ROMANTIC DISSOLUTION AND SOCIAL SUPPORT DURING ADOLESCENTS' TRANSITION TO COLLEGE

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ABSTRACT

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Romantic dissolution is a normative developmental event, as most adolescents neither marry nor expect to enter lifelong romantic relationships with their teenage partners. Nonetheless, romantic dissolution has been linked to various adjustment problems in adolescents, including depression, guilt, anger, frustration, hate, resentment, hurt, jealousy, and loneliness (Sprecher, 1994; Sprecher, Felmlee, Metts, Fehr & Vanni, 1998). Further research is needed to specify the conditions under which romantic dissolution is linked to maladjustment and to distinguish between disruptions that might be short-term reactions and those indicative of more pervasive problems.

A primary problem in understanding the effects of romantic dissolution on adolescent adjustment is that researchers often fail to convincingly demonstrate that participants' distress is attributable to romantic dissolution rather than other life stressors. Existing studies frequently lack control groups, pre-post/longitudinal designs, and constrained time periods since dissolution, all of which present barriers to establishing conclusive links between romantic dissolution and psychosocial adjustment.

Even if romantic dissolution is associated with poor adjustment, there is likely to be wide variation in adolescents' responses. Little is known about the role developmental and social contexts play in this variation. Adolescent romantic relationships are developed, maintained and terminated within a larger interpersonal environment, including parents and peer relationships (Sprecher, Felmlee, Orbuch & Willetts, 2002; Zimmer-Gembeck, 2002). Although college

students are a typical sample for research on romantic dissolution, little attention has been paid to the developmental level of the participants. Specifically, freshmen college students are undergoing many changes in their social network, and it is not clear how these changes would affect reactions to the stress of romantic dissolution (Shaver, Furman & Buhrmester, 1986).

The present study attempts to advance our understanding of the links between romantic dissolution and subsequent emotional adjustment by addressing many methodological limitations in existing research and examining romantic dissolution in its developmental and social contexts. The first aim was to establish the presence of longitudinal associations between romantic dissolution and emotional adjustment using a pre/post-dissolution design and non-dissolution comparison groups. Specifically, longitudinal associations between romantic dissolution and emotional adjustment were examined by comparing the adjustment of students who did and did not experience a romantic dissolution over a three month period during the transition to college. It was found that dissolution status does predict self-esteem over the transition to college for students with higher self-esteem at baseline.

In addition to establishing more definitive links between romantic dissolution and emotional adjustment, this study examined whether the quality of adolescents' broader social network contributes to variability in post-dissolution adjustment. Specifically, we found some evidence that social support from friends predicts changes in pre- and post-dissolution adjustment. However, overall, social support was not found as an important predictor of psychological adjustment for college freshmen.

Implications for these findings and needs for future research needed in order to better understand adjustment to relationship dissolution and emotional adjustment during the transition to college will be discussed.

To my family and friends, who have encouraged me to stay focused

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INTRODUCTION

Romantic dissolution, or the termination of romantic relationships, is not an uncommon occurrence in late adolescence, particularly among college-aged students. In fact, Frazier and Schauben (1994) identified romantic dissolution as one of the most common stressors for women college students. Thirty-nine percent of the sample in their study of stressful life events among college females had experienced relationship dissolution within the prior six months. Similarly, Shaver, Furman and Buhrmester (1986) found that almost half (46%) of pre-college romantic relationships dissolved before the end of the freshman year, with most of those dissolutions occurring within the first few months of starting college.

What accounts for this high rate of dissolution? Shaver et al. (1986) cited inadequate communication, the presence of more attractive alternatives, a lower expectation of longevity, and unexpected obstacles as reasons that might account for the high rate of dissolution in late adolescence. Other researchers have suggested that the developmental significance of romantic relationships and relationship termination might also play a role. As they transition into young adulthood, many adolescents start thinking about the potential of long term commitment and marriage in romantic relationships (Brown, 1999; Connolly & Goldberg, 1999), so they might be likely to end relationships with individuals they do not wish to commit to. There are also advantages to exploration in premarital romantic relationships during this developmental period. For instance, it provides the opportunity to discover which partners one is compatible with without encountering the complications associated with divorce if the relationship does not work out (Hill, Rubin & Peplau, 1976). According to Hill et al. (1976), dissolution of a premarital romantic relationship would be less likely to lead to stigmatization from others, economic arrangements, and other legal challenges than the dissolution of a marital relationship.

One longitudinal study of predictors of relationship dissolution supports the idea of being in love and thinking about long-term commitment as factors in the longevity of romantic relationships in late adolescence. Specifically, Hill et al. (1976) recruited 231 dating couples, each of which contained at least one college sophomore or junior, to participate in a study on dating relationships. Within two years, 45% of the couples had broken up within the two year time period. Couples who broke up had shorter relationships and reported less intimacy, less closeness, a lower likelihood of getting married, and lower rates of endorsing being in love with their partner than did the couples who did not break up during the course of the study (Hill et al.).

However, a longitudinal study of the interpersonal relationships of college freshmen found that initial ratings of romantic relationships (measured during the summer prior to the first academic quarter) were *not* predictive of relationship dissolution during the freshman year (Shaver et al., 1986). Many reasons given for romantic dissolution were linked to the change in environment (e.g. "After I left home, I discovered what a jerk he really was"; "…during my first month at the university, I met someone who seems to suit me a lot better) (p. 200). Therefore, many of these first year college students were not initially expecting their romantic relationship to dissolve, but their relationships had fallen victim to the new social and developmental contexts in which they were living.

Although a common and even necessary part of romantic development, research has suggested that romantic dissolution is not an insignificant, passing event for many adolescents. According to Hill et al. (1976), premarital romantic relationships are psychologically similar to marriage relationships for young adults. They are relationships that encompass passion, affiliation, and a higher sense of intimacy and commitment than those relationships of younger

adolescents (Connolly & Goldberg, 1999). Terminating intimate relationships is a new experience for many adolescents, as the element of intimacy in romantic relationships is not typically added until mid to late adolescence (Connolly & Goldberg, 1999).

Adjustment Following Romantic Dissolution

The importance of adolescents' romantic relationships and the stress of their loss are commonly overlooked (Brown, Feiring & Furman, 1999; Kaczmarek & Backlund, 1991). Yet they can have significant emotional consequences on adolescents and young adults, at least in the short run. Approximately 20% of female college students identified relationship dissolution as the most stressful life event they had ever experienced, and a range of negative affective states (e.g., depression, guilt, anger, resentment, jealousy, and loneliness) have been associated with romantic dissolution (Frazier & Shauben, 1994; Sprecher, 1994; Sprecher et al., 1998). Romantic dissolution has also been linked to avoidance behavior (e.g., avoiding reminders of the past relationship) and intrusive thoughts about the dissolution (Chung et al., 2002). In addition, the stress of experiencing dissolution can lead to feeling undesirable to the opposite sex, falling behind in schoolwork, or fearing that this relationship failure will predict future relationship failures (Douvan & Adelson, 1966; Joyner & Udry, 2000).

In fact, romantic dissolution in adolescence is one of the strongest event-based predictors of depression and suicide attempts among non-clinical samples of adolescents (Fessenden, 2000; Joyner & Udry, 2000; Monroe, Rhode, Seeley, & Lewsinson, 1999). This is especially important considering the possibility that depressive symptoms might continue or resurface over time. For example, although distress appears to be most severe immediately following the dissolution, some people continue to feel distress for months after the relationship ends (Sprecher et al., 1998). In addition, those adolescents who experience a first episode of major depressive

disorder following dissolution might be at greater risk for recurring episodes of major depression later in life, as early onset depression has a high rate of recurrence (Kovacs, 1996; Monroe et al., 1999).

Although most studies on romantic dissolution assess domains of general distress (e.g., overall ratings of depression, loneliness, self-esteem, or anxiety), Sprecher and colleagues (Sprecher, 1994; Sprecher et al., 1998) have examined dissolution-specific distress following romantic dissolution. By asking participants to rate the degree to which they experienced a variety of emotions immediately following the dissolution, Sprecher's work examines how positive emotions, negative emotions, and overall dissolution-specific distress are each related to post-dissolution adjustment. Asking participants about distress related directly to the dissolution increases confidence that distress being reported is not related to other factors. Sprecher et al. (1998) found that amount of dissolution-specific distress reported is associated with a variety of factors. The amount of dissolution-specific distress individuals experience is associated with a variety of factors related to the initiation of the relationship, characteristics of the relationship while it was intact, conditions at the time of the dissolution, and individual differences (Sprecher et al, 1998). Moreover, levels of dissolution-specific distress appear to peak immediately following dissolution and dissipate over the months following dissolution.

Variability in Distress among Those Who Have Experienced Romantic Dissolution

The studies reviewed thus far indicate that romantic dissolution is often distressing. However, there is variability in how distressed people get, or whether they become distressed at all. Obviously, not everyone has a negative reaction when a relationship ends, and some people might actually exhibit positive or mixed emotional reactions after relationship dissolution (Sprecher, 1994). For instance, some people might feel the need to be autonomous and

independent from, but also connected to their ex-partner, and some might feel both love and anger toward that individual (Sprecher, 1994). Therefore, a person might experience positive emotions in response to being independent but also miss being with their partner, leading to feelings such as loneliness. In addition, even negative experiences with relationship dissolution might be positive for adolescents who learn from the experience and reframe it as an opportunity for personal growth (Joyner & Udry, 2000).

Some potential factors that might explain some of the variability in post-dissolution distress are suggested by the literature on loss. Kaczmarek and Backlund (1991) have compared the process of romantic dissolution adjustment to grief. They discussed developmental and social characteristics of adolescence, such as having difficulty separating emotionally from childhood and a limited range of coping skills, as being vulnerabilities to distress after the loss of a relationship for some adolescents. In addition to various vulnerabilities, there might also be factors of resilience for some adolescents after a loss. One such factor might be prior emotional adjustment. Although prior emotional adjustment hasn't been explored as a resilience factor specifically for dissolution, the loss literature has found support for emotional adjustment factors that are characteristic of resilient individuals (Bonanno, Papa & O'Neill, 2002). Bonanno et al. (2002) described the ability to effectively regulate emotions as one of the main factors that play a role in maintaining a high level of functioning. The ability to minimize negative emotions has been found to free up resources to cope with challenges and to maintain a positive social environment, which leads to healthier emotional adjustment (Bonanno et al.).

Bonanno, Wortman and Neese (2004) have found evidence in their in grief research that those participants who are grieving and those participants who are chronically depressed are qualitatively different and respond to different avenues of treatment after a loss. They discussed

the importance of having data on pre-bereavement functioning in order to distinguish these two groups, though having such baseline data before a significant stressor is unusual. An advantage of the present study is that data on prior functioning is available and so it is possible to compare the adjustment of participants with lower levels of prior emotional adjustment to those with higher levels of prior emotional adjustment. Therefore, the potential buffering effects of prior emotional functioning can be considered.

As previously mentioned, research specific to post-dissolution adjustment has focused on various characteristics of the intact relationship, circumstances surrounding the relationship dissolution, and individual differences as predictors of response variability (Sprecher et al., 1998). Greater effort put into initiating the relationship, higher commitment to and satisfaction with the relationship, longer duration of the relationship, and being 'left' for another person have all been linked to greater post-dissolution distress (Sprecher et al., 1998). Although it seems intuitive that these characteristics of the intact relationship or the situation surrounding the dissolution would be strongly related to the reaction, other factors might also be important. After all, partners from the same dissolved relationship have been found to vary greatly in their distress (Segrin, Powell, Givertz & Brackin, 2003; Sprecher, 1994). For example, individual differences in attachment style or feelings of insecurity might also contribute to post-dissolution distress (Moller, McCarthy & Fouladi, 2002; Sprecher et al., 1998). In subsequent pages, I will explicate ways in which social support might contribute to individual differences in adaptation to romantic dissolution. First, I will evaluate the limitations of the existing literature.

Limitations of the Current Literature

The literature reviewed thus far indicates that romantic dissolution is a common developmental event with potentially significant emotional consequences among adolescents and

college students (Frazier & Shauben, 1994; Shaver et al., 1986). However, there is likely to be significant variation in the levels of distress that individuals experience (Segrin et al., 2003; Sprecher, 1994; Sprecher et al., 1998). Both general feelings of distress (e.g., overall ratings of depression, loneliness, self-esteem, or anxiety) and dissolution-specific distress (e.g., the degree to which participants experienced a variety of emotions immediately following the dissolution) have been studied. Characteristics of the relationship, circumstances surrounding the dissolution, and individual differences have each been identified as potential predictors of general and dissolution-specific distress (Sprecher et al., 1998). However, our understanding of romantic dissolution is far from complete.

A primary problem in understanding the effects of romantic dissolution on adolescent adjustment is that a variety of design issues make it difficult to conclude that participants' distress is attributable to romantic dissolution rather than other life stressors. Most studies, for example, include only participants who have experienced a romantic dissolution and fail to utilize control or comparison groups (e.g., Chung et al., 2002; Helgeson, 1994; Hill et al., 1976; Joyner & Udry, 2000; Kaczmarek & Backlund, 1991; Kurdeck, 1997; Moller et al., 2002; Segrin et al., 2003; Smith & Cohen, 1993; Sprecher, 1994; Sprecher et al., 1998). No studies have examined whether participants who experienced romantic dissolution are any more distressed than those who did not. To determine whether general distress being assessed is actually connected with the dissolution, it will be important to compare the emotional functioning of students who experienced a recent dissolution to students who did not. Therefore, one objective of the present study is to investigate whether freshmen college students who have experienced romantic relationship dissolution show higher levels of general distress than do students who did not experience romantic dissolution during their freshman year of college.

Conclusions about links between romantic dissolution and emotional adjustment are further complicated by the cross-sectional design of most dissolution studies and their inability to account for participants' emotional functioning before the dissolution (e.g., Chung et al., 2002; Helgeson, 1994; Hill et al., 1976; Joyner & Udry, 2000; Kaczmarek & Backlund, 1991; Kurdeck, 1997; Moller et al., 2002; Segrin et al., 2003; Smith & Cohen, 1993; Sprecher, 1994; Sprecher et al., 1998). Without measures of pre-dissolution functioning, other explanations for the detection of post-dissolution distress cannot be ruled out. For instance, Sprecher et al. (1998) found that those with a fearful attachment style reported feeling more post-dissolution distress than those with secure attachment styles. However, because they did not measure pre-dissolution distress, it is possible that the reported distress is more connected to the insecure attachment style regardless of whether relationship dissolution occurred. The present study will compare post-dissolution general distress to general distress endorsed prior to the dissolution of the romantic relationship. Although this approach does not establish a definitive causal link between romantic dissolution and post-dissolution distress, it will establish whether distress is higher after than it was before dissolution. The use of a pre-post design in conjunction with comparison groups will allow a more definitive examination of post-dissolution distress than any existing study in the area.

Another limitation that leads to difficulty determining whether the emotional functioning being measured is connected to dissolution is the timing of the adjustment measures. Many researchers utilize convenience samples where the time since participants' dissolution might range from a few weeks to twelve months (e.g., Hill et al., 1976; Moller, Fouladi, McCarthy & Hatch, 2003; Moller et al., 2002; Sprecher, 1994; Sprecher, et al, 1998). In such a lengthy time span, participants' attitudes and feelings toward the dissolution are likely to change. It is likely that, as time passes, adolescents begin to remember and interpret their dissolution differently

than they would immediately after the dissolution occurred. In addition, many other difficult events could have happened in the course of the year since the dissolution that might better account for the distress rather than the dissolution itself. Even when adjustment measures are tailored to inquire about dissolution specific distress, participants' reports about events that occurred as much as a year earlier are more vulnerable to varying amounts of retrospective bias. The present study addresses these confounds by examining relationship dissolutions that occurred within the three months prior to the administration of the emotional functioning measures. Assessing short-term adjustment to romantic dissolution when the dissolution is still relatively recent for all participants will reduce the variability and degree of retrospective report bias.

The preceding paragraphs have discussed how methodological limitations of existing research prohibit definitive conclusions regarding the association between romantic dissolution and emotional functioning. However, adolescents' post-dissolution adjustment must also be understood within their developmental and social contexts. The importance of studying romantic development within the broader context of adolescents' social lives is being increasingly recognized by romantic relationship researchers. For example, researchers have begun to acknowledge the importance of the interpersonal context in the development and maintenance of romantic relationships (Collins & Laursen, 2004, p. 57). Sprecher et al.(2002) outlined the processes by which the social network influences a romantic couple. First of all, the social network provides opportunities to form romantic relationships by facilitating the location and introduction to potential partners. Secondly, the social network provides information to the couple, such as suggesting activities to enhance the relationship, or giving advice on how to behave in a relationship to gain approval from the partner and from the larger environment.

Third, the social network provides support by recognizing and supporting the couple as a unit and by helping the individuals in the couple with intra-relationship stress. On the other hand, the social network can also have a negative effect on the relationship; for instance, people in the network might get in the way of the individual's opportunities to meet a potential partner, not support a pair, or encourage a dysfunctional couple to stay together (Sprecher et al., 2002). Therefore, the social network, which is not always stable during the transition to college, has a significant impact on romantic relationships.

Recent research on adolescent romantic development reflects increased recognition regarding the importance of the larger social context (e.g., Brown, 1999; Connolly & Goldberg, 1999). Nevertheless, studies of romantic dissolution frequently fail to consider important contextual factors, such as the developmental level of participants and the social context in which they live. For instance, many studies have used college students as a sample, but none have considered the developmental level of college students. Examples of age ranges participating in college-aged samples are 18-34 (Moller et al., 2003; Moller et al., 2002) and 18-30 (Sprecher et al., 1998). However, late adolescents are developmentally different than adults. Late adolescents might not have arrived at or just be transitioning into a stage where long-term commitment becomes a viable goal of romantic relationships, whereas adults are more likely to have reached that stage (Brown, 1999; Connolly & Goldberg, 1999). In addition, many academic and social change takes place over the course of the first year of college (Oswald & Clark, 2003; Paul & Brier, 2001; Shaver et al., 1986), leading those students at the beginning of their college careers to be socially different than more advanced students. To take into account potential developmental confounds, the present study will include only "traditional" college

freshmen who have recently graduated from high school; that is, first-year college students between the ages of 18 and 20.

Social as well as developmental contexts are important to understanding variation in post-dissolution adjustment. As previously mentioned, dissolution adjustment research has focused on characteristics of the intact relationship, characteristics of the dissolution, and individual differences (Sprecher et al., 1998). The effects of the larger social environment remain largely unexplored. The current study is the first to directly examine the role of individuals' social networks in their adjustment following romantic relationship dissolution. More specifically, this study is the first to examine adjustment to dissolution during the transition to college, which is a time when the social network is particularly unstable and social support might be scarce.

To summarize, the present study attempts to better examine the relationship between pre-dissolution and post-dissolution distress by using a control group, measuring distress before the dissolution, and administering the outcome questionnaires within a contained time frame after the dissolution. Additionally, the study limits the sample to a more homogeneous group: college freshmen between the ages of 18 and 20. Finally, the study examines whether social support is related to post-dissolution distress, a topic we turn to next.

Romantic Dissolution and Social Support

Research examining the connection between social support (i.e., perceived positive interactions in, availability of, and quality of interpersonal relationships) and reaction to romantic dissolution is extremely sparse. Moller et al. (2003) looked at social support and attachment style as predictors of post-dissolution distress and found that social support did not account for any significant variance beyond attachment style. However, the constructs of social support and

attachment style are closely related, and social support was not examined as a predictor of post-dissolution distress independently of attachment style.

In the larger literature of stress and coping, social support has repeatedly been found to be an important asset for people in times of stress (Rook, 1987; Shaver et al., 1986). Social interaction itself is very important to one's day-to-day psychological well-being, while social support helps protect people in times of stress (Rook, 1987). According to Burleson and Goldsmith (1998), social networks help people reappraise the cause and intensity of their distress, enhancing their ability to cope. Social support has even been identified as an important part of coping with romantic dissolution. Duck (1982) outlined a process model of romantic relationship dissolution, in which he identified the attainment of social support from one's network as the third stage in the process. The first two stages include focusing on negative aspects of the relationship and partner and then confronting the partner. Obtaining social support (Stage 3) helps individuals to accept that the relationship has definitely ended (Stage 4). Social support in coping with the stress of romantic dissolution might be especially important during the transition to college, when both the quality and composition of adolescents' social networks might be undergoing rapid changes (Oswald & Clark, 2003; Paul & Brier, 2001; Shaver et al., 1986). The following section will explore the transitions occurring in the lives of adolescents during their first year of college.

The Social Transition to College

For many adolescents, starting college is a common event marking the beginning of the transition into young adulthood. Becoming college students might mark the first move away from families and the neighborhoods in which they grew up. It is an experience that leads to personal growth as these adolescents transition into a different educational setting and lifestyle

(Paul & Brier, 2001; Shaver et al., 1986). In college, adolescents gain opportunities to try out new identities, become involved in new and diverse activities, and make more autonomous decisions (Oswald & Clark, 2003). High school friends move to different locations and the contextual factors that played a role in the development and maintenance of pre-college friendships (such as extracurricular activities and high school classes) might no longer be present, or they might be less frequently available (Oswald & Clark, 2003). With these changes occurring simultaneously, social relationships are transformed across the first year of college (Oswald & Clark, 2003; Paul & Brier, 2001; Shaver et al., 1986). Therefore, as adolescents shift into their new roles as college students, they encounter changes in some of their most central relationships: those with their parents, romantic partners, and close friends.

Parent-Child Relationships. One type of social relationship that changes during the transition to college is the parent-child relationship. Older adolescents report increased support and decreased conflict in their relationships with parents during the transition to college (Shaver et al., 1986). These improvements occur in college students' relationships with parents regardless of whether or not they moved away from home (Shaver et al., 1986). In accounting for these findings, Furman and Buhrmester (1992) suggest that the status involved in being a college student might lead to more egalitarian parent-child interactions or an increase in adolescents' appreciation for the stability of their families in a time of social transition. However, unlike friendship and romantic relationships, satisfaction with family relationships does not appear to be related to adjustment to college (Shaver et al., 1986). Perhaps this is because the importance of parental support remains relatively constant while intimacy, companionship and social support from friends greatly increases during adolescence (Furman & Buhrmester, 1985; Sullivan, 1953).

Pre-College Romantic Relationships. Adolescents' romantic relationships might also undergo changes across the transition to college. Many adolescents end high school relationships prior to college, while those who remain in relationships must take on the new challenges of negotiating a long distance relationship. Long distance relationships come with unique obstacles. For instance, Rohlfing (1995) discussed monetary cost, "defining and negotiating 'in-town' relationships," high expectations for the quality of time that couples do have together, and the absence of discussion over day-to-day matters as challenges to the long distance relationship (178-179). Taking time and effort to maintain these relationships appears to be essential to their survival. Helgeson (1994) did find that those college students in long distance relationships who had higher levels of contact with their partners were significantly less likely to break up than those with less contact. Nonetheless, as previously mentioned, almost half of pre-college romantic relationships break up during the freshman year of college (Shaver et al., 1986).

It is possible that maintaining a long distance relationship puts strain on the social transitions to college, such as establishing new friendships and maintaining old ones. Although the effect of maintaining a long distance relationship on social adjustment has not been examined, there is evidence that satisfaction with romantic relationships decrease during this transition. Freshmen whose relationships remained intact reported less positive ratings of their relationships by the end of the fall semester than before the semester began (Shaver et al., 1986). In addition, relationships that were formed during the freshman year were not likely to last long; about half of the romantic relationships formed by the winter and spring academic quarters broke up before the end of their respective quarter, "indicating that stable romance is a rare commodity during this particular transition (to college)" (Shaver et al., 1986, p. 201).

Friendships. The transition to college also involves creating new friendships and deciding whether (and learning how) to maintain old friendships (Shaver et al., 1986). Friendship ties are, to some degree, "patterned by contextual and situational factors lying outside the direct control of those involved" (Allan, 1993, p. 6). According to Allan (1993), times of change such as the transition to college lead to changes in friendship circles. That is, when contact and means of maintaining adequate contact and involvement in the friendship diminishes, then there is potential for the friendship to dissolve.

According to Oswald and Clark (2003), geographic distance from friends does not predict friendship changes. Rather, interacting through shared activities, sharing positive and enjoyable time together, providing one another with social support, and sharing private thoughts and feelings are friendship maintenance behaviors that are important to friendship survival (Oswald & Clark, 2003). Therefore, regardless of the distance between pre-college friends, adolescents must be willing to put time and effort into their friendships in order to maintain them. In other words, pre-college friendships are more costly (take more resources) to maintain and generate less rewards at a time when students are provided with alternative college friendships (Oswald & Clark, 2003). Because of the costs of maintaining friendships, pre-college friendships might get neglected in those areas Oswald and Clark (2003) identified as important.

There are both advantages and disadvantages to maintaining these friendships. One potential positive consequence of maintaining pre-college friendships is that the adolescent would have close friends to confide in if they needed support, as technological means of communication, such as the Internet and cellular phones, have become more common (Adams & Allen, 1998; Oswald & Clark, 2003). In the instance of romantic dissolution, for instance, support that an adolescent can seek over the phone from a close friend might be very helpful.

One negative aspect of maintaining these pre-college friendships is that they might limit the opportunity to spend time with new friends in the college environment (Oswald & Clarke, 2003), and that the adolescent might be lacking in friends to interact with on a face-to-face basis.

Overall, satisfaction with and commitment to best friendships from high school typically declines during the first year of college (Oswald & Clark, 2003). Ninety-seven percent of the freshmen in Shaver's longitudinal study reported that they had a "new closest friend" by the end of the first semester in college (Shaver et al., 1986, p. 201). However, it is important to note that even new best friendships with college friends were volatile, as the majority of those friendships were no longer considered a best friendship by the end of the freshman year. Therefore, new college friendships are not necessarily as supportive or stable as pre-college friendships.

In short, changes in friendships are intrinsic to the transition to college. However, just as in the case of the transitions in romantic relationships, these changes are not insignificant to adolescents. About half of freshmen experience at least moderate preoccupation and concern over changes in pre-college social relationships, or "friendsickness" (Paul & Brier, 2001). For some freshmen, changes and concerns over these changes are predictive of loneliness (Oswald & Clark, 2003; Paul & Brier, 2001; Shaver et al., 1986) and poorer self-esteem (Paul & Brier, 2001). Paul and Brier (2001) posit grief as a way to characterize the distress that is experienced as friendships change during the transition to college. "The loss of frequent socializing and intimacy with a particular group of friends, compounded by the uncertainty about the unfamiliar environment at college, can bring about painful feelings of loss that trigger grief and mourning" (p. 78). They explain an attentional resources model whereby the college and pre-college environment are much different environments and, in order to adjust to the new college environment, college students must move on from the pre-college environment. Paul and Brier

(2001) discuss that, if college students are distressed by the changes in their old friendships, they might have a difficult time initiating and maintaining new friendships.

Just as preoccupation with high school friends can impact a student's ability to make college friends (Paul & Brier, 2001), those students who invest a lot of time in maintaining a pre-college romantic relationship might have more difficulty maintaining their pre-college friendships and/or initiating new friendships at college. In other words, investment in a romantic relationship in the college context might detract from time and attention spent on both old and new friendships.

In many respects, transitions in friendships are similar to those in romantic relationships as adolescents begin college. Deciding whether to maintain pre-college friendships is a normative task (Shaver et al., 1986; Oswald & Clarke, 2003), but it is not insignificant and can be a source of stress (Oswald & Clark, 2003; Paul & Brier, 2001; Shaver et al., 1986). Students must learn whether the benefits outweigh the costs of maintaining their pre-college friendships (Oswald & Clark, 2003) at the same time as they must adjust to a new environment.

Difficulties with the social transition to college or absence of supportive, close friendships might place college freshmen at a disadvantage when faced with the stress of romantic dissolution. Because of the changing nature of friendships at this developmental juncture, the amount and quality of social support an adolescent has available might be a significant predictor of post-dissolution adjustment during the transition to college. The relationship between social support and adjustment to premarital romantic relationship dissolution remains largely unexplored in the dissolution literature. The present study is the first to examine how variations in social support are related to adjustment following the romantic relationship loss during a social-developmental transition.

Availability of Social Support and Companionship during the Transition to College

College freshmen who experience a romantic dissolution are likely to have several types and sources of social support available to them. By late adolescence, social networks are typically dense and varied, with same-sex friends, mothers, and romantic partners all serving as important sources of support (Furman & Buhrmester, 1992). However, the relative importance of particular sources of support might vary according to the problem for which one is seeking assistance. For example, parents are an important source of support for college students, but they might not be the most significant source of support for helping to cope with romantic dissolution. Romantic relationships are formed and maintained in a peer context (Brown, 1999; Connolly & Goldberg, 1999; Zimmer-Gemback, 2002), so peers might be the social support source of choice for romantic relationship trouble. In addition, according to Collins and Laursen (2004), "friends and romantic partners are typically the individuals with whom early adults like to spend time (proximity-seeking) and with whom they most want to be when feeling down (safe-haven function)" (p. 59). Accordingly, emotional support from close friends will be used as a predictor of post-dissolution distress in the present study.

Emotional support, defined as "interpersonal transactions in which problem-focused aid is exchanged" (Rook, 1987, p. 1133), is not the only type of social support that might be helpful to adolescent college students. Companionship, a second type of support, is defined as "shared leisure and other activities that are undertaken primarily for the intrinsic goal of enjoyment" (Rook, 1987, p. 1133). In a new college context where the time necessary for developing deeper bonds has not been afforded, examining the number of social companions might also be relevant to post-dissolution adjustment. Thus, in addition to assessing emotional support from best

friends, we will also examine the *number* of friends students have available in their network for various activities (e.g., doing activities such as going out to dinner together).

The Present Study

According to Shaver et al. (1986), "the ways in which people cope with the new demands during the initial stages of a transition can have lasting implications for adjustment" (213-214). Therefore, getting off to a good start in college, emotionally and socially, might contribute to better adjustment throughout the freshman year and possibly the college career. We hope that the present study enhances our understanding of adolescents' reactions to romantic dissolution during the transition to college, an important social and developmental transition. The transition to college requires changes in the social network that often include relationship terminations.

Because romantic dissolution can be rather distressing for some, existing studies on romantic dissolution have primarily focused on relationship and individual factors that predict variability in post-dissolution distress. However, the body of literature in this area is small and plagued by a variety of limitations, including a lack of control groups, lack of pre-post longitudinal designs, wide time frames between dissolution and measurement of adjustment, and failures to account for adolescents' social and developmental contexts.

The present study attempted to address these limitations while focusing on two central questions: (1) Do late adolescents who experienced romantic dissolution endorse more distress than those who do not experience romantic dissolution? and (2) Does the quality of adolescents' peer support contribute to individual differences in the distress adolescents experience following romantic dissolution? These questions were examined in the context of a specific social transition: the freshman year of college.

Based on the literature reviewed, the following hypotheses were made:

Hypothesis 1: Romantic dissolution status will significantly predict late adolescents' levels of distress during the transition to college (i.e., depression, loneliness, self-esteem). Specifically, experiencing a romantic dissolution will be associated with greater psychological distress over the three months following dissolution, while not experiencing a romantic dissolution will be unrelated to psychological adjustment over a three month period.

Hypothesis 2: Baseline adjustment will moderate the association between dissolution status and psychological adjustment. In other words, the association between romantic dissolution status and psychological adjustment during the transition to college (i.e., depression, loneliness, self-esteem) will be strongest for adolescents with poorer baseline functioning.

Hypothesis 3: Among adolescents who experience romantic dissolution during the transition to college, social support from peers will be inversely related to post-dissolution distress.

a. Supportive interactions with closest same-sex friends will be associated with less general distress (e.g., depression) and less dissolution-specific distress (immediate and delayed) over the three months following romantic dissolution.

b. Negative interactions with closest same-sex friends will be associated with greater general distress (e.g., depression) and less dissolution-specific distress (immediate and delayed) over the three months following romantic dissolution.

c. Density of social networks, as defined by the number of peers available for affiliation, will be associated with less general distress (e.g., depression) and less dissolution-specific distress (immediate and delayed) in the three months following romantic dissolution.

Hypothesis 4: Pre-dissolution adjustment will moderate the association between social support and post-dissolution adjustment. That is, the association between social support and post-

dissolution adjustment – both general and dissolution specific – will be strongest for adolescents for adolescents with lower levels of pre-dissolution psychological adjustment.

METHOD

Participants

Participants included 141 college freshmen between the ages of 18-20 who enrolled in an introductory psychology course at a mid-size university in the Midwest (see Table 1). All participated in a larger longitudinal study on the social transition to college. The sample was disproportionately female (79.4%) and Caucasian (89.4%). The majority of the students were 18 years old (83.7%). Most participants (69.5%) indicated that they lived far enough from their parents that it would be very difficult or impossible to see them every day. Out of the 141 participants, 34 (24.1%) participants reported a romantic dissolution.

Procedure

As part of the larger study, participants completed a series of questionnaires located on a secure website. Data were collected at three points during the freshman year: at the beginning of the fall semester (N=291), at the end of the fall semester (N=165), and at the end of the spring semester (N=89). To be included in the present study, participants needed to be first-year college freshmen between the ages of 18 and 20 with complete data for at least two consecutive time points. In addition, participants were excluded if their relationship status was unclear. For example, two participants were excluded because they indicated that they were not in a relationship, but they provided initials of a partner, and five participants were excluded because they reported being in a relationship at baseline, but not at outcome (but they did not report experiencing a breakup). Finally, participants' relationship status needed to stay stable. Six participants were excluded because they were not in a relationship at baseline, but were in a relationship at outcome.

These inclusion criteria resulted in a sample of 141 participants who were classified into one of two groups. The Romantic Dissolution (RD) group consisted of participants who reported experiencing a romantic dissolution during the fall or spring semester at college (N = 34). The No Dissolution (ND) group consisted of participants who did not report experiencing dissolution of a romantic relationship (N = 107). Originally there were 35 participants in the RD group and 113 participants in the ND group, but 7 participants were excluded due to having incomplete data. For the one participant who reported experiencing a romantic dissolution at both Time 2 and Time 3, only the first romantic dissolution was used.

For each participant, two consecutive time points were used. For the RD group, the time point preceding the dissolution served as the baseline and the time point following the dissolution served as the outcome. Creation of comparison ND groups was conducted in a way to ensure that the proportions of participants using Time 1 (T1) and Time 2 (T2) versus Time 2 (T2) and Time 3 (T3) as baseline and outcome were comparable across the relationship groups. To accomplish this, participants in the ND group were randomly assigned to use either T1 and T2 or T2 and T3 as their baseline and outcome. The proportion of participants in the ND condition using T1 and T2 versus T2 and T3 as baseline and outcome was dependent on the proportion of participants in the "breakup" condition using T1 and T2 versus T2 and T3. Specifically, 80% (N = 28) of those who experienced a romantic dissolution reported the break-up at T2, so they used T1 and T2 as their baseline and outcome. Twenty percent (N = 7) reported their dissolution at T3 (and used T2 and T3 as their baseline and outcome). Therefore, about 80% of the participants for both of the remaining two groups were randomly selected to use T1 and T2 as their baseline and outcome, while the remaining 20% of each group used T2 and T3.

All participants received raffle entries and research participation credit for class. Those reporting that they experienced romantic dissolution in the preceding three month period were invited to complete an additional online survey regarding their dissolution experiences. Those who completed this survey also received $5.00.

Measures of Psychological Adjustment.

The UCLA Loneliness Scale (LS; Russell, Peplau & Ferguson, 1978). The LS is a 20-item self-report measure designed to measure perceived loneliness. Participants answer on a four point Likert Scale according to how often they feel the way that is described in each statement (see Appendix A). When tested on a sample of college students, the LS showed high internal consistency (coefficient alpha = .96), and the test-retest reliability over a 2-month period was .73 (Russell, Peplau & Ferguson, 1978). In addition, data is available supporting the face validity, concurrent, and construct validity of the measure with college students (see Russell et al., 1978). In the current sample, the coefficient alpha for all three time points was .94.

The CES Depression Scale (The Center of Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). The CES-D is a 20-item self-report measure designed to measure depressive symptoms in normative samples. Participants answer on a 4-point Likert scale according to how often they experienced each symptom in the past 2 weeks (see Appendix B). The internal consistency for the measure is approximately .85 in the general population (Radloff, 1977). In the current sample, the coefficient alpha for each of the three time points ranged from .84 to .92.

The Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965). The RSE is a 10-item self-report measure designed to assess global self-esteem. Answers are given based upon a 4-point Likert scale (see Appendix C) in accordance to what degree they agree with each item. Test-

retest reliability is approximately .88 in a college sample (Rosenberg, 1979). In the current sample, the coefficient alpha fell between .90 and .93 for each of the three time points.

Measure of Dissolution-Specific Psychological Adjustment

The Distress Index (DI; Sprecher, 1994). The Distress Index is a list of emotions that were selected on the basis of being either emotions likely to be expressed after dissolution or emotions experienced in close relationships (Sprecher, 1994). Participants answer on a seven point response scale according to the degree they recall experiencing the emotions immediately after the dissolution (See Appendix D). From the scale, a Positive Emotions index (the mean of the positive emotions), a Negative Emotions index (the mean of negative emotions), and an Overall Distress index (the difference between the mean of negative emotions and the mean of positive emotions) are calculated (Sprecher, 1994). On a sample of college students, the reliability coefficient when positive items were reverse coded and combined with the negative emotions index was .84 (Sprecher et al., 1998). In the present study, participants were asked to rate their concurrent dissolution distress as well as their distress immediately following romantic dissolution (Appendix D). Only the Overall Distress Index was used in the analyses. The coefficient alphas for the immediate post-breakup overall indexes for T2 and T3 were .87 and .81 and the coefficient alphas for the delayed post-breakup overall indexes for T2 and T3 were .87 and .92.

Measures of Social Support

The Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985). The NRI is a 30-item self-report measure that assesses 10 dimensions of relationship quality that factor into two factors, Supportive Interactions and Negative Interactions. The Supportive Interactions score is the mean of the Companionship, Instrumental Aid, Intimacy, Nurturance, Affection,

Admiration, Relative Power, and Reliable Alliance scales In addition to these scales, two optional scales that have been used by Buhrmester have also been included in the present study: Support and Satisfaction. The Negative Interactions score is the mean of the Conflict and Antagonism scales. Participants answer on a 5-point Likert scale according to how much a relationships quality is present in each relationship (see Appendix E) (Furman & Buhrmester**,** 1985). The questions can be asked about a variety of individuals in the social network; in the present study, participants were asked about closest same sex friend from before coming to BGSU and closest same-sex friend at BGSU. These supportive interaction and negative interaction scores will be computed for the individual the participant considers his or her closest same-sex friend.

The internal consistency coefficient for this scale is approximately .80 and alphas for the scale scores are above .60 (Furman & Buhrmester, 1985; Furman & Buhrmester, 1992). For the present sample, the T1 and T2 coefficient alphas for the subscales of the Supportive Interactions score ranged from .68-.91, and the coefficient alphas for the subscales of the Negative Interactions score ranged from .76-.95 for closest same-sex friends.

Companionship from Friendship Network (Rook, 1987). To assess companionship n a social network, participants were asked 1) whether they engaged in a variety of activities with friends in the past three months and 2) the initials of all the people they engaged in those activities with in the past three months. The six social activities were having someone over for a meal, having someone over for a visit, visiting someone else's home for a meal, going out with someone, visiting someone at their home or dorm room, or meeting someone familiar at a public place (Appendix F). Two companionship scores were derived. The first score represented the number of activities that participants had engaged in (alpha = .74) and the second represented the

number of peers with whom they'd engaged in the six activities (Rook, 1987). According to Rook (1987), this companionship measure was correlated moderately ($r\ [1,048) = .39, p<.01$]) with a measure of emotional and instrumental support. This shows that companionship and support are related, but are two distinct constructs (Rook, 1987).

The analyses in the present study used only the companionship score that reflects the number of individuals with whom participants engaged in the six activities in the prior three months.

RESULTS

This is the first study we are aware of that examines romantic dissolution and social support during the transition to college. In addition, this study is among the first in the romantic dissolution literature to employ rigorous methodological strategies, including a longitudinal pre-post dissolution design, a small window of time between pre and post-dissolution assessments, and a non-dissolution comparison group. These methods allowed for a more precise assessment of the effects romantic dissolution on psychological adjustment than has previously been accomplished in the dissolution literature. Yet, these advantages were not without cost. Potential participants in both the RD and ND groups were excluded from analyses due to attrition, and the identification of a large number of RD participants was made more difficult by using a narrow time pre-post time frame. Thus, the following analyses, particularly those utilizing only the RD group should be regarded as exploratory.

Question 1. What is the nature of the association between dissolution status and psychological adjustment during the transition to college?

Preliminary Analyses

Prior to running the analyses, all data were examined and cleaned to ensure that they met the assumptions necessary for univariate and multivariate analyses (Cohen & Cohen, 1983). Means and standard deviations for baseline and outcome depression, loneliness, and self-esteem were computed for the total sample, the Dissolution (RD) Group, and the No-Dissolution (ND) group (Table 2). Independent sample t-tests were run to assess whether the means of the RD group and ND group were significantly different on these constructs. The RD group ($\underline{M}$=21.15, $\underline{SD}$=12.04) was found to be significantly more depressed then the ND group (M=15.12,

SD=9.89) at baseline (t=2.94, p<.01). The means of the RD group and ND group did not differ on baseline loneliness, baseline self-esteem, outcome depression, outcome loneliness, or outcome self-esteem (all p's >.10)

Correlations between the independent variables were also calculated to assess interrelationships among the various predictors (Table 3). Baseline depression was significantly correlated with baseline loneliness (r = .63, p < .01), baseline self esteem (r = -.51, p < .01), and dissolution status (r = -.24, p < .01). Baseline self-esteem and baseline loneliness were correlated (r = -.62, p < .01), but neither were correlated with dissolution status. These correlations show that the baseline adjustment measures tap into a similar construct, but also have some distinct characteristics.

A series of regressions were run to determine whether demographic variables (gender, family income, sexual orientation, distance from home, ethnicity) interacted with dissolution status to predict outcome adjustment (after controlling for baseline adjustment). Of the 15 possible effects, none were significant at p<.01 and only one (income) was significant at p<.05. Given the number of possible effects, no demographic variables were included as covariates in the primary analyses.

Primary Analyses

The first hypothesis states that dissolution status will significantly predict adolescents' levels of distress during the transition to college (i.e., depression, loneliness, self-esteem). Specifically, experiencing a romantic dissolution will be associated with greater psychological distress over the three months following dissolution, while not experiencing a romantic dissolution will be unrelated to psychological adjustment.

The second hypothesis states that baseline adjustment will moderate the association between dissolution and psychological adjustment. Specifically, the association between romantic dissolution status and psychological adjustment (i.e., depression, loneliness, self-esteem) will be strongest for adolescents with poorer baseline functioning.

Change in adjustment during the transition to college (e.g., depression, loneliness, self-esteem) was assessed by using a "baseline distress" score and an "outcome distress" score, where the baseline was measured approximately three months before the outcome distress score. For those in the romantic dissolution (RD) group, baseline distress scores reflect scores at the time point most closely preceding the dissolution. Because participants in the no dissolution (ND) group did not experience romantic relationship dissolution, their scores are not event dependent.

A series of hierarchical regressions were conducted to assess the independent and interactive effects of romantic dissolution and baseline adjustment on outcome adjustment (Baron & Kenny, 1986; Holmbeck, 2002). To reduce multicollinearity, the predictors were centered, as recommended by Aiken and West (1991). For each regression analysis, the following terms were entered in this order: 1) T1 (baseline) adjustment (depression, self-esteem, or loneliness); 2) Dissolution status; and 3) T1 adjustment X Dissolution Status. The main effects were entered prior to the interaction term. Dependent variables included T2 (outcome) depression, self-esteem, and loneliness.

The hypothesis that romantic dissolution is associated with poorer psychological adjustment was partially supported. Results from regression analyses predicting T2 self-esteem, depression, and loneliness are presented in Table 4, where both main and interaction effects are reported. Where moderating effects were found, the nature of the interactions was examined by plotting the simple slopes and testing their significance.

Self-Esteem. Not surprisingly, baseline self-esteem significantly predicted later self-esteem during the transition to college ($\underline{\beta}$= .653, p< .01). There was no significant main effect for dissolution status, but it did interact with baseline self-esteem to predict outcome self-esteem ($\underline{\beta}$ = .672, p<.05). To examine the nature of this two-way interaction, regression lines depicting the relations between dissolution status and outcome self-esteem were plotted for lower (1 SD below the mean) and higher (1 SD above the mean) levels of baseline self-esteem (Aiken & West, 1991; Holmbeck, 2002). As illustrated in Figure 1, romantic dissolution was associated with lower self-esteem among adolescents with high, but not low baseline self-esteem (B =3 .258, p<.05, see Table 5). The nature of this interaction was contrary to the hypothesis that experiencing a romantic dissolution would be related to poorer psychological adjustment for participants with low baseline self-esteem, but not those with high baseline self-esteem.

Depression. When predicting levels of depression during the transition to college, only baseline depression emerged as a significant predictor ($\underline{\beta}$ = .606, p < .01). Neither dissolution status nor the interaction between baseline depression and dissolution status significantly predicted outcome depression (all p's>.10).

Loneliness. Baseline loneliness, but not dissolution status predicted outcome loneliness ($\underline{\beta}$ = .720, p < .01). However, there was a trend for the interaction between dissolution status and baseline loneliness in the prediction of outcome loneliness ($\underline{\beta}$ = .411, p < .10), indicating that the association between dissolution status and loneliness was different for adolescents with high and low levels of baseline loneliness. To examine the nature of this trend, regression lines depicting the relations between dissolution status and outcome loneliness were plotted for lower (1 SD below the mean) and higher (1 SD above the mean) levels of baseline loneliness (Aiken & West,

1991; Holmbeck, 2002). However, neither of the slopes was statistically different from zero (see Figure 2 and Table 5).

Question 2: Among adolescents who experience romantic dissolution during the transition to college, what is the nature of the relationship between social support from peers and psychological adjustment?

The effects of three indices of social support were assessed: supportive interactions with closest same-sex friends, negative interactions with closest same-sex friends, and density of social networks (i.e., number of peers available for affiliation). Analyses assessing the effects of social support on post-dissolution distress were limited to those participants in the romantic dissolution (RD) group (N = 34).

As previously noted, the strict methodological design of this study resulted in a relatively small sample of students in the RD group (N=34). Although the sample size is technically sufficient to analyze three independent effects in a regression design (Cohen & Cohen, 1983), the RD group is likely to be a select as well as small sample that lacks sufficient power to adequately assess moderated effects. For these reasons, we consider the following analyses examining the independent and interactive effects of romantic dissolution and social support on psychological adjustment to be exploratory in nature.

Preliminary Analyses

Prior to the central analyses, the data were cleaned and all variables were examined to see if the assumptions of univariate and multivariate analyses were met (Behrens, 1997). Means and standard deviations for baseline and outcome depression, loneliness, and self-esteem and baseline supportive interactions, negative interactions, and density of peer networks were computed for the dissolution (RD) group (Table 6). Correlations between the independent

variables (Table 7) indicated that baseline depression was significantly correlated with baseline loneliness ($r=.60$, $p<.01$) and density of network ($r = -.59$, $p<.01$). Baseline loneliness was correlated with baseline-self-esteem ($r = -.61$, $p<.01$) and density of peer network ($r = -.64$), and baseline self-esteem was correlated with density of peer network ($r = .44$, $p< .05$). Therefore, fewer people in peer networks, but not friendship quality with closest same-sex friends, were closely related to baseline (T1) emotional adjustment during the transition to college.

A series of regressions were run to determine whether demographic and dissolution-related variables (gender, family income, sexual orientation, distance from home, ethnicity, length of time since dissolution, length of relationship prior to dissolution, whether the relationship started at college) interacted with social support (supportive interactions with closest friend, negative interactions with closest friends, density of peer network) to predict outcome adjustment (depression, loneliness, self-esteem, immediate dissolution-specific distress, delayed dissolution-specific distress). Of the 48 possible effects for supportive interactions, none were significant at $p>.01$ and only three (distance from home predicting both depression and self-esteem, and time since dissolution predicting depression) were significant at $p<.05$. Of the 48 possible effects for negative interactions, none were significant at $p<.01$ and only two (time since dissolution predicting depression, and length of relationship predicting delayed dissolution-specific distress) were significant at $p<.05$. Of the 48 possible effects for density of the peer network, none were significant at $p<.01$ or $p<.05$. Given the number of possible effects, no demographic or dissolution-related variables were included as covariates in the primary analyses.

Primary Analyses

The third hypothesis states that, among adolescents who experience a romantic dissolution during the transition to college, social support from peers is expected to be inversely

related to post-dissolution distress. Specifically, density of peer network and supportive interactions from closest same-sex friends is expected to be associated with less general and dissolution-specific distress in the three months following romantic dissolution. Alternatively, negative interactions with closest same-sex friends were expected to be associated with greater general and dissolution-specific distress over the three months following romantic dissolution.

The fourth hypothesis states that pre-dissolution adjustment will moderate the association between social support and post-dissolution adjustment. In other words, the association between social support and post-dissolution general and dissolution-specific adjustment will be strongest for adolescents with lower levels of pre-dissolution psychological adjustment.

As before, changes in distress were assessed from the baseline distress and outcome distress scores, where the baseline was measured approximately three months before the outcome adjustment score. Two levels of adjustment were measured: general adjustment and dissolution-specific distress. As before, general adjustment included three indices: depression, loneliness, and self-esteem, which were measured pre- and post-dissolution. Dissolution-specific distress is assessed as an overall index, assessed at the time the breakup is reported. Participants provided ratings about their "immediate dissolution-specific distress," a retrospective report of their level of distress at the time of the breakup, and "concurrent dissolution-specific distress," a report of their level of distress at the time of the survey. Thus, a total of four distress indices were examined for each of the three indices of social support: depression, loneliness, self-esteem and dissolution-specific distress.

A series of hierarchical regressions were conducted to assess the independent and interactive effects of social support and baseline adjustment on post-dissolution adjustment (Baron & Kenny, 1986; Holmbeck, 2002). To reduce multicollinearity, the predictors were

centered, as recommended by Aiken and West (1991). For each regression analysis, the following terms were entered in this order: 1) T1 (baseline) adjustment (depression, self-esteem, or loneliness); 2) social support (density of peer social network, supportive interactions or negative interactions); and 3) social support X baseline adjustment. The main effects were entered prior to the interaction term. Dependent variables included T2 (outcome) depression, self esteem, loneliness, immediate dissolution-specific distress, and delayed dissolution-specific distress.

Because there was no corresponding baseline measure for post-dissolution distress, the T1 loneliness score was used as the baseline measure for the dissolution-distress outcome variable. Baseline loneliness was selected for these analyses because it is thought to be a construct that is more directly related to the social aspects of the transition to college than depression and self-esteem.

Even with the small sample size, there was evidence that social support might be an important predictor of individual differences in post-dissolution adjustment. Results from regression analyses predicting T2 self-esteem, depression, loneliness, immediate dissolution-specific distress, and delayed dissolution-specific distress are presented in Tables 8-13, where both main and interaction effects are reported. Tables 8-13 are organized by type of social support (e.g., support, negative interactions, or density of peer social network) and by type of adjustment (e.g., overall adjustment or dissolution-specific adjustment). Where moderating effects were found, the nature of the interactions was examined by plotting the simple slopes and testing their significance.

Density of Social Network. Tables 8-9 summarize the effects for prior adjustment and density of social network in the prediction of outcome adjustment. At times, prior adjustment

emerged as a significant predictor of outcome adjustment. Density of the social network also predicted facets of post-dissolution adjustment, though its effect sometimes depended on the level of pre-dissolution distress.

For analyses predicting self-esteem, neither number of friends nor prior self-esteem provided significant main effects. However, a trend was found for the interaction between density of network and pre-dissolution self-esteem for the prediction of post-dissolution self-esteem (β = .337, p<.10), indicating that the association between density of network and post-dissolution self-esteem was different for adolescents with high and low levels of baseline self-esteem. We chose to examine the nature of this trend given the exploratory nature of the analyses along with the statistical difficulties inherent in identifying moderated effects (Holmbeck, 2002). To examine the nature of this trend, regression lines depicting the relationship between number of friends and post-dissolution self-esteem were plotted for lower (1 SD below the mean) and higher (1 SD above the mean) levels of baseline self-esteem (Aiken & West, 1991; Holmbeck, 2002). As illustrated in Figure 4, density of network was associated with higher self-esteem among adolescents with high, but not low baseline self-esteem (B=.563, p>.10, see Table 14).

There was a significant main effect for prior depression in the prediction of post-dissolution depression (β = .474, p<.01). Neither density of the network nor the interaction between pre-dissolution depression and density of the network significantly predicted post-dissolution depression.

When predicting post-dissolution loneliness, prior loneliness significantly predicted post-dissolution loneliness (β = .339, p<.01). In addition, as hypothesized, there was a significant inverse relationship between density of network and post-dissolution loneliness (β = -.385,

p<.05). The interaction between density of network and prior depression was not significant (p>.10).

Density of the peer network was not predictive of immediate dissolution-specific distress or delayed dissolution-specific distress, either as main effects or when considered in combination with pre-dissolution distress (see Table 9).

Supportive Interactions with Close Friends. Tables 10-11 summarize the effects for prior adjustment and supportive interactions in the prediction of outcome adjustment. As expected, prior adjustment consistently emerged as a significant predictor of outcome adjustment. Supportive interactions with close friends also predicted facets of post-dissolution adjustment, but its effect depended on the level of pre-dissolution distress.

When predicting post-dissolution self-esteem, pre-dissolution self-esteem was the only significant main effect to emerge (β = .305, p<.01) However this effect was qualified by a significant interaction with adolescents' supportive friend interactions (β = -.413, p<.05). To examine the nature of this two-way interaction, regression lines depicting the relations between supportive interactions and outcome self-esteem were plotted for lower (1 SD below the mean) and higher (1 SD above the mean) levels of baseline self-esteem (Aiken & West, 1991; Holmbeck, 2002). As illustrated in Figure 3, supportive interactions were positively associated with post-dissolution self-esteem for participants with lower prior self-esteem (B=1.018, p<1.0), but this association was not strong for those with higher prior self-esteem (see Table 14). These results were consistent with the hypothesis that social support would be useful for people who had lower self-esteem at baseline (i.e., more distressed), but not for those who had higher self-esteem (i.e., less distressed) at baseline.

When predicting post-dissolution depression, pre-dissolution depression was the only significant main effect to emerge (β = .510, p<.01). Neither supportive interactions nor the interaction between pre-dissolution depression and supportive interactions significantly predicted outcome depression (all p's >.10).

As expected, when predicting post-dissolution loneliness, pre-dissolution loneliness emerged as a significant main effect (β = .544, p<.01). However, neither supportive interactions nor the interaction between pre-dissolution loneliness and supportive interactions significantly predicted outcome loneliness (all p's > .10).

Supportive interactions with closest same-sex friends were not predictive of immediate dissolution-specific distress or delayed post-dissolution distress, either as main effects or when considered in combination with pre-dissolution distress (see Table 11).

Negative Interactions with Close Friends. Tables 12-13 summarize the effects for prior adjustment and negative interactions in the prediction of outcome adjustment. Again, prior adjustment consistently emerged as a significant predictor of outcome adjustment. There was little evidence that negative interactions with close friends predict post-dissolution support, either alone or in combination with pre-dissolution adjustment.

There was a trend for pre-dissolution self-esteem to predict post-dissolution self-esteem (β = .337, p<.10). Neither negative interactions with close same-sex friends nor the interaction between pre-dissolution self-esteem and negative interactions with closest same-sex friends significantly predicted outcome self-esteem (all p's >.10).

Baseline depression, but not negative interactions with closest same-sex friends predicted outcome depression (β = .549, p<.01). Additionally, the interaction between pre-dissolution depression and negative interactions with closest same-sex friends was not significant (p>.10)

For analyses predicting post-dissolution loneliness, pre-dissolution loneliness emerged as a significant main effect (β = .582, p<.05). However, negative interactions with closest same-sex friends did not contribute significantly to the prediction of post-dissolution loneliness, either alone or in combination with pre-dissolution loneliness (all p's >.10).

For analyses predicting immediate post-dissolution distress, there was a significant main effect for prior loneliness (β = .443, p<.05). However, negative interactions with closest same-sex friends did not contribute significantly to the prediction of post-dissolution loneliness, either alone or in combination with pre-dissolution loneliness (all p's >.10).

For analyses predicting delayed post-dissolution distress, there was a significant main effect for prior loneliness (β = .449, p<.05). Additionally, there was a trend for negative interactions with closest same-sex friends in the prediction of delayed post-dissolution distress (β = -.337, p<.10). Higher levels of negative interactions with closest same-sex friends were related to lower post-dissolution distress. The interaction between negative interactions and prior loneliness did not significantly predict delayed post-dissolution distress (p>.10).

DISCUSSION

The aim of this study was to investigate adjustment to romantic dissolution over the transition to college. Specifically, this study examined 1) the additive and interactive effects of dissolution status and prior adjustment on outcome adjustment and 2) the additive and interactive effects of social support and prior adjustment on post-dissolution adjustment. The present study also addressed some crucial methodological and conceptual limitations that are consistently present in the romantic dissolution literature. For example, we studied dissolution in a specific social and developmental context (i.e., the transition to college) using a rigorous pre-post longitudinal design that included a non-dissolution comparison group and limited variation between participants' in the time between dissolution and outcome assessment.

The methodological rigor presented both advantages and disadvantages for addressing the goals of the current study. By providing a more stringent assessment of the effects of romantic dissolution than is typically seen in published studies, our current findings clearly indicate a need to more carefully consider the role contextual variables in individuals' response to romantic dissolution. On the other hand, stringent methodology resulted in a dissolution group that was both small and select. The relatively small number of students experiencing dissolution within our criteria resulted in limited power for assessing the independent and interactive effects of social support and prior adjustment on post-dissolution adjustment. However, these findings, while preliminary in nature, do have implications for future study of social support and the normal, albeit sometimes distressing, phenomenon of premarital romantic dissolution over the transition to college.

In general, the findings in this study indicate that, on its own, dissolution status does not predict short-term psychological adjustment during the transition to college once accounting for pre-dissolution adjustment. Rather, factors other than ending a romantic relationship are likely to be more robust predictors of emotional distress during the transition to college. One factor found to be consistently predictive of adjustment during the transition to college is the level of adjustment with which adolescents enter college. Self-esteem, depression, and loneliness at the beginning of the semester were all significant predictors of corresponding adjustment at the end of the semester. When romantic dissolution status did predict subsequent adjustment, the association was often contingent on participants' prior adjustment. For example, romantic dissolution predicted lower self-esteem, but only for those students who reported higher self-esteem at baseline.

Among those who experienced romantic relationship dissolution, social support appeared to play only a limited role in post-dissolution distress after accounting for pre-dissolution distress. In fact, the majority of the analyses indicated that there was not a relationship between social support and adjustment. Some of the effects of social support that we did find were direct, while others depended upon adolescents' pre-dissolution adjustment. For example, the number of peers in adolescents' social networks was a significant predictor of post-dissolution loneliness, and there was a trend for negative interactions with close friends in the prediction of delayed dissolution-specific distress. However, supportive interactions with close friends and number of peers in the social network predicted higher post-dissolution self-esteem only for adolescents with low pre-dissolution self-esteem.

Differences in the findings when different adjustment outcome measures were used suggest the need for further exploration of this research question, which is quite complex when

examined in the context of the freshman transition to college. In addition, because the four different adjustment measures (i.e., depression, loneliness, self-esteem, dissolution-specific distress) yielded somewhat different results, further discussion is warranted on these measures and the implications of studying adjustment to romantic dissolution in the future.

First, the relationship between dissolution and psychological adjustment during the transition to college will be discussed, emphasizing differences in the findings based which adjustment measure (i.e., depression, self-esteem, loneliness) was used as the baseline/outcome measure. Next, we will discuss the relationship between social support and resulting emotional adjustment among college freshmen who had experienced a breakup of a romantic relationship. Finally, we will speculate on what these findings contribute to the knowledge base on adjustment to romantic dissolution during college and propose considerations for further study.

Dissolution and Psychological Adjustment during the Transition to College

The first major question that this study put forth was whether having a romantic dissolution contributed to distress during the transition to college, a time when social networks are in flux. Although a fundamental question, it is an important one to consider. Much of the literature on romantic dissolution focuses on post-dissolution adjustment, presuming a relationship between dissolution and distress, without evidence that the distress being measured is connected to the breakup. For the most part, the existing literature does not include methodological advantages such as comparison groups, a longitudinal design that would allow a causal relationship to be inferred, and a limited time span between the dissolution and completion of adjustment measures (e.g., Chung et al., 2002; Helgeson, 1994; Hill et al., 1976; Joyner & Udry, 2000; Kaczmarek & Backlund, 1991; Kurdeck, 1997; Moller et al., 2002; Segrin et al., 2003; Smith & Cohen, 1993; Sprecher, 1994; Sprecher et al., 1998). Therefore, it is

unclear whether romantic dissolution has an effect on emotional functioning. Although researchers are beginning to emphasize the significance of romantic relationship termination to adolescents (e.g., Brown et al., 1999; Kaczmarek & Backlund, 1991), it is important to get a better understanding of the nature of the effects that romantic dissolution has on late adolescents. This will help clarify how post-dissolution adjustment would best be conceptualized in future research and provide useful information to college personnel about whether experiencing a dissolution during the transition to college does impact students' functioning.

In the current study, dissolution status did predict self-esteem, but the effects were conditional upon adolescents' prior levels of adjustment. For example, romantic dissolution predicted lower self-esteem at the end of the semester, but only for participants with higher prior self-esteem. This pattern is inconsistent with a vulnerability model in which romantic breakups infer the greatest insult upon those whose adjustment is already relatively poor. Rather, perhaps adolescents with lower prior self-esteem feel accustomed to negative events happening, whereas the self-esteem of those with higher initial levels is more threatened by a negative event such as a romantic relationship dissolution. An alternate explanation with a basis in the attachment literature is that people with higher self esteem seek out love from their dating partner as a source of self-affirmation, but people with lower self-esteem do not (Brennan & Morris, 1997; Murray et al., 2001; Murray et al., 1998). This suggests that adolescents with higher self-esteem, but not lower self-esteem, lose an important source of their self-esteem when romantic relationships end. Additional research on the attributions that adolescents make about themselves in the face of a dissolution based on their level of prior self-esteem would be helpful in further explaining this finding.

Although there was a trend for baseline loneliness moderating dissolution status in the prediction of outcome loneliness, the slope of neither the high nor low baseline loneliness groups was significant. Therefore, although dissolution status might play a role in the prediction of outcome loneliness when moderated by baseline loneliness, no definitive statement can be made at this point regarding the nature of this relationship. However, the directions of the non-significant slopes reveal a non-significant pattern similar to the finding that participants with higher levels of self-esteem are more strongly impacted by a romantic dissolution. Although it does not reach the level of significance, the slope of the dissolution sample is negative for participants with low self-esteem, indicating that participants who had experienced dissolution tended to be lonelier at the outcome. However, because neither slope reached a level of significance, further study with increased power is necessary to determine the nature of the interaction between dissolution status and baseline loneliness.

As previously stated, dissolution status was not found to be a significant predictor of depression during the transition to college. Monroe et al.'s (1999) finding that there was a higher likelihood of first onset of major depressive disorder among participants who reported a breakup appears to be inconsistent with the results in the present study. Methodological and conceptual differences between the two studies might account for these divergent findings. Two differences between the present study and that done by Monroe et al. are sampling characteristics such as age ($\underline{M}$=18.17 versus $\underline{M}$ =16.6) and social context (college versus high school). The study performed by Monroe et al. also had more participants (N=1470), resulting in greater sensitivity for finding differences and a greater number of participants who became clinically depressed. The way that the depression variable was conceptualized also differed in the two studies. First, Monroe et al.'s study excluded participants who were depressed at baseline, while the present

study included all participants, regardless of their baseline distress. Also, while Monroe et al.'s depression outcome measure was categorical and reflected pathology, depression in the present study was measured on a continuum of depressive symptoms. Moreover, Monroe et al.'s study did not take into account baseline level of adjustment, though whether the participant had major depressive disorder in the past was included as a main effect.

In addition to the methodological differences, the social and developmental levels of the participants might further explain the different findings. For example, during the transition to college, stressors other than romantic dissolution might be more salient predictors of depressive symptoms. Feelings of homesickness, financial problems, or academic struggles that are particularly poignant during the transition to college might be more robust predictors of depressive symptoms than romantic dissolution, even if romantic dissolution is a significant predictor of depression among younger adolescents. Additionally, many participants in Monroe et al.'s sample might have been experiencing their first romantic breakup, whereas many students in college might have had some prior experience coping with romantic dissolution.

To summarize, dissolution status does appear to directly contribute to adolescents' psychological adjustment during the transition to college, but the nature of the effects depends on levels of prior adjustment. However, this relationship is present for self-esteem and potentially loneliness, but not for depression during the transition to college.

A point deserving of further exploration concerns the importance of making informed decisions on how adjustment is best conceptualized and defined. The following discussion will explore the differences between the adjustment constructs used in order to consider potential differences that might account for divergent results.

First, a likely reason why dissolution status is predictive of self-esteem is because, before it dissolved, the relationship played a role in providing self-esteem. As previously mentioned, the literature has established an association between self-esteem and romantic involvement (Brennan & Morris, 1997; Murray et al., 2001; Murray et al., 1998). Self-esteem has been conceptualized as a global self-evaluation of worth and is one of the three parts of the self-concept (which also includes self-efficacy and self-identity) (Rosenberg, 1989). It differs from loneliness in that it is connected more closely to one's inner identity than to one's relation to other people.

Second, just as there is an association between self-esteem and romantic involvement (Brennan & Morris, 1997; Murray et al., 2001; Murray et al, 1998), it makes intuitive sense that for loneliness to be linked to romantic involvement, since social loneliness is often remedied by the presence of social relationships. In addition, prior research has found associations between romantic involvement and loneliness, where the presence of a romantic partner is linked to decreased loneliness. (Flora & Segrin, 2000; Green, Richardson, Lago & Schatten-Jones, 2001). It is also possible that loneliness is inherent to the transition to college, a time when many students are distanced from their family and friends and might have certain expectations about how they should be functioning socially. This would make loneliness subject to fluctuations during this time of transition.

In the instance of depression, however, the literature on adolescent romantic relationships has identified positive associations between romantic involvement and feelings of depression for many early and late adolescents (Davila, Steinberg, Kachadourian, Cobb & Fincham, 2004; Joyner & Udry, 2000; LaGreca, 2005; Welsh, Grello & Harper, 2003). Again, with the prediction of self-esteem from romantic dissolution, some adolescents might be losing a source

of higher self-esteem. With depression, on the contrary, some adolescents might be ending a relationship that was associated negatively with their adjustment. This association between being in a romantic relationship and depression might be particularly important during the transition to college, a time when ending former relationships might be adaptive. Perhaps the findings that some romantic relationships are linked to depression indicate a more complex trajectory of changes in depression when the relationship ends.

Additionally, the present study did not explore the possibility that dissolution status has an indirect relationship to depression through constructs such as loneliness, which appears to be related to depression. For instance, the UCLA Loneliness Scale has been validated against ratings of depression (Russell et al., 1978). Also, in the present study, loneliness was correlated with depression ($p < .01$). Therefore, loneliness seems to be related to and might even account for some of the variance in pathology such as depression. An understanding of the relationship between loneliness, self-esteem, and depression would be useful for college personnel responsible for facilitating healthy social and psychological adjustment in college freshman.

It is important to reiterate that this relationship between dissolution status and adjustment was found in a specific social context where the broader social network is changing. To understand post-dissolution adjustment during such a transition, the next main research question focused on social support as a predictor of post-dissolution adjustment for those participants who had experienced a romantic dissolution.

Social Support and Post-Dissolution Adjustment

Our ability to adequately assess the effects of social support on post-dissolution adjustment was limited by the small number of participants meeting study criteria. The overall pattern of findings found only weak support for our hypotheses that social support would

facilitate post-dissolution adjustment over the transition to college. Of the 30 effects tested, only 4 met or approached significance. These findings are summarized below, but should be interpreted with caution, given their exploratory nature.

First, there was evidence that 1) a denser peer network predicts decreased post-dissolution loneliness and, 2) increased negative interactions with a closest friend predicts decreased delayed dissolution-specific distress. In both of these instances, having greater levels of interaction was associated with better adjustment, regardless of whether the interactions were positive or negative. These results suggest that having frequent positive *or* negative interactions rather than support per se might be a factor predictive of high levels of post-dissolution distress.

Additional effects of social support on post-dissolution adjustment were conditional upon adolescents' pre-dissolution adjustment. For instance, supportive interactions with a closest friend were associated with greater post-dissolution self-esteem for those with lower pre-dissolution self-esteem, while a greater number of peers in the social network was predictive of greater post-dissolution self-esteem for those with higher pre-dissolution self-esteem. These findings suggest that having a denser peer network might build the resiliency of those with higher pre-dissolution self-esteem, while those more resilient students with lower baseline self-esteem tend to have positive support from at least one close friend.

The pattern of results suggested that, even if social support predicts adjustment, it does not necessarily confer a buffer to all. Rather, effects of social support may be contingent upon prior functioning. Considering that social support is recognized as an important factor in the adjustment to negative life events (Rook, 1987; Shaver et al., 1986), it is surprising that the associations between social support and post-dissolution adjustment do not appear to be strong.

Of course, this conclusion is tenuous and further research with larger samples is required before definitive statements can be made. However, one possible explanation for the limited impact of social support is that social support truly is not strongly predictive of post-dissolution adjustment during the transition to college. This could be the case for a variety of reasons. For example, during the transition to college, social networks are in flux and unstable (Shaver et al., 1986). As such, perhaps students with higher support feel no more satisfied with the size of their peer networks than the students receiving less support. This might indicate that the nature and the amount of support that adolescents are getting is not enough at the time of the transition. Another potential reason why these constructs would not be strongly related is because there might be other factors that better account for the variation in adjustment following a romantic dissolution, such as those specific characteristics of the relationship, the dissolution, or the individual that have already been established as predictors of post-dissolution adjustment (Sprecher et al., 1998). Additionally, research has not focused on how students effectively cope with romantic dissolution, but some students might use other coping mechanisms, such as journaling, religious involvement, or rituals (e.g., disposing of reminders of the relationship) that are more effective to their post-dissolution adjustment than is social support.

Alternatively, researcher decisions and limitations such as sample size, timing, and the way social support was operationally defined could have contributed to the results not being as strong as hypothesized. The next section will focus on some particular decisions and problems that might have limited our understanding of the relationship between social support and post-dissolution adjustment.

Limitations in the Measurement of the Relationship between Social Support and Post-Dissolution Adjustment. One factor in the present study that might have interfered with the measurement of

the relationship between social support and post-dissolution adjustment is the sample size. The retention rate of the original sample (N = 291) was 56.7% from the first to the second time point and 53.9% from the second to the third time point. Because 62 students did not report being in a romantic relationship at the first time point, only 86 students were eligible to have a romantic dissolution. Twenty-eight students did have dissolution during the first semester and seven experienced dissolution during the second semester. This rate of dissolution is close to the 46% dissolution rate found in the literature (Shaver et al., 1986). However, it exemplifies the need for large enough sample sizes in studies with longitudinal data to ensure that the sample of students who experience dissolution is sufficient in power.

Measurement issues might also contribute to the findings being weaker than expected. For instance, the social support questionnaires measured either social support in the three months prior to the start of college or social support in the three months in the first semester. Because students' levels of baseline social support might change over the course of the freshman year, these might not be accurate measures of the social support available to students at the time of romantic dissolution. However, there would also be limitations to using measures of post-dissolution social support. For instance, depending on the length of time since the romantic dissolution had occurred, the post-dissolution support might not accurately reflect the amount of support that the student had at the time that the romantic relationship ended. Another possible confound of using post-dissolution social support rather than pre-dissolution social support is the retrospective report bias. In other words, adolescents' adjustment to the dissolution might have directly or indirectly skewed their perceptions of the social support that they had available to them.

Another measurement issue that could have influenced the findings is the way that social support was operationalized. In the present study, social support was measured in three different ways: 1) density of peer network, 2) perceptions of supportive interactions with a closest same-sex friend, and 3) perceptions of negative interactions with a closest same-sex friend. There are potential limitations to these measures. For instance, the peer network measure might be lacking important activities in which college freshmen often partake, and thus might not be an accurate measure of some participants' peer networks. For the supportive interactions and negative interactions measures, perhaps social support from the closest *same-sex* friend is not the best measure of support from a close friend. An individual might have a more important opposite-gender friend or a friend that they do not consider to be closest to them who they turn to in times of distress. Another possibility is that it is important that students receive quality emotional support from a several close friends rather than one close friend. Future research could measure support in alternative ways in order to determine what aspects of support, if any, are important to post-dissolution adjustment.

Another limitation involves the timing of the adjustment measures. In the present study, participants were asked to fill out adjustment measures anywhere from immediately following the dissolution to three months following the dissolution. They answered both retrospective questions about their functioning immediately following the dissolution and about their current functioning. Retrospective reports could be subject to bias resulting from post-dissolution experiences and new perspectives surrounding the dissolution. Unfortunately, it would require a great deal of manpower and it would be highly intrusive to keep close enough watch on the participants to catch them immediately after a relationship breakup (or within a decided-upon time frame following the dissolution). It is unclear how willing and conscientious participants

would be to contact the researcher to gain access to the questionnaire immediately after experiencing a dissolution.

Therefore, sample size, timing of adjustment measures, and the timing and operational definitions of the social support variable are factors that might be useful to try to improve upon in future research. Another area of consideration is the proximity of the adjustment variables to the distressful event. As with the first research question, depression was not found to be a significant outcome variable, while variables more proximal to the stressor (e.g., self-esteem, loneliness) did yield either significant or marginally significant results when considered in combination with prior adjustment. However, there is an additional level of adjustment to be discussed, which is even more proximal to the dissolution than is self-esteem or loneliness: dissolution-specific adjustment.

Dissolution-Specific Adjustment. As previously stated, more negative interactions with a close same-gender friend was predictive of lower dissolution-specific distress, which is in the opposite direction as was expected. It is worth noting that this effect was specific to delayed dissolution distress (dissolution-specific distress reported at the end of the semester) but not immediate post-dissolution distress (dissolution-specific distress participant recalls feeling immediately after the breakup). Supportive interactions and density of the network were not associated with either immediate or delayed dissolution-specific distress.

Again, it is important to emphasize that these findings were discovered with a small number of participants and further research is necessary before any conclusions regarding the relationship between social support and post-dissolution distress can be made. However, one possible reason why negative interactions emerged as significant for this particular adjustment variable is because having a high level of interaction is predictive of adjustment. This finding

suggests that it is not inherently harmful to have negative interactions with close friends, but that negative interactions could be linked to more frequent interactions with friends and perhaps a higher level of intimacy. Another possible explanation could be that a change in support over time might be a more significant predictor of adjustment to dissolution than a baseline support measure. Negative interactions with closest same-sex friends were measured *prior* to the dissolution. Therefore, it is possible that interactions with closest friends improve over the time following the dissolution because, with the romantic partner out of the picture, there is an increased opportunity for interaction with the closest friend. In addition, if any conflict with closest friends had been related to the romantic partner, the dissolution could eliminate that source of conflict. In turn, the improvement of the friendship interactions (e.g., the elimination of the negative interactions that they used to experience with the friend) could help facilitate adjustment to the dissolution. One possible way to test this would be to measure interactions with friends *after* the dissolution in addition to before the dissolution to see whether the nature of the relationship interactions does improve. Little is known about how a romantic dissolution impacts the nature of other relationships and further exploration might better explain this inverse association between negative interactions with friends and delayed dissolution-specific distress.

Dissolution-specific adjustment is the most proximal adjustment measure since it is stressor-specific, but it posed some challenges to the attempt to tease apart the specific effects of dissolution while controlling for pre-dissolution adjustment. For instance, when using a no-dissolution control group, testing the association between romantic dissolution status and this type of adjustment would clearly be inappropriate since the comparison group would not able to answer questions specific to a breakup of a romantic relationship. Therefore, this measure was not appropriate for our investigation on whether romantic dissolution status predicts adjustment.

Another limitation of this measure is that there is not a compatible pre-dissolution measure because the questions are specifically asked about the dissolution.

To address this second problem, loneliness was used in the present study as the baseline adjustment variable for analyses that included the dissolution-specific distress outcome variable. Loneliness was chosen as the baseline measure for post-dissolution distress because, out of the three available adjustment variables (i.e., depression, loneliness, self-esteem), it is thought to be most closely related to relationship loss than depressive symptoms or evaluation of the self. Another reason why loneliness was chosen instead of depression is because of the findings earlier in this study that there is evidence that loneliness, but not depression, is predicted by dissolution status. For future research, it might be useful to design an emotions baseline measure that is more directly compatible with the post-dissolution measure.

When determining in future research which adjustment measures to use, it is important for researchers to give thought to whether they want to look at how dissolution relates to broader adjustment (e.g., loneliness, self-esteem, depression) or whether they are more interested in feelings connected to the dissolution. In interpreting the literature that has focused on dissolution-specific adjustment, it might be important to look at what dissolution-specific adjustment means in the broader sense. For example, future research might benefit from looking at the connection between dissolution-specific adjustment and overall adjustment. Does dissolution-specific adjustment mediate or moderate the relationship between dissolution status and overall adjustment? Or does a participants' overall adjustment affect the amount of break-up specific distress that participants endorse? Or are the types of adjustment independent of each other? Further research is recommended to better understand the relationship between these

proximal and distal adjustment measures. This will contribute to clearer interpretations of the literature on adjustment to romantic dissolution.

In sum, this study has taken a first step in better understanding how dissolution status and social support relates to adjustment during the transition to college while addressing several key limitations of the current literature on post-dissolution adjustment. Findings indicate that 1) even though the social network is in flux, dissolution status is predictive of self-esteem, but not depression, when level of baseline adjustment is taken into consideration and 2) there is not strong evidence that social support predicts adjustment during the transition to college. However, these findings are tempered by a limited number of participants in our romantic dissolution group. Thus, our ability to adequately assess the role of social support in post-dissolution was limited by restricted power. The presence of a few significant findings for social support suggests that this is an issue meriting further investigation with a larger sample size. Yet the possibility that were merely chance findings among a larger number of analyses cannot be entirely ruled out.

Nonetheless, several future conceptual directions have also been posed. These include more focused investigation on 1) the range of adjustment constructs that might be relevant to romantic dissolution and how they relate to each other, 2) the nature of support that might be most relevant to post-dissolution distress (e.g., emotional support/negative interactions vs. companionship), 3) the sources of support that might be most useful (e.g., closest same-sex friends vs. opposite-sex friends or groups of close friends), and 4) potential mediators and moderators that might account for some of the variation in the relationship between support and adjustment. The following discussion will outline some additional conceptual directions for future exploration.

Future Directions in the Study of Social Support and Post-Dissolution Adjustment during the Transition to College

The present study is the first that we are aware of that directly examines social support and psychological adjustment after romantic relationship dissolution during the transition to college. There is still much to uncover before we have a clear picture of this area of adolescent social development. Several important issues are in need of attention in future studies.

The first task for further consideration is establishing stronger links between the social environment and post-dissolution adjustment. For example, future research in this area might make a distinction between having support available and actually using that support when faced with a relationship loss. It is unclear whether actively seeking out friends might help with relationship dissolution or if merely having friends available is useful. Additionally, future research might explore how the dissolution itself affects the social network. Because adolescent romances are developed and maintained in a peer context (Brown, 1999; Connolly & Goldberg, 1999), it is possible that the ending of the relationship might affect the social network more broadly, which might influence adolescents' available support and psychological adjustment.

Second, future research might consider other sources and levels of social support. This study looked at two levels of support: the dyadic level (supportive and negative interactions from a closest same-sex friend) and the network level (number of peers used for companionship). Other dyadic relationships that might be relevant to this study might be relationships with other close same- and opposite-sex friends, parents, siblings, roommates, or counselors. Other forms of network-level support might be supportive interactions from a group of friends, feelings of connectedness to the University, or support from religious organizations.

A third conceptual possibility to consider is that romantic dissolution might actually be adaptive to the social transition to college, particularly for participants maintaining long-distance relationships. According to Shaver et al. (1986), among college freshmen, positive ratings of intact romantic relationships typically decrease as the year progresses, which might be indicative of romantic stress during this transition. For example, being in a romantic relationship during the freshman year of college might be stressful due to the time and effort demanded to maintain a long distance relationship. These demands could even take a toll on social and academic college adjustment, which could decrease relationship satisfaction and increase stress as the freshman year progresses. Thus, at this developmental juncture, it is possible that being in a romantic relationship is at least as emotionally challenging than experiencing dissolution. If this is the case, the dissolution of pre-college relationships might actually facilitate some students' psychosocial adjustment to college. The present study did not distinguish between participants in a relationship and those not in a relationship. It also did not compare those students in long-distance relationships to those students not in long-distance relationships. Future research should make a distinction between these groups, which might account for important differences during this transitional period.

As previously mentioned, the present study focused on a distinct social developmental period – the freshman transition to college. Because the transition to college is a time with unique challenges, it is unclear how relevant the results of the present study are to other social developmental contexts. For example, college freshmen might adjust to romantic dissolution in a very different way than junior high students, high school juniors, or college seniors. The composition of their social networks might be different and they could be at different levels of

romantic development as well. As such, future research should be conscious of the social context that is being studied.

Conclusions

Romantic dissolution is a normal developmental event throughout adolescence, including the transition to college, a time when the social network is changing to meet new social environmental demands. In addition to considering dissolution in a specific social context, this study makes several additional contributions to the literature. It uses a pre-/post- longitudinal design that includes a control group and constrains the variation among participants in the time period between romantic dissolution and the measurement of psychosocial adjustment. These steps are necessary to clarify the relationship between dissolution and adjustment.

We found that, when such rigorous methodology is used and adjustment is controlled for over time, it appears that romantic dissolution might not play a significant role in the psychological adjustment of freshmen during the transition to college. In addition, social support does not appear to play a large role in post-dissolution adjustment to romantic dissolution among those freshman who do experience a romantic breakup. During this developmental period, many more challenges might better account for adolescent psychological adjustment than a romantic dissolution.

A complete understanding of the relationship between the social environment and adjustment to romantic dissolution is far from being achieved. Future research should continue to address methodological and conceptual limitations in the current body of literature. In addition, further attention should be granted to the transition to college and how it impacts and is impacted by romantic relationship dissolution. This work includes, but is not limited to, studying the different levels of the social network, considering the different aspects of social and

psychological adjustment that the dissolution might impact, and seeking out potential mediators and moderators that might play a role in this complex relationship. In addition, even if future research confirms that romantic dissolution does not strongly affect the adjustment of college freshmen, perhaps romantic dissolution plays a stronger role at other times during the lifespan or for late adolescents who are not experiencing the changes associated with the transition to college. By continuing to advance the quality of the methods used in the study of romantic dissolution and by directly taking into account the social and developmental level of participants, we will begin to better understand the impact of romantic dissolution on adolescents' lives.

References

Adams, R.G. & Allen, G. (1998). Placing friendship in context. *Structural analyses in the social sciences*. New York, NY: Cambridge University Press.

Aiken, L.S. & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage Publications, Inc.

Allan, G. (1993). Social structure and relationships. In Duck (Ed.) *Social context and relationships – Understanding relationship processes series: Vol. 3* (pp. 1-25). Newbury Park: Sage Publications.

Bonanno, G.A., Papa, A. & O'Neill, K. (2002). Loss and human resilience. *Applied and Preventive Psychology, 10*(3), 193-206.

Bonanno, G.A., Wortman, C.B. and Neese, R.M. (2004). Prospective patterns of resilience and maladjustment during widowhood. *Psychology and Aging, 19*(2), 260-271.

Brennan, K.A. & Morris, K.A. (1997). Attachment styles, self-esteem, and patterns of seeking feedback from romantic partners. *Personality and Social Psychology Bulletin, 23*(1), 23-31.

Brown, B. (1999). You're going out with *who*? Peer group influences on adolescent romantic relationships. *The development of romantic relationships in adolescence* (pp. 291-329). New York, NY: Cambridge University Press.

Brown, B., Feiring, C., Furman, W. (1999). Missing the love boat: why researchers have shied away from adolescent romance. *The development of romantic relationships in adolescence* (pp. 1-16). NY: Cambridge University Press.

Behrens**,** John T. (1997). Principles and procedures of exploratory data analysis. *Psychological Methods,* 2(2), 131-160.

Burleson, B.R. & Goldsmith, D.J. (1998). How the comforting process works: Alleviating emotional distress through conversationally induced reappraisals. *Handbook of communication and emotion: Research, theory, applications, and contexts.* San Diego, CA: Academic Press, Inc.

Cohen, J. & Cohen, P. (1983). *Applied multiple regression-correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: L. Erlbaum Associates.

Collins, W.A. & Laursen, B. (2004). Changing relationships, changing youth: Interpersonal contests of adolescent development. *Journal of Early Adolescence*, 24(1), 55-62.

Connolly, J. & Goldberg, A. (1999). Romantic relationships in adolescence: The role of friends and peers in their emergence and development. *The development of romantic relationships in adolescence* (pp. 266-290). New York, NY: Cambridge University Press.

Chung, M.C., Farmer, S., Grant, K., Newton, R., Payne, S., Perry, M., Saunders, J., Smith, C., Stone, N. (2002). Self-esteem, personality, and post traumatic stress symptoms following the dissolution of a dating relationship. *Stress & Health: Journal of the International Society for the Investigation of Stress*, *18*(2), 83-90.

Davila, J., Steinberg, S.J., Kachadourian, L., Cobb, R. & Fincham, F. (2004). Romantic involvement and depressive symptoms in early and late adolescence: The role of preoccupied relational style. *Personal Relationships, 11*(2), 161-178.

Douvan, E., & Adelson, J. (1966). *The adolescent experience*. New York: Wiley.

Duck, S. W. (1982) *Personal Relationships 4: Dissolving Personal Relationships*. London and New York: Academic Press

Fessenden, F. (2000, April 9). They Threaten, Seethe and Unhinge, Then Kill in Quantity. *The New York Times.*

Flora, J. & Segrin, C. (2000). Relationship development in dating couples: Implications for relational satisfaction and loneliness. *Journal of Social and Personal Relationships*, 17(6), 811-825.

Frazier, P.A. & Schauben, L.J. (1994). Stressful life events and psychological adjustment among female college students. *Measurement and Evaluation in Counseling and Development, 27* (1), 280-293.

Furman, W. & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology, 21*(6), 1016-1024.

Furman, W. & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child Development, 63*, 103-115.

Green, L.R., Richardson, D.S., Lago, T. & Schatten-Jones, E.C. (2001). Network correlates of social and emotional loneliness in young and older adults. *Personality and Social Psychology Bulletin*, 27(3), 281-288.

Hawkins, M.J. (1995). Anxiety in relation to social support in a college population. *Journal of College Student Psychotherapy, 9*(4), 79-88.

Helgeson, V. (1974). Long-distance romantic relationships: Sex differences in adjustment and breakup. *Personality and Social Psychology Bulletin, 20*, 264-265.

Hill, C.T., Rubin, Z., and Peplau, L.A. (1976). Breakups before marriage: The end of 103 affairs. *Journal of Social Issues, 32*(1), 147-168.

Holmbeck, G.N. (2002). Post-hoc probing of significant moderational and mediational effects in studies of pediatric populations. *Journal of Pediatric Psychology, 27*(1), 87-96.

Joyner, K. & Udry, R. (2000). You don't bring me anything but down: Adolescent romance and depression. *Journal of Health and Social Behavior, 41*(4), 369-391.

Kaczmarek, M.G. & Backlund, B.A. (1991). Disenfranchised grief: The loss of an adolescent romantic relationship. *Adolescence, 26*, 253-260.

Kovacs, M. (1996). Presentation and course of major depressive disorder during childhood and later years of the life span**.** *Journal of the American Academy of Child & Adolescent Psychiatry***,** 35(6), 705-715.

Kurdeck, L.A. (1997). Adjustment to relationship dissolution in gay, lesbian, and heterosexual partners. *Personal Relationships, 4*, 145-161.

LaGreca, A.M. & Harrison, H.M. (2005). Adolescent peer relations, friendships, and romantic relationships: Do they predict social anxiety and depression? *Journal of Clinical Child and Adolescent Psychology, 34*(1), 49-61.

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.

Moller, N.P., McCarthy, C.J. & Fouladi, R.T. (2002). Earned attachment security: Its relationship to coping resources and stress symptoms among college students following relationship breakup. *Journal of College Student Development, 43*(2), 213-230.

Monroe, S.M., Rhode, P., Seeley, J.R., & Lewsinson, 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*(4), 606-614.

Murray, S.L., Bellavia, G., Feeney, B., Holmes, J.G. & Rose, P. (2001_. The contingencies of interpersonal acceptance: When romantic relationships function as a self-affirmational resource. *Motivation and Emotion, 25*(2), 163-189.

Murray, S.L., Holmes, J.G., MacDonald, G. & Ellsworth, P.C. (1998). Looking through the looking glass darkly? When self-doubt turns into relationship insecurities. *Journal of Personality and Social Psychology, 75*(6), 1459-1480.

Oswald, D.L. & Clark, E.M. (2003). Best friends forever?: High school best friendships and the transition to college. *Personal Relationships, 10*, 187-196.

Paul, D.L. & Brier, E.M. (2001). Friendsickness in the transition to college: Precollege predictors and college adjustment correlates. *Journal of Counseling and Development, 79*, 77-89.

Radloff, L. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*(3), 385-401.

Rohlfing, M.E. (1995). "Doesn't anybody stay in the same place anymore?" An exploration of the under-studied phenomenon of long-distance relationships. *Under-studied relationships: off the beaten track* (pp. 173-196). Thousand Oaks, CA: Sage Publications.

Rook, K.S. (1987). Social support versus companionship: Effects on life stress, loneliness, and evaluations by others. *Journal of Personality and Social Psychology, 52*(6), 1132-1147.

Rosenberg, M. (1965). *Society and the adolescent self-image.* Princeton, NJ: Princeton University Press.

Rosenberg, M. (1989). *Society and the adolescent self-image*. Middletown, CT: Wesleyan University Press.

Russell, D., Peplau, L.A. & Ferguson, M.L. (1978). Developing a measure of loneliness. *Journal of Personality Assessment, 42*(3), 290-294.

Segrin, C., Powell, H.L., Givertz, M. & Brackin, A. (2003). Symptoms of depression, relational quality, and loneliness in dating relationships. *Personal Relationships, 10*, 25-36.

Shaver, P., Furman, W. & Buhrmester, D. (1986). Transition to college: Network changes, social skills, and loneliness. In S. Duck and D. Perlman (Eds.), *Understanding Personal Relationships: An Interdisciplinary Approach* (pp. 193-219). London: Sage.

Smith, H.S. & Cohen, L.H. (1993). Self-complexity and reactions to a relationship breakup. *Journal of Social and Clinical Psychology, 12*(4), 367-384.

Sprecher, S. (1994). Two sides to the breakup of dating relationships. *Personal Relationships, 1*, 199-222.

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*(6), 791-809.

Sprecher, S., Felmlee, D., Orbuch, T.L., & Willetts, M.C. (2002). Social networks and change in personal relationships. *Stability and change in relationships* (pp. 257-284). New York, NY: Cambridge University Press.

Sullivan, H.S. (1953). *The interpersonal theory of psychiatry*. New York, NY: W.W. Norton & Co., Inc.

Swift, A. & Wright, M.O. (2000). Does social support buffer stress for college women: When and how? *Journal of College Student Psychotherapy, 14*(4), 23-42.

Welsh, D.P., Grello, C.M. & Harper, M.S. (2003). When love hurts: Depression and adolescent romantic relationships. *Adolescent romantic relations and sexual behavior: Theory,*

research, and practical implications (pp. 185-211). Mahwah, NJ: Lawrence Erlbaum Associates.

Zimmer-Gembeck, M.J. (2002). The development of romantic relationships and adaptations in the system of peer relationships. *Journal of Adolescent Health, 31*, 216-225.

Appendix A

UCLA Loneliness Scale (Version 3)
(LS; Russell, Peplau & Ferguson, 1978)

(Note: the time frame participants answered about was the past two weeks)

	Never	Rarely	Sometimes	Always
1. How often do you feel that you are "in tune" with the people around you?	1	2	3	4
2. How often do you feel that you lack companionship?	1	2	3	4
3. How often do you feel that there is no one you can turn to?	1	2	3	4
4. How often do you feel alone?	1	2	3	4
5. How often do you feel part of a group of friends?	1	2	3	4
6. How often do you feel that you have a lot in common with the people around you?	1	2	3	4
7. How often do you feel that you are no longer close to anyone?	1	2	3	4
8. How often do you feel that your interests and ideas are not shared by those around you?	1	2	3	4
9. How often do you feel outgoing and friendly?	1	2	3	4
10. How often do you feel close to people?	1	2	3	4
11. How often do you feel left out?	1	2	3	4
12. How often do you feel that your relationships with others are not meaningful?	1	2	3	4
13. How often do you feel that no one really knows you well?	1	2	3	4
14. How often do you feel isolated from others?	1	2	3	4
15. How often do you feel you can find companionship when you want it?	1	2	3	4
16. How often do you feel that there are people who really understand you?	1	2	3	4
17. How often do you feel shy?	1	2	3	4

18. How often do you feel that people are around you but not with you?	1	2	3	4
19. How often do you feel that there are people you can talk to?	1	2	3	4
20. How often do you feel that there are people you can turn to?	1	2	3	4

Appendix B

Center for Epidemiological Studies Depression Scale
(CES-D; Radloff, 1977)

(Note: the time frame participants answered about was the past two weeks)
0 = Rarely or none of the time
1 = Some or little of the time
2 = Occasionally or a moderate amount of the time
3 = Most or all of the time

1. I was bothered by things that usually don't bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from my family or friends.
4. I felt that I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
14. I felt lonely.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt people disliked me.
20. I could not “get going".

Appendix C

Rosenberg Self-Esteem Scale
(Rosenberg, 1965)

1. On the whole, I am satisfied with myself.	SA A D SD
2. At times, I think I am no good at all.	SA A D SD
3. I feel that I have a number of good qualities.	SA A D SD
4. I am able to do things as well as most other people.	SA A D SD
5. I feel I do not have much to be proud of.	SA A D SD
6. I certainly feel useless at times.	SA A D SD
7. I feel that I'm a person of worth, at least on an equal plane with others.	SA A D SD
8. I wish I could have more respect for myself.	SA A D SD
9. All in all, I am inclined to feel that I am a failure.	SA A D SD
10. I take a positive attitude toward myself.	SA A D SD

Appendix D

Distress Index
(Sprecher, 1994)

Indicate the degree to which you experienced the following emotions **initially after the breakup**?

	Not at all			Somewhat			Extremely
Depression	1	2	3	4	5	6	7
Guilt	1	2	3	4	5	6	7
Anger	1	2	3	4	5	6	7
Hate	1	2	3	4	5	6	7
Frustration	1	2	3	4	5	6	7
Resentment	1	2	3	4	5	6	7
Loneliness	1	2	3	4	5	6	7
Jealousy	1	2	3	4	5	6	7
Hurt	1	2	3	4	5	6	7
Contentment	1	2	3	4	5	6	7
Love	1	2	3	4	5	6	7
Happiness	1	2	3	4	5	6	7
Satisfaction	1	2	3	4	5	6	7
Joy	1	2	3	4	5	6	7
Relief	1	2	3	4	5	6	7

Indicate the degree to which you **currently** experience the following emotions when you think about the breakup?

	Not at all			Somewhat			Extremely
Depression	1	2	3	4	5	6	7
Guilt	1	2	3	4	5	6	7
Anger	1	2	3	4	5	6	7
Hate	1	2	3	4	5	6	7
Frustration	1	2	3	4	5	6	7
Resentment	1	2	3	4	5	6	7
Loneliness	1	2	3	4	5	6	7
Jealousy	1	2	3	4	5	6	7
Hurt	1	2	3	4	5	6	7
Contentment	1	2	3	4	5	6	7
Love	1	2	3	4	5	6	7
Happiness	1	2	3	4	5	6	7
Satisfaction	1	2	3	4	5	6	7
Joy	1	2	3	4	5	6	7
Relief	1	2	3	4	5	6	7

Appendix E

Network of Relationships Inventory

(NRI; Furman & Buhrmester, 1985)

Please choose your most important SAME-SEX friend.

Most important friend's initials

How long has the relationship been? # of years: ;and months:

Is this most important same-sex friend:

- From High School
- From BGSU
- Other

Most Important Same-Sex Friend's Gender

- Male
- Female

Answer the following about your most important same sex friend using the appropriate scale:

0 = Not applicable	0 = Not Applicable
1 = Little or None	1 = S/he always does
2 = Somewhat	2 = S/he often does
3 = Very Much	3 = About the same
4 = Extremely Much	4 = I often do
5 = The Most	5 = I always do

How much free time do you spend with this person?

How much do you and this person get upset with or mad at each other?

How much does this person teach you how to do things that you don't know?

How much do you and this person get on each other's nerves?

How much do you talk about everything with this person?

How much do you help this person with things she/he can't do by her/himself?

How much does this person like or love you?

How much does this person treat you like you're admired and respected?

Who tells the other person what to do more often, you or this person?

How sure are you that this relationship will last no matter what?

How much do you play around and have fun with this person?

How much do you and this person disagree and quarrel?

How much does this person help you figure out or fix things?

How much do you and this person get annoyed with each other's behavior

How much do you share your secrets and private feelings with this person?

How much do you protect and look out for this person?

How much does this person really care about you?

How much does this person treat you like you're good at many things?

Between you and this person, who tends to be the BOSS in this relationship?

How sure are you that your relationship will last in spite of fights?

How often do you go places and do enjoyable things with this person?

How much do you and this person argue with each other?

How often does this person help you when you need to get something done?

How much do you and this person hassle or nag one another?

How much do you talk to this person about things that you don't want others to know?

How much do you take care of this person?

How much does this person have a strong feeling of affection (loving or liking) toward you?

How much does this person like or approve of the things you do?

In your relationship with this person, who tends to take charge and decide what should be done?

How sure are you that your relationship will continue in the years to come?

How often do you turn to this person for support with personal problems?

How often do you depend on this person for help, advice, or sympathy?

When you are feeling down or upset, how often do you depend on this person to cheer things up?

How satisfied are you with your relationship with this person?

How good is your relationship with this person?

How happy are you with the way things are between you and this person?

Appendix F

Companionship from Friendship Network
(Rook, 1987)

The following 6 questions ask about people you have done social things with.

In the past 3 months, have you:

	yes	no
Had someone over for a meal, or invited someone to go out for a meal?	☐	☐
Visited someone else's home for a meal or been invited to go out for a meal?	☐	☐
Had someone over for a visit (at your house)?	☐	☐
Visited someone at his/her home?	☐	☐
Went somewhere with someone (i.e., restaurant, movies, park)?	☐	☐
Met someone familiar at a public place? (for example, made arrangements to meet up with someone at an event, party, bar/restaurant, or shopping mall)	☐	☐

Please look over the 6 questions you just answered. In the space below, please list the initials of all your friends who you did any of those activities with over the past 3 months.

Table 1

Demographic Information for the Total Sample, Dissolution Group, and No Dissolution Group

		Total Sample (N = 141)	Dissolution Group (N = 34)	No Dissolution Group (N = 107)
Gender	Males	20.6%	11.8%	23.4%
	Females	79.4%	88.2%	76.6%
Age	18 years old	83.7%	85.3%	83.2%
	19 years old	15.6%	14.7%	15.9%
	20 years old	0.7%	0.0%	0.9%
Ethnicity	Af. American	6.4%	8.8%	5.6%
	Caucasian	89.4%	88.2%	89.7%
	Asian-American	0.7%	0.0%	0.9%
	Latino	2.8%	2.9%	2.8%
	Other	0.7%	0.0%	0.9%
Total Family	< $10,000	1.4%	0.0%	1.9%
Income	$10,000-$20,000	2.1%	2.9%	1.9%
	$20,000-$30,000	1.4%	2.9%	0.9%
	$30,000-$40,000	5.0%	5.9%	4.7%
	$40,000-$50,000	9.9%	5.9%	11.2%
	> $50,000	35.2%	29.4%	36.4%
	Not Sure	44.4%	52.9%	42.1%
	Missing	0.7%	0.0%	0.9%
Impossible to	Yes	69.5%	73.5%	68.2%
See Parents	No	29.8%	26.5%	30.8%
Daily?	Missing	0.7%	0.0%	0.9%

		Total Sample (N = 141)	Dissolution Group (N = 34)	No Dissolution Group (N = 107)
Sexual Orientation	Heterosexual	92.9%	91.2%	93.5%
	Homosexual	2.8%	5.9%	1.9%
	Bisexual	3.5%	2.9%	3.7%
	Missing	0.7%	0.0%	0.9%
Major	Education	28.4%	29.4%	28.0%
	Human Service	24.1%	23.5%	24.3%
	Arts/Sciences	19.9%	11.8%	22.4%
	Musical Arts	2.1%	2.9%	1.9%
	Business	9.2%	5.9%	10.3%
	Undecided	14.9%	23.5%	12.1%
	Technology	1.4%	2.9%	0.9%
High School GPA	2.00 -2.49	0.7%	2.9%	0.0%
	2.50-2.99	12.8%	14.4%	12.1%
	3.00-3.49	38.3%	34.4%	39.3%
	3.50-3.99	35.5%	31.6%	37.4%
	4.0 and above	12.1%	14.3%	11.2%
	Missing	0.7%	2.9%	0.0%

Table 2

Means and Standard Deviations for Adjustment Measures

Independent Variable	Total Sample (N = 141)		Dissolution (N = 34)		No Dissolution (N = 107)		
	Mean	SD	Mean	SD	Mean	SD	t
1. Baseline Depression	16.57	10.72	21.15	12.04	15.12	9.89	2.94**
2. Baseline Loneliness	38.77	10.87	41.41	11.31	37.94	10.64	1.62
3. Baseline Self-Esteem	20.44	5.36	20.38	4.60	20.45	5.60	-.10
4. Outcome Depression	18.05	10.64	20.41	11.18	17.30	10.40	1.49
5. Outcome Loneliness	40.68	11.25	42.76	10.93	40.01	11.32	1.27
6. Outcome Self-Esteem	18.91	6.62	18.23	6.75	19.13	6.60	-.69

** $p<.01$.

Table 3

Correlations for Baseline Adjustment Measures and Dissolution Status

Independent Variable	1	2	3	4
1. Baseline Depression	--			
2. Baseline Loneliness	.63**	--		
3. Baseline Self-Esteem	-.51**	-.62**	--	
4. Dissolution Status	-.24**	-.14	.01	--

** $p<.01$.

Table 4

Hierarchical Regression Analysis Summary for Dissolution Status and Baseline Adjustment Predicting Outcome Adjustment

DV	IV	β	$\triangle R^2$	R^2
Self Esteem T2				
Step 1				
	Self Esteem T1	.653**	.427	.427
Step 2				
	Self Esteem T1	.653**		
	BUP Status	.056	.003	.430
Step 3				
	Self Esteem T1	-.005		
	BUP Status	.057		
	Self Esteem T1*BUP Status	.672*	.019	.449
Depression T2				
Step 1				
	Depression T1	.602**	.362	.362
Step 2				
	Depression T1	.606**		
	BUP Status	.018	.300	.362
Step 3				
	Depression T1	.375		
	BUP Status	.003		
	Depression T1* BUP Status	.237	.004	.366
Loneliness T2				
Step 1				
	Loneliness T1	.722**	.521	.521
Step 2				
	Loneliness T1	.720**		
	BUP Status	-.011	.000	.521
Step 3				
	Loneliness T1	.320		
	BUP Status	-.027		
	Loneliness T1* BUP Status	.411^{+}	.010	.531

$^{+}p<.10$; *$p<.05$; **$p<.01$.

Table 5
Post-Hoc Regression Analysis Summary for Significant Interactions between Dissolution Status and Baseline Adjustment

DV	IV	Moderator	B (Status)	p (Status)
Self Esteem T2	Breakup Status	Self Esteem (-1 SD)	-1.508	.308
		Self Esteem (+1 SD)	3.258*	.030
Loneliness T2	Breakup Status	Loneliness (-1 SD)	-3.315	.160
		Loneliness (+1 SD)	1.887	.348

Note. In the breakup status variable, 1 = Breakup and 2 = No Breakup.

*$p < .05$.

Table 6

Means and Standard Deviations for Adjustment and Social Support Measures for Dissolution Sample

Independent Variable	Mean	SD
1. Baseline Depression	21.15	12.04
2. Baseline Loneliness	41.41	11.31
3. Baseline Self-Esteem	20.38	4.60
4. Social Support (NRI Pos)	8.57	2.77
5. Negative Interactions (NRI Neg)	1.93	2.40
6. Density of Network	9.03	6.84
7. Outcome Depression	20.41	11.18
8. Outcome Loneliness	42.76	10.93
9. Outcome Self-Esteem	18.23	6.75

Table 7

Correlations for Baseline Adjustment Measures and Social Support Measures

Variable	1	2	3	4	5	6
1. Baseline Depression	--					
2. Baseline Loneliness	.60**	--				
3. Baseline Self-Esteem	-.33	-.61**	--			
4. Supportive Interactions (NRI Pos)	-.18	-.32	.16	--		
5. Negative Interactions (NRI Neg)	.26	.34	-.25	-.19	--	
6. Density of Network	-.59**	-.64**	.44*	.22	-.22	--

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

Table 8

Hierarchical Regression Analysis Summary for Density of Network and Baseline Adjustment Predicting Overall Outcome Adjustment

DV	IV	β	$\triangle R^2$	R^2
Self Esteem T2				
Step 1				
	Self Esteem T1	.297^{+}	.088	.088
Step 2				
	Self Esteem T1	.198		
	Density of Network	.225	.041	.129
Step 3				
	Self Esteem T1	.282		
	Density of Network	.151		
	Self Esteem T1*Num. in Ntwk.	.337^{+}	.107	.235
Depression T2				
Step 1				
	Depression T1	.546**	.275	.298
Step 2				
	Depression T1	.474*		
	Density of Network	-.123	.262	.308
Step 3				
	Depression T1	.427*		
	Density of Network	-.140		
	Depression T1*Num. in Ntwk.	-.098	.245	.316
Loneliness T2				
Step 1				
	Loneliness T1	.584**	.341	.341
Step 2				
	Loneliness T1	.339^{+}		
	Density of Network	-.385*	.089	.430
Step 3				
	Loneliness T1	.301		
	Density of Network	-.405*		
	Loneliness T1* Num. in Ntwk.	-.094	.008	.438

$^{+}p<.10$; *$p<.05$; **$p<.01$.

Table 9

Hierarchical Regression Analysis Summary for Density of Network and Baseline Adjustment Predicting Dissolution-Specific Adjustment

DV	IV	β	$\triangle R^2$	R^2
BUP Distress-I				
Step 1				
	Loneliness T1	.385*	.148	.148
Step 2				
	Loneliness T1	.272		
	Density of Network	-.178	.019	.167
Step 3				
	Loneliness T1	.326		
	Density of Network	-.151		
	Loneliness T1*Num. in Ntwk.	.134	.016	.183
BUP Distress-D				
Step 1				
	Loneliness T1	.377*	.142	.142
Step 2				
	Loneliness T1	.253		
	Density of Network	-.196	.023	.165
Step 3				
	Loneliness T1	.274		
	Density of Network	-.185		
	Loneliness T1*Num. in Ntwk.	.054	.003	.168

*p< .05.

Table 10

Hierarchical Regression Analysis Summary for Supportive Interactions and Baseline Adjustment Predicting Overall Outcome Adjustment

DV	IV	β	$\triangle R^2$	R^2
Self Esteem T2				
	Step 1			
	Self Esteem T1	.299	.089	.089
	Step 2			
	Self Esteem T1	.305^{+}		
	Supportive Interactions	-.042	.002	.091
	Step 3			
	Self Esteem T1	.295^{+}		
	Supportive Interactions	.050		
	Self Esteem T1*Sup. Int	-.413*	.162	.253
Depression T2				
	Step 1			
	Depression T1	.548**	.300	..300
	Step 2			
	Depression T1	.510**		
	Supportive Interactions	-.216	.045	.345
	Step 3			
	Depression T1	.538**		
	Supportive Interactions	-.246		
	Depression T1*Sup. Int	.140	.018	.363
Loneliness T2				
	Step 1			
	Loneliness T1	.591**	.350	.350
	Step 2			
	Loneliness T1	.544**		
	Supportive Interactions	-.147	.019	.369
	Step 3			
	Loneliness T1	.509**		
	Supportive Interactions	-.141		
	Loneliness T1*Sup. Int	-.171	.028	.397

$^{+}p<.10$; *$p<.05$; **$p<.01$.

Table 11

Hierarchical Regression Analysis Summary for Supportive Interactions and Baseline Adjustment Predicting Dissolution-Specific Adjustment

DV	IV	β	$\triangle R^2$	R^2
BUP Distress-I				
Step 1				
	Loneliness T1	.365*	.133	.133
Step 2				
	Loneliness T1	.337^{+}		
	Supportive Interactions	-.087	.007	.140
Step 3				
	Loneliness T1	.393*		
	Supportive Interactions	-.097		
	Loneliness T1*Sup. Int.	.279	.074	.214
BUP Distress-D				
Step 1				
	Loneliness T1	.336^{+}	.113	.113
Step 2				
	Loneliness T1	.277		
	Supportive Interactions	-.182	.030	.142
Step 3				
	Loneliness T1	.326^{+}		
	Supportive Interactions	-.191		
	Loneliness T1*Sup. Int.	.243	.056	.199

$^{+}p<.10$; $*p< .05$.

Table 12
Hierarchical Regression Analysis Summary for Negative Interactions and Baseline Adjustment Predicting Overall Outcome Adjustment

DV	IV	β	$\triangle R^2$	R^2
Self Esteem T2				
Step 1				
	Self Esteem T1	.299^{+}	.089	.089
Step 2				
	Self Esteem T1	.325^{+}		
	Negative Interactions	.108	.011	.100
Step 3				
	Self Esteem T1	.349^{+}		
	Negative Interactions	.151		
	Self Esteem T1*Neg. Int.	.062	.002	.102
Depression T2				
Step 1				
	Depression T1	.548**	.300	.300
Step 2				
	Depression T1	.549**		
	Negative Interactions	-.006	.000	.300
Step 3				
	Depression T1	.562**		
	Negative Interactions	-.081		
	Depression T1*Neg. Int.	.086	.002	.302
Loneliness T2				
Step 1				
	Loneliness T1	.591**	.350	.350
Step 2				
	Loneliness T1	.582**		
	Negative Interactions	.029	.001	.350
Step 3				
	Loneliness T1	.669**		
	Negative Interactions	-.214		
	Loneliness T1*Neg. Int.	.262	.016	.367

$^{+}p<.10$; **$p<.01$.

Table 13

Hierarchical Regression Analysis Summary for Negative Interactions and Baseline Adjustment Predicting Dissolution-Specific Adjustment

DV	IV	β	$\triangle R^2$	R^2
BUP Distress-I				
Step 1				
	Loneliness T1	.365*	.133	.133
Step 2				
	Loneliness T1	.443*		
	Negative Interactions	-.232	.048	.181
Step 3				
	Loneliness T1	.442*		
	Negative Interactions	-.230		
	Loneliness T1*Neg. Int.	-.002	.000	.181
BUP Distress-D				
Step 1				
	Loneliness T1	.336^{+}	.113	.113
Step 2				
	Loneliness T1	.449*		
	Negative Interactions	-.337^{+}	.101	.213
Step 3				
	Loneliness T1	.598**		
	Negative Interactions	-.751*		
	Loneliness T1*Neg. Int.	.448	.048	.261

$^{+}p<.10$; *$p<.05$; **$p<.01$.

Table 14

Post-Hoc Regression Analysis Summary for Significant Interactions between Dissolution Status and Baseline Adjustment

DV	IV	Moderator	B (Support)	p (Support)
Self Esteem T2	Social Support	Self Esteem (-1 SD)	1.018^{+}	.094
		Self Esteem (+1 SD)	-.753	.117
Self Esteem T2	Density of Network	Self Esteem (-1 SD)	-.270	.384
		Self Esteem (+1 SD)	.563*	.030

Note. In the breakup status variable, 1 = Breakup and 2 = No Breakup.

$^{+}p<.10$; *$p< .05$.

Figure 1. Plots of Simple Slopes for Low and High T1 Self Esteem of the Regression of T2 Self Esteem on Dissolution Status.

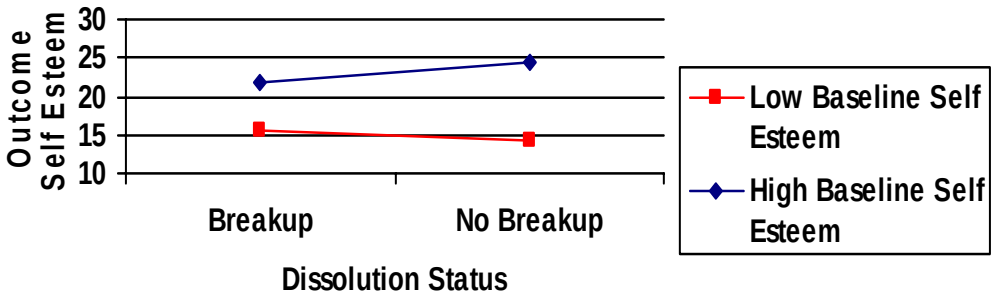

Figure 2. Plots of Simple Slopes for Low and High T1 Loneliness of the Regression of T2 Loneliness on Dissolution Status.

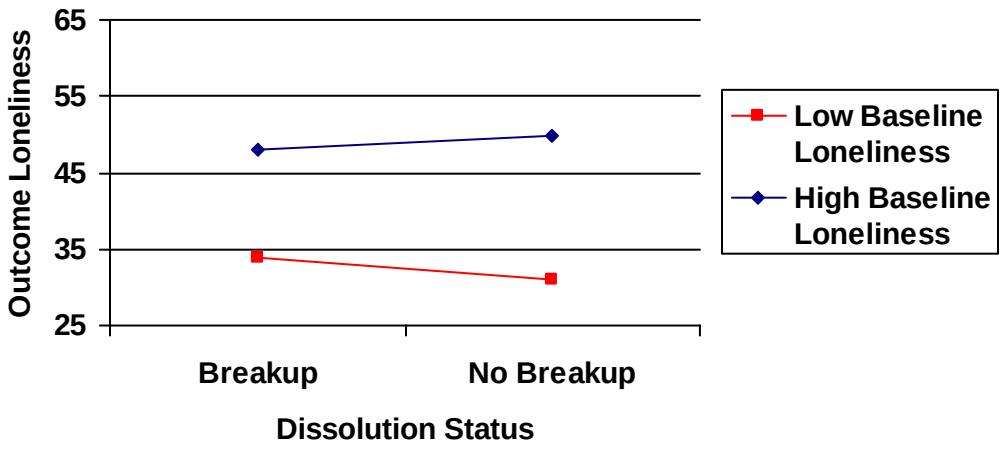

Figure 3. Plots of Simple Slopes for Low and High T1 Self Esteem of the Regression of T2 Self Esteem on Support.

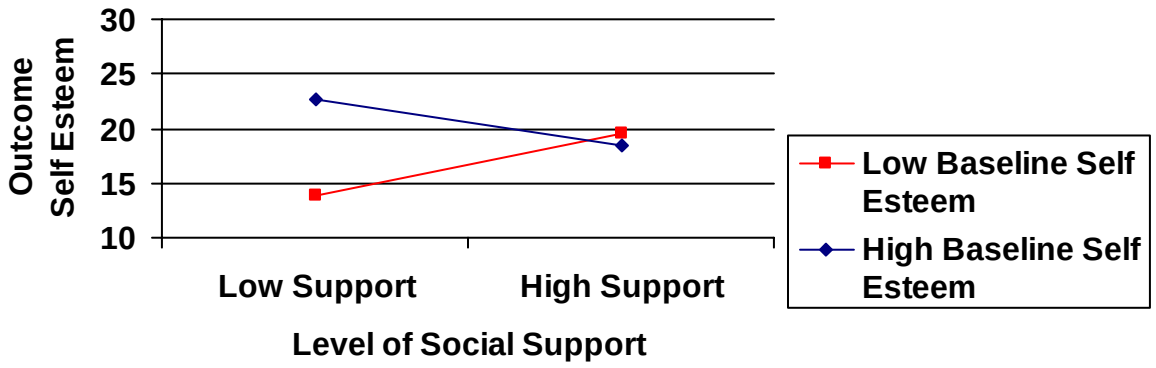

Figure 4. Plots of Simple Slopes for Low and High T1 Self Esteem of the Regression of T2 Self Esteem on Density of Peer Network.