

Exploring the Role of Different Forms of Support Linked to Adolescent Romantic
Relationships

by

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ABSTRACT

Receiving support from intimate others is important to individual well-being across the lifespan. However, the role of support in adolescent romantic relationships has not been investigated extensively. Using two studies, this dissertation utilized data from $N = 111$ adolescent couples collected as part of the Adolescents, Schools, Peers, and Interpersonal Relationships (ASPIRE) to investigate the implications of support for adolescents' relationship quality, and positive behavioral adjustment. The first study expanded on existing research by investigating whether support given in response to a partner's experience of a stressful event, and gauged from the perspective of the support recipient, was associated with the quality of adolescents' romantic relationships. The study, further investigated whether the association between support and relationship quality changed depending on stress levels experienced due to the stressful event. Results from the dyadic process multilevel model showed that support receipt was associated with increased relationship quality on the same day and that this association was moderated by stress. Results imply that support processes engaged in by adolescents may operate in a similar manner as they do for adults. Implications for the research literature are discussed.

The second study examined the role of parental support in adolescents' romantic relationships. Although, research indicates parents continue to play an important role in the socialization of their children during the adolescent years, very little is known about the role of parenting practices in the domain of adolescent romantic relationships. Study two used longitudinal data to investigate the influence of parental support of adolescent romantic relationships and parental trust on adolescents' disclosure of information about

romantic relationships and adolescent problem behaviors. Results of the Actor Partner Interdependence Model indicated that parental support of romantic relationships but not parental trust was associated with increases in adolescent romantic relationship disclosure at time one, and decreases in problem behaviors at time two. Furthermore, important sex differences emerged. Sex differences and implications for parents of adolescents are discussed.

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TABLE OF CONTENTS

	Page
LIST OF TABLES.....	vii
LIST OF FIGURES.....	viii
INTRODUCTION.....	1
STUDY 1: AN ECOLOGICAL INVESTIGATION OF THE ASSOCIATION BETWEEN SUPPORT RECEIPT AND RELATIONSHIP QUALITY AMONG ADOLESCENT COUPLES.....	5
Theoretical Framework.....	6
Defining Support.....	7
Support and Relationship Quality.....	9
Support and Relationship Quality among Adolescent Couples.....	10
Degree of Perceived Stress as a Moderator.....	12
The Current Study.....	12
Methods.....	13
Participants.....	13
Procedures.....	15
EMA Measures.....	17
Controls.....	18
Analytic Approach.....	20
Results.....	23
Fixed Effects.....	23
Random Effects.....	25

	Page
Discussion.....	26
Control Effects.....	29
Limitations.....	31
Conclusion.....	33
STUDY 2: PARENTING ADOLESCENTS IN THE CONTEXT OF ROMANTIC	
RELATIONSHIPS: THE ROLE OF SUPPORT AND TRUST IN ADOLESCENT	
ROMANTIC DISCLOSURE AND PROBLEM BEHAVIOR	
PARTICIPATION.....	35
Adolescent Romantic Relationship Disclosure.....	37
Parental Support, Parental Trust, and Romantic Relationship Disclosure.....	40
Adolescent Romantic Relationship Disclosure and Problem Behaviors.....	43
Mediated Effects of Parental Support and Trust on Problem Behaviors.....	45
Sex as a Moderator.....	46
The Current Study.....	47
Methods.....	48
Participants.....	48
Procedures.....	50
Measures.....	51
Control Variables.....	53
Analysis Strategy.....	54
Results.....	56
Descriptive Statistics.....	56

	Page
Hypothesis Testing.....	57
Discussion.....	62
Parental Support of Romantic Relationships, Romantic Relationship Disclosure and Problem Behaviors.....	63
Parental Trust, Romantic Relationship Disclosure and Problem Behaviors.....	66
Limitations.....	68
Future Research.....	70
Conclusion.....	71
GENERAL DISCUSSION.....	71
REFERENCES.....	75
APPENDIX	
A TABLES.....	84
B FIGURES.....	91

LIST OF TABLES

Table	Page
1. Estimated Means and Standard Deviations of Study Variables by Gender.....	85
2. Dyadic Process Multilevel Analysis Results Relating Twice Weekly Support Receipt to Relationship Quality for Heterosexual Adolescent Couples: Fixed Effects.....	86
3. Dyadic Process Multilevel Analysis Results Relating Twice Weekly Support Receipt to Relationship Quality for Heterosexual Adolescent Couples: Random Effects.....	87
4. Estimated Means and Standard Deviations of Study Variables by Gender.....	88
5. Correlations Between all Study Variables by Gender.....	89
6. Structural Invariance Indices Indicating Differences In The Associations Between Study Variables Based On Biological Sex.....	90

LIST OF FIGURES

Figure	Page
1. Conceptual Model Illustrating Possible Associations between Support and Relationship Quality in the Face of a Stressor and as Moderated by the Degree of Stress.....	92
2. Proposed Statistical Model Representing the Associations among Adolescent Couples' Support Receipt, Stress and Relationship Quality.....	93
3. The Effect of Support Receipt on Relationship Quality at Different Levels of Stress.....	94
4. Conceptual Model Representing the Relationships Between Parental Trust, Parental Support of Romantic Relationship and Problem Behavior.....	95
5. Proposed Statistical Model Representing the Associations among Adolescent Couples' Time One Measures of Perceived Parental Support of Romantic Relationships, Perceived Parental Trust, Romantic Relationship Disclosure, and the Time Two Outcome Problem Behavior.....	96
6. Study Timeline.....	97
7. Actor–Partner Interdependence Model Representing the Associations among Adolescent Couples' Time One Measures of Perceived Parental Support of Romantic Relationships, Perceived Parental Trust, Romantic Relationship Disclosure, and the Time Two Outcome Problem Behavior.....	98

Introduction

Up until the last 20 years, there has been a perception among researchers that adolescent romantic relationships are inconsequential and trivial (Brown, Feiring, & Furman, 1999). However, researchers have shown that the romantic relationships of adolescents are important developmental experiences that have implications for the success of later romantic pairings (Seiffge-Krenke & Lang, 2002), and positive behavioral adjustment (Neeman, Hubbard, & Masten, 1995). Specifically, there is evidence that the quality of romantic relationships in middle adolescents (15-17) is related to increased romantic relationship commitment in young adulthood (Seiffge-Krenke & Lang, 2002). At the same time, some researchers have shown that romantic relationship participation and involvement can be maladaptive and lead to problem behavior among adolescents such as poor academic performance (Neeman et al., 1995), and substance abuse (Davies & Windle, 2000). Considering these two varied but important outcomes of adolescent romantic relationships, it seems prudent to; (1) investigate factors which promote adolescent romantic relationship quality, and (2) examine ways through which adolescent problem behavior—that may be correlated with romantic relationship participation—can be delimited. Literature within the broad field of adolescent romantic relationships suggests that support provided by partners and parents may be a key factor in addressing both of these foci.

Social relationships and support have been identified as important to the well-being of individuals across the life-span (e.g., House, Landis, & Umberson, 1988; Uchino, 2009). Researchers have shown, for example, that support from intimate others promotes physical (Wallston, Alagna, DeVellis, & DeVellis, 1983) and mental health in

the elderly (Kawachi & Berkman, 2001), fosters close and satisfying relationships among married or cohabiting couples (Cramer, 2006; Gleason, Iida, Shrout & Bolger, 2008), and is associated with reduced problem behavior in adolescents (Soenens, Vansteenkiste, Luyckx, & Goossens, 2006). Romantic relationships in particular are an area of human experience where support behaviors have garnered a great deal of research attention (Brunstein, Dangelmayer, & Schultheiss, 1996; Campbell, Simpson, Boldry, & Kashy, 2005; Cramer, 2004a; Cramer, 2006; Cutrona, 1996). Most of the research that explores the value of support in romantic relationships has focused on marital or other committed adult romantic relationships, and there has been relatively little attention on understanding social support processes in adolescent romantic relationships.

Adolescent romantic relationships are distinctly different from committed adult relationships. Perhaps the most obvious way in which adolescent romantic relationships are unique from adults is the fact that they represent a novel experience for adolescents. Adolescence is typically the stage of development during which participation in romantic relationships begins (Collins, Welsh, & Furman, 2009; Meir & Allen, 2009). In early adolescence, youth begin to learn about romantic relationships, such as how to initiate a romantic relationship and how to interact with romantic partners (Christopher, Poulsen, & McKenney, 2015). At age 16 most adolescents have experienced at least one romantic relationship, though the majority of these relationships end within a year (Carver, Joyner, & Udry, 2003). By middle to late adolescence, youth express desires for closeness, compatibility, intimacy, and companionship with romantic partners that are similar to romantic relationships of adults (Levesque, 1993; Waldinger et al., 2002). Still, Seiffge-Krenke (2003) has shown that adolescents report steady increases in romantic

relationship quality from ages 13 to 17, and that average relationship duration increases from less than a year at age 17 to 21.3 months by age 21. Thus, adolescence is a period when romantic relationships are developing, and adolescents are still learning how to interact with relational partners. Consequently, although support is an important indicator in the quality of adult romantic relationships (Gleason et al., 2008), investigating whether and how support may influence the quality of adolescent relationships is important in understanding how to promote adolescent romantic relationship quality, and thereby influence the likelihood of successful relationships in adulthood.

Another distinct feature of adolescents' romantic relationships from adult relationships is that they are under the purview of parents. Although adolescents tend to decrease in their levels of interdependence and closeness with parents as they become more involved in romantic relationships (Laursen & Williams, 1997), most adolescents still live with their parents, and are under their parents' supervision. Furthermore, parents can still have significant influence in adolescents' lives through and being supportive (Barber, Stolz, Olsen, Collins, & Burchinal, 2005). Unfortunately, despite the fact that romantic relationships can lead to participation in problem behavior (Davies & Windle, 2000; Neeman et al., 1995), and are an area of concern for parents (Kan, McHale, & Crouter, 2008), little research has focused on whether parental support can influence adolescents' behavior as it pertains to romantic relationships. Research in this area is important however, as behaviors associated with adolescent romantic relationships may be particularly difficult for parents to influence (Rote & Smetana, 2015). This is because adolescents are less likely to disclose information to parents about romantic relationships (Noller & Bagi, 1985), and when parents do not know what adolescents are doing they

are poorly equipped to influence their offsprings' behavior (Racz & McMahon, 2011). Thus, while researchers have shown that parental support is an important factor associated with increased adolescent disclosure (Soenens et al., 2006) and decreased problem behavior (Barber et al., 2005), no studies to date have investigated the associations between parental support, adolescent disclosure, and problem behaviors in the context of adolescent romantic relationships.

In keeping with the understanding that adolescent romantic relationships are potential influences of later romantic commitment (Seiffge-Krenke & Lang, 2002), and at the same time may lead to maladaptive behaviors (Neeman et al., 1995), in the following pages I propose two investigations. The first study explores how support processes related to adolescent romantic relationships may promote healthy adolescent romantic relationship outcomes. The second study examines how supportive parenting promotes adolescents' willingness to disclose information relative to romantic relationships and in so doing may be associated with decreased adolescent problem behaviors. Both investigations will be conducted utilizing data collected from $N = 111$ adolescent couples recruited through schools, social media, and in-person solicitation at approved community locations.

Study 1: An Ecological Investigation of the Association between Support Receipt and Relationship Quality among Adolescent Couples

The period from 15-18 years of age is a particularly formative period for adolescents when it comes to romantic relationships. During this period, increasing numbers of adolescents become involved in dating, their relationships last longer (Carver, et al, 2003), and their motivations for partnering transition from being status driven or socially motivated to being focused on characteristics of the partner that foster intimacy and compatibility (Zani, 1993). Some research even shows that this period of mid to late adolescence is the point at which romantic couples begin to resemble adults in areas such as desire for closeness, compatibility, intimacy, and companionship (Waldinger et al., 2002). These findings suggest that during mid to late adolescence, certain dyadic processes that foster intimacy, closeness and overall relationship quality may begin to operate in adolescent relationships much like they do for their adult counterparts. One such process that has been investigated in the emerging adult romantic and marital relationships literature, but not extensively among adolescents, is the manner in which individuals' perceptions of receiving support from their partner is associated with global relationship outcomes such as judgments about relationship quality (Cutrona, 1996). Given that adolescent romantic relationship experiences are associated with later relationship success (Seiffge-Krenke & Lang, 2002), investigating how support behavior impacts relationship outcomes among adolescent couples is important for understanding long term romantic relationship development. Thus, the current study is conducted with the purpose of understanding whether adolescents' perceptions of daily support from their romantic partners influences the quality of their romantic relationships as it has been shown to do for married and emerging adult dating couples.

Theoretical Framework

A theoretical perspective that is helpful in conceptualizing the link between support and relationship quality has been proposed by Reis, Clark, and Holmes (2004). They have suggested that closeness and intimacy in romantic relationships, two important indicators of relationship quality, arise as a direct result of the perception that one's partner is responsive to one's own goals, needs, dispositions, and values. They refer to this as *perceived partner responsiveness to the self*. Although, there are a variety of circumstances in which individuals may perceive responsiveness from a partner, receiving support during stressful life events is a common way that responsiveness is conceptualized in the literature. This literature emphasizes that the presence of a need, such as a stressor, is a necessary prerequisite for support to be evaluated as an act of responsiveness (Maisel & Gable, 2009; Gleason, et al. 2008).

Reis et al.'s (2004) model of perceived partner responsiveness further suggests that partner responsiveness may impact relationship outcomes differentially depending on the extent to which individuals expects their partners to be supportive under the circumstances. In other words, the judgment of whether support is warranted for a given *stressor* may depend in part on the degree of *stress* the partner experienced concomitant with the *stressor*. For example, it might be expected that an individual's perception of support enacted by a partner in the face of a *stressor* that results in high stress, such as parents' divorce, would have a different impact on relationship quality than support enacted in the face of a *stressor* that results in low stress such as being late for school. Given these assumptions of Reis et al.'s (2004) perceived partner responsiveness, I offer the conceptual model in Figure 1 which proposes that support received from a romantic

partner subsequent to an event that an adolescent appraises as stressful will result in increased relationship quality. Furthermore, the extent to which the received support increases relationship quality will depend on how stressful the event was perceived to be.

Using bi-weekly measures of partner support receipt, stress, and relationship quality collected individually from adolescent romantic partners using Ecological Momentary Assessments (EMAs), the current study seeks to achieve the following goals; (1) examine whether the support adolescents receive from their partner in the face of stressors is associated with their own reports of relationship quality, and (2) to examine whether support is associated with relationship quality differentially depending on whether daily stressors they report are perceived as producing high versus low stress.

The contribution of this investigation to the adolescent romantic relationship literature is valuable for multiple reasons. First, examination of these goals is important to understanding how receiving support from a romantic partner may impact adolescents' assessment of their relationship quality. The current study is unique in examining this association using an adolescent sample and will provide an indication as to whether the association mirrors those observed among married and emerging adult dating individuals. Second, the use of an EMA design to examine this association, while not entirely unique, is uncommon in the literature and provides a look into support behaviors and relationship quality assessments in a manner that accounts for the ecological contexts of the actual behaviors.

Defining Support

In a broad sense, support has been defined as “a process of interaction in relationships which improves coping, esteem, belonging, and competence through actual

or predictable exchanges of practical or psychological resources.” (Gottlieb, 1994, p. 309). Such a broad definition allows support to be conceptualized in a variety of ways. To provide clarity, Barrera (1986) proposed that support could be classified into the three categories of social embeddedness, perceived support, and enacted support. Social embeddedness refers to how connected individuals are socially, and the extent to which they have access to other individuals who would be available to them in times of distress. Social embeddedness is a structural measure of a person’s network, rather than an evaluation of whether that network actually offers support to an individual. In contrast, the concept of perceived support focuses on what individuals perceive as actually available to them in the event they experience distress. Perceived support may also measure how adequate individuals deem their support resources to be. Enacted support is a measure of actual support provided by an individual and is focused on assessing behaviors that are intended to help a person in times of stress. Although enacted support may be measured objectively by independent observers (Suhr, Cutrona, Krebs, & Jensen, 2004), it is most commonly measured from the perspective of the support recipient, in which case it is commonly referred to as support receipt (Barrera, Sandler & Ramsay, 1981; Gleason et al., 2008). Barrera (1986) suggests that “measures of enacted support are suitable for gauging the responsiveness of others in rendering assistance when subjects are confronted with stress” (Barrera, 1986, p. 417). In the current study, it is the concept of enacted support given in response to a partner’s stressful event that is of interest.

Support and Relationship Quality

As noted previously, the relationship between partner support and romantic relationship quality is well founded in adult populations. For example, Sullivan, Pasch, Johnson, and Bradbury's (2010) research investigating how support behaviors predicted relationship quality and stability over time showed that initial levels of support behaviors were related to relationship satisfaction and dissolution 10 years later in a sample of married couples. They measured partners' emotional support using observational coding in a laboratory session in which married participants were asked to talk about something they would like to change about themselves. Similar findings have been found using emerging adult samples and self-report measures of support (see Cramer, 2004a; Cramer, 2004b; Cramer, 2006; Sanderson & Cantor, 1997) as well as European samples (Brunstein et al., 1996). Although the literature indicates a consistent association between support and relationship outcomes for adult relationships, most studies ask participants to report on their receipt of support by thinking retrospectively or answering generally about their support receipt.

Relatively few studies have investigated support from romantic partners in the face of actual stressful life events, or used diary measures to investigate the association between support receipt and relationship quality (cf. Gleason et al., 2008). One such study, conducted by Gleason et al. (2008), followed law students who were married or cohabiting for five weeks before, during, and shortly after taking their bar exams. The imminence associated with taking the bar exam provided a context of daily stress. Analysis of daily diaries measuring support receipt each day for a month leading up to the exam indicated that on the days when law students received support from romantic

partners, the feelings of closeness with their partner were higher the following day. In another example, Campbell et al. (2005) collected diary data each day for 14 days from college dating couples and found that the frequency of supportive events reported by participants was associated with increases in daily relationship quality and security. Support receipt was measured by asking participants to report how often they had experienced support that day from their partner.

Support and Relationship Quality among Adolescent Couples

Although the studies reviewed establish a link between partner support and relationship quality for married and adult dating couples, there is no research to date that establishes this same link for adolescent dating couples. The fact that romantic partners are a valued source of support for adolescents is not in question. Research has shown that among middle adolescents only close friends provide more support than romantic partners (Furman & Buhrmester, 1992). Still, it is unclear whether this support has the same association with adolescents' relationship quality as it does for dating adults and married individuals. Some promising research findings from the adolescent dating literature provide a basis for suggesting that middle adolescents are already beginning to seek and form relationships that mimic those of adults in some respects.

For example, by age 16 over half of adolescents report having been in a romantic relationship, and by age 18 this number surpasses 70%. As well, about 35% of 15-16 year olds, and 50% of 17-18 year olds report having relationships that lasted 11 months or longer (Carver et al., 2003). In addition to these behavioral indicators that adolescents are increasing interdependence as they move through adolescence, stage models of romantic development and the related empirical work suggest that adolescents'

motivations for being in romantic relationships, and how they think romantic relationships operate are developing as well.

For example, recent research has shown that adolescents and adults alike indicate that intimacy is their primary motive for seeking a relationship as compared to other motives such as gaining social status (Zimmer-Gembeck, Hughes, Kelly, & Connolly, 2012). Longitudinal research has shown that such motivations for engaging in romantic relationships are fairly stable from mid adolescence into adulthood (Waldinger et al., 2002). Additionally, by age 17 individuals' impressions of how commitment, communication, and companionship impact relationship quality resemble those of adults (Levesque, 1993). Thus, research findings to date suggest that mid to late adolescents are developing a level of dating interdependence such that partner support may be associated with relationship quality much like it is in adult relationships. These findings also provide a basis for suggesting that the association between support and relationship quality operates in adolescent partnerships much the same as it does in emerging adult and married partnerships.

More specifically, as the adolescent literature contains no empirical equivalent to the finding that enacted partner support is associated with increases in relationship quality, the current study seeks to fill the gap in the literature by testing whether the association between enacted partner support and relationship quality will hold for adolescents in the same way it has been reported in studies focused on adult populations. Furthermore, research establishing the link between partner support and relationship quality to date has typically measured general perceptions of support (Cramer, 2006), with only a few studies investigating daily perceptions of support. The current study

follows the precedent set by Campbell et al. (2005) and Gleason et al. (2008) and investigates how adolescents' support receipt in the face of a stressor, reported twice weekly, is associated with relationship quality on those days. Using this approach will provide a more ecologically valid assessment of how enacted support is associated with relationship quality in an adolescent population.

Degree of Perceived Stress as a Moderator

As discussed earlier, and as applied to the current study, Reis et al.'s (2004) view of *perceived responsiveness of the partner* supports a conceptualization of the association between support and relationship quality as a main effect with stress acting as the moderator of the support/well-being association. Reis et al. (2004) suggest that the association between partner responsiveness and relationship outcomes differ depending on the extent to which a recipient feels support is warranted under the circumstances. Although I do not specifically measure whether recipients feel support is warranted, I speculate that under conditions of high stress recipients will have a greater expectation of support and consequently interpret the support as more responsive. Thus, for a given *stressor*, the association between support and relationship quality would differ depending on the degree of *stress* the recipient experienced concomitant with the *stressor*.

The Current Study

Building on past research showing a clear association between receiving support from a partner and enhanced relationship quality for emerging adults and married couples, the current study used bi-weekly Ecological Momentary Assessments (EMA) assessments gathered from 111 adolescent dating couples to assess whether support receipt from romantic partners is associated with participants reports of relationship

quality. This study contributes to the existing literature by utilizing an adolescent sample, collecting data from both members of the couple, and by using an ecologically robust design. Using an EMA design will serve to strengthen findings from the existing literature which has for the most part relied on cross sectional designs to draw conclusions.

Using Bolger and Shrout's (2007) longitudinal dyadic process model, a type of multi-level modeling designed to model and account for the non-independence inherent in dyadic and longitudinal designs, the following hypothesis were tested:

H1: When experiencing a challenging event, adolescents' reports of support from their romantic partners are positively associated with their own relationship quality.

H2: The degree of perceived stress moderates the association between support and relationship quality, such that when participants report that a challenging event is highly stressful support has a stronger positive association with their own relationship quality than it does when participants report the challenging event is less stressful.

Methods

Participants

Participants were recruited as romantic couples using three strategies. In the first strategy, adolescent couples were recruited from two large high schools in a large city in the Southwest United States. With district approval and the cooperation of the principals, researchers recruited high school students using announcements in a school assembly and a short TV commercial broadcast to homeroom classrooms. Students who were interested received a consent form at the school assembly or requested one from the

teacher after the homeroom commercial. Consents were returned by students to the front desk administrative assistant, and then gathered by research assistants, after which participants were contacted either by phone, text, or email by research assistants. After consents were received and students were contacted, a baseline questionnaire was administered to each individual who consented to the study at their school's computer lab. Participants were paid \$10 for completing the baseline questionnaire. After completing the baseline, students who indicated they were currently in a romantic relationship were contacted by research assistants and invited to participate in the next stage of the study along with their romantic partner. Consent for the next stage was embedded in the original consent; so if the student did express interest, research assistants worked directly with the students to invite their partners, gain consent from their partners, and get their partner to take the baseline questionnaire.

In the second recruitment strategy, targeted Facebook ads were used to recruit adolescent romantic partners. The ads, which would appear on adolescents' news feeds as a "sponsored post," included a picture of an adolescent couple and text that indicated eligible dating couples could earn up to \$100 for participating in a study. Nine ads were run from June, 2014 to February, 2015 and appeared on news feeds of individuals whose Facebook information represented them as 14-17 year olds who lived in zip codes in the metropolitan area of a large city in the southwest United States. Interested individuals could click the ad which would take them to a landing page where contact information was collected. Participants were then contacted by research assistants and sent an electronic version of the consent form. After consent forms were completed, participants were sent a link to the baseline questionnaire.

Finally, two couples were recruited through in person contact at a local shopping mall. Research assistants passed out fliers and gave a brief explanation to individuals who looked as if they may be adolescents. In the event that an individual expressed interest and met the recruitment criteria (in a romantic relationship and between 14-17 years of age) research assistants acquired their contact information and then followed the same procedure as they did with those recruited through Facebook to obtain consent, and provide access to the baseline survey.

In total, 111 adolescent couples, (27 through schools, 82 through Facebook ads, and 2 through in-person contact) were recruited. Mean comparisons revealed that on average participants who were recruited through Facebook reported higher levels of stress ($M = 4.21$, $SD = 2.07$) subsequent to the stressor, $t(3580) = 7.35$, $p < .001$, and higher levels of relationship quality ($M = 6.28$, $SD = 1.24$), $t(3580) = 4.66$, $p < .001$, compared to participants recruited through schools (stress: $M = 3.57$, $SD = 2.24$, relationship quality: $M = 5.97$, $SD = 1.57$). Eight couples in the sample identified as same-sex couples. Mean comparisons indicated that on average participants who identified as being in a same-sex couple reported higher levels of stress ($M = 4.32$, $SD = 1.78$) subsequent to the stressor, $t(3580) = 2.16$, $p = .03$, and lower relationship quality ($M = 5.89$, $SD = 1.26$), $t(3580) = -3.53$, $p < .001$, compared to participants in heterosexual couples (stress: $M = 4.04$, $SD = 2.15$, relationship quality: $M = 6.24$, $SD = 1.33$). Participants did not differ on levels of support based on recruitment or sexual orientation.

Procedures

Upon recruitment and completion of the baseline questionnaire, participants were scheduled to come into a lab on the university campus to participate in a portion of the

study where neurological and physiological measures were taken (not relevant to the present study). The Sunday immediately following the lab session, couples began receiving Ecological Momentary Assessments (EMAs). The EMA instrument was made available to participants via a link sent by text message, email, or Facebook depending on the preference of the participant. The instruments were sent out each Wednesday and Sunday evening at 7:00 pm, and the participants were instructed to take them by the end of those days. These days were chosen so that both a regular weekday and a weekend day would be captured so as to more accurately represent their weekly relational experiences. At 9:00 pm, a reminder including the link was sent to all participants who had not yet completed the survey. Participants were instructed to complete the survey alone. Additionally, participants were instructed to complete the survey between the hours of 7:00 pm and 12:00 am. They received the survey at the aforementioned times for a period of 12 weeks (total of 24 assessments).

The EMA assessments took 5-10 minutes to complete on average, and participants were paid \$1.77 for every assessment for a total of \$40. Participants also received a \$5 bonus at the midway point for completing at least half of their assessments. In order to increase compliance, participants were contacted through text or a phone call by research assistants each time they missed 2 assessments in a row. Week to week compliance rates for EMA participation ranged from 60 to 83%. On average, participants completed 17 of 24, or 71% of their assessments. In order to feel confident that the analyses sufficiently gauged participants' day-to-day experiences with their partners', data were retained only for couples wherein both partners completed at least 25% of their assessments.

The final sample consisted of $n = 97$ couples ages 13-18 ($M=16.7$, $SD=.90$). The ethnic and racial composition of the final sample was 43% Hispanic/Latino, 45% White, 3% Black, 2% Asian, 3% Native American, and 4% other. Of the participants 37% reported being in a relationship with their partner less than 6 months, 31% between 6 months and a year, and 32% more than a year. The 97 couples completed a total of 3905 EMA's. Eleven couples broke-up during the course of the study. All measures used in the current study were gathered using the baseline questionnaire and the EMA instrument.

EMA Measures

Stress was a measure of the degree of stress participants felt in response to a negative or challenging event they had experienced that day. Using an open ended question created by the study investigators, participants were first asked to think of the experiences they had that day and to write the most negative or challenging event of that day. Directly following this question, participants were asked, "How stressful was this event." Response options ranged from (1) "Not at all stressful" to (7) "Very stressful."

Support Receipt was a measure created by the study investigators for the current study and gauged the degree of support that individuals received from their partner in relation to the specific negative or challenging event. Following the question about stress (above), participants were asked "regarding the most negative or challenging experience you had today, how much support did you feel from your partner?" Response options ranged from (1) "Not at all" to (7) "Very much."

Relationship Quality was a measure created for this study and asked respondents how they felt in their relationship with their partner in terms of love and commitment.

Specifically, participants were provided with the prompt; “Within my relationship with my partner I feel (loved, committed).” Response options ranged from (1) “Not at all” to (7) “Very much.” This relationship quality measure was included in the survey several questions after the questions related to support and stress. The two items were averaged to create a measure of relationship quality. Thus in the present study, relationship quality is a within-person measure that potentially varied over time. Consequently, reliability in this framework is a measure of how reliable the scale is for detecting variance in the systematic change of the variable over time (Cranford et al., 2006). For the present study the reliability of change in *Relationship Quality* was adequate (.69).

Controls

Due to mean differences on study variables based on recruitment and sexual orientation, measures of these factors were included in the analyses to account for any potential influence they might have on *Relationship Quality*. Furthermore, to ensure a rigorous investigation several other relevant factors that may influence *Relationship Quality* were included in the model and are described below.

Recruitment. Because participants differed on key study variables as a function of how they were recruited, a dichotomous variable coded (1) when couple were recruited through Facebook ($N = 76$) and (0) if they were recruited through schools ($N = 41$) or in-person ($N = 1$) was included as a control variable.

Sexual Orientation. Participants also differed on key study variables as a function sexual orientation. Consequently, a dichotomous variable coded (1) if a couple identified as a same-sex couple and (0) if they identified as opposite sex was included as a control. Sexual orientation was assessed using a measure which asked respondents “are you

currently dating a male/female.” Any respondents who indicated they were dating a person of their same-sex were designated as part of a same-sex couple.

Age. Participant’s age was controlled for in analyses by including age at baseline as a covariate. Research indicates that 17 year olds have typically acquired a higher degree of interdependence with romantic partners than have 15 year olds (Carver et al., 2003; Waldinger et al., 2002). Consequently, the age of participants may have been an influential factor in the association between partner support and relationship quality. Age was measured by having participants indicate their birthdate using month, day, and year. Using participants’ birthdate age was converted to age in years to two decimal places to ensure a precise measure.

Weekend. The first item in the survey that respondents received each Wednesday and Sunday asked respondents to indicate if it was a Wednesday or Sunday. Adolescents typically have more freedom to associate with their romantic partners independent of adult supervision on the weekends. Spending more time together in this way may provide adolescents with a context that allows for more disclosure and intimacy which may in turn result in higher relationship quality. At the same time, more time together may enable more conflictual relationships. Thus, it is possible that the Sunday reports of relationship quality potentially differed from Wednesday reports. Consequently, a dichotomous measure “0” for Wednesday and “1” for Sunday was included as a control.

About the Relationship. In order to account for the fact that challenging events reported by participants may have a greater influence on relationship outcomes if they are about the relationship itself, challenging events were coded by three research assistants on three criteria. First, research assistants coded whether participants’ responses

described a challenge (1) or not (0). This was not a judgment about what participants considered a challenge, but rather a code to reflect whether the response suggested participants had a challenge that day. For example, participants may have responded with “no challenge today,” or “nothing” in which case the response was coded as “0.” Secondly, research assistants coded the challenge for whether (1) or not (0) the response was of an interpersonal nature (e.g. included another person). In the event that the response was coded as an interpersonal challenge, coders identified whether (1) or not (0) the challenge had anything to do with their romantic partner. Out of 3,905 total responses 3,216 were coded as a challenge. Of these 1,497 were coded as interpersonal and 699 coded as an interpersonal challenge that involved the romantic partner. The absolute agreement Inter Class Correlations (ICC’s) calculated across the coders were .86 for whether or not the challenge was of an interpersonal nature and .88 for whether the challenge involved a romantic partner.

Average Support. In order to ensure that the effect of *Support Receipt* on relationship quality did not reflect an overall perception of the supportive nature of the partner, the mean level of support for each individual across the EMA period was calculated and included as a control variable (see Bolger, 2010). Thus, any effect of *Support Receipt* on *Relationship Quality* that is observed was above and beyond average levels of support received from the partner.

Analytic Approach

The current study addressed two hypotheses: (1) that adolescents’ reports of support from their romantic partners when experiencing a stressor are positively associated with their relationship quality, and (2) the degree of stress that stressors create

for adolescents moderates the association between perceived partner support and relationship quality, such that under the conditions of high stress perceived partner support has a stronger association with relationship quality than it does when the event results in low stress. To deal with issues of non-independence associated with the dyadic nature of the data and the non-independence due to observations within individuals, multivariate multi-level models were specified following the example of Bolger and Shrout's (2007) dyadic process model. The model illustrated in Figure 2 has two levels: accounting for within-couple (over time), and between-couple effects. The Level-1 independent variables *Support* and *Stress* were group mean centered to accommodate the moderation analysis and facilitate interpretation of the intercepts. All analyses were conducted using PROC MIXED in SAS 9.4 (SAS Institute, 2015). The model in SAS was specified using an autoregressive residual matrix, working off of the assumption that assessments taken close together are likely correlated to a greater degree than assessments taken weeks apart (Bolger & Shrout, 2007). The residual matrix structure used in this study is called UN@AR(1), which accounts for dyadic non-independence as well as non-independence due to observation nested within couples.

As a first step in the analyses it was important to rule out sex as a moderator. Mean comparisons by sex presented in Table 1 reveal that both male ($M = 6.12$, $SD = 1.14$) and female ($M = 6.25$, $SD = 1.03$) partners reported high levels of *Relationship Quality* over the 12 week period, and did not differ significantly from each other in these reports, $t(3580) = 0.91$, $p = .363$. However, male partners ($M = 3.94$, $SD = 1.59$) and female partners ($M = 4.34$, $SD = 1.56$) differed in the amount of support they reported receiving from their partner related to the challenging events ($t(3580) = 3.66$, $p < .001$).

Furthermore, female partners ($M = 4.36$, $SD = 1.01$) reported feeling more stress, $t(3580) = 8.94$, $p < .001$, associated with the challenging events than did their male partners ($M = 3.74$, $SD = 1.28$). In consequence of these mean differences a test of distinguishability was conducted to investigate whether the associations between the independent variables *Stress* and *Support Receipt* and the dependent variable *Relationship Quality* differed as a function of sex. Results of this test revealed that the associations did not differ across sex. Consequently, the dyads were treated as indistinguishable.

The Level 1 (within-person) portion of the analysis was modeled so that participants' *Relationship Quality* was predicted by *Support Receipt*, *Stress*, and the *Support Receipt X Stress* interaction while controlling for the effects of *Weekend*, and *About the Relationship*. The Level 1 equation is as follows:

$$RQ_{ik} = [b_{0i} + b_1Weekend_k + b_2AbouttheRelationship_k + b_{3i}SupportReceipt_k + b_{4i}Stress_k + b_5Time_k + b_{6i}(SupportReceipt_k * Stress_k) + e_{ik}].$$

where RQ_{ijk} is relationship quality for couple i on day k . The designation $Weekend_{jk}$ indicates whether it was a Sunday survey or Wednesday; $SupportReceipt_{ik}$ is the report of perceived support received; $Stress_{jk}$ is the degree of stress reported by the respondent; and $Time_{jk}$ accounts for the 12 week passage of time in the study. It is important to note that *Time* is not of substantive interest in the study, but allows for the estimation of within-person change. $AbouttheRelationship_{jk}$ indicates whether or not the stressor was about the couples' romantic relationship. The interaction is designated in the model as $(SupportReceipt_{jk} * Stress_{jk})$, and e_{ijk} represents the residual term. The intercept of relationship quality for an individual (i) whose score on all covariates is equal to zero (after mean centering) is designated by b_{0i} .

The controls *Age*, *Sexual Orientation*, *Recruitment*, and *Average Support* do not vary within individual and thus constitute Level 2 (between-persons) predictors. The Level 2 equation representing the association between these controls and *Relationship Quality* is as follows:

$$b_{0i} = [\gamma_{00} + \gamma_{01}Age_{jk} + \gamma_{03}SexualOrientation_{jk} + \gamma_{04}Recruitment_{jk} + \gamma_{05}AverageSupport_{jk} + u_{0i}].$$

Age_{ik} represents the age of participants in years; *SexualOrientation_{jk}* indicates whether the participant was in a same-sex relationships; *Recruitment_{jk}* indicates how the participant was recruited; and *Average Support_{jk}* represents the average within-person support receipt.

Finally, the between-dyad level of the analysis also allows for the investigation of individual differences between the coefficients specified in the within-individual level of the model by fitting a model with random intercepts for the outcome *RQ*, and random slopes for the association between *Support Receipt* and *RQ* as well as *Stress* and *RQ*. Random slopes will also be specified for the association between the *SupportReceipt_{ik}***Stress_{ik}* interaction and *RQ*. The additional Level 2 equations are as follows:

$$b_{3i} = \gamma_{30} + u_{3i}$$

$$b_{4i} = \gamma_{40} + u_{4i}$$

$$b_{6i} = \gamma_{60} + u_{6i}$$

Results

Fixed Effects

Before addressing the hypotheses it is also important to note the association of the controls with the outcome *Relationship Quality*. The controls *Sexual Orientation*,

Recruitment, *Age*, and *Weekend* did not have a significant association with *Relationship Quality*. However, there was a significant main effect for *Time* suggesting that above and beyond other predictors in the model it appears that relationship quality diminished over the course of the 12 week period, $b_5 = -.074$, $t(97) = -3.37$, $p < .001$. As well, *Average Support Receipt* had a significant and positive association with the outcome *Relationship Quality*, $\gamma_{05} = .198$, $t(97) = 7.36$, $p < .001$, suggesting that participants' who had high average support receipt from their partner also reported higher levels of *Relationship Quality*. Finally, *About the Relationship* had a significant negative association with *Relationship Quality*, $b_2 = -.12$, $t(97) = -3.33$, $p < .001$, suggesting that on days when the stressors reported were about the relationship, participants also reported lower relationship quality. The results of the hypothesis tests which follow should be considered as effects above and beyond those of these controls.

Hypothesis one stated that adolescents' reports of support from their romantic partners when experiencing a challenge are positively associated with their relationship quality. The fixed effects presented in Table 2 indicate that the main effect of *Support Receipt* was significant, $b_3 = .091$, $t(97) = 8.05$, $p < .001$, such that on a given Wednesday or Sunday a 1 unit increase in *Support Receipt* from a partner predicted a .091 unit increase in *Relationship Quality*. Thus, hypothesis one was fully supported by the data.

Hypothesis two was that the degree of perceived stress moderates the association between support and relationship quality, such that under the conditions of high stress support has a stronger positive association with relationship quality than it does when the event is perceived as low stress. The main effect for the moderator stress was statistically significant, $b_4 = -.041$, $t(97) = -3.80$, $p < .001$. This coefficient indicates that on a given

Wednesday or Sunday a 1 unit increase in stress associated with a specific stressor predicts a .041 unit decrease in *Relationship Quality*. The *Support Receipt * Stress* interaction was also significant, $b_6 = .015$, $t(97) = 3.43$, $p < .001$. In Figure 3, the effect of *Support Receipt* on *Relationship Quality* at two different levels of *Stress* (one standard deviation above and one standard deviation below the mean) is presented. Post-hoc tests of the simple slopes at one standard deviation above and one standard deviation below the *Stress* mean revealed that the average effect of *Support Receipt* on *Relationship Quality* is significant at both high ($b_3 = .109$, $t(97) = 9.96$, $p < .001$) and low levels ($b_3 = .049$, $t(97) = 4.74$, $p < .001$) of stress. These results indicate full support for hypothesis two.

Random Effects

The model specified random effects for the intercept as well as the slopes for *Support Receipt*, *Stress* and the *Support Receipt * Stress* interaction. Table 3 presents random effects of these coefficients. The random effects provide information about the degree of variance in the intercept for *Relationship Quality* and the slopes for *Support Receipt*, *Stress* and the *Support Receipt * Stress* interaction. The variance for the *Relationship Quality* intercept was significant suggesting that there is a significant proportion of between-couple variance in relationship quality. The results also suggest that there exists significant variability in the *Support Receipt* slopes such that there is heterogeneity between-persons in the degree to which *Support Receipt* is associated with *Relationship Quality*. There is also significant between-person heterogeneity in the degree to which *Stress* influences *Relationship Quality*.

Discussion

Research indicates that the quality of adolescent romantic relationships may have important implications for the quality of future romantic pairings (Seiffge-Krenke & Lang, 2002). However, there have been very few investigations into behaviors that promote relationship quality in adolescent romantic relationships. In the marital and emerging adult romantic relationship literature, research suggests that receiving support from one's romantic partner during stressful life events is associated with increases in relationship quality (Maisel & Gable, 2009; Gleason, et al., 2008). Using an EMA method I collected data twice weekly from adolescent romantic couples, and applied theoretical constructs from Reis et al.'s (2004) theory of perceived partner responsiveness to investigate whether receiving support in the face of a stressor is associated with increased relationship quality for adolescent partners. Additionally, I investigated whether the perceived degree of stress associated with a stressor moderated the association between receiving support and relationship quality. This investigation expanded on the current relationship literature by investigating relationship processes in an adolescent sample and by applying an ecologically robust design to capture these processes in real time rather than relying on retrospective reports.

Hypothesis one investigated the proposition that adolescents' reports of support from their romantic partner when experiencing a challenge was positively associated with their relationship quality. This hypothesis was fully supported by the results of the analysis which indicated that, controlling for adolescents' age, sexual orientation, whether it was a weekend or weekday, and whether the challenging event was about their romantic relationship, on days adolescents felt supported by their partner relative to a

challenge they identified, they also reported experiencing greater relationship quality. This finding is consistent with the findings of EMA studies investigating these associations in married or other adult committed relationships. Specifically, it mirrors findings by Campbell et al. (2005) who found that the frequency of supportive events reported by college dating couples was associated with increases in relationship quality and security on the same day. The finding that daily support processes function as predictors of relationship quality in adolescent romantic relationships, in much the same way as in various adult romantic relationships, is a significant contribution to the literature in several ways.

First, this finding strengthens the claim for the developmental significance of adolescent romantic relationships. Historically, adolescent romantic relationships were considered by social scientists as trivial relationships that had little bearing on later relationship success (Brown et al., 1999). Although, a growing body of theory and research is beginning to dispel this myth (see Collins, Welsh, & Furman, 2009), there is still much work to be done in order to establish the developmental connections between relationship processes in adolescent romantic relationships and those in mature adult relationships. The fact that daily support processes engaged in by adolescents seem to operate in a similar manner as their adult counterparts is a compelling indicator that humans' capacity to maintain intimate bonds by being responsive to a partner's needs is learned well in advance of the age at which individuals typically establish long-term committed relationships, and is therefore anything but trivial.

Relatedly, this finding lends credence to a growing body of research indicating that adolescents' romantic relationships are similar to adult romantic relationships. For

example, research has suggested that the way mid to late adolescents think about how romantic relationships operate is very similar to that of adults (Levesque, 1993), and that adolescents' motivations for romantic relationships are for the most part stable from mid-adolescence into adulthood (Zimmer-Gembeck et al., 2012; Waldinger et al., 2002). The finding that support receipt is associated with relationship quality for adolescents in a similar fashion as it is for adults would seem to confirm that adolescents' understanding of how romantic relationships function is consistent with that of adults. This finding further confirms that in addition to motivations, the manner in which support impacts relationship functioning may be fairly stable from adolescence to adulthood.

Hypothesis two proposed that the degree of perceived stress adolescents experience concomitant with a challenging event will moderate the association between support receipt and relationship quality. This hypothesis was also fully supported by the results. Specifically, on days when support recipients perceived higher level of stress, the association between support and relationship quality was stronger compared to the days when they perceived lower level of stress. Reis et al.'s (2004) model implied that the association between partner responsiveness (support) and indicators of relationship quality would differ depending on the extent to which an individual expects support under the circumstances. In the present study, I speculated that partners would expect support more on days when the challenging event was highly stressful and that when expectations were fulfilled relationship quality would go up. The finding that support receipt was more profoundly associated with relationship quality when stress was high supported that speculation.

While, this is the only study that has explicitly tested the degree of perceived stress as a moderator of the association between support receipt and relationship quality, the finding is supported by previous research. Researchers have indicated that individuals who experience high levels of stress are more likely to request and thus receive support from their romantic partner (Collins & Feeney, 2000; Iida, Seidman, Shrout, Fujita, & Bolger, 2008). Requesting support from a partner while experiencing high stress suggests an expectation that partners will be more supportive during highly stressful periods. Thus, the reason support has a more profound association with relationship quality when stress is high, is simply because in highly stressful situations partners expect and thus elicit more support.

Finally, the results of this study confirm that the use of EMA or diary designs is a feasible methodology for investigating adolescent couple processes. Although adolescent romantic relationships are typically shorter than those of adults (Carver et al., 2003) the present study was able to follow adolescent participants for 12 weeks with relatively little attrition (11%) due to break-up. Furthermore, despite the common perception that adolescents are irresponsible or flaky, on average the 13-18 year olds in the sample completed 71% of their assessments on time. These numbers provide sufficient evidence to suggest that day-to-day micro-evaluations can be valid tools for measuring adolescent couple processes.

Control Effects

Several associations between control variables and the outcome relationship quality were also significant and warrant discussion. The model revealed that time was negatively associated with relationship quality, suggesting that over the course of twelve

weeks adolescents' relationship quality diminished on average. This is inconsistent with findings in a college sample which found that among 101 college couples relationship quality remained stable from year to year during the five year study (Sprecher, 1999). Although, the previous findings discussed highlighted similarities between adolescent and adult romantic relationships, this finding may highlight a difference in how adolescent and adult romantic relationships function. Diminishing relationship quality may, for example suggest that compared to adults, adolescents' have not yet developed capacities or motivations for maintaining quality long-term romantic relationships. Indeed adolescent romantic relationships do not typically last more than a year (Zimmer-Gembeck, 1999) which is shorter than the typical emerging adult romantic relationship which lasts 16 months on average (Fincham & Cui, 2010), or the typical marriage which lasts more than 10 years (National Center for Health Statistics, 2012).

The model also revealed that on days when the challenging event was about the relationship adolescents reported lower relationship quality. This finding likely indicates that challenging events related to the relationship are negative rather than positive challenges. For example, challenging events may reflect negative conflict between the couple or a falling out between partners. This finding is not at all surprising as one would expect relationship challenges to effect relationship quality, especially when both the challenge and the measure of relationship quality are assessed in the same day.

Lastly, in the model average support was associated with relationship quality indicating that participants who reported receiving higher support overall also experienced higher relationship quality on a given Wednesday or Sunday. This suggests that for adolescent couples in addition to its value when received in response to a

particular stressor, support is also a valuable predictor of relationship quality when it is perceived as the typical response to a challenge.

Limitations

The present study provides an important first glimpse into how support receipt and stress experienced in the context of a real life challenge is associated with relationship quality for adolescent dating couples. Still, the results should be considered in light of several limitations. An unavoidable reality associated with collecting data from adolescents is that parental consent must be obtained. This may have consequences for recruitment and data gathering when it comes to adolescent dating couples as it likely excludes adolescents whose parents do not know about or do not approve of their teens romantic relationship. Though it is difficult to say what impact this limitation may have had on the present findings, some research suggests that ethnic minority parents guided by religious and ethnic values are stricter in their management of adolescents' romantic relationships (Mounts & Kim, 2009). Thus, perhaps the present sample was limited in its ability to recruit adolescents whose parents hold traditional religious or ethnic values.

Another limitation to the findings is that although completion rates for the EMA's were relatively high (on average participants completed 71% of their assessments), 41% of returned EMA's did not include a response to the question about the challenging event of the day. There were no differences in the number of responses to the challenging event based on participants' sex, sexual orientation, recruitment, or whether the response was on a Wednesday or Sunday. Furthermore, there were no correlations between an individuals' number of responses to the challenging event and their relationship quality, stress, or support. One possible explanation for the low response rate of challenging

events is that these responses were open-ended and consequently required more time to report. Adolescents may have simply been unwilling to put the time into completing these open ended responses. Despite an inability to isolate a systematic reason for the missing responses, the proportion of missing responses for this variable may reflect an unidentified sample bias.

Although this study represents the first attempt at an EMA investigation of the associations between support receipt and relationship quality using an adolescent sample, the way in which the stressor, stress, and support were measured limited my ability to assess actual dyadic processes. The present study measured support receipt, but not support provision, and thus failed to assess information relevant to the process being investigated, namely, whether partners' actually provided support in the face of the stressor. It is possible that support recipients reported receiving support from their partner even when support was not actually provided. Measuring support provision would have allowed me to account for the possibility that recipients falsely attribute support behaviors to their partners. Research on relationship maintenance among adult romantic partners indicates that perceptions of a partner's relationship maintenance are more strongly associated with couple outcomes than actual reported behavior (Ogolsky & Bowers, 2012). The same may be true regarding support behaviors among adolescent couples. Future EMA studies using an adolescent sample are needed that measure support provision and perceptions of support receipt to investigate whether perceptions of support receipt impact relationship quality in the same way as support provision.

Furthermore, the fact that support receipt and relationship quality were measured simultaneously made it impossible to separate the order of effects and establish with

certainty that support is actually leading to relationship quality. Lagged designs provide greater confidence in establishing the order of effects. Unfortunately, utilizing a lagged design in the present study was not practical since reports were only made on Wednesdays and Sundays, and support processes engaged in on a Sunday are less likely to be associated with relationship outcomes three days later. Measuring responses daily would accommodate a lagged design which could help to clarify the direction of associations between support and relationship quality. Future research that polls adolescents more frequently may help to establish the direction of effects in an adolescent sample.

Finally it should be noted that the outcome *Relationship Quality* was measured using only two items focused on love and commitment. Although these items were highly correlated and have satisfactory reliability of change, conceptually the items (summed and averaged as a scale) constitute a limited measure of relationship quality that was created for this particular study but has not been validated in previous work. To avoid participant burden, EMA studies necessitate using scales with relatively few items. Future research in this area should use a short but valid and reliable measure to capture relationship quality. The Kansas Marital Satisfaction Scale (KMS) (Schumm et al., 1983), for example, is a three item scale shown to be very reliable across studies, particularly for non-married couples (Graham, Diebels, & Barnow, 2011).

Conclusion

Despite these limitations, the findings in the present study provide a valuable contribution to the social support and adolescent romantic relationships literature. Although previous research has demonstrated that day-to-day support processes

concomitant with stressful events are associated with increased relationship quality in marital and other adult romantic relationships, the present study is the first to investigate these processes in adolescent couples. The findings provide evidence that support processes in adolescent romantic relationships operate in a similar way to those in adult romantic relationships and imply that these early relationship experiences are developmentally significant. Results from the present study also suggest that the EMA design is a valid methodological tool for evaluating adolescent couple processes. This study provides a solid foundation for further investigations into the day-to-day romantic relationship processes of adolescents' romantic relationships.

Study 2: Parenting Adolescents in the Context of Romantic Relationships: The role of support and trust in adolescent romantic disclosure and problem behavior participation.

An enduring concern for parents and policy makers alike is adolescent participation in problem behaviors such as violence towards others, gang related activity, and school truancy. Researchers have shown that two parental practices, parental support (Barnes & Farrell, 1992; Mounts, 2002; Peterson & Hann, 1999; Wills & Cleary, 1996) and parental trust (Borawski, Ievers-Landis, Lovegreen, & Trapl, 2003) are key predictors of decreased adolescent participation in problem behaviors. One of the reasons parental support and parental trust may be effective in reducing problem behavior participation is because these parenting practices are associated with adolescents' increased willingness to disclose their whereabouts and behavior to parents of their own volition (Kerr & Stattin, 2000; Smetana et al., 2006; Kerr, Stattin, & Burk, 2010; Kerr, Stattin, & Trost, 1999; Vieno, Nation, Pastore, & Santinello, 2009; Willoughby & Hamza, 2011) thereby enhancing parents knowledge concerning what their offspring are doing. Thus, adolescent disclosure may be a key mechanism through which parental support (Soenens, Vansteenkiste, Luyckx, & Goossens, 2006) and trust are associated with decreased adolescent problem behaviors. Still, adolescents are not willing to share all of their experiences with parents, thereby calling into question whether the associations between the parenting practices of support and trust, and the outcomes adolescent disclosure and adolescent problem behaviors are consistent across adolescent experiences.

For example, Noller and Bagi, (1985) have shown that adolescents are less willing to self-disclose information to parents about dating and related sexual activity than other features of their lives, such as friendships or personal problems. Thus, romantic relationships represent a particularly difficult area of adolescents' lives for parents to get information about. The problem with this is that romantic relationships are not always innocuous aspects of adolescent experiences. Indeed, parents are often concerned about how romantic relationships generally, or a specific romantic relationship, may be affecting their adolescent's behavior or welfare (Kan et al., 2008). Such concerns are justified given that several aspects of romantic relationship participation and involvement, such as earlier participation in romantic relationships (Neeman et al., 1995), higher numbers of romantic partners (Cui, Ueno, Fincham, Donnellan, & Wickrama, 2012; Zimmer-Gembeck, Siebenbruner, & Collins, 2001), and romantic involvement with deviant partners (Haynie, Giordano, Manning, & Longmore, 2005), are associated with adolescents' increased likelihood of engaging in problem behaviors. Consequently, unwillingness on the part of adolescents to disclose information about romantic relationships should be of special concern to parents and policy makers alike.

As noted, researchers have shown that parental support of adolescents is associated with adolescents' willingness to disclose personal information to parents, and in turn decrease problem behavior participation (Soenens et al., 2006). However, the domain of romantic relationships has rarely been the investigative focus for how parental practices impact the lives of adolescents. Consequently, there is no research that explores how parental support is tied to adolescents' disclosure of romantic relationship specific information. Additionally, very few studies have investigated parental support in a

romantic relationship specific context. Researchers have however, shown that parental trust is associated with adolescents' disclosure about romantic relationship participation and involvement (Daddis & Randolph, 2010). Still, there have been no investigations into whether disclosure about romantic relationships explains the association between trust and problem behaviors. Considering that (a) parents desire to be informed about their adolescents' behavior in the context of romantic relationships (Smetana & Rote, 2015), and (b) that romantic relationship participation may lead to adolescent engagement in problem behaviors (Cui, Ueno, Fincham, Donnellan, & Wickrama, 2012; Haynie, Giordano, Manning, & Longmore, 2005), it seems clear that the romantic relationship domain is an important context within which to focus an investigation. Consequently, the purpose of this study was to investigate how parental support and parental trust are associated with adolescent disclosure and problem behaviors in the context of romantic relationships. I begin by presenting literature and theory that reveals why parents may have a particularly difficult time influencing adolescents to disclose information about romantic relationships.

Adolescent Romantic Relationship Disclosure

Many investigations of adolescent disclosure to parents are guided by social domain theory. Social domain theory is a developmental theory dealing with how children (adolescents included) develop their understanding of social rules and enact social behaviors in several domains including moral (issues that pertain to justice, welfare, or rights), conventional (issues that pertain to etiquette and manners), prudential (issues that pertain to safety or health), personal (issues that pertain to personal choices like who they associate with, or what they wear) (Smetana, 2006), and romantic

relationships (issues that pertain to romantic relationships) (Rote & Smetana, 2015).

According to social domain theorists, understanding social rules and how to act within the constraints of these rules develops through reciprocal interactions between individuals and their social environment, parents being one of the key sources of interaction (Turiel, 1998). Social domain theorists have also asserted that as children mature into adolescents, the achievement of healthy psychological adjustment in the various domains requires that youth seek and obtain a certain level of autonomy from parents and other adult authority figures (Barber, Olsen, & Shagle, 1994).

Researchers have shown that while adolescents and parents may agree that parents have legitimate authority to restrict or regulate behavior in moral and conventional domains, they disagree on the extent of legitimate authority parents have in the prudential and to a greater extent private domains (Smetana, 2000; Smetana & Asquith, 1994). Furthermore, research suggests that adolescents are more likely to relinquish personal autonomy in the moral, and to some degree, conventional, and prudential domains, but are less likely to do so in the personal domain (Smetana, 2006). Because adolescents view the personal domain as generally outside others' authority to regulate, they typically view their obligation to disclose information to parents about personal issues as distinct from their obligation to impart information on issues that they see as lying in the other domains. Smetana et al. (2006) has indicated that indeed, adolescents are more likely to disclose information to parents that deal with so called prudential issues, such as substance abuse and going to parties, than they are about personal issues such as who they spend their time with.

Historically, researchers (see Smetana, 2000; Smetana & Asquith, 1994; Smetana et al., 2006) applying social domain assumptions to adolescent disclosure have considered romantic relationships part of the personal domain. However, in a recent study romantic relationships were treated as an independent domain. In this study, Rote and Smetana (2015) found that when comparing moral, prudential, multifaceted (overlapping domain issues), personal, and romantic issues, adolescents believed they were least obligated to disclose information to parents about their romantic relationships. This suggests that romantic relationships represent a particularly difficult area of adolescents' lives for parents to gather information directly from their offspring. This fact should be of major concern to both parents and researchers, as a substantial body of research indicates that parental knowledge is a key factor in the reduction of adolescent problem behaviors (see Racz & McMahon, 2011 for a review). How, then, do parents influence adolescents to disclose information about their romantic relationships?

This question is difficult to answer as there have been very few investigations into what predicts adolescent disclosure of romantic relationship specific information. When considering disclosure of information in the personal domain, researchers have shown that supportive parenting practices such as general parental acceptance (Smetana, et al. 2006; Hunter, et al. 2011) and parental responsiveness (Soenens et al., 2006) are positively correlated with adolescent disclosure of information to parents. Additionally, trust between adolescents and parents is a consistent and robust predictor of adolescents' willingness to disclose information to parents in the personal domain (Smetana et al., 2006; Kerr & Stattin, 2000; Kerr, Stattin. & Trost, 1999). However, very few studies have sought to investigate predictors of adolescent disclosure of information in the

romantic relationship domain (e.g., Daddis & Randolph, 2010). In one study, Daddis and Randolph (2010) assessed disclosure regarding specific elements of romantic relationships including identity (who they are dating, what kind of person he/she is), sex/supervision (being alone with, having sex with partner), and expression (affection and liking). These investigators subsequently ran a series of analyses to test whether common correlates—including parental trust—of disclosure in the personal domain would also predict disclosure regarding these three specific elements of romantic relationships. Their findings showed that adolescents' perception that their parents trusted them was associated with adolescent disclosure to parents about romantic relationship specific information, and significantly predicted increases in disclosure in all three elements of the romantic relationship.

The fact that parental trust is associated with adolescent disclosure in the romantic relationship domain speaks to the importance of parenting practices that lead adolescents to perceive that parents trust them to make their own decisions and will grant them the autonomy to do so. Still, as indicated, parental supportive behaviors have also been identified as important predictors of adolescent disclosure in the personal domain (Smetana, et al. 2006; Hunter, et al. 2011; Soenens et al., 2006). Since Daddis and Randolph's (2010) work represents the sole investigation of parenting practices that influence adolescent disclosure of romantic relationship specific information, there remains an open question as to whether parental support may do the same.

Parental Support, Parental Trust, and Romantic Relationship Disclosure

As indicated, researchers have recently established that parental trust is associated with adolescents' willingness to disclose information about their romantic relationships.

However, the association between parental support and adolescent disclosure about romantic relationships has not been tested. Yet, in the adolescent parenting literature, parental support is consistently one of the most effectual parenting practices influencing adolescent behavior (Barber et al., 2005). Support in this research area is typically conceptualized as parental behaviors that are affectionate, accepting, warm, and encouraging toward adolescents (Peterson & Hann, 1999). In a monograph on parental support and related parenting practices, Barber et al., (2005) acknowledged that common measures of parental support gauge only general parental supportiveness. Barber and colleagues suggest that when parents support adolescents in specific ways, doing so may elicit different responses from adolescents than general supportiveness would. Barber et al's, (2005) monograph implies that the measurement and operationalization of support in specific contexts may help researchers understand the influence of parental support on adolescent behavior in a more nuanced way. In an effort to understand how parents are involved in adolescent's romantic relationships, Kan et al., (2008) made specific application of the parental support construct to the context of romantic relationships. Kan et al. (2008) operationalized parental support as parents' supportive involvement in adolescents' romantic relationship, and gauged the degree to which parents were accepting and supportive of their adolescent's relationship, and inclusive of their partner. Although, parental support operationalized in this manner has never been utilized as a predictor of adolescent disclosure about romantic relationships, theoretical work in the adolescent parenting literature suggests there is good reason to do so.

In their contextual model of parenting style, Darling and Steinberg (1993) suggest that parenting practices should be operationalized as "behaviors defined by specific

socialization goals” (pp. 492). They acknowledged that some socialization goals such as helping children develop greater self-esteem might be achieved by fairly general parenting practices such as being involved in all aspects of their child’s life. However, they also suggest that “parenting practices are best understood as operating in fairly circumscribed socialization domains” (pp. 493), and that to be effective, parenting practices need to be targeted toward achieving specific outcomes. In other words, parenting practices that are focused on influencing children in specific domains, such as adolescent romantic relationships, will likely be more closely associated with outcomes in those domains than general parenting practices. Given that adolescents are particularly reluctant about sharing information with parents about romantic relationships, Darling and Steinburg’s work suggests that obtaining such information would be optimally achieved through parental behaviors focused on the context of romantic relationships rather than general behaviors such as promoting trust. Nevertheless, researchers have already established a significant association between parental trust and adolescents’ disclosure about romantic relationships, indicating that even general parenting practices may be predictive of adolescent disclosure about romantic relationships.

Although the discussion thus far has been framed from the perspective of what parents can do to influence their children to disclose information about romantic relationships, researchers indicate that adolescents’ perceptions of their parents’ behaviors are more closely linked to productive outcomes than are parents’ actual behaviors (Gonzales, Cauce, & Mason, 1996). In keeping with this finding and the research and theoretical work presented above, I propose the following research hypotheses (see figure 4 for the hypothesized model).

H1: Adolescent perceptions of parental support of their romantic relationships will be positively associated with adolescent disclosure of romantic relationship specific information.

H2: Adolescent perceptions of parental trust will be positively associated with adolescent disclosure of romantic relationship specific information.

Additionally, considering Darling and Steinberg's (1993) reasoning that parenting practices defined by specific socialization goals are optimal for influencing adolescent outcomes, it seems reasonable that parental support of adolescents' romantic relationships would have a stronger association with adolescents' disclosure of romantic relationship specific information than parental trust. However, since there is no empirical investigation that supports a specific hypothesis, I present the following research question.

RQ1: Is the strength of the association between parental support and adolescent romantic relationship disclosure significantly greater than the association between parental trust and adolescent romantic relationship disclosure?

Adolescent Romantic Relationship Disclosure and Problem Behaviors

I hypothesized that adolescent perceptions that parents are supportive of their romantic relationships and engender trust in them will be associated with increased disclosure to parents of information about romantic relationships. This increase in disclosure to parents should in turn be associated with a decrease in general problem behaviors. Research on the association between adolescent disclosure to parents and decreases in problem behaviors has a short, though robust history. In 2000, Stattin and Kerr questioned whether generally accepted measures used to assess parental monitoring

of adolescent behavior actually measured parental monitoring. Their seminal work suggested that parental monitoring as typically measured was more accurately a measure of parental knowledge, and that adolescent disclosure to parents may be the most effectual means by which parents come to know what their adolescents are doing. Since then, other investigators (Eaton et al. 2009; Keijsers et al. 2009, 2010) have confirmed that adolescent self-disclosure is likely the most effective means of attaining parental knowledge regarding adolescent activity.

In an almost concurrent follow-up to their initial study, Kerr and Stattin (2000) revealed that disclosure as a source of parental knowledge was also a robust protective factor against participation in problem behaviors, more so than parental solicitation of information or parental control (Kerr & Stattin, 2000). Since Kerr and Stattin's (2000) initial findings, many researchers have confirmed direct (Willoughby & Hamza, 2011; Kerr, et al., 2010; Vieno et al., 2009) and indirect (Soenens et al., 2006) associations between adolescent's disclosure to parents and decreases in problem behaviors. Together, these findings establish adolescent disclosure as an important protective factor against participation in problem behaviors.

Unfortunately, measures of disclosure that have been correlated with problem behaviors have been composed of items gauging disclosure in the private (e.g. what adolescents choose to wear) and prudential (e.g. issues that deal with health and safety such as substance use) domains, and have not included items that gauge disclosure about information in the romantic relationship domain. Additionally, the association between adolescent disclosure and decreased problem behaviors is not well understood and has little theoretical support (Racz & McMahon, 2011). One possible explanation is that

when parents know what adolescents are doing, they have the ability to act preventatively when they see a potential for adolescent misconduct. As an example, parents who have open communication with their adolescents regarding what is happening relative to romantic relationships are able to have discussions, impose restrictions, or engage in other behaviors if their adolescent starts dating someone they see as a bad influence. However, if parents are not aware of who their adolescents are dating or what is occurring in those relationships, they cannot act because they are not aware of what is happening. Following this line of reasoning and recognizing the preponderance of evidence that has indicated an association between disclosure of personal information and decreased problem behaviors, I propose that:

H3: Adolescent disclosure to parents of romantic relationship specific information will be associated with decreased problem behavior 4-6 months later.

The Mediated Effects of Parental Support and Parental Trust on Problem Behaviors

As has been discussed earlier, there is substantial evidence indicating that parental support is a robust predictor of decreased adolescent participation in problem behaviors (Barnes & Farrell, 1992; Mounts, 2002; Peterson & Hann, 1999; Wills & Cleary, 1996). There is also evidence, though the direction of effects is unclear (Kerr et al. 1999), that parental trust is associated with decreased problem behaviors (Borawski, Ievers-Landis, Lovegreen, & Trapl, 2003). Vieno et al. (2009) has shown, however, that the association between parenting practices and adolescent problem behaviors is more nuanced, and that adolescent disclosure is an important mechanism that explains this association. However, this mediated effect has only been tested when considering disclosure about personal and

prudential issues, but has never been tested in the context of romantic relationships. Furthermore, no research has tested disclosure as a mechanism explaining the association between parental trust and adolescent problem behaviors. Consequently, I propose that:

H4a: Adolescents' perceptions of parental support of adolescents' romantic relationships will have a negative indirect association with problem behaviors as mediated by adolescent disclosure to parents of romantic relationship specific information.

H4b: Adolescent's perceptions of parental trust will have a negative indirect association with problem behaviors as mediated by adolescent disclosure to parents of romantic relationship specific information.

Sex as a Moderator

Some researchers have indicated that parents believe they are more entitled to information about their daughter's romantic relationship participation than they are their son's (Rote & Smetana, 2015). This difference in entitlement to information likely stems from a greater concern regarding the potential consequences of romantic relationship involvement for girls' (i.e. pregnancy), compared to boys (Bulcroft et al., 1998).

Recognizing that parents may be more vigilant about accessing romantic relationship information from daughters, after testing the stated hypotheses, a test will be conducted on the proposed model to determine if the associations are moderated by adolescent's sex. However, previous research considering associations between parenting practices, adolescent disclosure, and problem behaviors in the personal domain found no sex differences (Soenens et al., 2006). Consequently, I pose the following research question.

RQ2: Are there sex differences in the associations among parental support and trust, romantic relationship disclosure, and adolescent problem behaviors?

Current Study

Building on past research, the theoretical guidance from social domain principles, and Darling and Steinberg's (1993) perspective on parenting practices, I used a longitudinal design with $N = 111$ adolescent couples to test hypotheses consistent with the conceptual model presented in figure 5. The conceptual model proposed associations between adolescents' perceived parental supportive involvement in romantic relationships, adolescents' perceived parental trust, romantic relationship disclosure, and problem behaviors. I further proposed a test of the relative strength of the associations that parental trust and parental support of romantic relationships had with romantic relationship disclosure in an effort to understand if the two associations were equivalent. Lastly, I tested the moderating effect of sex on the associations modeled in figure 5.

To test the hypotheses and address the research questions, I used measures of parental supportive involvement of adolescent's romantic relationships and parental trust that were assessed 4-6 months prior to measures of romantic relationship disclosure, and problem behaviors (see figure 6 for a timeline of the study). This allowed me to control for the baseline scores of romantic relationship disclosure, and problem behaviors, thus pointing to the greater possibility that associations in the model are indicative of a developmental process, rather than a mere artifact observed at one point in time.

Measurements of the variables of interest were assessed from the adolescents' perspective. Consequently, parental supportive involvement in romantic relationships and parental trust measure adolescent's perceptions of their parents' practices in these

areas. Although, this may represent a limitation in some respects, researchers have shown that adolescents' perceptions of their parents' monitoring and support behaviors are more closely linked to productive outcomes than are parents' actual behaviors (Gonzales, Cauce, & Mason, 1996). Thus, measuring adolescents' perceptions of parental supportive involvement in romantic relationships and parental trust may reveal more about how these two parenting practices are associated with the outcomes of interest than if these variables were measured from the parents' perspective.

Methods

Participants

Participants were recruited as romantic couples using three strategies. In the first strategy, adolescent couples were recruited from two large high schools in a large city in the Southwest United States. With district approval and the cooperation of the principals, researchers recruited high school students using announcements in a school assembly and a short TV commercial broadcast to homeroom classrooms. Students who were interested received a consent form at the school assembly or requested one from the teacher after the homeroom commercial. Consents were returned by students to the front desk administrative assistant, and then gathered by research assistants, after which participants were contacted either by phone, text, or email. After consents were received and students were contacted, a baseline questionnaire was administered to each individual who consented to the study at their school's computer lab. Participants were paid \$10 for completing the baseline questionnaire. After completing the baseline, students who indicated they were currently in a romantic relationship were contacted by research assistants and invited to participate in the next stage of the study along with their

romantic partner. Consent for the next stage was embedded in the original consent; so if the student did express interest, research assistants worked directly with the students to invite their partners, gain consent from their partners, and get their partner to take the baseline questionnaire.

In the second recruitment strategy, targeted Facebook ads were used to recruit adolescent romantic partners. The ads, which appeared on adolescents' news feeds as a "sponsored post," included a picture of an adolescent couple and text that indicated eligible dating couples could earn up to \$100 for participating in a study. Nine ads were run from June, 2014 to February, 2015 and appeared on news feeds of individuals whose Facebook information represented them as 14-17 year olds who lived in zip codes in the metropolitan area of a large city in the southwest United States. Interested individuals could click the ad which would take them to a landing page where contact information was collected. Participants were then contacted by research assistants and sent an electronic version of the consent form. After consent forms were completed, participants were sent a link to the baseline questionnaire.

Finally, two couples were recruited through in-person contact at a local shopping mall. Research assistants passed out fliers and gave a brief explanation to individuals who looked as if they may be adolescents. In the event that an individual expressed interest and met the recruitment criteria (in a romantic relationship and between 14-17 years of age), research assistants acquired their contact information and then followed the same procedure as they did with those recruited through Facebook to obtain consent, and provide access to the baseline survey. Mean comparisons revealed that participants did not differ on average levels of study variables based on type of recruitment.

In total, 111 adolescent couples, (27 through schools, 82 through Facebook ads, and 2 through in-person contact) were recruited. Of these 103 couples identified as heterosexual, 7 identified as lesbian, and 1 identified as gay. Analyses in the current study utilized an Actor Partner Interdependence Model (APIM) which according to Kenny, Kashy, and Cook (2006) necessitates that members of a dyad be distinguishable from each other. Since, the present study investigated sex differences, only heterosexual couples were retained for the analysis. Twelve additional couples were excluded because these couples did not participate in a portion of the study where one of the study variables was measured. Consequently, the final sample was composed of 91 heterosexual couples. All participants were between 13 and 18 years of age at the time of recruitment with a mean age of 16.74 ($SD = .94$). The ethnic and racial composition of the final sample was 42% Hispanic/Latino, 42% White, 4% Black, 4% Asian, 4% Native American, and 4% other. Of the participants 37% reported being in a relationship with their partner less than 6 months, 31% between 6 months and a year, and 32% more than a year. Fourteen couples broke up during the course of the study.

Procedures

Upon recruitment and completion of the baseline questionnaire, participants were scheduled to come into a lab on the university campus to participate in a portion of the study where neurological and physiological measures were taken. The Sunday immediately following the lab session, couples began receiving Ecological Momentary Assessments (EMAs). The assessments were sent out each Wednesday and Sunday evening for 12 weeks for a total of 24 assessments. Three to six weeks after completion of the EMAs, participants were contacted again and sent a link to complete a follow-up

survey that was identical to the baseline. Participants were paid \$30 for taking the follow-up. Retention from baseline to follow-up was 79%. The measures used in the present study were acquired from the baseline questionnaire, a survey completed during the participants' lab visit, and the follow-up questionnaire.

Measures

Parental Support of Romantic Relationships was an adaptation of the *supportive involvement* subscale within Kan, et al.'s (2008) *Parental involvement in adolescent romantic relationships* measure. The measure was adapted for the present study so that it gauged the adolescents' perceptions of their parents' support. The scale is composed of 5 items (e.g. my parents try to meet my girl/boyfriend, my parents spend time with me and my girl/boyfriend) measured on a 5-point Likert-type scale ranging from "Not at all" (1) to "Very Much (5)." The measure used in the analysis was taken at baseline, Chronbach's alpha = .93 for males, and .93 for females.

Parental Trust was measured during the participants' lab visit and was gauged using the Parents as Facilitators of Independence subscale of the Parental Attachment Questionnaire (PAQ: Kenny (1990)). Respondents indicated—separate for mothers and fathers—the degree to which over the last three months the parent trusted them. Example items include, "showed he/she trusted and had confidence in me, provided me with the freedom to experiment and learn things on my own, and respected my privacy." Although, participants were asked about mother and father trust, prior studies (Daddis & Randolph, 2010) have averaged these scores due to high correlations between mothers' and fathers' responses. In the current study the correlation between mother and father reports was also high, $r(114) = .53, p < .001$, thus, mother and father scores were

averaged to create a parent scale. The measure consisted of 28 items (14 each from mother and father) measured on a 5-point Likert-type scale ranging from “Not at all (1)” to “Very Much (5).” The measure used in the analysis was taken during the laboratory session, Cronbach’s alpha = .91 for males, .87 for females.

Romantic Relationship Disclosure measured the degree to which adolescents reported disclosing information to their parents regarding various aspects of their romantic relationship. The measure was based on Kerr and Stattin’s (2000) child disclosure measure by modifying it to address adolescents’ disclosure specific to romantic relationships (e.g. “Where you were with your boyfriend/girlfriend, and how you feel about your boyfriend/girlfriend”). All items were preceded by the prompt “Do you spontaneously (without them asking) tell your parents about?” The measure consisted of six items measured on a 5-point Likert-type scale ranging from “Never (1)” to “Always (5).” The current study utilized measures of romantic relationship disclosure taken at baseline only, Chronbach’s alpha = .93 for males, and .91 for females.

Problem Behaviors was measured using an adaptation of Ary et al.’s (1999) Adolescent Problem Behaviors scale. The measure was composed of 16 items that measured different kinds of behavior such as “lied to your parents about where you have been or who you were with,” “stole, or tried to steal things worth \$5.00 or more,” “broke school rules,” and “dressed like a gang member.” Respondents were prompted by instructions to “Mark how many times you have done each of the following in the last month.” Each item was measured on a 6 point scale where 1=Never, 2 = 1-2 times, 3= 3-5 times, 4= 6-10 times, 5=11-20 times, 6= More than 20 times. Both baseline (as a control) and follow-up (as a dependent variable) versions of this measure were used in

the analyses, Cronbach's alpha at baseline = .71 for males, .82 for females; Cronbach's alpha at follow-up = .76 for males, .79 for females.

Control Variables

As data in the current study were gathered from couples, *Relationship Status*, an indicator of whether participants were still in the same relationship from baseline to follow-up was included as a control. Adolescent break-up can be complicated with couples breaking-up one day but getting back together the next day. Consequently, two separate items were assessed in order to accurately gauge *Relationship Status*. Initially, a variable in the Ecological Momentary Assessment (EMA) data was inspected, which asked respondents each Wednesday and Sunday for 12 weeks "Are you still in a relationship with the person you entered the study with." Response options were 1= Yes and 2= No. If respondents answered "No" to this question at any point during the 12 week period their data were inspected further. If they continued to indicate "No," then *Relationship Status* was marked as "1" indicating a break-up. If they responded "Yes" in subsequent surveys, and did not respond "No" again, they were assigned a "0" indicating they were still together. Because respondents were couples, if one partner indicated a break-up the data for the other partner was assessed in order to corroborate the data. In all but two instances, the partners' data was corroborated. In these two cases, each partner was assigned a "1" indicating a break-up. In total 14 couples had broken up between baseline and follow-up. Because the final EMA measure was conducted 4 weeks previous to the follow-up survey a secondary check was made by assessing responses to an item in the follow-up survey that asked "how long have you been dating your current partner?" If this item indicated a period longer than 4 months, then the

value of the *Relationship Status* remained “0” indicating they were still together. In every case the indicator of relationship length corroborated the indicator from the EMA, or, one of the partners did not complete the follow-up.

Research suggests that as adolescents get older they are more likely to participate in problem behaviors (Bongers, Koot, Van der Ende & Verhulst, 2003) and are less likely to disclose information to parents (Smetana, 2008). Consequently, *Age* was included as a control on *Romantic Relationship Disclosure* and *Problem Behaviors*. *Age* was measured by having participants indicate their birthdate using month, day, and year. Using participants’ birthdate age was computed as the amount of time in years, to two decimal, from birthdate to the date the participant took the baseline survey.

Analysis Strategy

Hypotheses 1, 2, and 3. To test H1, H2, and H3, a Structural Equation Model (SEM) was estimated in Mplus version 7.2 (Muthén & Muthén, 2014) testing the associations between the exogenous variables *Parental Support of Romantic Relationships* and *Parental Trust* measured at baseline, and the endogenous variables *Romantic Relationship Disclosure*, also measured at baseline, and *Problem Behaviors* measured 4-6 months later at follow-up. A path was also estimated between *Romantic Relationship Disclosure* and *Problem Behaviors*. In order to account for the linear dependency between baseline and follow-up measures of the outcome, the baseline measure of *Problem Behaviors* was included in the analysis as a control. Kline, (2011) suggests that to ensure adequate power, the ratio of cases (*N*) to substantive parameters (*q*) be at least 10:1. Thus, individual items for each variable were averaged and included in the model as observed variables. Maximum likelihood (ML) estimation was

implemented to handle the missing data. To account for non-independence due to the dyadic nature of the data, all analyses were conducted within an APIM framework though only actor effects were of substantive interest.

Research Question 1. In the first research question, I inquire as to whether *Parental Support of Romantic Relationships* and *Parental Trust* will have equivalent associations with *Romantic Relationship Disclosure*. To answer this question, a nested model comparison was conducted. Nested model comparisons compare a freely estimated model to a model in which equality constraints are placed on one or more parameters. The chi-square and corresponding degrees of freedom from the freely estimated and constrained model are then compared. A significant difference between the values suggests that the two models vary significantly from one another, and that the difference is attributable to the constrained parameter. In this model, the path estimating the association between *Parental Support of Romantic Relationships* and *Romantic Relationship Disclosure* was constrained to be equal to the path between *Parental Trust* and *Romantic Relationship Disclosure* and then compared to the freely estimated model.

Hypotheses 4a and 4 b. To test hypotheses 4a and 4b, that *Parental Support of Romantic Relationships* and *Parental Trust* will have negative indirect associations with *Problem Behaviors* as mediated by *Romantic Relationship Disclosure*, bootstrap mediation with 1,000 bootstrap samples was conducted within Mplus. Bootstrap mediation provides bias-corrected significance levels for the direct, indirect, and total effects. Complete mediation would be confirmed if the indirect bootstrap coefficient indicated a significant ($p < .05$) indirect effect, and the direct associations between the exogenous variables *Parental Support of Romantic Relationships* and *Parental Trust* and

the endogenous variable *Problem Behaviors* were both insignificant ($p > .05$). If the direct associations remained significant only partial mediation could be concluded.

Research Question 2. Lastly, to address RQ2 follow up tests were conducted on the proposed model with adolescents' sex included as a moderator. Moderation tests within SEM were conducted by testing for structural invariance. Structural invariance testing requires that a freely estimated or baseline model be compared to a model where substantive parameters are constrained to be equal for males and females. Chi-square and degrees of freedom as well as other fit indices from the two models were then compared to assess whether including the constraints resulted in a model with significantly poorer fit. If there was a significant difference between the two models, post hoc invariance tests would be conducted by constraining individual structural paths to be equal across males and females and then as before, comparing the fit indices of the baseline and constrained models (see Bentler, 1990; Cheung & Rensvold, 2002).

Results

Descriptive Statistics

Initially a descriptive investigation of study variables was conducted using IBM SPSS Version 22. An examination of these descriptive statistics revealed that reports of problem behaviors at follow-up were low in the sample with a mean of 1.32 ($SD = .37$) indicating that in the last month study participants participated in less than 1-2 problem behaviors on average. Study participants spontaneously disclosed information to parents about romantic relationships rarely to sometimes ($M = 2.8$, $SD = 1.11$), but believed that on average parents were supportive of their romantic relationships ($M = 3.59$, $SD = 1.17$) and trusting ($M = 3.47$, $SD = .65$) at a level of sometimes-to-often. Paired sample t-tests

were conducted to investigate significant sex differences for the study variables (see Table 4). No significant differences were detected. Zero-order correlations were also computed to provide an initial view of the relationship between study variables.

An investigation of the zero-order correlations (see Table 5) revealed that for both male and female participants parental support of romantic relationships had a significant positive correlation with romantic relationship disclosure (Males: $r(88) = .450, p < .01$, Females: $r(88) = .510, p < .01$). This was also true for the correlations between parental trust and romantic relationship disclosure (Males: $r(74) = .299, p < .01$, Females: $r(77) = .294, p < .01$). Romantic relationship disclosure had a significant negative correlation with problem behavior participation for both sexes (Males: $r(59) = -.329, p < .01$, Females: $r(73) = -.349, p < .01$). However, parental support of romantic relationships was significantly, negatively correlated with problem behavior participation only for females, $r(74) = -.300, p < .01$.

Hypothesis Testing

Before addressing the hypotheses, it is important to note the effect of the controls on *Romantic Relationship Disclosure* and *Problem Behaviors*. *Relationship Status* and *Age* were both included as controls on *Romantic Relationship Disclosure* and *Problem Behaviors*. *Relationship Status* did not have a significant association with either of the outcomes and was subsequently dropped from the analysis. *Age* was only associated with *Problem Behaviors* for males indicating that, on average, as male age increased problem behaviors at time two also increased. To be consistent, age was retained in the analysis as a control on both male and female problem behaviors.

To test the hypotheses and explore the research questions, an APIM was estimated using Structural Equation Modeling (SEM) in Mplus Version 7.2 (Muthén & Muthén, 2014). The model (see Figure 7) estimated associations between the exogenous variables *Parental Support of Romantic Relationships* and *Parental Trust* measured at baseline, and the endogenous variables *Romantic Relationship Disclosure*, also measured at baseline, and *Problem Behaviors* measured 4-6 months later at follow-up. A path was also estimated modeling the association between *Romantic Relationship Disclosure* and *Problem Behaviors*, placing *Romantic Relationship Disclosure* as a mediator of the associations between *Parental Support of Romantic Relationships* and *Parental Trust* and the outcome *Problem Behaviors*. Baseline measures of *Problem Behaviors* and *Age* were included as controls. As there was no theoretical basis for hypothesizing partner effects only actor effects are interpreted. However, there were two cases where the statistical model indicated partner effects, those between male *Parental Support of Romantic Relationships* and female *Problem Behaviors*, and male *Parental Support of Romantic Relationships* and female *Romantic Relationship Disclosure*. These paths were allowed to be freely estimated in the model but are not interpreted. The model fit the data well, $\chi^2(1, N = 91) = 1.175, p = .278$, Tucker–Lewis Index (TLI) = .964, Comparative Fit Index (CFI) = .999, and Root Mean Square Error of Approximation (RMSEA) = .044. The predicted squared multiple correlations for *Problem Behaviors* were $R^2 = .55$ for males and $R^2 = .71$ for females. For *Romantic Relationship Disclosure*, the predicted squared multiple correlations were $R^2 = .33$ for males and $R^2 = .35$ for females. In the statistical model presented in Figure 7 ten substantive paths were estimated. Of these, five were

statistically significant and are denoted by asterisks. One path was marginally significant in the hypothesized direction ($p < .09$) and is denoted by the Greek syllable η .

For H1 I proposed that adolescent perceptions of parental support of their romantic relationships are positively associated with adolescent disclosure of romantic relationship specific information. Controlling for baseline measures of *Problem Behaviors* and *Age* and *Parental Trust*, H1 was supported for both males ($\beta = .40, p < .001$) and females ($\beta = .50, p < .001$), such that both male and female adolescents who perceived their parents to be supportive of their romantic relationships were more likely to spontaneously disclose information about their romantic relationships to parents. However, controlling for baseline measures of *Problem Behaviors*, *Age* and *Parental Support of Romantic Relationships*, H2, that adolescent perceptions of parental trust is positively associated with adolescent disclosure of romantic relationship specific information was not supported (males ($\beta = .17, p = .131$) and females ($\beta = .12, p = .252$)).

RQ1 was proposed to determine whether the associations between parental support and parental trust and the outcome adolescent disclosure of romantic relationship specific information were equal in magnitude or different. Nested model comparisons revealed that the difference in the coefficients representing associations between *Parental Trust* and *Romantic Relationship Disclosure* and *Parental Support of Romantic Relationships* and *Romantic Relationship Disclosure* were not statistically significant $\Delta \chi^2(2) = 1.784, \Delta CFI = .001$.

H3 was developed to test whether adolescent disclosure to parents of romantic relationship specific information is associated with decreases in problem behaviors. An

investigation of the paths in the SEM analysis modeling the association between male and female versions of the variables *Romantic Relationship Disclosure* and *Problem Behaviors* revealed that controlling for all covariates, *Romantic Relationship Disclosure* had a marginally significant negative association with *Problem Behaviors* for males ($\beta = -.20, p < .089$), but not females ($\beta = -.05, p = .485$). Thus, higher levels of male disclosure to parents about romantic relationships at baseline were associated with a decrease in males' problem behavior participation 4-6 months later.

For H4a and H4b, I posited that adolescent disclosure to parents of romantic relationship specific information would mediate the association between both adolescents' perceptions of parental support of romantic relationships and parental trust, and the outcome problem behavior. The standardized bias-corrected indirect (mediated) effect for the association between *Parental Support of Romantic Relationships* and *Problem Behaviors* through the mediator *Romantic Relationship Disclosure* was significant for males at a trend level ($\beta = -.09, p < .10$) but was not significant for females ($\beta = -.008, p = .829$). An inspection of the standardized bias-corrected indirect (mediated) effects representing the association between *Parental Trust* and *Problem Behaviors* through the mediator *Romantic Relationship Disclosure* revealed there were no mediated associations for males ($\beta = -.04, p = .157$) or females ($\beta = -.002, p = .833$).

Due to only partial support of H4 and a lack of support for H5 the SEM was examined for direct effects. Direct associations were observed between the exogenous variables *Parental Support of Romantic Relationships* and *Parental Trust* and the outcome *Problem Behaviors*. Specifically, for females but not for males *Parental Support of Romantic Relationships* was negatively associated with *Problem Behaviors* (β

= -.26, $p < .01$) indicating that females who perceived their parents to be highly supportive of their romantic relationships at baseline reported participating in fewer problem behaviors 4-6 months later. Additionally, for males *Parental Trust* was negatively associated with *Problem Behaviors* ($\beta = -.23, p < .05$). Based on this result it appears that males who perceived that their parents trusted them at baseline reported participating in fewer problem behaviors 4-6 months later.

Finally, RQ2 was proposed in order to investigate whether sex differences existed in the associations among the variables parental support, parental trust, romantic relationships disclosure, and adolescent problem behaviors. A direct inspection of male and female coefficients indicated two apparent sex differences in how variables in the model are associated with each other. Specifically, (1) *Parental Support of Romantic Relationships* was directly associated with *Problem Behaviors* for females but not males, and (2) *Romantic Relationship Disclosure* was associated with *Problem Behaviors* for males but not females. A more formal test of sex moderation was conducted by comparing fit indices of the baseline model to a model where all substantive paths were constrained to be equal for males and females.

When comparing fit using χ^2 , the difference between χ^2 values and degrees of freedom are calculated and a χ^2 table is used to evaluate differences and determine their statistical difference at a chosen alpha level. However, χ^2 is a relative fit index and its values are sensitive to sample size. Consequently, Cheung and Rensvold, (2002) suggest a comparison of CFI as well as χ^2 because the CFI is an absolute fit index and is independent of model complexity and sample size. Based on simulations a decrease of -.01 or greater is considered a significant decrease in model fit (Cheung & Rensvold,

2002). Because the small sample in the present study presents a potential limitation to detecting differences, both χ^2 and CFI were evaluated to determine invariance across sexes. Evaluation of the fit indices revealed that the restrictions placed on the model resulted in significantly poorer fit ($\chi^2 (3, N = 91) = 7.143$, CFI= .983), compared to the baseline model ($\chi^2 (1, N = 91) = 1.175$, CFI = .999). This significant decline in model fit suggests that the path coefficients between males and females differ significantly. Further nested model comparisons were conducted to assess whether each specific structural path differed across males and females. The results included in Table 6 indicate that sex only moderated the association between *Parental Support of Romantic Relationships* and *Problem Behaviors*. This difference was such that the effect of *Parental Support of Romantic Relationships* on *Problem Behaviors* was significantly greater for females as compared to males.

Discussion

Research has indicated that parents' ability to influence adolescents' participation in problem behaviors is linked to how much they know about what their adolescent children are doing (Racz & McMahon, 2011). Unfortunately, romantic relationships are the domain of experience adolescents feels the least obligated to share information to their parents about (Rote & Smetana, 2015). Consequently, influencing adolescents to disclose information about romantic relationships represents a particular challenge for parents. From a research perspective, little is known about what parents can do to access information about adolescent romantic relationships in an effort to mitigate negative outcomes for their adolescent children. In the present study, I proposed four hypotheses and two research questions investigating the associations among adolescents' perceptions

of *Parental Support of Adolescent Romantic Relationships* and *Parental Trust* and adolescent reports of actual *Romantic Relationship Disclosure* and *Problem Behavior*. I further investigated the effect of sex on those associations. This investigation adds to the current literature by investigating how adolescents' perceptions of parenting practices are associated with adolescent disclosure and problem behavior specific to the context of romantic relationships.

Parental Support of Romantic Relationships, Romantic Relationship Disclosure and Problem Behaviors

In support of H1 adolescents' perceptions that parents were supportive of their romantic relationships was positively associated with adolescents' disclosure to parents about their romantic relationships. This was true for both males and females. This finding implies that adolescents who see their parents as supportive of their romantic relationships, such as parents trying to meet their partner and including their partner in family activities, are more willing to tell parents what they do with, how they feel about, and discuss issues they are having with their romantic partner. This finding is especially encouraging for parents as it suggests that despite the fact that adolescents are particularly reticent to discuss their romantic relationships with parents (Rote & Smetana, 2015) parents can engage in practices that influence adolescents to share that information. This finding is consistent with research showing that parents' supportive behaviors is associated with disclosure in the private and prudential domains (Smetana, et al. 2006; Hunter, et al. 2011), but it is the first investigation to confirm this association in the domain of romantic relationships.

The association between perceptions that parents are supportive of romantic relationships and adolescents' increased disclosure about romantic relationships is likely due to the emotional climate that is fostered between adolescents and parents when adolescents feel supported in this way. Darling and Steinburg (1993) suggest that positive parenting practices that are coupled with a warm style can create an emotional climate in the home that fosters within children a willingness to be socialized. Because romantic relationships are often the most salient feature of adolescents' lives (Eder, 1993; Wilson-Shockley, 1995), when adolescents' perceive that parents are supportive of romantic relationships this may foster within the adolescent a willingness to be open to parents about the relationship.

Another important finding in the present study is that parental support of adolescent romantic relationships is associated with decreases in problem behavior 4-6 months later, though the effect occurs differently for males and females. The hypothesized model revealed direct associations between parental support of romantic relationships and time two problem behaviors for females, implying that parents' support of their daughters' adolescent romantic relationships is associated directly to decreases in problem behaviors. In contrast, the association between parental support of romantic relationships and problem behaviors for males was mediated by romantic relationship disclosure. This implies that parents' supportiveness of their adolescent sons' romantic relationships is associated with a decline in problem behaviors due in part to the fact that sons disclosure about romantic relationships increases when they perceive support from their parents. Although, my findings suggest female perceptions that parents' support their romantic relationship are also associated with increased romantic relationship

disclosure, greater disclosure on the part of females does was not associated with decreases in problem behaviors.

The difference in how parental support of adolescent romantic relationship is associated with problem behaviors for males and females may be due to differences in how males and females respond to parents' support of their relationships. As articulated above, positive parenting practices can create an emotional climate that fosters a willingness on the part of adolescents to be socialized by their parents (Darling & Steinburg, 1993). However, support of adolescent romantic relationships may lead to a different type of openness to socialization on the part of males and females. It may be that for females, feeling supported in their romantic relationships fosters in them a willingness to respond directly to parents' guidance, rules, and values by being compliant and thus avoiding participation in problem behaviors in the future.

Alternatively, the results indicate that when males feel supported in their romantic relationships this fosters in them an openness toward communication with parents about romantic relationships which in turn leads to decreased problem behaviors. Because, romantic relationships are the area adolescents are least likely to disclose information to parents about, it seems likely that if adolescent males are willing to discuss romantic relationships with parents, they may also open up about other areas of their lives which may be associated with problem behavior participation. It may also be the case that when parents have open communication with adolescents about their romantic relationship involvement, then parents have the ability to act preventatively if they are concerned about their child's conduct.

Research indicates that involvement in romantic relationships at a young age (Neeman et al., 1995), having a high number of romantic partners (Cui, Ueno, Fincham, Donnellan, & Wickrama, 2012), or having a delinquent romantic partner (Haynie, Giordano, Manning, & Longmore, 2005) are all ways in which romantic relationship involvement is associated with adolescents' problem behavior participation. Findings from the current study imply the possibility that parents who create the perception in males that they support their romantic relationships are probably more aware of early romantic relationship participation, serial dating, and the delinquent behaviors of dating partners, and are thus equipped to address these issues if and when they arise. It is also important to note that in general parents who are able to create in adolescents the perception that they support their romantic relationships may also be effective in a variety of other parenting behaviors that taken together help mitigate adolescents' participation in problem behaviors.

Parental Trust, Romantic Relationship Disclosure and Problem Behavior

Controlling for age and parental support of romantic relationships, the present study found no support for a positive association between perceived parental and romantic relationship disclosure. This finding is inconsistent with that of Daddis and Randolph, (2010) which showed that parental trust was associated with adolescents' romantic relationship disclosure. However, Daddis and Randolph's (2010) study did not introduce competing predictors outside of controls. In fact, no other research has tested parental support of romantic relationships and parental trust as simultaneous predictors of adolescents' romantic relationship disclosure. In an attempt to better understand the lack of an association in the present study, a post-hoc analysis wherein parental support of

romantic relationships was removed as a predictor in the model was conducted. This test revealed that absent parental support of romantic relationships, parental trust had a significant association with adolescents' romantic relationship disclosure. Thus, the lack of a significant association between parental trust and romantic relationship disclosure in the hypothesized model merely indicates that when considering the effect of parental support of romantic relationships, parental trust does not explain a significant proportion of residual variance. This would seem to suggest that parental support of romantic relationships is a stronger predictor of adolescents' romantic relationship disclosure. However, research question one which tested the relative strength of these two predictors on romantic relationship disclosure did not support this conclusion.

Research question one was proposed as an attempt to test the theoretical assertion of Darling and Steinburg (2003), which states that parenting practices are most effective when they are targeted to achieve a specific outcome. In terms of the present study, this should mean that as a parenting practice, parental support of adolescent romantic relationships should be more effective in eliciting disclosure from adolescents about romantic relationships than general parental trust, because parental support of romantic relationships and adolescents' romantic relationship disclosure are both focused on the domain of romantic relationships. However, results in the present study showed there was no significant difference between the strength of the coefficients, indicating a lack of conclusive evidence that parental support of romantic relationships has a significantly greater influence on romantic relationship disclosure than parental trust.

Parental trust did have a significant direct association with problem behavior at time two indicating that adolescents who perceive that their parents trust them to make

their own decisions participated in fewer problem behaviors 4-6 months later. This replicates and expands on the findings of previous research (Borawski, Ievers-Landis, Lovegreen, & Trapl, 2003) by providing evidence that this association holds up over the course of time.

Limitations

Findings in the present study provide evidence that parents' support of adolescents' romantic relationships is associated with increased disclosure from adolescents about those relationships and that support of adolescents' romantic relationships may mitigate adolescent participation in problem behaviors. Still, the results should be considered in light of several limitations. Although data in the present study were collected longitudinally, measures of parental support of romantic relationships and adolescent romantic relationship disclosure were both captured at baseline. Consequently, the finding that parental support of romantic relationships is associated with increased romantic relationship disclosure is a cross sectional one and precludes inferences about how this association changes across time. Furthermore, cross-sectional data do not provide certainty as to the direction of effects. The possibility that adolescents' spontaneous disclosure to parents about their romantic relationships may lead parents to be more supportive of those relationships is a real one. In fact, it seems reasonable that there would be some reciprocal association between parents' support of their teen's romantic relationship and adolescents' willingness to disclose information about that romantic relationship.

Despite previous research findings indicating that adolescents' perceptions of their parents' behaviors are more closely linked to positive outcomes than are their

parents' reports of actual behaviors (Gonzales, Cauce, & Mason, 1996), the lack of parental reports in the present study is limiting. Previous research by Soenens et al. (2006) showed that the association between parenting practices, parents' knowledge of information in private and prudential domains, and adolescent delinquency did not differ across maternal, paternal, or adolescent reports. However, adolescents are more reluctant to disclose information in the domain of romantic relationships than they are private and prudential domains (Rote & Smetana, 2015), and research in the domain of romantic relationships indicates that mothers tend to be more involved in the management of their adolescents dating relationships than are fathers (Madsen, 2008). Thus, there may be differences in how parental support is associated with adolescents' disclosure about romantic relationship depending on whether the report comes from parents or adolescents, and whether the report comes from mothers or fathers.

The present study was also limited by a small sample size, and consequently may have lacked power to detect some hypothesized effects. For example, failure to replicate findings by Daddis and Randolph (2010) indicating that parental trust is associated with increases in adolescent disclosure about romantic relationships may be due to a lack of power. Findings in the present study should not be used to suggest that engaging in parenting behaviors that promote parent-adolescent trust are not helpful in influencing adolescents to disclose information about romantic relationships. Rather this finding should be considered in light of; (1) the totality of the present findings which suggest that controlling for parental support, parental trust did not predict additional variance, and (2) that the sample size limited the ability to detect effects. Lack of statistical power may also

explain failure in the present study to observe an association between romantic relationship disclosure and problem behavior for females.

Lastly, an unavoidable reality associated with collecting data from adolescents is that parental consent must be obtained. This has consequences for recruitment and data gathering when it comes to adolescent dating couples as it likely excludes adolescents whose parents do not know about or do not approve of their teens romantic relationship. Though it is difficult to say what impact this limitation may have had on the present findings, some research suggests that ethnic minority parents, specifically Black and Hispanic parents, guided by religious, cultural and ethnic values are stricter in their management of adolescents' romantic relationships (Mounts & Kim, 2009). The sample in the present study consisted of 42% Hispanics and 4% Black participants, which closely reflects the student population in the schools for the state in which the sample was gathered (Arizona Department of Education, 2014). Thus, ethnic minority youth were not underrepresented in the sample. However, due to the necessity of acquiring parental consent, adolescents' whose parents hold more traditional religious, cultural or ethnic values and are stricter in their management of adolescent romantic relationships may have decided against participating in the present study. Consequently, results in the present study may not generalize to adolescents whose parents hold traditional values or are stricter in managing romantic relationships.

Future Research

The limitations highlighted above suggest a need for future research that can further clarify several of the findings in the present study. First, research that captures parental support of romantic relationships and adolescents' disclosure about romantic

relationship at multiple points is necessary to clarify whether the association between these variables that was identified in the present study is merely an artifact observed at a cross-section in time, or whether it persists over time. Secondly, future research that collects parent and adolescent reports of parental support of romantic relationships, and romantic relationship disclosure is necessary to understand whether associations between these variables would be similar or different depending on who reported them. Lastly, future studies that employ a larger sample will be able to provide more complete evidence concerning how parental trust is associated with romantic relationship disclosure in the face of competing covariates, and whether or not associations in the present study differ by sex.

Conclusion

The present study has important implications for parents with teenagers in romantic relationships and is a valuable contribution to the literature. It represents one of the first investigations into the role that parents play as socializing agents of adolescent's romantic relationships and suggests that parents can be effective in influencing adolescents in this context. Particularly, findings in the present study suggest that parents who want their adolescent children to be open in their communication about romantic relationships may find success by being supportive of their adolescent's relationships. For parents, the findings also suggest that supporting adolescent's romantic relationships may be effective in mitigating adolescent's participation in problem behaviors.

General Discussion

Romantic relationship participation is associated with both positive and negative outcomes for adolescents. On the positive side, researchers have shown that the quality

of romantic relationships during adolescents has implications for the success of romantic pairings in adulthood (Seiffge-Krenke & Lang, 2002). However, researchers have also shown that romantic relationship participation and involvement can be maladaptive and lead to problem behavior participation for adolescents (Neeman et al., 1995). Considering these positive and negative correlates of adolescent romantic relationship participation, the primary goal of this dissertation was to (1) investigate factors which promote adolescent romantic relationship quality, and (2) examine ways through which adolescent problem behavior—that may be correlated with romantic relationship participation—can be delimited. This was accomplished using two separate but related studies which investigated the role support plays in promoting adolescent relationship quality and delimiting problem behavior participation.

The first study used EMA data to investigate the role of support receipt in the face of a stressor in increasing relationship quality for adolescent partners. Additionally, the degree of perceived stress experienced as a result of the stressor was investigated as moderator. This was the first EMA investigation of adolescent couple support processes and their association with relationship quality. Findings indicated that day-to-day support processes are associated with relationship quality in adolescent romantic relationships, in much the same way as in various adult romantic relationships. This finding speaks to the developmental significance of adolescent romantic relationships and suggests that individuals' capacity to maintain intimate relationships by being responsive to a partner's needs is learned long before individuals typically establish long-term committed relationships. The findings were limited by the fact that only support receipt, but not support provision was measured, thus calling into question whether it is actual support or

the perception of support from ones partner that increases relationship quality. Future research measuring support provision as well as receipt, and using a similar methodology as the current one, can provide further clarification into how day-to-day support processes are associated with relationship quality in adolescent romantic relationships.

The second study examined the role of parental support of romantic relationships and parental trust in increasing adolescents' romantic relationship disclosure and decreasing adolescents' problem behavior participation 4-6 months later. Findings suggest that adolescents' perception that their parents are supportive of their romantic relationships is associated with increased disclosure on the part of adolescents about their romantic relationships, and decreased participation in problem behaviors at time two. Importantly, for females, the association between parental support of adolescent romantic relationships and decreased problem behaviors was direct, while for males the association was mediated by romantic relationship disclosure. The difference in how parental support of adolescent romantic relationship is associated with problem behaviors for males and females highlights the possibility that males and females respond differently to parents' support of their romantic relationships. Study two also provides some tentative evidence for Darling and Steinburg's (1993) theoretical assumption that parenting practices are most effective when they are targeted to achieve a specific outcome. Results indicated that parental support of romantic relationships but not parental trust was associated with increased romantic relationship disclosure. However, a more formal test of the relative strength of the effect of parental support of romantic relationships and parental trust on romantic relationship disclosure indicated no significant differences in

the effects. Sample size, and the associated power to detect effects is a possible limitation to this finding that future research should address.

These two studies though very different in their approach both highlight the important role of support in adolescent romantic relationships. Study one, highlights the developmental significance of adolescent romantic relationships by providing evidence that receiving support from a romantic partner promotes romantic relationship quality for adolescents in much the same way as it does for adults. Study two, suggests that creating the perception that they are supportive of their adolescents' romantic relationships is important for parents who want access to information about those relationships, and want to mitigate adolescents' participation in problem behaviors. Together these, studies provide a solid foundation for future studies seeking to further understand the role of support in promoting positive and mitigating negative outcomes associated with adolescent romantic relationships.

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APPENDIX A

TABLES

Table 1

Estimated means and standard deviations of study variables by sex

Variable	Males		Females	
	M	SD	M	SD
Stress	3.75***	1.30	4.36***	1.03
Support Receipt	3.94***	1.61	4.34***	1.59
Relationship Quality	6.12	1.14	6.25	1.03

*** $p < .001$ (representing a significant difference between males a females)

Table 2

Dyadic Process Multilevel Analysis Results Relating Twice Weekly Support Receipt to Relationship Quality for Heterosexual Adolescent Couples: Fixed Effects

Participants (n = 97)		
Variable	γ	SE
Relationship Quality		
Intercept	5.76	.88
Time	-.073***	.022
Weekend	.024	.019
Age	-.023	.050
About Relationship	-.012	.036
Average Support Receipt	.198***	.027
Support Receipt	.091***	.011
Stress	-.041**	.011
Support Receipt * Stress	.015***	.004

*** p < .001

Table 3

Dyadic Process Multilevel Analysis Results Relating Twice Weekly Support Receipt to Relationship Quality for Heterosexual Adolescent Couples: Random Effects

		Participants (n = 97)	
Variances	τ	SE	
Level 2 Variances			
RQ Intercept	.668***	.111	
Support Slope (SS)	.007***	.002	
Stress Slope (STS)	.005**	.002	
Support X Stress Interaction Slope (SXS)	.000	.000	

Note: Significance tests for variances are likelihood ratio (LR) tests representing the difference between the -2 log likelihood of a model that treats the effect as random and a model that does not.

** $p < .01$. *** $p < .001$

Table 4

Estimated means and standard deviations of study variables by sex

Variable	Males		Females	
	M	SD	M	SD
Parental Support	3.54	1.17	3.58	1.18
Parental Trust	3.48	.67	3.42	.65
RR Disclosure	2.45	.95	2.69	1.08
Problem Behavior	1.32	.47	1.36	.51

Note: There were no significant mean differences between male and female values on study variables.

Table 5

Correlations of all study variables by sex

	1	2	3	4
1. Parental Support	-	.304 [*]	.510 ^{**}	-.300 ^{**}
2. Parental Trust	.309 ^{**}	-	.294 ^{**}	-.335 ^{**}
3. RR Disclosure	.450 ^{**}	.299 ^{**}	-	-.349 ^{**}
4. Problem Behavior	-.183	-.402 ^{**}	-.329 ^{**}	-

Note. ^{*} $p < .05$; ^{**} $p < .01$. Female correlations above of the diagonal, male correlations below the diagonal.

Table 6

Structural invariance indices indicating differences in the associations between study variables by sex

	χ^2 (DF)	CFI	TLI	RMSEA
Baseline Model	1.175 (1)	0.999	0.964	0.044
RR Parental Support, RR Disclosure, Trust, Problem Behaviors.	7.143 (3)	0.983*	0.837	0.093
RR Disclosure, Problem Behaviors	2.092 (2)	0.999	0.990	0.022
RR Parental Support, Problem Behaviors	5.826 (2)	0.979*	0.603	0.145
RR Parental Trust, Problem Behaviors	2.325 (2)	0.998	0.966	0.042

Notes: * indicates a significant decrease in model fit. Cheung and Rensvold's (2002) suggestion that Δ CFI of -.01 or greater indicates model invariance was used to determine whether the models were significantly different. RR = Romantic Relationships.

APPENDIX B

FIGURES

Figure 1. Conceptual model illustrating possible associations between Support and Relationship Quality in the face of a Stressor and as moderated by the degree of Stress.

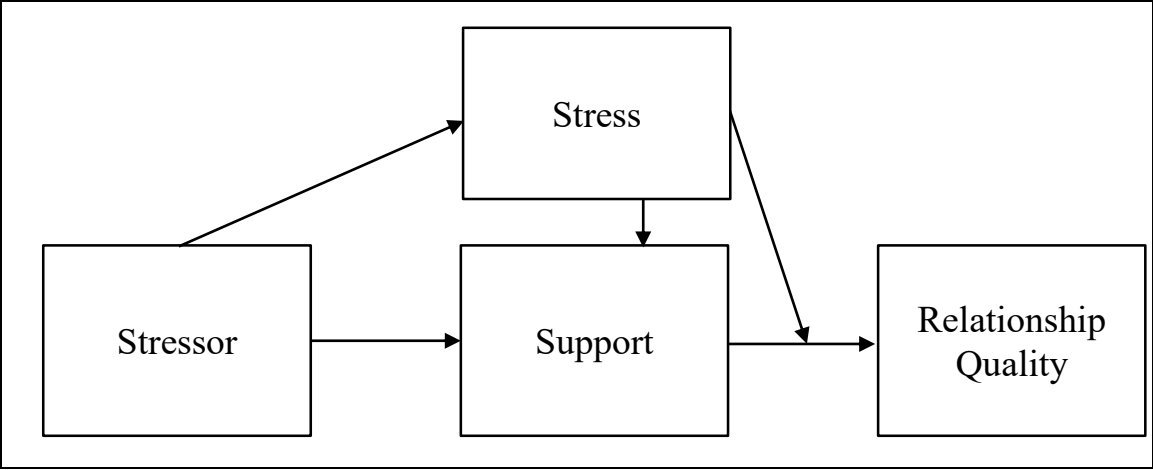
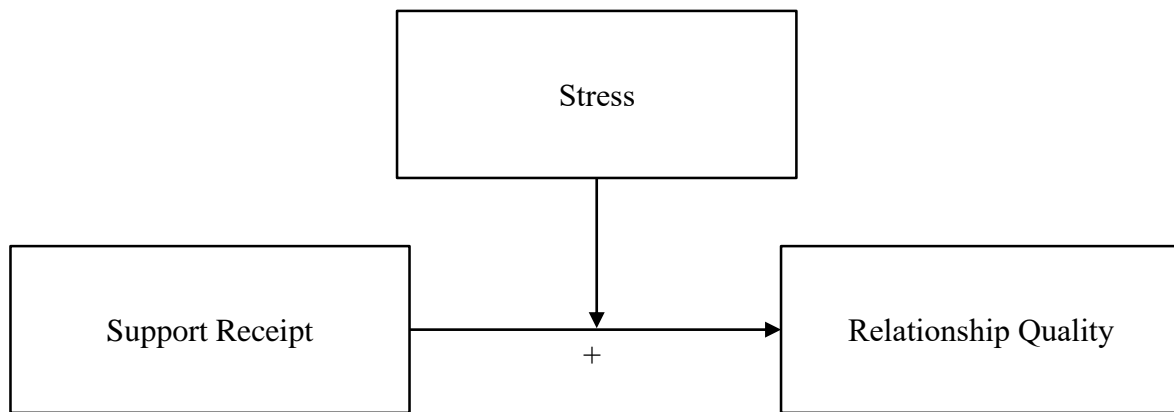
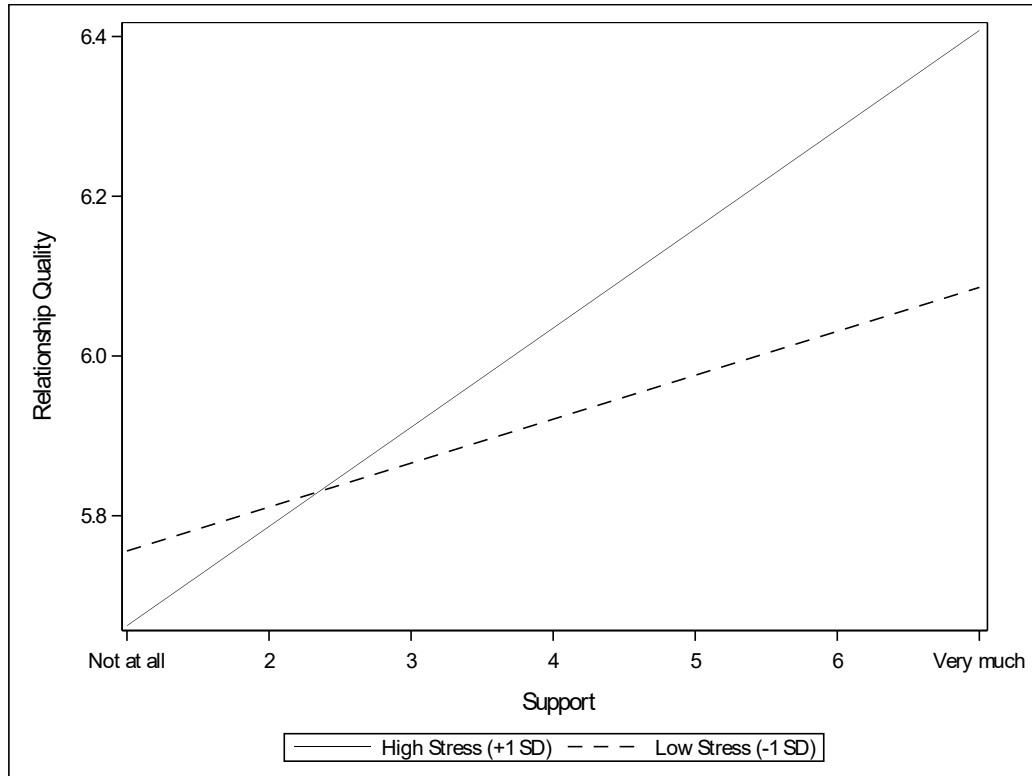


Figure 2. Proposed statistical model representing the associations among adolescent couples' support receipt, stress and relationship quality.



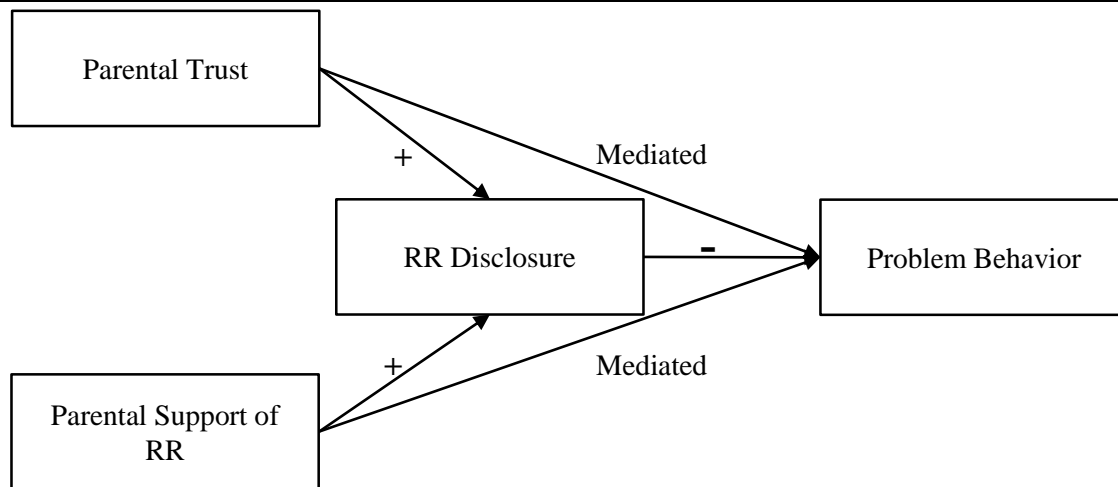
Notes: To maintain parsimony controls *Weekend, Age, About Relationship, Sexual Orientation and Average Support Receipt* regressed on the outcome *Relationship Quality* were not included in the model.

Figure 3. The effect of *Support Receipt* on *Relationship Quality* at different levels of *Stress*.



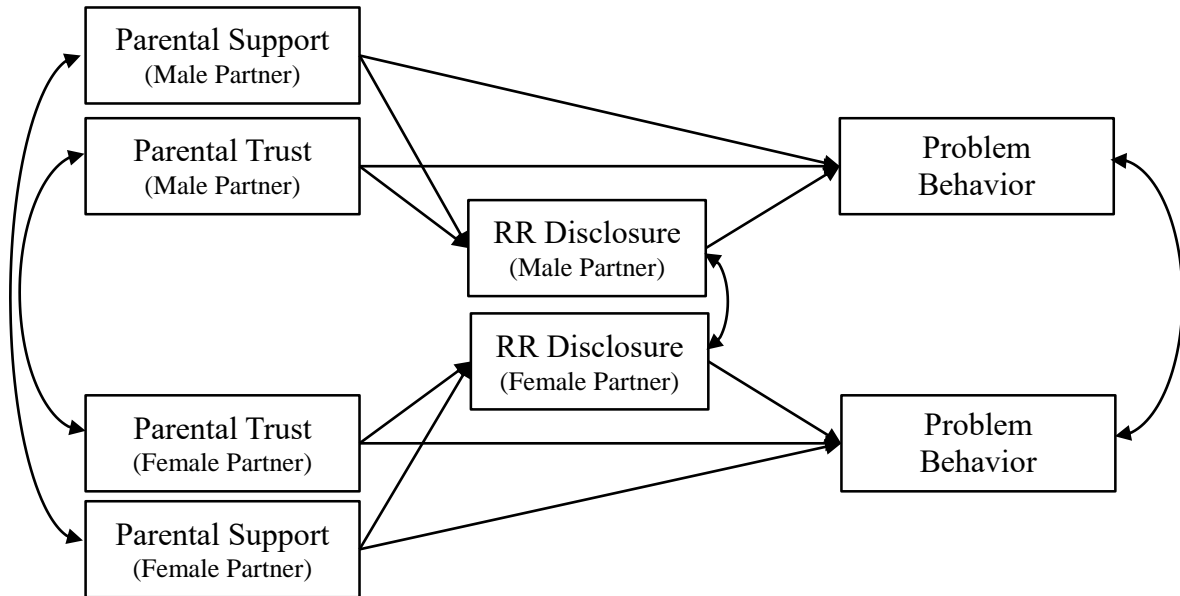
Notes: A test of simple slopes at one standard deviation above and one standard deviation below the *Stress* mean revealed that the average effect of *Support Receipt* on *Relationship Quality* is significant at both high ($b_3 = .109$, $t(97) = 9.96$, $p < .001$) and low levels ($b_3 = .049$, $t(97) = 4.74$, $p < .001$) of stress.

Figure 4. Conceptual model representing the relationships between parental trust, parental support of romantic relationship and problem behavior.



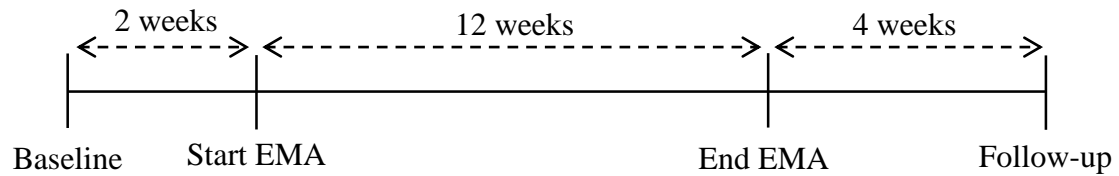
Notes: This model assumes mediation such that *RR Disclosure* would mediate the association between both *Parental Trust*, and *Parental Support of Adolescent RR* and the outcome *Problem Behavior*. RR = Romantic Relationships.

Figure 5. Proposed statistical model representing the associations among adolescent couples' time one measures of perceived parental support of romantic relationships, perceived parental trust, romantic relationship disclosure, and the time two outcome problem behavior.



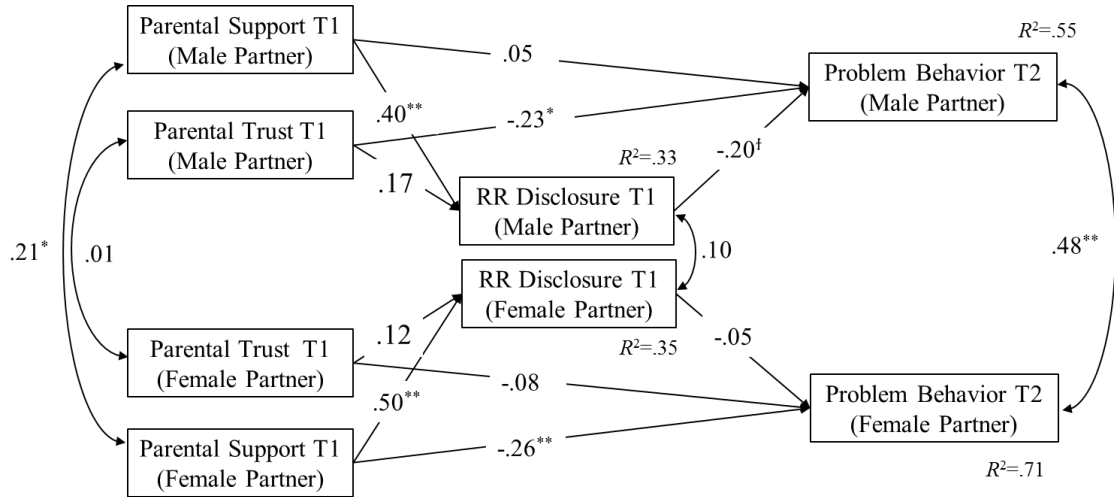
Notes: To maintain parsimony the control variables *Baseline Romantic Relationship Disclosure* and *Baseline Problem Behaviors* and were not included in the model. RR = Romantic Relationships.

Figure 6. Study Timeline



Notes: Between the Baseline and Start of EMA participants participated in a laboratory session to complete an experimental portion of the study. Though the experiment itself is not relevant to the present study, the measure of *parental trust* was administered during this lab visit. All other variables were measured at baseline or follow-up.

Figure 7. Actor–Partner Interdependence Model representing the associations among adolescent couples’ time one measures of perceived parental support of romantic relationships, perceived parental trust, romantic relationship disclosure, and the time two outcome problem behavior.



Notes. $N = 91$ couples. Bias-corrected p values: [†] $p < .09$, * $p < .05$, ** $p < .01$. Relationship Status, Age and T1 Problem Behavior were included as control variables but are not shown to aid readability. Only actor effects are shown. RR = Romantic Relationships.