(s) Name(s)_____

Address_____

City & Postal Code_____ Phone Number_____

PLEASE RETURN THIS FORM TO YOUR FRENCH TEACHER AS SOON AS POSSIBLE.

If at any time you have questions about your rights as a research participant, please contact Adela Reid, Research Ethics and Compliance Officer, Concordia University, at 514.848.2424, x. 7481 or by email at Adela.Reid@Concordia.ca.

Appendix B

General Information Form

Draft

GENERAL INFORMATION

Please do not mark in this area

				4

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

1. Age: ☐☐

Date of Birth: DAY ☐☐ / MONTH ☐☐ / YEAR ☐☐

2. Sex: ☐ Female ☐ Male

3. Grade: ☐ 8 ☐ 9 ☐ 10 ☐ 11

4. My mom is currently (☒ one box):

☐ Married to my dad (or living with)
☐ Divorced/Separated ☐ Widowed
☐ Single ☐ Other (specify)
☐ Remarried

5. My dad is currently (☒ one box):

☐ Married to my mom (or living with)
☐ Divorced/Separated ☐ Widowed
☐ Single ☐ Other (specify)
☐ Remarried

6. Who lives in your home with you?

☒ all that apply. (If you live in more than one home, tell us about the home you live in most.)

☐ Mom ☐ Sisters/Stepsisters
☐ Dad ☐ Brothers/Stepbrothers
☐ Stepmom ☐ Other (Specify)
☐ Stepdad

7. For questions 4 to 10, have any of these people/living situations changed since last year?

☐ Yes ☐ No

8. Performance in academic subjects.

(☒ a box for each subject that you take)

a. English

☐ Failing ☐ Below Average ☐ Average ☐ Above Average

b. History/Economics/Law /Geography

☐ Failing ☐ Below Average ☐ Average ☐ Above Average

c. Mathematics

☐ Failing ☐ Below Average ☐ Average ☐ Above Average

d. Science/Physics/Chemistry/Biology

☐ Failing ☐ Below Average ☐ Average ☐ Above Average

Appendix C

Measures

Draft

Relationship History -R and Ways of Coping

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Answer the following questions about your ***romantic partners***:

1. Have you ever dated someone? ☐ Yes ☐ No

If **no**, skip ahead 3 pages to "Behaviours in Relationships with Friends and Romantic Partners."

a. How old were you when you first began dating?

☐ 12 years old or younger
☐ 13-14 years old
☐ 15-16 years old
☐ 17-18 years old
☐ 19 years or older

b. How many steady relationships have you had with a romantic partner since last March (you and your partner agreed to date only each other)?

☐ 0 ☐ 1 ☐ 2 ☐ 3 or more

2. Over the last four months, has a steady relationship of yours broken up (for at least one month)?

☐ Yes ☐ No

If no, skip to **question 3**. If yes, continue below.

a. How stressful was this breakup for you?

☐ not at all stressful ☐ not stressful ☐ somewhat stressful ☐ stressful ☐ extremely stressful

b. How did you deal with this breakup? Use the following scale.

	0 Does not apply, Not used	1 Used somewhat	2 Used quite a bit	3 Used a great deal
i. I tried to get my boy/girlfriend to change his or her mind.	☐ 0	☐ 1	☐ 2	☐ 3
ii. I talked to someone to find out more about the situation.	☐ 0	☐ 1	☐ 2	☐ 3
iii. I hoped for a miracle.	☐ 0	☐ 1	☐ 2	☐ 3
iv. I thought "Why can't I get going?"	☐ 0	☐ 1	☐ 2	☐ 3
v. I went on as if nothing happened.	☐ 0	☐ 1	☐ 2	☐ 3

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b. How did you deal with this breakup? (continued)

	0 Does not apply, Not used	1 Used somewhat	2 Used quite a bit	3 Used a great deal
vi. I expressed anger to the person(s) who caused the problem.	☐ 0	☐ 1	☐ 2	☐ 3
vii. I accepted sympathy and understanding from someone.	☐ 0	☐ 1	☐ 2	☐ 3
viii. I thought "Why do I always react this way?"	☐ 0	☐ 1	☐ 2	☐ 3
ix. I tried to forget the whole thing.	☐ 0	☐ 1	☐ 2	☐ 3
x. I went away by myself and thought about why I felt that way.	☐ 0	☐ 1	☐ 2	☐ 3
xi. I made a plan of action and followed it.	☐ 0	☐ 1	☐ 2	☐ 3
xii. I tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.	☐ 0	☐ 1	☐ 2	☐ 3
xiii. I took a big chance or did something very risky to solve the problem.	☐ 0	☐ 1	☐ 2	☐ 3
xiv. I changed something so things would turn out all right.	☐ 0	☐ 1	☐ 2	☐ 3
xv. I didn't let it get to me; I refused to think too much about it.	☐ 0	☐ 1	☐ 2	☐ 3
xvi. I asked a relative or friend I respect for advice.	☐ 0	☐ 1	☐ 2	☐ 3
xvii. I went someplace alone to think about my feelings.	☐ 0	☐ 1	☐ 2	☐ 3
xviii. I made light of the situation; I refused to get too serious about it.	☐ 0	☐ 1	☐ 2	☐ 3
xix. I talked to someone about how I was feeling.	☐ 0	☐ 1	☐ 2	☐ 3
xx. I stood my ground and fought for what I wanted.	☐ 0	☐ 1	☐ 2	☐ 3
xxi. I knew what had to be done, so I tried extra hard to make things work.	☐ 0	☐ 1	☐ 2	☐ 3
xxii. I came up with a couple of different solutions to the problem.	☐ 0	☐ 1	☐ 2	☐ 3
xxiii. I wished that the situation would go away or somehow be over with.	☐ 0	☐ 1	☐ 2	☐ 3
xxiv. I had fantasies or wishes about how things might turn out.	☐ 0	☐ 1	☐ 2	☐ 3

0 Does not apply, Not used	1 Used somewhat	2 Used quite a bit	3 Used a great deal


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3. Are you <u>currently</u> in a steady romantic relationship (you and your partner agree to date only each other)?

☐ Yes ☐ No

If **no**, skip to the next page. If **yes**, answer the following.

a. Put the initials of his/her name here: | | |

b. How long has this relationship been a steady one (☒ one)?

- ☐ 0-3 months
- ☐ 4-6 months
- ☐ 7-11 months
- ☐ 1-2 years
- ☐ 2-5 years
- ☐ 5+ years

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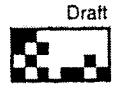

MC-SD

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

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EXPERIENCES WITH MOTHER (ECRM)

Please do not mark in this area

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Order ☐☒

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

If you have both a mom and a stepmom, tell us about the one most important to you.

Who are you thinking of when you fill out this questionnaire? (☒one box):

☐ Mom OR ☐ Stepmom

Read each statement below and indicate how much each describes your feelings with this parent. Respond how you generally feel with your this parent. **Put an ☒ in the box with the number** that is true for you.

	1 Disagree Strongly	2	3	4 Neutral/ Mixed	5	6	7 Agree Strongly
1. I worry about being abandoned by my mother.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
2. I am very comfortable being close to my mother.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
3. I worry a lot about my relationship with my mother.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
4. I worry that my mother doesn't care about me as much as I care about her.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
5. I get uncomfortable when my mother wants to be very close.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
6. I worry a lot about losing my mother.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
7. I don't feel comfortable opening up to my mother.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
8. I often wish that my mother's feelings for me were as strong as my feelings for her.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
9. I want to be close to my mother, but I keep pulling back.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
10. I am nervous when my mother gets too close to me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
11. I worry about being without my mother.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
12. I am comfortable sharing my private thoughts and feelings with my mother.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
13. I try to avoid getting too close to my mother.	☐1	☐2	☐3	☐4	☐5	☐6	☐7

Disagree Strongly			Neutral/ Mixed			Agree Strongly
1	2	3	4	5	6	7

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EXPERIENCES WITH MOTHER (ECRM)

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	1	2	3	4	5	6	7
	Disagree Strongly			Neutral/ Mixed			Agree Strongly

14. I need a lot of reassurance that I am loved by my mother.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
15. I find it relatively easy to be close to my mother.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
16. If I can't get my mother to pay attention to me, I get upset or angry.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
17. I find that my mother doesn't want to get as close as I would like.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
18. I usually talk about my problems and concerns with my mother.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
19. Without my mother, I feel a bit anxious and insecure.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
20. I don't mind asking my mother for comfort, advice, or help.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
21. It helps to turn to my mother in times of need.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
22. When my mother disapproves of me, I feel really bad about myself.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
23. I turn to my mother for many things, including comfort and reassurance.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
24. I feel angry when my mother spends time away from me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7

	1	2	3	4	5	6	7
	Disagree Strongly			Neutral/ Mixed			Agree Strongly