

The Pennsylvania State University
The Graduate School
College of Health and Human Development

**THE FAMILY CONTEXTS OF ROMANTIC RELATIONSHIPS IN
ADOLESCENCE AND ADULTHOOD**

A Thesis in
Human Development and Family Studies

by
Marni L. Kan

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Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

August 2007

The thesis of Marni L. Kan was reviewed and approved* by the following:

Susan M. McHale
Professor of Human Development
Thesis Advisor
Chair of Committee

Ann C. Crouter
Professor of Human Development

Chalandra M. Bryant
Associate Professor of Human Development and Family Studies

Alan Booth
Distinguished Professor of Sociology, Human Development, and Demography

Mark E. Feinberg
Senior Research Associate, Prevention Research Center
Special Member

Douglas M. Teti
Professor of Human Development and Family Studies
Professor in Charge of Graduate Program in Human Development and Family Studies

*Signatures are on file in the Graduate School.

ABSTRACT

The goal of this research was to examine links between romantic relationship experiences and other family relationships (including parent-offspring and inter-parental relationships), and included three studies that addressed this theme during different stages of development. Study 1 examined dimensions, predictors, and correlates of adolescents' perceived power in their romantic relationships. Global power, emotional investment, and availability of relationship alternatives were identified as three distinct indices of power among 199 adolescents aged 14 to 19. Gendered characteristics and family and individual resources one to two years earlier were investigated as predictors of power, and concurrent adjustment correlates of power were examined. Results supported a resource perspective on relationship power more consistently than a gender perspective, in that positive family and personal characteristics were associated with having equal or more power in romantic relationships. Greater power was negatively related to internalizing symptoms but positively related to externalizing behaviors. Study 2 examined longitudinal associations between couple violence and parenting and coparenting experiences across the transition to parenthood. A community sample of 162 couples reported on violence in their relationships when they were expecting their first child, and reported on their parenting stress, parental efficacy, and coparenting after the child was born. Mothers' and fathers' violence perpetration was related to both parents' parental distress and coparenting. Couple relationship distress, and to a lesser extent parent physical and mental health, mediated the links between violence and parenting and between violence and coparenting. Study 3 extended family systems research on associations between intergenerational coalitions in the family and the quality of marital relationships. Specifically, longitudinal links between

incongruence in mothers' versus fathers' differential treatment of adolescent-age siblings and parents' marital quality were examined. Multilevel models, examining 200 families over 4 waves spaced across six years, tested whether incongruence in differential parent-offspring intimacy and conflict predicted trajectories of mothers' and fathers' reports of marital conflict and satisfaction, and vice versa. Analyses showed that changes in interparental incongruence covaried longitudinally with changes in marital quality and that these linkages became stronger over time. Together, these three studies provide a picture of the associations between features of romantic relationships and characteristics of other family relationships in adolescence, early adulthood, and middle adulthood. Further, findings from this work can inform prevention and policy efforts aimed at strengthening family and romantic relationships and preventing relationship problems such as conflict, dissolution, and violence.

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ACKNOWLEDGEMENTS

I would like to thank several people for their invaluable assistance in the preparation and completion of my dissertation. I would first like to acknowledge the support of the National Institutes of Child Health and Human Development in funding the Penn State Family Relationships Project and the Family Foundations Project, from which the data for this dissertation were drawn. I am grateful to Drs. Susan McHale and Ann Crouter as well as to Dr. Mark Feinberg for designing these studies, which yielded unique data that allowed me to explore family contexts of romantic relationships in innovative ways.

I have had a wonderful graduate experience thanks to the support and guidance of my advisor and my dissertation committee. To my advisor and chair of my committee, Susan McHale: I feel so blessed to have had your mentorship over the past 5 years. I admire both the brilliance and the humility that you possess, and you have been an amazing teacher and role model for me. Thank you for accepting me for who I am and for fully supporting me professionally and personally. I have grown so much as a researcher with your guidance, and you have helped to give me the confidence I need to succeed in my career. I have truly enjoyed working with you and hope to continue our collaboration in the future.

These comments ring true as well for my other primary mentors during graduate school, Mark Feinberg and Nan Crouter. Mark: I am so grateful that I have been able to work with you. I learned so much from the prevention research experience I was able to get and feel that this experience will be essential as I launch my career. Thank you for trusting me to take on a lot of responsibility and for supporting my growth as a researcher. Your passion for and commitment to your work is admirable and has been a great example for me to follow. Nan: I am so glad that you were part of my graduate school experience. Your feedback on

my work has been so valuable and I have always felt supported and encouraged by you. You provide a great example of a successful researcher who can do it all, but who remains down-to-earth and accessible. As I begin my career, I look forward to carrying with me the lessons I have learned from you.

To my dissertation committee members, Chalandra Bryant and Alan Booth: Thank you for taking the time to work with me. I have really enjoyed and benefited from your insights regarding my work, and I have appreciated your collegial and supportive approaches to the dissertation process. Thank you for making me feel comfortable and for helping me to improve my work.

I would also like to thank my family and friends, who have been instrumental in ensuring my success in graduate school. Regardless of the distance between us, I have always felt loved and supported by you. Thank you for being there to lend a hand or an attentive ear. I have to especially thank my parents for being my number one fans and cheering for me throughout my 21 years in school! You have always made me feel like the smartest, most special person and I love you for that.

Finally, to Ziv, I could not have made it to this point without you. Thank you for loving and supporting me unconditionally and for understanding what my work means to me. You have helped me to create balance in my life and have filled every day with joy. I feel that with you at my side, I can face any challenge life brings my way. I am so glad that I will have you with me as I enter the 'real world.' I am so excited to begin the next chapter of our lives together!

CHAPTER 1

Integrative Review

Integrative Review

Experiences in romantic relationships, including dating, cohabitation, marriage, and the transition to parenthood, are key aspects of adolescent and adult development and include risks such as intimate violence, unintended pregnancy, relationship conflict and dissatisfaction, and relationship disruption. These problems have implications for individual and family well-being, and can create tremendous costs for society. Given the salience and impact of romantic relationships in the lives of adolescents and adults, researchers in several fields, including psychology, sociology, and demography, have sought to understand factors that influence and that are influenced by romantic relationship development and success or failure.

One set of factors that influences romantic relationships originates in the family, particularly in parent-offspring relationships and inter-parental relationships in the family of origin. Extant research indicates that these family relationships and experiences are associated with dating, cohabiting, and marital relationship experiences among adolescents and adults, but this research remains conceptually and methodologically limited. Therefore, this dissertation focused on links between romantic relationships and other family relationships (including parent-offspring and inter-parental relationships), and included three studies that addressed this theme during different stages of development. Study 1 focused on predictors and correlates of power dynamics in adolescents' romantic relationships. Study 2 examined associations between intimate violence and parenting and coparenting experiences across the transition to parenthood among young adults. Study 3 investigated longitudinal links between inter-parental incongruence in differential treatment of offspring and marital quality among parents of adolescents. The three studies are diverse in content and use two

different data sets, but share the goal of identifying ways in which the family ecology impacts and is impacted by romantic relationships.

Family systems theory provided the basis for many of the ideas tested in the three studies. According to a family systems framework, families include individuals with different needs and perspectives, and family-level processes cannot be reduced to experiences at the individual or even the dyadic level (Cox & Paley, 1997; Minuchin, 1985; O'Connor, Hetherington, & Reiss, 1998). Therefore, rather than making inferences about family functioning based on information about a single individual or dyad in a family, constructs that represented broader family dynamics, including parental differential treatment and coparenting, and assessments of multiple family members, were important elements of these studies. Family systems theory also contends that families are composed of subsystems (e.g., marital, parent-child, sibling) that are interrelated (Cox & Paley, 1997; Minuchin, 1985; O'Connor et al., 1998); understanding of one subsystem is incomplete if processes operating in other subsystems are not considered. This notion provided the basis for examining associations between romantic relationships and parent-offspring relationships in the three studies. Finally, as systems, families reorganize in response to external and internal forces (Cox & Paley, 1997; Minuchin, 1985). Consequently, transition points such as the birth of a child or puberty may provide insight into systemic family processes. These three studies capitalized on such transition points in order to highlight differences in family adaptation over time.

Much previous research has focused on general direct associations between family characteristics and romantic experiences. Three types of family relationship experiences have been linked to romantic relationships in past research and are investigated in the three current

studies: experiences with parents, parents' marital relationships, and experiences with children. Developmental perspectives propose links between children's and adolescents' experiences with their parents and adolescents' and young adults' romantic relationships (Bryant & Conger, 2002; Collins & Sroufe, 1999; Gray & Steinberg, 1999). Relationships with parents foster a capacity for intimacy and general social competence through their effects on children's internal working models, relational skills, and self-worth (Collins & Sroufe, 1999; Gray & Steinberg, 1999). Adolescents' experiences in their families of origin also promote particular cognitive and interactive styles, which can be carried over to intimate relationships (Bryant & Conger, 2002; Downey, Bonica, & Rincón, 1999; Shulman, 2003).

Turning to parents' marital relationships, children and adolescents are expected to acquire relational skills from observing their parents' relationship with one another (Conger, Cui, Bryant, & Elder, 2000; Feldman, Gowen, & Fisher 1998; Gray & Steinberg, 1999; Scharf & Mayseless, 2001). Indeed, conflict or aggression between parents is related to poor functioning of children and adolescents and difficulty in their own romantic relationships (Gray & Steinberg, 1999). Inter-parental styles of conflict resolution have been associated with styles of conflict resolution in adolescents' romantic relationships (Reese-Weber & Bartle-Haring, 1998) and parents' marital satisfaction has been linked to adolescents' capacity for and experience with intimacy (Feldman et al., 1998; Scharf & Mayseless, 2001).

Finally, increased stress during the transition to parenthood and difficulties in handling the responsibilities of childrearing can result in diminished couple relationship quality, but the effects of having children vary across couples (Belsky & Rovine, 1990; Bradbury, Fincham, & Beach, 2000; Feinberg, 2002; Florsheim, Moore, & Edgington, 2003). Coparenting, or the way in which partners work together as parents, may be an important mechanism underlying the

implications of the transition to parenthood for couple relationship experiences (Feinberg, 2003). In turn, most research supports a spillover hypothesis of links between marital and parent-offspring relationships, which suggests that positive or negative experiences in the marital relationship carry over to each parent's experiences with his or her children (Erel & Burman, 1995; Krishnakumar & Buehler, 2000).

The current research sought to uncover more complex associations than have been examined previously, for instance by examining power and gender dynamics as sources of variation among families and romantic relationships in addition to more commonly studied indices of positive and negative individual adjustment (Study 1), by focusing on mechanisms of association between couple and family experiences (Study 2), and by investigating broader family dynamics as time-varying correlates of romantic relationship quality (Study 3). Moreover, the three focal relationship constructs of these studies, power, violence, and marital quality (conflict and satisfaction), are important aspects of romantic relationship functioning that were examined in new ways.

Power in romantic relationships has important implications for individual and relationship adjustment (e.g., Galliher, Rostosky, Welch, & Kawaguchi, 1999; Horwitz, 1982; Sprecher, Schmeckle, & Felmlee, 2006), but has largely been studied among college students and adults. The predictors of romantic power in terms of individual and family of origin characteristics have also received little attention in prior research. Therefore, Study 1 advanced research on power in adolescent romantic relationships by investigating dimensions of power and their correlates. Violence in romantic relationships is a widespread public health problem and is associated with parent physical and psychological well-being, parent-to-child violence, and child adjustment (e.g., Tolan, Gorman-Smith, & Henry, 2006).

Nonetheless, few studies have examined the implications of couple violence for parenting and coparenting experiences or the mechanisms that may explain such implications. Study 2 built upon prior research on the links between couple violence and parenting and coparenting by examining such links longitudinally across the transition to parenthood and by investigating potential mediators of these associations. Finally, though family systems theory and research suggests that marital quality is related to inter-generational coalitions and coparenting processes (e.g., Feinberg, 2003; Minuchin, 1985), few studies have been able to operationalize and assess these types of family systems constructs. In Study 3, longitudinal associations between congruence and incongruence in mothers' and fathers' differential treatment and both parents' perceptions of marital quality were examined in order to gain a better understanding of systemic within-family processes across adolescence.

In addition to the family systems themes that cut across the three studies, they all focused on gender as an important component of couple relationships. Power and violence in couple relationships have often been tied to gender, in that feminist perspectives assert that family relationships and roles promote the subordination of women and are part of a larger system of male dominance (Ferree, 1990). Indeed, some research suggests that males have more power (e.g., Felmlee, 1994; Sprecher & Felmlee, 1997) and perpetrate more violence (e.g., Dobash & Dobash, 2004) than females. Gender differences in power and violence were examined in Studies 1 and 2, but analyses focused further on the differential correlates and implications of power and violence for males versus females. Consistent with the notion from family systems theory that family experiences have different implications for different family members (e.g., Cox & Paley, 1997; Minuchin, 1985), Study 3 also examined the implications of incongruence in differential treatment for mothers' versus fathers' reports of marital

quality, and for families with same versus opposite gender offspring. Together, the three studies highlight the important role of gender in family dynamics, but also advance our understanding of family processes that cut across gender lines.

The three studies also have some methodological commonalities. All three examined associations between romantic experiences and other family experiences longitudinally. Previous work on each of the topics under investigation has been largely cross-sectional, and has consequently been unable to examine the implications of family experiences for romance over time (and vice versa). In addition, Studies 2 and 3 examined the romantic relationship experiences of couples, most of whom are married. These studies used multilevel modeling strategies to account for correlations between partners' reports of their relationship and its potential predictors and outcomes.

Together, these three studies provide a picture of the associations between features of romantic relationships and characteristics of other family relationships in adolescence, early adulthood, and middle adulthood. All three sought to expand the reach of prior studies by replicating previous work using sophisticated analytic techniques, by providing more information about why or how the family serves as a context for romantic relationship experiences, or by studying novel aspects of families and their links with romantic experiences. Further, findings from this work can inform prevention and policy efforts aimed at strengthening family and romantic relationships and preventing relationship problems such as conflict, dissolution, and violence.

References

- Belsky, J., & Rovine, M. (1990). Patterns of marital change across the transition to parenthood: Pregnancy to three years postpartum. *Journal of Marriage and the Family*, 52, 5-19.
- Bradbury, T. N., Fincham, F. D., & Beach, S. R. H. (2000). Research on the nature and determinants of marital satisfaction: A decade in review. *Journal of Marriage and the Family*, 62, 964-980.
- Bryant, C. M. & Conger, R. D. (2002). An intergenerational model of romantic relationship development. In A. L. Vangelisti, H. T. Reiss, & M. A. Fitzpatrick (Eds.), *Stability and change in relationships*. (pp. 57-82). New York: Cambridge University Press.
- Collins, W. A., & Sroufe, L. A. (1999). Capacity for intimate relationships: A developmental construction. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 125-147). New York: Cambridge University Press.
- Conger, R. D., Cui, M., Bryant, C., & Elder, G. H., Jr. (2000). Competence in early adult romantic relationships: A developmental perspective on family influences. *Journal of Personality and Social Psychology*, 79, 224-237.
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology*, 48, 243-267.
- Dobash, R. P., & Dobash, R. E. (2004). Violence to men in intimate relationships: Working on a puzzle. *British Journal of Criminology*, 44, 324-349.
- Downey, G., Bonica, C., & Rincón, C. (1999). Rejection sensitivity and adolescent romantic relationships. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of*

- romantic relationships in adolescence* (pp. 148-174). New York: Cambridge University Press.
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin, 118*, 108-132.
- Feinberg, M. E. (2002). Coparenting and the transition to parenthood: A framework for prevention. *Clinical Child & Family Psychology Review, 5*, 173-195.
- Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting: Science & Practice, 3*, 95-131.
- Feldman, S. S., Gowen, L. K., & Fisher, L. (1998). Family relationships and gender as predictors of romantic intimacy in young adults: A longitudinal study. *Journal of Research on Adolescence, 8*, 263-286.
- Felmlee, D. (1994). Who's on top? Power in romantic relationships. *Sex Roles, 31*, 275-295.
- Ferree, M. M. (1990). Beyond separate spheres: Feminism and family research. *Journal of Marriage and the Family, 52*, 866-884.
- Florsheim, P., Moore, D., & Edgington, C. (2003). Romantic relations among adolescent parents. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications* (pp. 297-322). Mahwah, NJ: Lawrence Erlbaum Associates.
- Galliher, R. V., Rostosky, S. S., Welch, D. P., & Kawaguchi, M. C. (1999). Power and psychological well-being in late adolescent romantic relationships. *Sex Roles, 40*, 689-709.

- Gray, M. R., & Steinberg, L. (1999). Adolescent romance and the parent-child relationship: A contextual perspective. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 235-262). New York: Cambridge University Press.
- Horwitz, A. V. (1982). Sex-role expectations, power, and psychological distress. *Sex Roles, 8*, 607-623.
- Krishnakumar, A., & Buehler, C. (2000). Interparental conflict and parenting behaviors: A meta-analytic review. *Family Relations, 49*, 25-44.
- Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development, 56*, 289-302.
- O'Connor, T. G., Hetherington, E. M., & Reiss, D. (1998). Family systems and adolescent development: Shared and nonshared risk and protective factors in nondivorced and remarried families. *Development and Psychopathology, 10*, 353-375.
- Reese-Weber, M., & Bartle-Haring, S. (1998). Conflict resolution styles in family subsystems and adolescent romantic relationships. *Journal of Youth and Adolescence, 27*, 735-752.
- Scharf, M., & Mayseless, O. (2001). The capacity for romantic intimacy: Exploring the contribution of best friend and marital and parental relationships. *Journal of Adolescence, 24*, 379-399.
- Shulman, S. (2003). Conflict and negotiation in adolescent romantic relationships. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications* (pp. 109-135). Mahwah, NJ: Lawrence Erlbaum Associates.

- Sprecher, S., & Felmlee, D. (1997). The balance of power in romantic heterosexual couples over time from “his” and “her” perspectives. *Sex Roles, 37*, 361-379.
- Sprecher, S., Schmeekle, M., & Felmlee, D. (2006). The principle of least interest: Inequality in emotional involvement in romantic relationships. *Journal of Family Issues, 27*, 1255-1280.
- Tolan, P., Gorman-Smith, D., & Henry, D. (2006). Family violence. *Annual Review of Psychology, 57*, 557-583.

CHAPTER 1

Predictors and Correlates of Power in Adolescent Romantic Relationships

Marni L. Kan

The Pennsylvania State University

We are grateful to the families who participated in this study. We thank Matthew Bumpus, Melissa Fortner, Kelly Davis, Aryn Dotterer, Heather Helms, Julia Jackson-Newsom, Ji-Yeon Kim, Mary Klute, Carolyn Ransford, Cindy Shearer, Corinna Jenkins Tucker, Shawn Whiteman, and Kim Updegraff for their assistance in conducting this study. This study was funded by a grant from the National Institute of Child Health and Human Development (RO1-HD32336), Ann C. Crouter and Susan M. McHale, co-principal investigators. Portions of this paper were presented at the biennial meetings of the Society for Research in Child Development, March 2007, Boston, Massachusetts. Correspondence should be addressed to Marni L. Kan, Department of Human Development and Family Studies, S-113 Henderson Building, University Park, PA, 16802. Telephone: 814-865-0101. Fax: 814-865-0095. Electronic Mail: mlk272@psu.edu.

Abstract

This study examined dimensions, predictors, and correlates of adolescents' perceived power in romantic relationships. Global power, emotional investment, and availability of alternatives were identified as three distinct indices of power among 199 adolescents aged 14 to 19. Gendered characteristics and family and individual resources one to two years earlier were investigated as predictors of power, and concurrent adjustment correlates of power were examined. Results supported a resource perspective on relationship power more consistently than a gender perspective, in that positive family experiences and personal characteristics were associated with having equal or more power in romantic relationships. Greater power was negatively related to internalizing symptoms but positively related to externalizing behaviors.

Key Words: adolescent romantic relationships, gender, power, resources

Predictors and Correlates of Power in Adolescent Romantic Relationships

Relationship researchers have long recognized that intimate relationships do not always confer the same balance of costs and benefits to both partners. The balance of power is a central feature of romantic relationships and may have implications for the well-being of individuals and couples in dating, cohabiting, and marital relationships. Though many studies of marital power have been conducted over the past several decades, little research exists regarding dimensions and correlates of power among adolescent dating couples. The present study aimed to advance understanding of power in adolescent romantic relationships by: (a) examining multiple dimensions of power, (b) identifying gendered characteristics and individual and family resources that predict adolescents' relationship power over time, and (c) investigating correlates of power in terms of individual and relational adjustment.

Power in Romantic Relationships

Power in romantic relationships has been defined and operationalized in many different ways. In several studies, power has been defined as the ability to influence another or the ability to reach one's desired goal despite opposition (Cromwell & Olson, 1975; Komter, 1989; McDonald, 1980). Along these lines, many studies of relationship power have examined measures of which partner has the final say in relationship decisions or makes more of the decisions (e.g., Felmlee, 1994; Galliher, Rostosky, Welch, & Kawaguchi, 1999; Grauerholz, 1987; Kulik, 1999; Saul, Norris, Bartholow, Dixon, Peters, & Moore, 2000; Sprecher, 1985; Sprecher & Felmlee, 1997; Tschann, Adler, Millstein, Gurvey, & Ellen, 2002). However, researchers have criticized the use of questions about decision making as a solitary assessment of power because such an approach ignores the process of how decisions are made and assumes that individuals can reliably recall who makes decisions (McDonald,

1980; Safilios-Rothschild, 1970). Moreover, such a measure only taps into overt manifestations of power (Komter, 1989). Komter (1989) distinguishes among manifest power, latent power, and invisible power. Whereas manifest power can be seen in the ways in which couples attempt to effect change and resolve conflicts, latent power is evident when conflict or change is avoided for fear of jeopardizing a relationship and the desires of the more powerful partner are anticipated, and invisible power is manifest in differences in partners' mutual and self-esteem and the ways in which partners legitimate inequalities in their relationships. The latter, hidden types of power can be seen in many of the psychological constructs that are often examined in research on power, including emotional investment, commitment, equity, and availability of alternatives. In the present study, both emotional investment and availability of alternatives were examined as representations of latent or invisible power.

Waller's (1937) principle of least interest as well as investment (e.g., Rusbult & Buunk, 1993) and dependence (e.g., Emerson, 1962) theories of relationships suggest that the partner who invests more in the relationship is more dependent on the relationship and has less power. Studies have supported this idea, showing that the contribution of emotional resources such as love or desire for emotional intimacy, along with greater investment or commitment, are associated with less perceived power (Felmlee, 1994; Galliher et al., 1999; Saul et al., 2000; Sprecher, 1985; Sprecher & Felmlee, 1997; Tschann et al., 2002). Although the mechanisms of this association have not been examined, it is possible that investment in a relationship may lead individuals to ignore their own desires in order to maintain the relationship, which is a reflection of latent power (Komter, 1989).

Similarly, investment theories of relationships indicate that individuals who perceive more and better alternatives to their relationships are likely to be less dependent on their relationships and are less likely to make an effort to maintain such relationships (e.g., Rusbult & Buunk, 1993). Although a lack of perceived alternatives may positively influence commitment, satisfaction, and stability in a relationship, discrepancies in perceptions of alternatives may be related to power differentials in relationships because one partner may be more dependent on the relationship than the other. As Komter (1989) explains, latent power may be operating when individuals are resigned to the current state of their relationships, and invisible power, when individuals justify inequalities in their relationships. Both may be more likely when one partner perceives few positive alternatives to the relationship. Indeed, perceived availability of alternatives has been associated with greater romantic relationship power in prior work on young adults (Grauerholz, 1987; Sprecher, 1985). The current study built on this research to examine emotional investment and availability of alternatives, in addition to a global measure of power, as multiple dimensions of power in adolescents' romantic relationships.

Despite the fact that adolescents' dating relationships are often briefer in duration and less intimate than adults' romantic relationships, the study of power in adolescents' relationships is important. Power imbalances in adolescents' and young adults' heterosexual romantic relationships have been associated with intimate violence (Babcock, Waltz, Jacobson, & Gottman, 1993; Blanc, 2001), risky or unwanted sexual activity (Kalof, 1995; Monahan, Miller, & Rothspan, 1997) including decreased condom use (Blanc, 2001; Saul et al., 2000; Tschann et al., 2002), and lack of communication about sex or contraception (Blanc, 2001; Saul et al., 2000). Imbalances in power may put adolescents at special risk

because adolescent dating relationships are characterized by difficulty in communication of desires and goals (Giordano, Manning, & Longmore, 2006); consistent with the notion of latent power discussed by Komter (1989), adolescents who want to please a partner may not voice their opinions regarding sexual activity or contraceptive use (Manlove, Franzetta, Ryan, & Moore, 2006). Moreover, given that adolescence is a time of heightened emotional intensity in general (e.g., Giordano, Manning, et al., 2006) and that successful romantic experiences are central to adolescent well-being, power imbalances may be particularly detrimental to adolescent functioning.

Accordingly, the first goal of the present study was to examine and describe dimensions of power in adolescents' romantic relationships. Power is usually conceptualized as a multidimensional construct (Babcock et al., 1993; Galliher et al., 1999; McDonald, 1980; Saul et al., 2000; Tschann et al., 2002). As described above, scales measuring global power, emotional investment, and availability of alternatives, which build upon measures used in prior work, were used to examine the multidimensionality of power and the extent to which power was equally shared in adolescent dating relationships. Given that adolescent relationships are less likely to be characterized by the assumption of traditional gender roles and discrepancies in resources than are marital relationships (e.g., Galliher et al., 1999), I predicted that adolescents' relationships would be perceived as egalitarian, on average.

Predictors of Adolescents' Romantic Relationship Power

Although the majority of research on power in romantic relationships has been conducted with samples of college students in dating relationships or married adults, this work, along with the few studies that have examined power in adolescent relationships, provided a basis for the second goal of the present study: to investigate longitudinal

predictors of adolescents' power in romantic relationships. Prior research suggests two primary sets of correlates of power in romantic relationships: gender and resources.

Gender. Conceptualizations of gender differences in romantic relationship power derive from two main perspectives: feminist theory and socialization theories. Feminist perspectives claim that family relationships and roles promote the subordination of women and are part of a larger system of male dominance (Ferree, 1990). Gender differences in power may therefore reflect, at least in part, cultural expectations and gender stereotypes regarding the dominant role of men (Felmlee, 1994). Socialization theories suggest that differences in interactive styles between boys' and girls' same-gender peer groups during childhood lead to difficulties in heterosexual romantic relationships; whereas some researchers theorize that girls have less power in intimate relationships because of their more accommodating styles and inability to influence boys (Leaper & Anderson, 1997; Maccoby, 1990), others argue that boys have less power because they have less experience in negotiations within intimate interactions (Giordano, Longmore, & Manning, 2006).

Several studies of young adult dating and married couples have found that men are perceived to have more power than women (Felmlee, 1994; Howard, Blumstein, & Schwartz, 1986; Sprecher & Felmlee, 1997; Sprecher et al., 2006). In contrast, findings from studies of adolescent dating couples are mixed; some reveal that couples share power (Galliher et al., 1999), others suggest that boys have more power than girls (Tschann et al., 2002), and still others show that girls have more power and influence than boys (Giordano, Longmore, et al., 2006). These studies examined similar dimensions of power; the discrepancies in findings may result from differences in the samples that were used. Whereas Galliher and colleagues' (1999) study involved a small sample of older adolescent (aged 18 and 19) couples who were

primarily White, Tschann and colleagues' (2002) study involved an ethnically diverse sample of adolescents aged 14 to 19 ($M = 17.6$) who visited an STD clinic and had a main sexual partner, and Giordano and colleagues' (2006) study involved a random sample of nearly 1000 adolescents aged 12 to 19 ($M = 15.5$). Thus, gender differences in power may change as adolescents mature, or may differ across demographic groups or as a function of risk characteristics. Given the lack of consensus regarding adolescent gender differences in power in prior work, the current study explored whether boys or girls in the target sample were perceived to have more power in romantic relationships.

Links between gender and power may extend beyond biological sex: There may be variability based on individuals' gender identity and the extent to which they conform to gender stereotypical behavioral and attitudinal norms (Feiring, 1999; Kulik, 1999; McDonald, 1980; Tschann et al., 2002). The few studies that have examined the associations between sex role orientation or gender attitudes and power suggest that: (a) stereotypically masculine traits (such as "aggressive" and "forceful") are related to greater power and stereotypically feminine traits (e.g., "compassionate," "understanding") to less power for both sexes (Howard et al., 1986); and (b) individuals who have more traditional attitudes and roles tend to be in relationships in which men have more power, whereas individuals who have more egalitarian attitudes and roles tend to be in more egalitarian relationships (Kalof, 1995; Kulik, 1999; McDonald, 1980; Reiss & Webster, 2004).

The current study advanced prior research by moving beyond biological sex to examine the extent to which gendered characteristics and attitudes predicted power in adolescents' romantic relationships over time. Specifically, parents' gender role orientation, adolescents' attitudes about male roles, and adolescents' stereotypically masculine and

feminine personal qualities were assessed. Most of the work reviewed above was conducted with samples of married or cohabiting adults. Unlike adults, most adolescents have not yet developed a division of labor involving stable partners; nonetheless, such gender dynamics in the relationships of adolescents' parents may impact adolescents' romantic power by providing a model of heterosexual relationships. It was therefore hypothesized that adolescents whose parents held more traditional roles (i.e., father works more hours outside the home, mother engages in more household chores, father has higher education and income) would be in relationships in which boys had more power than girls. In contrast, adolescents whose parents held more egalitarian roles were expected to be in relationships in which the balance of power was equal, or girls had more power than boys.

Given the links in prior research between attitudes and behavior, in general (e.g., Schuman & Johnson, 1976), and between gendered attitudes and gender role behaviors more specifically (e.g., Klute, Crouter, Sayer, & McHale, 2002), I also hypothesized that adolescents with more traditional gender attitudes would be in relationships in which boys had more power than girls, whereas egalitarian attitudes would predict involvement in egalitarian relationships. Past research, which has focused on decision making outcomes as an index of power, led to the expectation that both parents' gender role orientation and adolescents' gendered attitudes would predict the more overt dimension of global power. Nonetheless, because no research has examined these two sets of predictors of power among adolescents, they were explored in relation to emotional investment and availability of alternatives as well.

Finally, in line with past research and with Maccoby's (1990) assertions that boys' more competitive and directive interaction styles afford them power when interacting with

more expressive and accommodating girls, I expected that more instrumental (stereotypically masculine) adolescents of both genders would perceive themselves as having more power, whereas more expressive (stereotypically feminine) adolescents of both genders would perceive themselves as having less power. Although these expectations contrast with Giordano and colleagues' (2006) findings that adolescent boys have less power, they are consistent with the notion that adolescents who have more confidence navigating romantic relationships have more power. Instrumentality and expressivity were expected to predict global power as well as emotional investment, as expressive individuals may be more emotional in general and therefore more likely to invest emotionally in a relationship whereas instrumental individuals may be less likely to invest emotionally. Additionally, gendered personality characteristics were explored as predictors of availability of alternatives given the dearth of research in this area.

Resources. Most early theories about power in marriage focused on resources as the basis for power. A resource perspective on power in relationships suggests that the partner who has more access to resources is the least dependent on the relationship, and therefore has more power (Felmlee, 1994; Galliher et al., 1999; Kulik, 1999; Reiss & Webster, 2004; Sprecher, 1985). This perspective generally refers to socioeconomic resources such as income and education (Aida & Falbo, 1991; Blanc, 2001; Reiss & Webster, 2004), but has been applied to interpersonal skills as well (Galliher et al., 1999; Grauerholz, 1987; Howard et al., 1986; Kulik, 1999; McDonald, 1980; Sprecher 1985). For instance, partners who have better communication or problem solving skills may have more influence over decisions in their relationships (Babcock et al., 1993; Kulik, 1999). In accordance with this framework, research has shown that imbalances in resources are related to imbalances in power, whereas

more balanced resources characterize more egalitarian relationships (Aida & Falbo, 1991; Grauerholz, 1987; Howard et al., 1986; McDonald, 1980).

Studies of power in adolescent romantic relationships have not generally examined economic or status-based resources, most likely because adolescent partners are expected to be more similar to one another in such resources than are adults (Galliher et al., 1999). Adolescents may vary from one another in terms of social resources, however. To test this idea, the current study examined the extent to which two categories of resources were related to adolescents' power in romantic relationships over time: adolescents' family relationships, and adolescents' personal characteristics.

Both socialization and observational learning perspectives suggest that adolescents' ideas about how to behave in relationships are learned in the family of origin (Bryant & Conger, 2002; Conger, Cui, Bryant, & Elder, 2000). Indeed, the quality of adolescents' relationships with their parents, including attachment, intimacy, and conflict, has been linked to the quality of adolescent romantic experiences (Bryant & Conger, 2002; Collins & Sroufe, 1999; Gray & Steinberg, 1999). Adolescents' relationships with parents are thought to foster a capacity for intimacy and social competence through their effects on children's internal working models, relational skills, and self-worth (Collins & Sroufe, 1999; Gray & Steinberg, 1999). Additionally, adolescents are expected to acquire relationship skills from observing their parents' relationship with one another (Conger et al., 2000; Feldman, Gowen, & Fisher, 1998; Gray & Steinberg, 1999; Scharf & Mayselless, 2001). Conflict or aggression between parents is related to poor functioning of children and adolescents and difficulties in their own romantic relationships (Gray & Steinberg, 1999), whereas parents' marital satisfaction has

been linked to adolescents' capacities for and experiences of intimacy (Feldman et al., 1998; Scharf & Mayseless, 2001).

Although family of origin characteristics may have long-term implications for adolescents' power in romantic relationships, such associations have not been previously examined. In this study, positive attributes of parent-adolescent relationships and parents' marital relationships were conceptualized as socio-emotional resources for adolescents to the extent that they represented opportunities for positive family socialization and learning relationship skills. Specifically, it was predicted that adolescents' time with mothers and fathers, parental knowledge regarding adolescents' activities, and parents' marital love and satisfaction would be resources that afforded adolescents greater power in their romantic relationships. This association was expected to be particularly strong for the dimension of emotional investment but was also explored for global power and availability of alternatives.

In addition to family relationships, adolescents' individual resources in relationships may include their own competencies and attractiveness. Adolescents' romantic relationships, particularly during the early stages of dating, are often characterized by an emphasis on social status and acceptance from peers (e.g., Brown, 1999). Therefore, personal characteristics that make peer acceptance and increased status more likely, such as involvement in sports and physical attractiveness (e.g., Becker & Luthar, 2007), may be related to greater power in romantic relationships. In the current study, athletic skills and body mass index were assessed as qualities that may have implications for adolescents' social status and were expected to be resources that were positively related to romantic power over time. Moreover, adolescents' perceptions of their social success among peers may be important for their power in romantic relationships, because social self-concept may impact

adolescents' confidence in dealing with the relatively novel territory of romantic relationships (Giordano, Longmore, et al., 2006). I therefore hypothesized that adolescents' perceived peer social competence would be predictive of greater power in romantic relationships. These individual resources were expected to be most strongly linked to adolescents' availability of alternatives given their potential implications for social status, but were also examined in relation to global power and emotional investment.

Relational Power and Adolescent Adjustment

Few studies have examined the implications of power for individual and relational adjustment during adolescence. Horwitz (1982) reported that, among a random sample of mostly married adults, those who were the more powerful partner in their relationships experienced lower levels of psychological distress. Similarly, among adolescents, one study found that a lack of power in romantic relationships was associated with low self-esteem and, to a lesser extent, with increased depressive symptoms (Galliher et al., 1999). In some work with college student couples, the balance of power in relationships has been linked to relationship commitment and satisfaction as well as relationship dissolution (Sprecher, 2001; Sprecher, Schmeekle, & Felmlee, 2006). For instance, equal emotional involvement has been linked to greater relationship satisfaction and positive emotions, fewer negative emotions, and lower likelihood of breakup (Sprecher et al., 2006). In contrast, Felmlee (1994) found that male dominance in relationships was related to lower likelihood of dissolution. Similarly, studies of marital power have found evidence for higher satisfaction and stability in both husband-dominant and egalitarian marriages (McDonald, 1980). In one study of young adult couples, however, power balance was generally unrelated to relationship satisfaction and stability (Sprecher & Felmlee, 1997).

The current study added to research on the adjustment correlates of power by examining links between adolescents' perceived power and their intimacy in romantic relationships as well as their own depressive symptoms and risky behavior. Although research on the implications of adolescents' power in romantic relationships is limited, based on research with older couples I hypothesized that (a) more egalitarian relationships would be characterized by greater romantic intimacy, and (b) adolescents' power in relationships would be positively associated with their own well-being.

Summary

In sum, the first goal of the present study was to describe multiple dimensions of power in adolescents' romantic relationships and the extent to which power was balanced. The second goal of this study was to evaluate gender and resource perspectives on predictors of adolescents' romantic power over time. Specifically, gender, gender role orientation in the inter-parental relationship, and adolescents' gender attitudes and gendered personality characteristics were examined to test the associations between gender and power. Then, the quality of parent-adolescent relationships and parents' marital relationships, as well as adolescents' personal characteristics, were studied to test the associations between resources and power. The final goal of this study was to examine individual and relational adjustment correlates of power, including romantic intimacy, depressive symptoms, and risky behavior.

Method

Participants were 199 adolescents (including 134 firstborns and 65 secondborns from 150 families) and their mothers and fathers, all of whom participated in a longitudinal study of family relationships. All of the families were recruited through local school districts when the oldest child was in the 4th or 5th grade with a letter outlining the nature of the study, the

eligibility criteria, and the compensation they would receive for participating. Eligible families included married couples that were never divorced whose two eldest children were no more than 4 years apart in age. Families returned postcards if they were interested in participating. Over 90% of families that returned a postcard and met the criteria agreed to participate after receiving further information about the details of the study.

Families that participated were primarily middle-class and working-class and resided in rural areas, towns, and small cities. The majority (97%) were European American and the remaining 3% were Asian American and Latino. The analyses included data from years 6, 7, 8, and 9 of the study, when the measures of interest were collected. Predictor variables came from years 6 and 7 and power and adjustment variables were taken from year 8 for firstborn adolescents and from year 9 for secondborn adolescents; therefore years 6 and 7 ($M = 16.91$, $SD = 0.79$ for firstborns' age and $M = 14.32$, $SD = 1.15$ for secondborns' age) correspond to Time 1, and years 8 and 9 ($M = 18.38$, $SD = 0.78$ for firstborns' age and $M = 16.26$, $SD = 1.00$ for secondborns' age) correspond to Time 2. At Time 1 (2001-2002), median annual family income was \$74,000.00 ($SD = \$42,668.79$), and parents' average educational attainment was 14.72 years, $SD = 2.02$ (i.e., some college or post high school training). Additionally, parents had been married for an average of 19.63 ($SD = 2.49$) years, and mothers averaged 42.70 ($SD = 4.00$) and fathers averaged 44.96 ($SD = 5.12$) years of age. Although the sample is not nationally representative, it is only slightly more educated and otherwise generally representative of the racial and economic background of families from the region of the state where the data were collected (*author citation deleted*).

There was minimal sample attrition. A total of 7 families had dropped out of the study before Time 1, leaving 196 families (392 adolescents) in the full Time 1 sample for this

study. An additional 90 adolescents did not participate at Time 2 due to whole family refusal ($n = 8$) or exclusion from the study as a result of the firstborn adolescent leaving home following high school graduation ($n = 82$). At Time 2, adolescents reported whether they were involved in a romantic relationship that had lasted at least one month either currently or within the past year. If they were ($n = 199$; 90 boys and 109 girls; 66% of participating adolescents), they reported on power in their most recent romantic relationship and were included in the analyses. No differences were found between families that were included in analyses and those that were excluded with regard to parents' age and education and family income. Excluded adolescents were slightly younger at Time 1, $M = 15.27$, $SD = 1.50$, than included adolescents, $M = 15.95$, $SD = 1.68$, $t(1, 390) = -4.20$, $p < .01$. This difference probably reflects a greater likelihood for older adolescents to be involved in romantic relationships.

Procedures

At each time of measurement, separate home interviews were conducted with mothers, fathers, and adolescents during which family members reported on their relationship experiences, individual qualities and attitudes, and individual well-being. These interviews began with a review of human subjects procedures, and then families were paid an honorarium for their participation. A second procedure involved calling families by phone on seven evenings during the 2-3 weeks following the home interviews in order to obtain information about their daily household activities and time use. Interviewers spoke individually with each parent during four of the calls and with each adolescent during all seven calls. In the present study, adolescents' reports of their involvement in activities with their parents across all calls were used in order to examine the amount of time they spent

with their mothers and fathers. Mothers' and fathers' reports of their involvement in activities across all calls were also used in order to examine the proportion of time they each spent engaging in household chores (i.e., the division of labor).

Measures

Adolescents' Perceived Romantic Power. Adolescents' power in romantic relationships was measured at Time 2 using a single-item global rating as well as measures of emotional investment and availability of alternatives. All items were measured on a 9-point scale that ranged from *me* to *my partner* (*both of us* was at the midpoint), and scores were recoded so that higher scores indicated more power for the respondent relative to his/her partner (see Appendix A for items). Scale scores were created by averaging items. The items for the three indices loaded separately on three factors in exploratory factor analyses (see Appendix A). Adolescents' *global power* was measured with a single item that has been correlated with other dimensions of power in previous research, and has been the focal measure of power in some studies (Felmlee, 1994; Sprecher, 1985; Sprecher & Felmlee, 1997). Adolescents' *emotional investment* was assessed with five items that were adapted from the Investment Model Scale (Rusbult, Martz, & Agnew, 1998) as well as from measures of power used by Felmlee (1994) and Sprecher (1985). Cronbach's alpha was .80 for firstborns and .78 for secondborns. Finally, adolescents' *availability of alternatives* was measured with two items adapted from the Investment Model Scale (Rusbult et al., 1998). Cronbach's alpha was .79 for firstborns and .70 for secondborns.

A score of 5, which indicated that power was equal, was the modal response for all three power variables; across the three indices, between 21 and 36 percent of

adolescents reported having less power than their partners and between 32 and 48 percent of adolescents reported having more power than their partners. Given the limited variability of these measures (only 3 to 9 percent of adolescents scored at the extremes of the scale) and the nonlinearity of the measurement scale, and in line with prior work (e.g., Galliher et al., 1999; Sprecher & Felmlee, 1997), categorical versions of the variables were created. Each variable had three categories: (1) partner has more power, (2) power is shared equally, and (3) self has more power. Adolescents were classified on the three power indices using slightly different cutoff scores, given the distributions of each variable (see Table 1). This was done in order to make the two groups in which power was unbalanced as extreme as possible while retaining reasonable cell sizes. The categorical variables were used in all analyses.

Parents' Gender Role Orientation. A composite measure of *parents' gender role orientation* included four variables, all of which were collected in years 6 and 7 and averaged (Time 1). Parents' division of paid work was created by subtracting fathers' total work hours per week from mothers' total work hours per week. Parents' division of household labor was derived from parents' reports during phone interviews and defined as the proportion of total time that mothers (versus fathers) engaged in household chores (including doing dishes, cooking, cleaning, and doing laundry). Parents' education difference was created by subtracting fathers' years of education from mothers' years of education, and parents' income difference was created by subtracting fathers' yearly income from mothers' yearly income. All four variables loaded on a single factor in exploratory factor analyses, and Cronbach's alpha for the composite was .65. Higher scores on this variable represent more egalitarian roles, and lower scores represent more traditional roles.

Adolescent Gender Role Attitudes. Adolescents' attitudes regarding *male role norms* were assessed at year 7 (Time 1) using the Male Role Norms Scale (Thompson & Pleck, 1986), a measure developed to assess the extent to which individuals believe that males should adhere to the culturally defined male role. Three subscales measure status norms (e.g., "It is essential for a guy to get respect from others"), toughness norms (e.g., "A young man should be physically tough, even if he's not big"), and anti-femininity norms (e.g., "It bothers me when a guy acts like a girl"). All items were rated on a 4-point scale. The three subscales loaded on a single factor in exploratory factor analyses; Cronbach's alpha for the composite was .83 for firstborn adolescents and .76 for secondborn adolescents.

Adolescent Gendered Personality Characteristics. Adolescents' expressivity (e.g., sensitive, courteous) and instrumentality (e.g., leader, independent) were averaged across years 6 and 7 (Time 1) and were assessed using the 12-item Personality Characteristics Scale (Antill, Russell, Goodnow, & Cotton, 1993). Each item was rated on a 5-point scale. Cronbach's alphas were .75 and .75 for expressivity and .68 and .64 for instrumentality for firstborn and secondborn adolescents, respectively.

Family Relationship Experiences. *Time spent with mothers* and *time spent with fathers* were calculated from the phone interview data by summing adolescent reports of time in all shared activities with mothers and with fathers across all seven phone calls. Reports from years 6 and 7 (Time 1) were averaged. Correlations between time with mothers and time with fathers were $r = .57$ for firstborns and $r = .50$ for secondborns. *Mothers' knowledge* and *fathers' knowledge* of adolescents' experiences were assessed during phone interviews by independently asking parents and adolescents a series of 24 questions (6 on each of four nights) about adolescents' experiences that day. Each question was asked in two parts. First,

a yes or no question was asked regarding the adolescent's involvement in an activity that day (e.g., "Did [you, your adolescent] talk to any friends on the phone today?"). If the answer was yes to the first question, a follow-up question was asked (e.g., "What friend(s) did [you, your adolescent] talk to?"). If the parent and adolescent disagreed on whether the activity had occurred or not, the parent received a score of 0. If the parent and adolescent agreed that the event had occurred that day but disagreed on the details of the event, the parent received a score of 1. If the parent and adolescent agreed on the event and the details of the event, the parent received a score of 2. Independent raters coded the answer matches reliably (Crouter et al., 1999). Total knowledge scores were created by averaging across items and multiplying by 50: These scores reflected the percentage of matches between offspring's and parent's answers, with high scores indicating high levels of daily knowledge. Scores from years 6 and 7 (Time 1) were averaged. The correlation between mothers' and fathers' knowledge was $r = .44$ for firstborn adolescents and $r = .49$ for secondborn adolescents.

A composite measure of *parents' marital quality* included mothers' and fathers' reports of love and satisfaction averaged across years 6 and 7 (Time 1). Marital love was assessed with 9 items (e.g., "To what extent do you have a sense of 'belonging' with your partner?") from the Marital Interactions Scale (Braiker & Kelley, 1979). Items were rated on a 9-point scale, and Cronbach's alphas were .94 for mothers and .93 for fathers. Marital satisfaction was assessed with the 7-item Domains of Marriage scale (Huston, McHale, & Crouter, 1986), which asked about satisfaction in areas such as communication and division of labor. Items were rated on a 9-point scale, and Cronbach's alphas were .88 for both mothers and fathers. All four variables loaded on a single factor in exploratory factor

analyses, and Cronbach's alpha for the composite was .83. Higher scores on this variable indicate better marital quality.

Adolescent Personal Qualities. Adolescents' perceived *peer competence* was measured using the five-item peer competence subscale of Harter's (1988) Self-Perception Profile for Adolescents. On this measure, youth first determine which of two statements is more like them and then indicate whether that statement is "sort of true" or "really true" about them, for instance, "Some teenagers find it hard to make friends, but other teenagers find it's pretty easy to make friends." Items were rated on a 4-point scale and Cronbach's alpha was .81 for firstborn adolescents and .74 for secondborn adolescents. Adolescents' *Body Mass Index (BMI)* was calculated using a ratio of self-reported height to weight. Adolescents' *athletic skills* were assessed with two items asking adolescents to rate their level of skill at sports and at working out. The correlation between these two items was .60 for firstborn and .52 for secondborn adolescents, and the two items loaded highly on a single factor in exploratory factor analyses; therefore, factor scores were used in analyses. Scores on each of these three measures were averaged across years 6 and 7 (Time 1).

Adjustment Correlates. At Time 2, if adolescents were involved in a romantic relationship that had lasted at least one month either currently or within the past year, they reported on *romantic intimacy* with that partner using a relationship intimacy measure developed by Blyth and colleagues (1982; e.g., "How much do you go to your partner for advice and support?"). One item from the original eight-item scale ("How much do you want to be like your partner?") was deleted because it was deemed not relevant for romantic relationships. Cronbach's alpha was .85 for firstborn adolescents and .82 for secondborn adolescents. Adolescents' *depressive symptoms* were measured at

Time 2 with the 27-item Children's Depression Inventory (CDI; Kovacs, 1981); one item concerning suicidal ideation was deleted. Respondents chose from three statements for each item (e.g., "I am sad once in a while, I am sad many times, I am sad all the time"); Cronbach's alpha was .87 for both firstborn and secondborn adolescents. Finally, adolescents' *risky behavior* was measured at Time 2 with the 18-item Risky Behavior Scale (Eccles & Barber, 1990) on which adolescents reported the frequency of 18 activities during the past year using a 4-point scale (e.g., get drunk, lie to parents about something important). Cronbach's alphas were .89 for firstborn adolescents and .88 for secondborn adolescents.

Background Characteristics. During the home interviews, data were collected on parents' ages and average years of education, family income, adolescent ages and gender, and ages of romantic partners and duration of romantic relationships.

Results

Preliminary Analyses

Given that the sample included 49 pairs of siblings from the same families, unconditional multilevel models were examined using SAS Proc Mixed in order to determine whether it was necessary to account for correlation between siblings on the power indices. According to these models, the correlations between siblings were not statistically significant for global power ($r = .10$), emotional investment ($r = .12$), or availability of alternatives ($r = -.15$). The between-family variance estimate (which also represents the covariance between siblings) was about 9% of the total variance in global power, 12% of the total variance in emotional investment, and was so small for availability of alternatives that it could not be

estimated. Similar estimates were found in final conditional models that included predictors; therefore, the siblings in the sample were treated as independent observations in all analyses.

Descriptive Analyses of Power

The percentages of adolescents in each group for each measure are presented in Table 1. Adolescents were most likely to report that power was balanced in their relationships. Chi-squared tests indicated that when adolescents did not perceive power to be balanced, they were more likely to report that they had more power than their partners for global power, $\chi^2(1, N = 104) = 4.65, p < .05$. This pattern was the same across the other two power indices but only reached trend level for emotional investment and was not significant for availability of alternatives. The power indices were moderately interrelated but distinct: Percent agreement between global power and emotional investment was 50%, $\chi^2(4, N = 199) = 33.32, p < .01$, percent agreement between emotional investment and availability of alternatives was 54%, $\chi^2(4, N = 188) = 32.03, p < .01$, and percent agreement between global power and availability of alternatives was 43%, $\chi^2(4, N = 188) = 7.86, p < .10$. Across the three comparisons, between 6 and 9 percent of adolescents reported having more power than their partner on one dimension but less power than their partner on the other dimension.

A series of 3 (Power) x 2 (Adolescent Gender) ANOVAs was conducted to examine associations between adolescents' power and individual and family background characteristics. Only parents' education was related to adolescents' power and interacted with adolescent gender: Boys who reported relatively less global power and more emotional investment than their partners had parents with more education than did boys who reported relatively more global power and less emotional investment than their partners. Parents'

education was used as a control variable in subsequent analyses of global power and emotional investment.

Differences on the power measures between adolescents who reported about a current relationship and adolescents who reported about a relationship that had ended were also examined. The results were consistent with evidence that perceptions of which partner has more power, is more invested in the relationship, and has better alternatives to the relationship change after a relationship has dissolved (Sprecher et al., 2006): Chi-squared tests of independence were significant for emotional investment, $\chi^2(2, N = 199) = 13.98, p < .01$, and availability of alternatives, $\chi^2(2, N = 188) = 18.38, p < .01$, and indicated that a higher proportion of adolescents who were in current relationships rated their relationships as egalitarian as compared to those reporting on relationships that had ended. Therefore, a categorical variable representing current versus ended relationships was retained in all subsequent analyses of these two power dimensions.

Predictors of Power

Descriptive statistics on predictors of power are presented in Appendix B. To evaluate the predictive utility of gender and resource perspectives for power in adolescents' romantic relationships over time, a series of 3 (Power) x 2 (Adolescent Gender) MANCOVAs was conducted. Each predictor was first examined in a separate ANCOVA, and then significant predictors in each group (gender and resources) were combined in final MANCOVA models with each power measure. Analyses predicting global power and emotional investment included parent education as a control variable; analyses predicting emotional investment and availability of alternatives included relationship status (current versus ended) as a control variable. Where interactions with adolescent gender were

significant, follow up tests examining mean differences separately by gender were conducted. Interaction terms were dropped when they were not significant. Results are presented in Table 2.

Gender. A chi-squared test of independence revealed that only availability of alternatives differed as a function of gender: Girls (59%) were more likely to report equal availability of alternatives than boys (34%), $\chi^2(2, N = 188) = 14.54, p < .01$. Adolescent gender was retained in further analyses of availability of alternatives.

A marginal main effect of parents' gender role orientation, $F(2, 173) = 2.68, p < .10$, revealed that adolescents who reported that they were relatively less emotionally invested than their partners had less traditional parents than adolescents who reported that they were relatively more emotionally invested than their partners. A significant main effect of parents' gender role orientation, $F(2, 163) = 3.56, p < .05$, further showed that adolescents who reported having more alternatives than their partners had less traditional parents than adolescents who reported having equal alternatives. Parents' gender role orientation was not related to adolescents' global power. A significant main effect of adolescents' attitudes regarding male role norms, $F(2, 193) = 12.52, p < .01$, indicated that adolescents who reported that they had more global power than their partners endorsed traditional male roles more strongly than other adolescents. Adolescents' gender attitudes were not related to the other power measures. Finally, adolescent expressivity significantly predicted availability of alternatives, $F(2, 187) = 4.24, p < .05$, such that adolescents who reported having equal alternatives were more expressive than other adolescents.

Resources. Consistent with study hypotheses, time with mothers, $F(2, 192) = 4.25, p < .05$, and time with fathers, $F(2, 192) = 3.83, p < .05$, predicted adolescents' emotional

investment, such that adolescents who reported equal emotional investment spent more time with mothers and fathers than adolescents who reported being more emotionally invested than their partners. Additionally, as predicted, a significant main effect of mothers' knowledge, $F(2, 190) = 3.78, p < .05$, indicated that mothers' knowledge was lower for adolescents who reported being more emotionally invested than their partners than for other adolescents. Time with parents and parental knowledge were not related to the other power indices. Follow up tests of a significant gender interaction for parents' marital quality, $F(2, 182) = 4.78, p < .01$, revealed that, as expected, boys who reported equal emotional investment had parents with better marital quality than boys who reported being more emotionally invested than their partners. Similarly, a significant main effect of parents' marital quality, $F(2, 172) = 3.20, p < .05$, indicated that adolescents who reported equal alternatives had parents with better marital quality than adolescents who reported having fewer alternatives than their partners. Parents' marital quality was not related to adolescents' global power.

Follow up tests of a significant gender interaction for perceived peer competence, $F(2, 198) = 6.38, p < .01$, revealed that boys who reported being less emotionally invested than their partners reported higher peer competence than other boys. Peer competence was not related to the other power indices. As predicted, follow up tests of a significant gender interaction for body mass index, $F(2, 183) = 3.80, p < .05$, indicated that girls who reported having fewer alternatives than their partners had higher body mass indices than other girls. BMI was not associated with the other power indices. Adolescents' athletic skills also significantly predicted global power, $F(2, 198) = 4.26, p < .05$ and availability of alternatives, $F(2, 187) = 3.46, p < .05$, in ways consistent with the study hypotheses:

Adolescents who reported having less global power than their partners had less athletic skill than other adolescents, and adolescents who reported having more alternatives than their partners had more athletic skill than adolescents who reported equal alternatives.

Adjustment Correlates of Power

Descriptive statistics on adjustment correlates of power are presented in Appendix B. A series of 3 (Power) x 2 (Adolescent Gender) ANCOVAs was conducted to examine the extent to which the power measures were related to romantic intimacy, depressive symptoms, and risky behavior. Each of the power variables was examined in separate models predicting each of the three adjustment correlates. Adolescents reporting on current versus ended romantic relationships differed on romantic intimacy and depressive symptoms and these variables also differed as a function of adolescent gender; a main effect of relationship status was therefore retained in analyses of emotional investment and availability of alternatives predicting these two outcomes, and a main effect of gender was retained in analyses of availability of alternatives predicting these two outcomes. Interactions with adolescent gender were followed up by examining mean differences separately by gender, and interactions were dropped when they were not significant. Results are presented in Table 3.

The power measures did not predict romantic intimacy. However, because relationship status was strongly related to power and romantic intimacy, post hoc analyses were undertaken for emotional investment and availability of alternatives in which relationship status was examined as a moderator of the associations between power and romantic intimacy. A significant interaction between emotional investment and relationship status was found, $F(2,196) = 6.33, p < .01$. Consistent with study hypotheses, adolescents in current relationships who reported that their emotional investment was egalitarian ($M = 4.49$;

$SD = 0.40$) reported higher romantic intimacy than the other two power groups, ($M = 4.16$; $SD = 0.60$ for partner more; $M = 4.23$; $SD = 0.51$ for self more), $F(2, 116) = 5.23, p < .01$.

For depressive symptoms, a significant main effect of emotional investment, $F(2, 197) = 4.04, p < .05$, revealed that adolescents who reported that they were more emotionally invested than their partners reported more depressive symptoms than other adolescents.

There was also a significant gender interaction between availability of alternatives and gender for depressive symptoms, $F(2, 186) = 3.96, p < .05$. Follow up tests indicated that girls who reported that they had more alternatives than their partners reported marginally higher depressive symptoms than girls who reported equal alternatives.

Finally, for risky behavior, there was a marginal interaction between emotional investment and gender, $F(2, 198) = 2.46, p < .10$. Follow up tests indicated that boys who reported being less emotionally invested than their partners reported more risky behavior than boys in the other two groups. Additionally, a significant main effect of availability of alternatives, $F(2, 187) = 3.10, p < .05$ revealed that adolescents who reported that they had more alternatives than their partners reported more risky behavior than other adolescents.

Discussion

This study advanced research on power dynamics in adolescents' romantic relationships by describing such dynamics and by identifying predictors of power over a one to two year period and adjustment correlates of power. The data support a multidimensional view of power, in which discrepancies in emotional investment and availability of alternatives are valid indices of latent or invisible power (Komter, 1989). These constructs were more closely related to the predictors and adjustment correlates examined than the global power measure; though this may be a function of poor measurement of global power

(i.e., 1 item), it also suggests that power should be studied using a variety of constructs that assess both manifest and latent representations of relationship power.

In line with prior work (e.g., Galliher et al., 2002; Giordano, Longmore, et al., 2006; Tschann et al., 2002), findings revealed that adolescents' relationships are most commonly perceived as egalitarian. That this was more often the case when adolescents were currently in the relationships about which they were reporting suggests that such self-report measures of romantic power may be subject to some degree of social desirability bias. This is not to say that such measures are not valid, however, because associations with relevant correlates were detected when adolescents were categorized on the basis of having more, equal, or less power relative to their partners.

Gender and Resource Predictors of Power

Our analysis of predictors of adolescents' romantic power provided some support for both the gender and resource perspectives on power in relationships. However, consistent with a previous study of adolescent dating couples (Galliher et al., 2002), we did not find evidence of gender differences in power. Although adolescent girls were more likely to perceive equal alternatives than boys, this did not reflect more or less power for one gender or the other. Therefore, despite the predictions made by feminist (Ferree, 1990) and socialization theories (Maccoby, 1990; Giordano, Longmore, et al., 2006) about gender differences in romantic power, gender per se did not explain power in the adolescent couples in this sample.

On the other hand, gendered characteristics and dynamics did have implications for both boys' and girls' power, but in somewhat inconsistent ways. For instance, having parents who enacted more egalitarian gender roles, in which mothers worked outside of the home

and had at least as much education and income as fathers and fathers engaged in household chores at least as much as mothers, appeared to afford adolescents more power in terms of emotional investment and alternatives. At the same time, adolescents who had more traditional attitudes about male roles also perceived more global power in their relationships. Further, more expressive adolescents of both genders were more likely to perceive their relationships as egalitarian in terms of availability of alternatives. These discrepancies across dimensions of gender and power may result from the mechanisms underlying these associations. That is, parents' gender roles may provide a model of relationships for adolescents, in which adolescents better learn how to negotiate relationships when they see parents accepting nontraditional roles in their own marriages. In a different vein, adolescents' own attitudes and personality characteristics may make them more likely to answer questions about power in particular ways. Specifically, adolescents who endorse norms regarding male status and toughness may have a stronger orientation toward power in general. Adolescents who are more expressive may be more likely to report equal alternatives because they are more sensitive to their partner's point of view regarding their availability of alternatives.

Further research is needed to explore the extent to which these explanations are tenable. Nonetheless, the findings regarding gendered characteristics are inconsistent with previous work showing that traditional attitudes and roles are linked to greater power for men than women (Kalof, 1995; Kulik, 1999; McDonald, 1980; Reiss & Webster, 2004) and that more feminine qualities are related to less power (Howard et al., 1986). Explanations regarding gendered characteristics and romantic power that have been put forth on the basis of research with adults may have less utility when examining adolescents' relationships, in which gender dynamics may be less ingrained.

Stronger evidence was found in this study to support a resource than a gender perspective on the bases of romantic power. As predicted, both family relationships and adolescents' personal qualities emerged as resources that support adolescents' perceptions of having equal or more power relative to their partners. In accordance with prior research on links between family relationships and adolescents' romantic relationships (e.g., Gray & Steinberg, 1999), higher quality parent-adolescent relationships and parental marital relationships were associated with adolescents' having equal or more power. Better family relationships may provide adolescents with more opportunities to learn social skills and improve their confidence in their relationships with others (e.g., Gray & Steinberg, 1999), which in turn may improve their ability to negotiate power dynamics in romantic relationships. Additionally, as developmentally sensitive accounts of adolescent romantic relationships would suggest (e.g., Brown, 1999; Giordano, Manning, et al., 2006), adolescents' perceptions of their success with peers as well as aspects of their appearance (i.e., BMI) and their aptitudes (i.e., athletic skills), which may be linked to their peer status (e.g., Becker & Luthar, 2007), may enhance their power in romantic relationships.

Associations between resources and relationship power were differentiated in ways that were largely in line with study predictions. Whereas family relationships and perceptions of peer competence were more consistently associated with emotional investment, BMI and athletic skills afforded adolescents more power in terms of availability of alternatives. These associations make intuitive sense, in that positive socialization in the family and competence with peers may help adolescents to negotiate emotional balance in relationships, whereas attractiveness and aptitude give adolescents more choice of partners and therefore alternatives to a given relationship. Moreover, the associations between family relationships

and adolescents' power were such that more positive relationships were generally related to more egalitarian romantic relationships, whereas valued personal characteristics were generally related to perceptions of more power relative to one's partner. It is possible that adolescents who have and witness positive family relationships are more driven to or capable of negotiating equality in romantic relationships, whereas more competent or attractive adolescents perceive that they have a higher social status than their partner. Such nuances should be explored and replicated in future research.

Power and Adolescent Adjustment

Differentiated associations were also detected between power and indices of individual and relational adjustment. Specifically, greater power was generally associated with fewer internalizing symptoms, as predicted, but with more externalizing symptoms. Consistent with past research (e.g., Galliher et al., 1999) and study hypotheses, adolescents who were more emotionally invested in their relationship than their partner (and therefore had less power) reported more depressive symptoms. In contrast, however, girls who had more alternatives than their partner reported marginally more depressive symptoms than girls who had equal alternatives. Although this difference was not statistically significant and requires further investigation, it suggests that having more alternatives than one's partner may not necessarily be an index of positive social functioning for girls. This point is also supported by the finding that adolescents who had more alternatives than their partner reported engaging in more risky behavior. It is possible that having alternatives to a relationship in part reflects involvement with multiple partners, which has been linked to substance use and delinquency in past research and may be associated with deviant peer affiliation (e.g., Davies & Windle, 2000; Zimmer-Gembeck, Siebenbruner, & Collins, 2001).

A lack of emotional investment in a relationship may also reflect such behavior; the positive association between emotional investment and risky behavior for boys further supports this idea. Thus, the results of this study suggest that the perception of greater power relative to one's partner does not necessarily have positive implications for adolescent adjustment, even if it is related to social resources. As no work has examined the links between power and externalizing problems, an attempt to replicate these findings in future research is needed.

Of the power groups, only adolescents who reported equal power exhibited consistently low levels of depressive symptoms and risky behavior. Along these lines, adolescents who were currently in relationships reported greater romantic intimacy when their relationships were emotionally balanced. This result accords with some prior research (e.g., Sprecher et al., 2006) and my predictions, and points to the importance of examining equality of power in relationships in addition to examining which partner has more power. Moreover, associations between power and romantic intimacy in this study were clouded by differences in current versus ended relationships on both variables. Ideally, future work should examine correlates of power in ongoing relationships, as most prior research has done. Nonetheless, as we found in this study, perceptions of power and relationship functioning may be different when relationships have ended (e.g., Sprecher et al., 2006); therefore, it will be informative to include samples of individuals reporting on recent relationships in future research.

Future Directions

In addition to the suggestions made above, this study points to several directions for further work on power in adolescent romantic relationships. First, we studied White, working and middle class, two-parent families; much of the work on power in romantic relationships

has been conducted with similarly homogenous samples. It is possible, however, that dimensions of power and its predictors and adjustment correlates differ for adolescents of different cultural backgrounds, socioeconomic status and family structures. Indeed, our conclusions regarding gender differences in power are limited to adolescents who have similar characteristics as those in our sample, as gender differences have been detected in different samples (Giordano, Longmore, et al., 2006; Tschann et al., 2002). Therefore, it will be crucial in future work to study power in more socio-culturally diverse samples.

Additionally, larger samples would help to clarify whether there are differential correlates of power as a function of adolescent gender. The interactions with gender found in this study were inconsistent, and follow-up tests were sometimes not statistically significant, perhaps because there were small numbers of adolescents in each power group by gender.

Nonetheless, such interactions, including the implications of peer competence and parents' marital quality for boys' power, and the links between body mass index and girls' power, are worth examining in future research.

Second, though this study uncovered dimensions of adolescent romantic power-emotional investment and availability of alternatives- that reflect more latent types of power and show valid associations with correlates, a better understanding of the meaning of power in adolescents' relationships may be best informed by qualitative research. As most work on relationship power has been conducted with adults, qualitative interviews with adolescents could help researchers determine the extent to which the nature of power in adolescents' relationships is similar to or different from that of adults, and what adolescents perceive the foundations and implications of their power to be.

Finally, this study is limited by the use of one partner's self-perceptions of power. It is possible that common method variance contributed to some of the significant associations found in this study, because several of the correlates of power were also assessed through adolescent self-report. Moreover, actual discrepancies between partners' perceptions of power, emotional investment, or availability of alternatives, some of which have been examined in prior work (Galliher et al., 1999; Howard et al., 1986; Sprecher et al., 2006; Tschann et al., 2002), may be more valid indices of power. Nonetheless, adolescents are likely to have different perceptions of who has power in their relationships (Sprecher & Felmlee, 1997; Sprecher et al., 2006; Tschann et al., 2002) which complicates studies that involve both partners. Additionally, previous work has pointed out that couples who volunteer to participate together in research may be more well-adjusted, egalitarian, or satisfied with their relationship than the average couple (Felmlee, 1994; Galliher et al., 1999). Finally, self-perceptions of power may be just as salient or more salient to adjustment outcomes as more objective measures of power (Galliher et al., 1999; McDonald, 1980; Sprecher, 1985). Thus, despite the limitations of the methodology used in this study, it provides useful information about dimensions of adolescents' romantic power and their predictors and correlates.

This study adds to the literature on power in adolescents' romantic relationships. Gender and resource perspectives have some utility for predicting multiple dimensions of adolescents' romantic power, and power has implications for individual and relational adjustment. Future research that further investigates the meaning of power and its correlates in diverse samples will continue to move the field forward and help us to understand this important feature of adolescent romantic life.

References

- Aida, Y., & Falbo, T. (1991). Relationships between marital satisfaction, resources, and power strategies. *Sex Roles, 24*, 43-56.
- Antill, J. K., Russell, G., Goodnow, J. J., & Cotton, S. (1993). Measures of children's sex typing in middle childhood. *Australian Journal of Psychology, 45*, 25-33.
- Babcock, J. C., Waltz, J., Jacobson, N. S., & Gottman, J. M. (1993). Power and violence: The relation between communication patterns, power discrepancies, and domestic violence. *Journal of Consulting and Clinical Psychology, 61*, 40-50.
- Becker, B. E., & Luthar, S. S. (2007). Peer-perceived admiration and social preference: Contextual correlates of positive peer regard among suburban and urban adolescents. *Journal of Research on Adolescence, 17*, 117-144.
- Blanc, A. K. (2001). The effect of power in sexual relationships on sexual and reproductive health: An examination of the evidence. *Studies in Family Planning, 32*, 189-213.
- Blyth, D., Hill, J., & Thiel, K. (1982). Early adolescents' significant others: Grade and gender differences in perceived relationships with familial and nonfamilial adults and young people. *Journal of Youth and Adolescence, 11*, 425-450.
- Braiker, H. B., & Kelley, H. H. (1979). Conflict in the development of close relationships. In R. Burgess & T. Huston (Eds.), *Social exchange in developing relationships*. (pp. 135-168). New York: Academic Press.
- Brown, B. B. (1999). "You're going out with who?": Peer group influences on adolescent romantic relationships. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 291-329). New York: Cambridge University Press.

- Bryant, C. M. & Conger, R. D. (2002). An intergenerational model of romantic relationship development. In A. L. Vangelisti, H. T. Reiss, & M. A. Fitzpatrick (Eds.), *Stability and change in relationships*. (pp. 57-82). New York: Cambridge University Press.
- Collins, W. A., & Sroufe, L. A. (1999). Capacity for intimate relationships: A developmental construction. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 125-147). New York: Cambridge University Press.
- Conger, R. D., Cui, M., Bryant, C., & Elder, G. H., Jr. (2000). Competence in early adult romantic relationships: A developmental perspective on family influences. *Journal of Personality and Social Psychology*, 79, 224-237.
- Cromwell, R. E., & Olson, D. (1975). *Power in families*. New York: Wiley.
- Crouter, A. C., Helms-Erikson, H., Updegraff, K., & McHale, S. M. (1999). Conditions underlying parents' knowledge about children's daily lives in middle childhood: Between and within-family comparisons. *Child Development*, 70(1), 246-259.
- Davies, P. T., & Windle, M. (2000). Middle adolescents' dating pathways and psychosocial adjustment. *Merrill-Palmer Quarterly*, 46, 90-118.
- Eccles, J., & Barber, B. (1990). *The risky behavior scale*. Unpublished measure, The University of Michigan.
- Emerson, R. (1962). Power-dependence relations. *American Sociological Review*, 27, 31-41.
- Feiring, C. (1999). Gender identity and the development of romantic relationships in adolescence. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of*

- romantic relationships in adolescence* (pp. 211-232). New York: Cambridge University Press.
- Feldman, S. S., Gowen, L. K., & Fisher, L. (1998). Family relationships and gender as predictors of romantic intimacy in young adults: A longitudinal study. *Journal of Research on Adolescence, 8*, 263-286.
- Felmlee, D. (1994). Who's on top? Power in romantic relationships. *Sex Roles, 31*, 275-295.
- Ferree, M. M. (1990). Beyond separate spheres: Feminism and family research. *Journal of Marriage and the Family, 52*, 866-884.
- Gallagher, R. V., Rostosky, S. S., Welch, D. P., & Kawaguchi, M. C. (1999). Power and psychological well-being in late adolescent romantic relationships. *Sex Roles, 40*, 689-709.
- Giordano, P. C., Longmore, M. A., & Manning, W. D. (2006). Gender and the meanings of adolescent romantic relationships: A focus on boys. *American Sociological Review, 71*, 260-287.
- Giordano, P. C., Manning, W. D., & Longmore, M. A. (2006). Adolescent romantic relationships: An emerging portrait of their nature and developmental significance. In A. Booth & A. C. Crouter (Eds.), *Romance and sex in adolescence and emerging adulthood: risks and opportunities* (pp. 127-150). Mahwah, NJ: Lawrence Erlbaum Associates.
- Grauerholz, E. (1987). Balancing the power in dating relationships. *Sex Roles, 17*, 563-571.
- Gray, M. R., & Steinberg, L. (1999). Adolescent romance and the parent-child relationship: A contextual perspective. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The*

- development of romantic relationships in adolescence* (pp. 235-262). New York: Cambridge University Press.
- Harter, S. (1988). *Manual for the self-perception profile for adolescents*. Denver, CO: University of Denver.
- Horwitz, A. V. (1982). Sex-role expectations, power, and psychological distress. *Sex Roles, 8*, 607-623.
- Howard, J. A., Blumstein, P., & Schwartz, P. (1986). Sex, power, and influence tactics in intimate relationships. *Journal of Personality and Social Psychology, 51*, 102-109.
- Huston, T. L., McHale, S. M., & Crouter, A. C. (1986). Changes in the marital relationship during the first year of marriage. In R. Gilmour & S. Duck (Eds.), *The emerging field of personal relationships*. (pp. 109-132). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Kalof, L. (1995). Sex, power, and dependency: The politics of adolescent sexuality. *Journal of Youth and Adolescence, 24*, 229-249.
- Klute, M. M., Crouter, A. C., Sayer, A. G., & McHale, S. M. (2002). Occupational self-direction, values, and egalitarian relationships: A study of dual-earner couples. *Journal of Marriage and Family, 64*, 139-151.
- Komter, A. (1989). Hidden power in marriage. *Gender & Society, 3*, 187-216.
- Kovacs, M. (1981). *The children's depression inventory: A self-rated depression scale for school-aged youngsters*. Unpublished manuscript, University of Pittsburgh School of Medicine.
- Kulik, L. (1999). Marital power relations, resources and gender role ideology: A multivariate model for assessing effects. *Journal of Comparative Family Studies, 30*, 189-206.

- Leaper, C., & Anderson, K. J. (1997). Gender development and heterosexual romantic relationships during adolescence. In S. Shulman, & W. A. Collins (Eds.), *Romantic relationships in adolescence: Developmental perspectives* (pp. 85-103). San Francisco, CA: Jossey-Bass.
- Maccoby, E. E. (1990). Gender and relationships: A developmental account. *American Psychologist, 45*, 513-520.
- Manlove, J., Franzetta, K., Ryan, S., & Moore, K. (2006). Adolescent sexual relationships, contraceptive consistency, and pregnancy prevention approaches. In A. Booth & A. C. Crouter (Eds.), *Romance and sex in adolescence and emerging adulthood: risks and opportunities* (pp. 181-212). Mahwah, NJ: Lawrence Erlbaum Associates.
- McDonald, G. W. (1980). Family power: The assessment of a decade of theory and research, 1970-1979. *Journal of Marriage and the Family, 42*, 841-854.
- Monahan, J. L., Miller, L. C., & Rothspan, S. (1997). Power and intimacy: On the dynamics of risky sex. *Health Communication, 9*, 303-321.
- Reese-Weber, M., & Bartle-Haring, S. (1998). Conflict resolution styles in family subsystems and adolescent romantic relationships. *Journal of Youth and Adolescence, 27*, 735-752.
- Reiss, M. C., & Webster, C. (2004). An examination of established antecedents of power in purchase decision making: Married and nontraditional couples. *Journal of Applied Social Psychology, 34*, 1825-1845.
- Rusbult, C. E., & Buunk, B. P. (1993). Commitment processes in close relationships: An interdependence analysis. *Journal of Social and Personal Relationships, 10*, 175-204.

- Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The Investment Model Scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5*, 357-391.
- Safilios-Rothschild, C. (1970). The study of family power structure: A review 1960-1969. *Journal of Marriage and the Family, 31*, 290-301.
- Saul, J., Norris, F. H., Bartholow, K. K., Dixon, D., Peters, M., & Moore, J. (2000). Heterosexual risk for HIV among Puerto Rican women: Does power influence self-protective behavior? *AIDS and Behavior, 4*, 361-371.
- Scharf, M., & Maysel, O. (2001). The capacity for romantic intimacy: Exploring the contribution of best friend and marital and parental relationships. *Journal of Adolescence, 24*, 379-399.
- Schuman, H., & Johnson, M. P. (1976). Attitudes and behavior. *Annual Review of Sociology, 2*, 161-207.
- Sprecher, S. (1985). Sex differences in bases of power in dating relationships. *Sex Roles, 12*, 449-462.
- Sprecher, S. (2001). Equity and social exchange in dating couples: Associations with satisfaction, commitment, and stability. *Journal of Marriage and Family, 63*, 599-613.
- Sprecher, S., & Feilmee, D. (1997). The balance of power in romantic heterosexual couples over time from "his" and "her" perspectives. *Sex Roles, 37*, 361-379.
- Sprecher, S., Schmeekle, M., & Feilmee, D. (2006). The principle of least interest: Inequality in emotional involvement in romantic relationships. *Journal of Family Issues, 27*, 1255-1280.

- Thompson, E. H., & Pleck, J. H. (1986). The structure of male role norms. *American Behavioral Scientist*, 29, 531-543.
- Tschann, J. M., Adler, N. E., Millstein, S. G., Gurvey, J. E., & Ellen, J. M. (2002). Relative power between sexual partners and condom use among adolescents. *Journal of Adolescent Health*, 31, 17-25.
- Waller, W. (1937). The rating and dating complex. *American Sociological Review*, 2, 727-734.
- Zimmer-Gembeck, M. J., Siebenbruner, J., & Collins, W. A. (2001). Diverse aspects of dating: Associations with psychosocial functioning from early to middle adolescence. *Journal of Adolescence*, 24, 313-336.

Table 1

Distributions of Power Measures and Frequencies of Categorical Power Variables

	Score on Continuous Variable	Score on Categorical Variable	Frequency N (%)
Global Power			
Partner more Power	1.0-4.0	1	41 (20.6)
Egalitarian	5.0	2	95 (47.7)
Self more Power	6.0-9.0	3	63 (31.7)
Emotional Investment			
Partner more Power	1.0-4.4	1	47 (23.6)
Egalitarian	4.5-5.5	2	86 (43.2)
Self more Power	5.6-9.0	3	66 (33.2)
Availability of Alternatives			
Partner more Power	1.0-3.9	1	41 (21.8)
Egalitarian	4.0-6.0	2	90 (47.9)
Self more Power	6.1-9.0	3	57 (30.3)

Table 2

Means (SDs) for Gendered Qualities and Resources as a Function of Power Group

	Global Power			Emotional Investment			Availability of Alternatives		
	Partner	Equal	Self	Partner	Equal	Self	Partner	Equal	Self
Gender:									
Par Roles	-0.18 (0.98)	-0.03 (0.83)	0.10 (1.14)	-0.23 (1.07) _a	-0.11 (0.86)	0.23 (0.97) _b	-0.04 (0.87)	-0.20 (1.02) _a	0.21 (0.89) _b
Ad Att	-0.20 (0.93) _a	-0.23 (0.94) _a	0.46 (0.86) _b	-0.22 (1.06)	0.06 (0.82)	0.06 (1.06)	0.17 (0.90)	-0.14 (0.99)	0.15 (0.98)
Ad Express	22.81 (3.59)	23.36 (3.03)	22.53 (3.11)	22.79 (3.70)	23.30 (3.04)	22.72 (2.98)	22.32 (3.21) _a	23.95 (2.94) _b	22.11 (3.13) _a
Resources:									
Par Time									
Mother	7.87 (3.92)	7.80 (4.10)	7.25 (3.95)	6.61 (3.28) _a	8.46 (4.52) _b	7.37 (3.62)	6.87 (3.73)	7.84 (3.96)	7.93 (4.39)
Father	6.11 (3.57)	6.75 (4.67)	6.57 (5.08)	5.57 (3.67) _a	7.42 (5.35) _b	6.19 (3.96)	7.59 (5.10)	6.22 (4.31)	6.71 (4.79)
M Know	78.93 (9.35)	79.99 (8.83)	79.28 (9.01)	76.55 (8.69) _a	81.07 (9.12) _b	79.80 (8.53) _b	77.30 (9.27)	80.36 (9.14)	79.89 (8.63)

Mar Qual	-0.04 (0.88)	-0.02 (1.09)	0.08 (0.89)				-0.32 (1.00) _a	0.23 (0.93) _b	-0.11 (1.02)
Boys				-0.60 (0.88) _a	0.15 (0.93) _b	-0.19 (0.96)			
Girls				0.38 (0.83)	0.04 (0.98)	0.08 (1.08)			
Peer Comp	3.30 (0.37)	3.24 (0.52)	3.34 (0.41)				3.19 (0.35)	3.28 (0.51)	3.33 (0.45)
Boys				3.10 (0.47) _a	3.26 (0.35) _b	3.47 (0.35) _b			
Girls				3.45 (0.42)	3.21 (0.49)	3.25 (0.55)			
BMI	21.61 (3.62)	21.35 (3.49)	21.39 (2.49)	21.73 (4.17)	21.26 (2.89)	21.40 (2.83)			
Boys							21.27 (3.80)	21.71 (3.41)	21.91 (2.84)
Girls							23.50 (3.09) _a	20.56 (2.79) _b	21.35 (2.68) _b
Athl Skills	-0.23 (0.96) _a	0.15 (0.93) _b	0.25 (0.86) _b	0.03 (0.84)	0.04 (0.90)	0.23 (1.01)	0.14 (0.77)	-0.04 (0.94) _a	0.35 (0.90) _b

_{a, b} Means with different subscripts in each row are significantly different at $p < .05$.

Note. Means for significant predictors are presented from MANCOVA models in which significant predictors were combined; means for all other predictors are presented from separate ANCOVA models. Separate means for boys and girls are presented for predictors that showed significant interactions with adolescent gender.

Table 3

Means (SDs) on Adjustment as a Function of Power Measures

	Global Power			Emotional Investment			Availability of Alternatives		
	Partner	Equal	Self	Partner	Equal	Self	Partner	Equal	Self
Romantic									
Intimacy	3.99 (0.53)	4.08 (0.66)	4.23 (0.62)	3.99 (0.59)	4.24 (0.61)	4.04 (0.63)	3.94 (0.59)	4.23 (0.65)	4.13 (0.55)
Depressive									
Symptoms	2.27 (2.58)	2.15 (2.69)	2.38 (2.96)	3.38 (3.24) _a	1.84 (2.41) _b	1.98 (2.58) _b			
Boys							1.71 (2.07)	1.70 (2.52)	0.98 (1.37)
Girls							2.85 (3.39)	2.36 (2.52)	3.89 (3.46)
Risky									
Behavior	30.84 (9.52)	28.93 (8.49)	30.31 (8.97)				29.05 (8.80) _a	28.82 (8.22) _a	32.24 (8.71) _b
Boys				27.86 (7.60) _a	28.21 (7.98) _a	33.35 (9.40) _b			
Girls				32.03 (9.39)	29.33 (9.05)	30.22 (9.00)			

_{a, b} Means with different subscripts in each row are significantly different at $p < .05$.

Note. Separate means for boys and girls are presented when there was a power x adolescent gender interaction.

Running head: COUPLE VIOLENCE AND PARENTING

CHAPTER 2

Couple Violence and Parenting and Coparenting Experiences across the Transition to Parenthood

Marni L. Kan and Mark E. Feinberg

The Pennsylvania State University

We are grateful to the families who participated in this study. We thank Jesse Boring, Megan Goslin, Carmen Hamilton, Richard Puddy, Carolyn Ransford, and Samuel Sturgeon for their assistance in conducting this study. This study was funded by grants from the National Institute of Child Health and Development (1 K23 HD042575) and the National Institute of Mental Health (R21 MH064125-01), Mark E. Feinberg, principal investigator. Correspondence should be addressed to Marni L. Kan, Department of Human Development and Family Studies, S-113 Henderson Building, University Park, PA, 16802. Telephone: 814-865-6019. Fax: 814-865-6004. Electronic Mail: mlk272@psu.edu.

Abstract

This study examined longitudinal associations between couple violence and parenting and coparenting experiences across the transition to parenthood. A community sample of 162 couples reported on violence in their relationship when they were expecting their first child, and reported on their parenting stress, parental efficacy, and coparenting after the child was born. Mothers' and fathers' violence perpetration was related to both parents' parental distress and coparenting. Couple relationship distress, and to a lesser extent parent physical and mental health, mediated the links between violence and parenting and between violence and coparenting. This study adds to our understanding of the associations between couple violence and early parenting and coparenting experiences, and has important implications for preventive intervention.

Keywords: Coparenting, couple violence, parenting, transition to parenthood

Couple Violence and Parenting and Coparenting Experiences across the Transition to Parenthood

Violence affects a substantial proportion of dating and married couples and often has negative consequences for the health and well-being of the partners involved, as well as for their children (Tolan, Gorman-Smith, & Henry, 2006). Although aggressive or dysregulated parent characteristics may be a common predictor of both couple and parent-child violence, it is important to understand any pathways through which couple violence may affect children directly or indirectly. Some work has identified associations between couple violence and parent-to-child violence (McGuigan, Vuchinich, & Pratt, 2000; Slep & O'Leary, 2005; Tolan et al., 2006). Additionally, parenting behaviors and experiences, as well as the quality of the coparenting relationship, represent potential mechanisms linking couple violence with parent-child violence and/or child problems (Katz & Low, 2004; Levendosky & Graham-Berman, 2001; McGuigan et al., 2000). The current study focused on these mechanisms and extended research on the implications of couple violence by examining the associations between mothers' and fathers' violence and perceptions of parenting and coparenting across the transition to parenthood. In addition, this paper investigated possible mediators of these associations, including parent physical and mental health and couple relationship quality.

The data for this study were collected from a community sample of expectant couples. In conjunction with different theoretical perspectives regarding violence, major differences in the prevalence, frequency, severity, and nature of violence have been reported in community or national versus clinical or court-referred samples (Johnson, 1995; Szinovacz & Egley, 1995). Specifically, whereas family violence researchers tend to examine violence in community or national samples and focus on mutual couple violence, researchers working

from a feminist perspective generally focus on male violence towards women in clinic or court-referred samples (Dobash & Dobash, 2004; Johnson, 1995). Underlying the differences in theory and sampling may actually be two different types of violence. Johnson (1995) refers primarily to “common couple violence” and “patriarchal terrorism” in explaining the disagreement regarding gender differences in perpetration of violence: Common couple violence is infrequently and mutually perpetrated by both members of a couple in the context of conflict that gets out of hand, whereas patriarchal terrorism is systematically perpetrated by men for the purpose of controlling women and tends to escalate in frequency and intensity over time. The assumption underlying this paper is that our study primarily assesses common couple violence, and that few if any couples display patriarchal terrorism.

Couple Relationships, Parenting, and Coparenting

Both ecological frameworks (Bronfenbrenner, 1979) and family systems theories (e.g., Minuchin, 1974) suggest that it is important to understand the connections between sets of relationships within and outside of the family. In line with this notion, prior research has shown that couple relationships and parent-child relationships do not exist independently, but are interrelated (Erel & Burman, 1995). The current study focuses on the direction of influence from the inter-parental subsystem to the parent-child subsystem. Most research in this area supports the spillover hypothesis (Engfer, 1988), which suggests that positive or negative experiences in the marital relationship carry over to each parent’s relationship with his or her children (Erel & Burman, 1995; Krishnakumar & Buehler, 2000). This process has been particularly evident in the case of marital discord; inter-parental conflict is linked to negative parenting behaviors and parent-child interaction, which in turn predict child maladjustment (Cummings & Davies, 2002; Krishnakumar & Buehler, 2000).

In this paper, we examined whether the spillover process may be found not just for general discord, but for inter-parental violence. Several studies have found evidence supporting the spillover notion from couple violence to negative parenting across different domains of parenting. For instance, parents in aggressive marriages may be less available to their children and tend to use either inconsistent discipline or an authoritarian parenting style (Anderson & Cramer-Benjamin, 1999; Holden & Ritchie, 1991). Both self-report and observational data suggest that marital violence is related to more negative affect, less positive affect, and more negative child-rearing behavior in parent-child interactions (Holden & Ritchie, 1991; Margolin, John, Ghosh, & Gordis, 1996). A few studies have found associations between couple violence and parent-child relations in infancy, specifically mother-infant attachment and child abuse (McGuigan et al., 2000; Quinlivan & Evans, 2005).

The current study focused on perceptions of parenting, namely parenting stress and parental efficacy, as important cognitions that may explain the impact of violence on parenting behavior. Couple violence has been positively associated with parenting stress in prior work (Holden & Ritchie, 1991; Owen, Thompson, & Kaslow, 2006). Though couple violence has not been examined in relation to parental efficacy, low self-esteem, which may be a consequence of couple violence (e.g., Anderson, 2002), may be experienced in the parenting role as lower parental efficacy. In turn, negative perceptions of parenting may have implications for parent-child interactions and child adjustment (Coleman & Karraker, 2000; Haskett, Ahern, Ward, & Allaire, 2006; Holden & Ritchie, 1991; Owen et al., 2006). In the current study, longitudinal associations were examined between couple violence and both parenting stress and parental efficacy across the transition to parenthood.

Coparenting, conceptualized as the ways in which parents work together and coordinate their parenting, is another family process through which couple violence may have implications for parent-child violence and child adjustment. A family systems perspective suggests that experiences in the coparenting subsystem are independent of, but related to, experiences in inter-parental and parent-child subsystems (e.g., Minuchin, 1974). Indeed, coparenting has been shown to be more closely linked to parenting and child adjustment than the overall couple relationship (e.g., Feinberg, 2003). Additionally, although couple relationship quality and coparenting are distinct constructs, several studies have documented general and specific links between them (Katz & Gottman, 1996; McHale, 1995; Schoppe-Sullivan, Mangelsdorf, Frosch, & McHale, 2004).

The current study focused on the prenatal couple relationship as a predictor of the coparenting relationship established after the birth of a child. Previous work has found that negativity in the couple relationship before a child is born predicts difficulties in later triadic interaction (Lindahl, Clements, & Markman, 1997; McHale et al., 2004). We therefore predicted that violence in the inter-parental relationship would be associated with more negative coparenting experiences across the transition to parenthood. Similar to the notion of spillover mentioned above, it is possible that negative emotions associated with couple violence spill over to couple interactions involving children or childrearing (Katz & Low, 2004; Kitzmann, 2000). Only one prior study examined associations between couple violence and coparenting. In this study of parents with young children, small but significant cross-sectional associations were found between violence and both hostile-withdrawn coparenting and positive coparenting during family triadic interaction (Katz & Low, 2004). In the current

study we sought to investigate the links between violence and perceptions of coparenting longitudinally across the transition to parenthood.

Much of the work reviewed above has been cross-sectional and has focused on parents with children in infancy and early and middle childhood. Examining the links between violence and parenting and coparenting across the transition to parenthood is useful for several reasons. First, from a methodological standpoint, establishing temporal precedence between violence prior to the birth of a child and parenting and coparenting experiences after the birth provides support for the hypothesized direction of effects (e.g., Hill, 1965). Second, early parenthood is a period of reorganization and change in the family system to accommodate the infant. Although there is some evidence of stability in dimensions of family functioning across this period, there are also indications of change (Cowan & Cowan, 1995; Feinberg, 2002). Thus, it is important to understand the degree to which prior dimensions predict later functioning across the transition. Finally, associations between violence and parenting and coparenting across the transition to parenthood may have important implications for prevention; for example, the prevention of violence before a child is born could have a positive impact on parenting and coparenting over time (Cowan & Cowan, 1995; Feinberg, 2002). Therefore, this study focused on the transition to parenthood as an important period in which to examine the longitudinal implications of couple violence for parenting and coparenting experiences.

Correlates of Violence as Mechanisms

In addition to investigating whether pre-parenthood couple violence impacts perceptions of parenting and coparenting across the transition to parenthood, this paper explored the mechanisms of these associations. Understanding these mechanisms would

provide an even greater range of targets of preventive intervention. Only one study has examined mediators of the couple violence to parenting pathway: That study, focusing on mothers' parenting of 7-12 year old children, found that violence influenced mothers' parenting style through mothers' psychological well-being and marital satisfaction (Levendosky & Graham-Berman, 2001). In addition, however, a great deal of research has examined correlates of couple violence and can be used to make predictions about the possible mechanisms through which violence may be related to parenting and coparenting across the transition to parenthood.

Violence and Physical Health. Couple violence has been linked to poorer physical health, particularly among female victims of abuse (Campbell, 2002; Coker, Davis, Arias, Desai, Sanderson, Brandt, et al., 2002; Plichta, 2004). Aside from injury due to violence, physical health correlates include chronic pain, chronic disease, functional disability, poor general health status, poor immune functioning, and symptoms such as headache, gastrointestinal problems, urinary tract infections, menstrual problems, fainting, seizures, hypertension, chest pain, colds and flu. Violence during pregnancy has been also linked to health problems for the mother, such as kidney and vaginal infections, poor weight gain, anemia, and bleeding (Campbell, 2002; Jasinski, 2004; Plichta, 2004). These studies have largely focused on male-to-female violence in hospital or clinic-based samples; therefore it is worth investigating the physical health correlates of violence in a community sample of couples who are more likely to be involved in mutual violence. Moreover, it is predicted that health problems related to violence may make caring for an infant more challenging and may interfere with positive parenting and coparenting. This study examined health problems of both parents as mediators of the links between violence and parenting and coparenting.

Violence and Mental Health. One widely examined set of correlates of couple violence is mental health problems. Violence in couple relationships is associated with low self-esteem and increased depressive symptoms, anxiety, and post traumatic stress disorder (Anderson, 2002; Campbell, 2002; Jasinski, 2004). Again, most of this work focuses on mental health outcomes for female victims. Some research has found links between violence and well-being for male victims as well (Coker et al., 2002), but other work has found that women experience larger decrements in mental health functioning related to victimization than do men (Anderson, 2002; Beach et al., 2004). Additionally, mental health, particularly depression, is often related to negative parenting behaviors and negative evaluations of parenting (Cohn, Matias, Tronick, Connell, & Lyons-Ruth, 1986; Lyons-Ruth, Wolfe, & Lyubchik, 2000). Poor mental health may also limit parents' ability to support their partners' parenting and resolve childrearing differences with their partners (Feinberg, 2003). Although parents' neuroticism and agreeableness have been linked to coparenting in prior work (Belsky & Hsieh, 1998), ours is the first study to examine parent mental health as a longitudinal predictor of coparenting experiences. Specifically, we examined whether depressive symptoms and anxiety mediated associations between violence and perceptions of parenting and coparenting experiences.

Violence and Couple Relationship Quality. Finally, violent couples have been characterized as having more relationship problems overall, including conflict, difficulty in communication and problem solving, and less support and affection (Burman, Margolin, & John, 1993; Low, Monarch, Hartman, & Markman, 2002; Sagrestano, Carroll, Rodriguez, & Nuwayhid, 2004; Stets, 1992). Violence is associated with negative interactions between partners, as well as reciprocity and escalation of negativity (Burman et al., 1993; Gottman &

Notarius, 2002; Sagrestano et al., 2004). As discussed above, diminished couple relationship quality can spill over to parent-child relationships (Erel & Burman, 1995; Krishnakumar & Buehler, 2000) and is associated with the quality of coparenting relationships (Belsky & Hsieh, 1998; Katz & Gottman, 1996; McHale, 1995; Schoppe-Sullivan et al., 2004). It is therefore important to distinguish between violence and general couple relationship quality in predicting parenting and coparenting: If couple relationship quality accounts for the negative implications of violence, then prevention efforts can focus on overall relationship quality rather than violence per se. On the other hand, if violence predicts parenting and coparenting above and beyond the effects of couple relationship quality, then violence itself should be a focus of prevention. Couple love, conflict, ineffective arguing, efficacy, and observed positive and negative communication were examined as mediators of the violence-parenting and violence-coparenting links.

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In sum, this study examined violence prior to the birth of a first child as a predictor of post-birth parenting stress, parental efficacy, and coparenting in a community sample of couples. Whereas many studies focus on mothers as victims of violence, this study focused on the parenting and coparenting experiences of both mothers and fathers who may be involved in mutually violent relationships; therefore, both parents' perceptions of parenting and coparenting were included.

In studying associations between violence and parenting and coparenting, we examined the role of demographic variables, including parent age, education, income, and marital status, as well as parents' histories of problem behaviors. Prior work has identified socioeconomic status, as well as antisocial behavior and personality, as correlates of violence

(Cunradi, Caetano, & Schafer, 2002; Tolan et al., 2006); if such variables are also related to parenting and/or coparenting, they may represent third-variable confounds for the associations that were the focus of this study. Therefore, we examined the extent to which demographic variables and antisocial behaviors were related to parenting and coparenting, and included them as control variables in subsequent analyses where necessary.

Finally, we predicted that physical and mental health and couple relationship quality would mediate the associations between violence and parenting and coparenting. (A summary of our hypothesized associations is depicted in Figure 1.) This study advanced research in this area by using a community sample rather than an at-risk or shelter sample, including data from both parents about violence and outcomes, and utilizing a longitudinal prospective design across the transition to parenthood.

Method

Participants

Participants were 162 heterosexual couples that were expecting their first child and participating in a randomized study testing an intervention program for first-time parents that aimed to improve coparenting relationships. Couples were primarily (81%) recruited from childbirth education programs at two hospitals located in small cities. All other couples were recruited from doctors' offices or health centers (8%), newspaper ads or flyers distributed in public places (7%), by word of mouth (3%), or by unknown means (including all of the above as well as radio advertisement; 1%). Eligible couples were living together, over 18 years old, and expecting their first child. Twenty-three percent of eligible couples contacted by phone agreed to participate.

Participating couples resided in rural areas, towns, and small cities. At the prenatal interview (Time 1), 82% percent of couples were married and the majority of participants (91% of mothers and 90% of fathers) were Non-Hispanic White. Median annual family income was \$65,000.00 ($SD = \$34,372.79$), with a range of \$2,500.00 to \$162,500.00. Average educational attainment was 15.06 years for mothers ($SD = 1.82$) and 14.51 years for fathers ($SD = 2.19$); 14.4% of mothers and 29.3% of fathers did not complete any college. Mean ages were 28.33 ($SD = 4.93$) years for mothers and 29.76 ($SD = 5.58$) years for fathers.

Data for this study were taken from three time points: prenatally (Time 1), 4 to 8 months after the birth of the baby (Time 2), and approximately 13 months after the birth of the baby (Time 3). There was minimal sample attrition. Of the 169 couples who participated at Time 1, one couple was excluded from the study after Time 1 because the mother was deceased; another was excluded because of the child's congenital health problems. Of the remaining 167 couples, 15 couples (9.0%) did not participate at Time 2 and 12 couples (7.2%) did not participate at Time 3, but only 5 couples (3.0%) did not participate at both Time 2 and Time 3. The sample size for analyses was therefore 162 couples. Mothers in couples who participated at one or both follow-up waves had marginally more education ($M = 15.13$; $SD = 1.79$) than mothers in couples who did not ($M = 13.60$; $SD = 2.07$), $t(1,163) = 1.87$, $p < .10$. Fathers in participating couples also had more education ($M = 14.61$; $SD = 2.18$) than nonparticipating fathers ($M = 12.40$; $SD = 1.67$), $t(1,163) = 2.24$, $p < .05$. There were no differences in parent age, marital status, or family income as a function of participation. Thus, the sample that was included in analyses is slightly more educated than the full sample.

Procedure

Data were collected during home interviews at Time 1 and Time 3, and through mailed questionnaires at Time 2. Human subjects procedures were reviewed and couples were paid an honorarium for their participation (\$200 total across the three waves). Mothers and fathers separately completed questionnaires regarding their relationship experiences, individual qualities and attitudes, and individual well-being. Additionally, at Time 1, interviewers collected two 12-minute videotaped interactions of each couple. For the first task, couples were asked to talk about their day or about something that was on their mind and that was not related to their relationship. Each partner took turns spending six minutes as the focal talker and six minutes as the listener. For the second task, couples were asked to talk about problems in their relationship that had been selected by the interviewer based on each participant's highest ratings on a list of possible desired changes in the partner. For both tasks, the interviewer set a timer and then left the room. Five couples declined the interaction tasks, and an additional 7 tapes could not be coded. Undergraduate and graduate students were trained to code the videotapes according to a global coding system of 3- to 7-point scales developed for the study. Coders rated levels of positivity (e.g., warmth, support, positive affect), communication (e.g., problem solving, directiveness), and negativity (e.g., hostility, withdrawal, negative affect). One experienced coder served as a criterion coder. Of the 157 videotaped couples, all but 31 were coded by at least two coders. Percent close agreement (i.e., a pair of scores not more than one point different) across all codes and all combinations of raters was 88 percent.

Measures

Couple Violence. To measure *violence in the couple relationship* at Time 1, the physical assault subscale of the Revised Conflict Tactics Scales (CTS2; Straus, Hamby,

Boney-McCoy, & Sugarman, 1996) was used. Although the limitations of this scale have been discussed (e.g., Dobash & Dobash, 2004; Heyman & Schlee, 1997), it remains one of the most commonly used measures of partner violence in social science research. Mothers and fathers completed eight items about their own behaviors perpetrated toward their partner and the same eight items about their partner's behavior toward themselves. Three of the eight items assess low severity violence and five items assess high severity violence (see Table 1). All items are on a 7-point scale ranging from *0 times* to *More than 20 times* in the past year. Prevalence of violence was a dichotomous score; if respondents indicated that any of the behaviors had happened in the past year, prevalence was coded 1, otherwise it was coded 0. Frequency of violence was calculated by recoding each item score as the midpoint of the response category (i.e., *0 times* = 0, *1 time* = 1, *2 times* = 2, *3 to 5 times* = 4, *6 to 10 times* = 8, *10 to 20 times* = 15, and *more than 20 times* = 25) and summing across items.

Given the possibility of underreporting of violence and in order to simplify the analyses, mothers' and fathers' reports of violence were combined using a method consistent with previous research (e.g., Heyman & Schlee, 1997; Slep & O'Leary, 2005). Specifically, if either parent reported that a behavior had occurred in the past year, that behavior was considered to have occurred. The highest frequency reported by either parent was also used as the frequency for that behavior. These scores can be considered upper bound estimates of the true prevalence and frequency of violence in the sample (Schafer, Caetano, & Clark, 2002; Szinovacz & Egley, 1995). Cronbach's alphas were .77 and .81 for prevalence and .92 and .76 for frequency for mothers' and fathers' behaviors, respectively. Table 1 presents descriptive statistics on mothers' and fathers' violence perpetration prevalence and frequency for each behavior and for the scale as a whole.

Parenting Experiences. Parenting stress was assessed at both Time 2 and Time 3 with 27 items from the Parenting Stress Index - Short Form (Abidin, 1995). Twelve items measure *parental distress* (e.g., “I feel trapped by my responsibilities as a parent”), six items measure *parent-child dysfunctional interaction* (e.g., “My child smiles at me much less than I expected”), and nine items measure parents’ reports of a *difficult child* (e.g., “My child gets upset easily over the smallest thing”). Cronbach’s alphas ranged from .76 to .88 for mothers and .68 to .89 for fathers; mother-father correlations ranged from $r = .003$ (*ns*) for parent-child dysfunctional interaction to $.42$ ($p < .01$) for difficult child. *Parental efficacy* was measured at Times 2 and 3 with the 16-item postnatal version of the Parenting Sense of Competence Scale (Gibaud-Wallston & Wandersman, 1978). These items (e.g., “I feel confident in my role as a parent”) were rated on a 7-point scale. Cronbach’s alphas were .82 and .83 at Time 2 and .82 and .82 at Time 3 for mothers and fathers, respectively; mother-father correlations were $r = .20$ at Time 2 and $r = .19$ at Time 3.

Coparenting Experiences. *Coparenting* was assessed among mothers and fathers at both Time 2 and Time 3 using a measure developed for the study and adapted from previous measures of coparenting and the parental alliance (Abidin & Bruner, 1995; Cordova, 2001; Frank, Jacobson, & Avery, 1988; Margolin, 1992; McHale, 1997). The measure consists of 47 items, and exploratory factor analyses revealed the following subscales with adequate internal consistency for mothers and fathers: agreement (e.g., “My partner and I have the same goals for our child”), parenting brings us closer (e.g., “My relationship with my partner is stronger now than before we had a child”), division of labor (e.g., “My partner does not carry his/her fair share of the parenting work”), exposure to conflict (e.g., “How often in a typical week, when all 3 of you are together, do you yell at each other within earshot of the

baby?”), support (e.g., “My partner supports my parenting decisions”), and undermining (e.g., “My partner does not trust my abilities as a parent”). Cronbach’s alphas ranged from .69 to .88 for mothers and from .71 to .86 for fathers. To reduce the number of analyses undertaken and because all six subscales loaded on a single factor in exploratory factor analyses, composite scores representing coparenting for mothers and fathers were created, in which subscale scores were standardized, weighted on the basis of factor loadings, and averaged. Cronbach’s alphas for the composites were .80 and .82 at Time 2 and .80 and .75 at Time 3 for mothers and fathers, respectively; mother-father correlations were $r = .52$ at Time 2 and $r = .48$ at Time 3. Higher scores indicated more positive coparenting.

Physical Health. Mothers’ and fathers’ *number of physical health problems* was assessed at Time 1 using a checklist of 23 physical health problems, including fatigue, headaches, and frequent colds. The number of items that the respondent indicated he or she was currently experiencing was used as the physical health score.

Mental Health. Depressive symptoms were measured at Time 1 with a subset of seven items from the Center for Epidemiological Studies Depression Scale (CES-D; Howe, Levy & Caplan, 1999; Radloff, 1977). Items referred to symptoms experienced during the past week (e.g., “How often did you feel sad?”) and were answered on a 4-point scale from *rarely or none of the time/less than once to most or all of the time/5-7 days*. Cronbach’s alphas were .79 for mothers and .78 for fathers. Anxiety was measured at Time 1 with the 20-item short form of the Taylor Manifest Anxiety Scale (MAS), which measures chronic anxiety (Bendig, 1956; Taylor, 1953). Items were asked in a dichotomous yes/no format (e.g., “I am a high-strung person.”) Cronbach’s alphas were .85 for mothers and .78 for fathers. Depressive symptoms and anxiety were strongly correlated for both mothers, $r = .58$,

and fathers, $r = .54$, so separate composite scores representing *mental health problems* for mothers and fathers, in which the two measures were standardized, weighted on the basis of factor loadings, and averaged, were used in analyses.

Couple Relationship Quality. A composite measure of *relationship distress* included love, conflict, ineffective arguing, and couple efficacy at Time 1. Love and conflict were measured using the Marital Interactions Scale (Braiker & Kelley, 1979). Love was measured as the sum of nine items, for instance, “How close do you feel toward your partner?” and conflict was measured as the sum of five items, for instance, “How often do you and your partner argue with one another?” Cronbach’s alphas were .87 and .80 for love and .82 and .73 for conflict for mothers and fathers, respectively. Mothers’ and fathers’ reports of ineffective arguing were assessed using the Ineffective Arguing Inventory (Kurdek, 1994). This eight-item measure (e.g., “Our arguments are left hanging and unresolved”) asked couples to rate their style of managing disagreements on a 5-point scale. Cronbach’s alphas were .89 for mothers and .91 for fathers. Couple efficacy was measured using seven items regarding control over managing conflict in a relationship (e.g., “I have little control over the conflicts that occur between my partner and me”) on a 7-point scale (Fincham & Bradbury, 1987). Cronbach’s alphas were .89 for mothers and .86 for fathers. These four scales loaded on a single factor in exploratory factor analyses. Therefore, the scores were standardized, weighted on the basis of factor loadings, and averaged separately for mothers and fathers; higher composite scores reflected greater relationship distress. Cronbach’s alphas for the composites were .82 for mothers and .79 for fathers.

Additionally, mothers’ and fathers’ *positive communication* and *negative communication* scores during dyadic interactions at Time 1 were constructed from multiple

observational codes which were standardized and averaged on the basis of exploratory factor analyses. The positive communication composite included codes for listening, support, problem solving, appreciation, withdrawal (reverse scored), and defensiveness (reverse scored). The negative communication composite included assertiveness, hostility, and contempt. Cronbach's alphas were .80 and .85 for positive communication and .83 and .87 for negative communication for mothers and fathers, respectively.

Control Variables. Demographic variables, including parent age, education, income, and marital status were collected at Time 1 during home interviews. Parent history of behavior problems was assessed with two measures. *Antisocial behavior* was assessed with four items developed for the study and asked about the lifetime frequency of getting into fights, traffic tickets, arrests, and imprisonment. *Behavior problems since age 15* were assessed with five items that were developed for the study (e.g., "Since turning 15, did you ever participate in illegal activities, like stealing or destroying property?"). Internal consistency was not calculated for these measures because many parents experienced none of the items.

Results

Preliminary Analyses

Given that information about both severity and frequency may be important in variables representing couple violence, the utility of different types of violence variables was explored. In particular, categorical and continuous severity variables, the original summed frequency and dichotomous prevalence variables, and frequency x severity variables were examined in bivariate associations with the parenting and coparenting variables. Categorical severity variables represented three types: non-violent, low severity violence only, and high

severity violence. Continuous severity variables were created by summing across all items, with items scored 1 for low severity and 2 for high severity violence. Two frequency x severity variables were created by multiplying each of the severity scores by the frequency score. The frequency x continuous severity variables were as strongly related to outcomes as the more basic frequency, prevalence, and severity variables; therefore, this score for mothers' and fathers' violence perpetration was used in subsequent analyses because it is sensitive to both frequency and severity of behaviors and avoids grouping individuals.

Approximately half of the couples involved in the study were subjected to some or all of an intervention that aimed to improve coparenting. It is possible that the intervention weakened the links between violence prior to the birth of the child and postnatal experiences, including parenting and coparenting. Condition (i.e., treatment versus control) was examined as a moderator of the associations between violence and parenting and coparenting; no interaction terms were significant and thus condition was dropped from analyses.

Finally, mothers' age, mothers' and fathers' education, marital status, mothers' and fathers' antisocial behavior, and fathers' behavior problems since age 15 were all related to several of the parenting and coparenting outcomes. When these seven variables were partialled out, the remaining candidates for control variables (fathers' age, mothers' and fathers' income, and mothers' behavior problems) were not significantly correlated with parenting or coparenting. Therefore, the aforementioned seven variables were included as control variables in all analyses.

Associations between Couple Violence and Parenting and Coparenting

Given that our data included partners nested within couples, a multilevel modeling strategy was used for all analyses. Specifically, a series of random intercept multivariate

models was estimated in which mothers' and fathers' reports of parenting (or coparenting) were treated as two dependent measures. This approach accounted for dependencies in the data (i.e., within-family correlations between parents). To test whether estimates differed significantly for mothers' versus fathers' dependent variables, fixed effects were parameterized as main effects (or intercept effects), which represented the effects for mothers, and interactions of predictors with a dummy-coded parent variable (labeled 'parent' in the tables), which represented the difference between the effect for mothers' reports and the effect for fathers' reports. If the difference was significant, the effects were re-parameterized as interactions with dummy-coded variables representing mothers' and fathers' reports; that is, separate fixed effects were estimated for each parent. If the difference was not significant, the interaction term was dropped so that the main effect (or intercept) represented the effect across both parents' reports. The significance of fixed effects was evaluated with Wald tests in which degrees of freedom were estimated using the Satterthwaite method.

Parenting stress, parental efficacy, and coparenting were measured at both Time 2 and Time 3; therefore, a dummy-coded time variable was included in the multilevel models in which Time 2 was coded as time = 0 and Time 3 was coded as time = 1. As a result, the intercept represented the value at Time 2 and the slope represented the change from Time 2 to Time 3; this allowed us to examine whether parenting and coparenting, and the associations between violence and parenting and coparenting, changed across time. As with the parent variable, if main effects of time and/or interactions with time were not significant, this variable was dropped so that main effects (or intercepts) represented effects pooled across time.

Parenting Stress. Parameter estimates for models predicting parental distress are presented in Table 2. There were significant main effects of parent and time and a significant parent x time interaction: Mothers' parental distress was higher than fathers' parental distress at Time 2, but mothers' distress declined from Time 2 to Time 3 and fathers' distress did not. These terms were retained in all models predicting parental distress. Mothers' and fathers' violence perpetration were positively related to both parents' parental distress; there were no significant interactions by parent. Additionally, a marginal mothers' violence x time interaction indicated that the association between mothers' violence perpetration and parental distress weakened slightly over time. There were no significant effects of violence for parent-child dysfunctional interaction or perceptions of a difficult child.

Parental Efficacy. Significant main effects of parent and time indicated that mothers' parental efficacy was higher than fathers' parental efficacy and that both parents' efficacy increased from Time 2 to Time 3. There was not a significant interaction between parent and time, therefore only the main effects were retained in models predicting parental efficacy. An interaction between mothers' violence perpetration and time indicated that mothers' violence was less negatively related to both parents' parental efficacy at Time 3 than at Time 2 (see Table 3). Fathers' violence perpetration was not related to parental efficacy.

Coparenting. Parameter estimates for models predicting coparenting are presented in Table 4. There were no significant differences in coparenting as a function of parent or time or significant interactions between parent and time in predicting coparenting; therefore these terms were not retained in models predicting coparenting. Mothers' and fathers' violence perpetration were negatively related to both parents' reports of coparenting. There were no significant interactions with parent or time.

Mediation Analyses

Tests of mediation require a series of criteria to be met. Specifically, the predictor must be associated with both the mediator and the outcome, the mediator must be associated with the outcome, and when the predictor and the mediator are simultaneously used to predict the outcome, the strength of the predictor must be diminished (Baron & Kenny, 1986). For each significant association between violence and parenting or coparenting, a series of multivariate multilevel models was examined to test these criteria for each of the hypothesized mediators (see Figure 1 for predicted associations).

Table 5 shows the associations between violence and the mediators. Mothers' violence perpetration was significantly positively related to mothers' health problems but not related to fathers' health problems; fathers' violence perpetration was not related to mothers' health problems but was significantly negatively related to fathers' own health problems. Both parents' violence perpetration was significantly predictive of poorer parental mental health, more relationship distress, and less positive communication for both parents. Therefore, these variables remained candidates for mediation. Mothers' and fathers' physical health problems were examined separately in mediation analyses related to mothers' and fathers' violence perpetration, respectively.

Parental Stress. Mediation model parameters for parental distress are presented in Table 2. The marginal mothers' violence x time interaction was dropped for the tests of mediation. Mental health problems and relationship distress were significantly predictive of parental distress for both parents. Moreover, both mental health problems and relationship distress fully mediated the effects of mothers' and fathers' violence, such that the associations between violence and parental distress were no longer significant when either

mental health or relationship distress was in a model. Mothers' health problems predicted mothers' but not fathers' parental distress and fully mediated the association between mothers' violence and mothers' parental distress. Fathers' health problems predicted fathers' but not mothers' parental distress, but fathers' violence was still significantly related to fathers' parental distress after accounting for fathers' health problems. As there were no significant effects of violence on parent-child dysfunctional interaction, parents' reports of a difficult child, or parental efficacy, mediation was not tested for these parenting variables.

Coparenting. Parent mental health problems, relationship distress, and positive communication significantly predicted coparenting for both parents. Relationship distress fully mediated the associations between mothers' and fathers' violence and coparenting, such that violence was no longer related to coparenting when relationship distress was in the model (see Table 4). Mental health problems partially mediated the associations between mothers' violence and coparenting, such that mothers' violence was marginally significant when mental health was in the model. For fathers' violence with mental health, and for both models with positive communication, violence significantly predicted coparenting beyond the effects of the mediators. Mothers' health problems were significantly related to mothers' but not fathers' reports of coparenting and mediated the association between mothers' violence perpetration and mothers' reports of coparenting. Fathers' health problems were not related to mothers' or fathers' reports of coparenting and fathers' violence perpetration predicted coparenting for both parents above and beyond physical health problems.

Discussion

This study is the first to examine longitudinal associations between inter-parental violence and parenting and coparenting experiences across the transition to parenthood.

Consistent with prior research and our expectations, violence was a significant predictor of parents' perceptions of both parenting and coparenting. Additionally, we found that relationship distress, and to some extent, physical and mental health problems, mediated the associations between violence and parenting and coparenting. These results build upon past research with families of young children and add to our understanding of how violence impacts family systems. The timing and longitudinal design of this study, as well as the use of a community sample of couples, allow us to draw preliminary conclusions that can help to move forward the study of couple violence within family systems.

Violence, Parenting and Coparenting

The consistent associations found in this study between couple violence and both parental distress and coparenting support a family systems perspective (Minuchin, 1974) and suggest that dysfunction in the inter-parental subsystem has spillover effects on parents' early perceptions of the parent-child and coparenting subsystems. Our findings are consistent with prior work on links between violence and parenting (e.g., Holden & Ritchie, 1991; Margolin et al., 1996; McGuigan et al., 2000; Owen et al., 2006) and violence and coparenting (Katz & Low, 2004), and extend such work by examining these associations longitudinally across the transition to parenthood. These results have important prevention implications, namely that working with couples to curtail or prevent violence in their relationships before the birth of their child may have positive implications for the development of parent-child and coparenting relationships after a child is born (Cowan & Cowan, 1995; Feinberg, 2002).

That violence was not related to parent-child dysfunctional interaction, parents' reports of a difficult child, and was only weakly associated with parental efficacy further suggests specificity in the implications of violence at the transition to parenthood. It seems

that violence in the couple relationship before birth is related to new parents' feelings of distress regarding their ability to do what they want to do and enjoy life once they have had a child, which could be a function of poorer mental health more generally. In contrast, pre-existing violence does not appear to impact parents' confidence in caring for their child or their perceptions of the child and their relationship with the child. These null findings contrast with prior work, which has found an association between couple violence and child abuse (McGuigan et al., 2000) and between violence and self-reports of parenting (Levendosky & Graham-Bermann, 2001; Quinlivan & Evans, 2005).

It is possible that cross-sectional associations found in prior research are stronger than longitudinal associations across the transition to parenthood, when discontinuities in violence may occur. Alternatively, group differences between severely violent and nonviolent couples, which have been the focus of past research (Holden & Ritchie, 1991; McGuigan et al., 2000; Quinlivan & Evans, 2005), may have stronger implications than individual differences in violence frequency and severity in a community sample, which we examined in this study. Thus, replication and further exploration of our differential findings is needed. Additionally, studying observed parenting behavior in future longitudinal work would help to clarify the extent to which couple violence has implications for observable parent-child interaction across the transition to parenthood. Nonetheless, it is notable that longitudinal associations between violence and perceptions of parenting and coparenting were detected in a community sample of couples with relatively low rates of violence, even after controlling for important demographic and personal characteristics.

Assessing perceptions of parenting and coparenting at two postnatal waves allowed us to examine the extent to which the associations between violence and parenting and

coparenting diminished over time. There was little evidence that the implications of violence decreased over time for parenting or coparenting: Only one significant and one marginal interaction between violence and time emerged. These interactions need to be followed up by examining parenting and coparenting for a longer period of time in order to further determine whether the associations between violence and parenting and coparenting weaken over time.

Mechanisms of Association

Couple relationship distress—a construct including lack of love and couple efficacy, and increased conflict and ineffective arguing—was a consistent mediator of the links between violence and perceptions of parenting and coparenting. This finding accords with Levendosky and Graham-Bermann's (2001) mediational findings with regard to marital satisfaction and parenting and extends them to an earlier stage of parenting and to coparenting. That violence did not uniquely predict parenting or coparenting after accounting for the effects of relationship distress suggests that violence could be addressed in preventive interventions that focus on enhancing the overall couple relationship at the transition to parenthood. Indeed, universal prevention programs aimed at improving couple relationships by teaching conflict management and problem solving skills and helping to increase positive interaction may have concomitant effects on couple violence (e.g., Low et al., 2002).

Unlike self-reported couple relationship quality, observed couple interaction did not mediate the links between violence and parenting or violence and coparenting. Though positive communication was related to both violence and coparenting, it did not account for the association between them. It is possible that violence and positive communication instead interact in relation to coparenting, such that couples who are able to display positive interactions in the face of relationship violence have better coparenting experiences. As no

prior work has examined violence and positive communication together in predicting parenting and coparenting, potential mediational and moderational relations between them should be examined in future research. Additionally, in contrast with past research (e.g., Burman et al., 1993; Gottman & Notarius, 2002), observed negative communication was not related to violence. It is possible that some violent couples either displayed less negative communication to hide such tendencies or were relatively disengaged in general (perhaps as a means of preventing conflict from escalating into violence). This finding suggests that different methods of investigation (e.g., self-report versus observation) may be differentially related to violence; further exploration of this finding is warranted.

Parental mental health, including depression and anxiety, mediated the associations between violence and parental distress but not the associations between violence and coparenting. The finding that mental health served as a mediator is consistent with Levendosky and Graham-Bermann's (2001) results. As mentioned above, the construct of parental distress may be a component of mental health that is specific to the consequences of becoming a parent. Therefore it is logical that the association between violence and parental distress can be accounted for by a more global assessment of parental mental health.

In contrast, although violence was strongly related to mental health, and parents with worse mental health had more negative coparenting experiences, violence still predicted coparenting after accounting for mental health. Therefore, couple violence and mental health may be considered additive risk factors for coparenting difficulty, both of which could be targeted in couple-based prevention and/or treatment. Future work could also examine the extent to which violence and mental health interact in predicting coparenting. It is notable that mothers' and fathers' mental health showed similar associations with violence

perpetration and victimization and parenting and coparenting in this study. This finding contrasts with prior studies that have found stronger mental health implications of violence for women than for men (e.g., Anderson, 2002; Beach et al., 2004), and suggests that the implications of couple violence for both mothers' and fathers' mental health should be examined closely in studies with community samples.

Finally, physical health accounted for the associations between violence and perceptions of parenting and coparenting for mothers only. Only violence perpetration was related to physical health problems, and only in a negative direction for mothers. This suggests that fathers who have more health problems may be less physically dominating, whereas mothers' health problems may be linked to their violence through a weakened ability to handle stress or conflict effectively. Mothers' health problems additionally have implications for their perceptions of parenting and coparenting. It will be important in future work to examine the extent to which mothers' health problems interfere with their observable parenting and coparenting behavior, as well as the extent to which mothers' health problems are a cause or a consequence of their involvement in violent relationships.

Future Directions

The questions raised by this study suggest several directions for future research. First, our results are limited in their generalizability to community samples of primarily White couples. Although there is a wide range of age, income, and education in this sample, on average, the couples were well functioning and low risk. It is possible that different associations between violence and parenting and coparenting would be evident among couples of different sociodemographic backgrounds, or in a higher risk sample, in which violence is more prevalent. Thus, replication of this study with different samples is needed.

Furthermore, the conclusions drawn from this study are limited by the sole use of self-report measures of parenting and coparenting. Previous studies have found links between violence and observed parenting (Holden & Ritchie, 1991; McGuigan et al., 2000) and coparenting (Katz & Low, 2004); replicating such associations across the transition to parenthood, using observational data, is an important direction for future work and one that we are currently pursuing.

A final limitation of the current study is that the mediators were measured at the same time point as couple violence. Therefore, the direction of effects between violence and the mediators in this study is unclear. Future research should aim to establish clearer causal linkages between violence and physical health, mental health, and couple relationship quality in the prediction of parenting and coparenting over time. Nonetheless, that there were no differences in the links between violence and couple relationship quality and mental health for mothers versus fathers indicates that these mediators are related to violence perpetration and victimization. Thus, regardless of whether the proposed mediators are causes or consequences of involvement in violence, that they accounted for the associations between violence and parenting and coparenting suggests that they are relevant foci for intervention.

This study covered new terrain in the field of violence and family systems by studying the longitudinal implications of couple violence for parenting and coparenting experiences across the transition to parenthood. Relationship distress and parent mental health in particular were uncovered as possible mechanisms linking violence with parental distress and coparenting quality. The results of this study have important implications for preventive intervention with couples during the transition to parenthood.

References

- Abidin, R. R. (1995). *Parenting Stress Index: Professional Manual* (3rd ed.). Lutz, FL: Psychological Assessment Resources, Inc.
- Abidin, R. R., & Bruner, J. F. (1995). Development of a Parenting Alliance Inventory. *Journal of Clinical Child Psychology, 24*, 31-40.
- Anderson, K. L. (2002). Perpetrator or victim? Relationships between intimate partner violence and well-being. *Journal of Marriage and Family, 64*, 851-863.
- Anderson, S. A., & Cramer-Benjamin, D. B. (1999). The impact of couple violence on parenting and children: An overview and clinical implications. *The American Journal of Family Therapy, 27*, 1-19.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Beach, S. R. H., Kim, S., Cercone-Keeney, J., Gupta, M., Arias, I., & Brody, G. H. (2004). Physical aggression and depressive symptoms: Gender asymmetry in effects? *Journal of Social and Personal Relationships, 21*, 341-360.
- Belsky, J., & Hsieh, K. (1998). Patterns of marital change during the early childhood years: Parent personality, coparenting, and division-of-labor correlates. *Journal of Family Psychology, 12*, 511-528.
- Bendig, A. W. (1956). The development of a short form of the Manifest Anxiety Scale. *Journal of Consulting Psychology, 20*, 384.

- Braiker, H., & Kelley, H. H. (1979). Conflict in the development of close relationships. In R. L. Burgess & T. L. Huston (Eds.), *Social exchange in developing relationships*. (pp. 135-168). New York: Academic Press.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Burman, B., Margolin, G., & John, R. S. (1993). America's angriest home videos: Behavioral contingencies observed in home reenactments of marital conflict. *Journal of Consulting and Clinical Psychology, 61*, 28-39.
- Campbell, J. C. (2002). Health consequences of intimate partner violence. *The Lancet, 359*, 1331-1336.
- Cohn, J. F., Matias, R., Tronick, E. Z., Connell, D. & Lyons-Ruth, K. (1986). Face-to-face interactions of depressed mothers and their infants. *New Directions for Child Development, 34*, 31-45.
- Coker, A. L., Davis, K. E., Arias, I., Desai, S., Sanderson, M., Brandt, H. M., et al. (2002). Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine, 23*, 260-268.
- Coleman, P. K., & Karraker, K. H. (2000). Parenting self-efficacy among mothers of school-aged children: Conceptualization, measurement, and correlates. *Family Relations, 49*, 13-24.
- Cordova, A. D. (2001). Teamwork and the transition to parenthood. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 61*, 5052.
- Cowan, C. P., & Cowan, P. A. (1995). Interventions to ease the transition to parenthood: Why they are needed and what they can do. *Family Relations, 44*, 412-423.

- Cummings, E. M., & Davies, P. T. (2002). Effects of marital conflict on children: Recent advances and emerging themes in process-oriented research. *Journal of Child Psychology and Psychiatry, 43*, 31-63.
- Cunradi, C. B., Caetano, R., & Schafer, J. (2002). Socioeconomic predictors of intimate partner violence among White, Black, and Hispanic couples in the United States. *Journal of Family Violence, 17*, 377-389.
- Dobash, R. P., & Dobash, R. E. (2004). Violence to men in intimate relationships: Working on a puzzle. *British Journal of Criminology, 44*, 324-349.
- Engfer, A. (1988). The interrelatedness of marriage and the mother-child relationship. In R. A. Hinde & J. S. Hinde (Eds.), *Relationships within families: Mutual influences* (pp. 104-118). Oxford, England: Oxford University Press.
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin, 118*, 108-132.
- Feinberg, M. E. (2002). Coparenting and the transition to parenthood: A framework for prevention. *Clinical Child & Family Psychology Review, 5*, 173-195.
- Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting: Science and Practice, 3*, 95-132.
- Fincham, F. D., & Bradbury, T. N. (1987). Cognitive processes and conflict in close relationships: An attribution-efficacy model. *Journal of Personality and Social Psychology, 53*, 1106-1118.
- Frank, S. J., Jacobson, S., & Avery, C. (1988). The Family Experiences Questionnaire. Unpublished manuscript, Department of Psychology, East Lansing, MI.

- Gibaud-Wallston, A., & Wandersman, L. P. (1978). *Development and utility of the parenting sense of competence scale*. Paper presented at the meetings of the American Psychological Association, Toronto, Canada.
- Gottman, J. M., & Notarius, C. I. (2002). Marital research in the 20th century and a research agenda for the 21st century. *Family Process, 41*, 159-197.
- Haskett, M. E., Ahern, L. S., Ward, C. S., & Allaire, J. C. (2006). Factor Structure and Validity of the Parenting Stress Index-Short Form. *Journal of Clinical Child and Adolescent Psychology, 35*(2), 302-312.
- Heyman, R. E., & Schlee, K. A. (1997). Toward a better estimate of the prevalence of partner abuse: Adjusting rates based on the sensitivity of the Conflict Tactics Scale. *Journal of Family Psychology, 11*, 332-338.
- Hill, A. B. (1965). The environment and disease: Association or causation? *Proceedings of the Royal Society of Medicine, 58*, 295-300.
- Holden, G. W., & Ritchie, K. L. (1991). Linking extreme marital discord, child rearing, and child behavior problems: Evidence from battered women. *Child Development, 62*, 311-327.
- Howe, G. W., Levy, & Caplan, R. D. (1999). CES-D. Unpublished measure, Couples Unemployment Project.
- Jasinski, J. L. (2004). Pregnancy and domestic violence: A review of the literature. *Trauma, Violence, and Abuse, 5*, 47-64.
- Johnson, M. P. (1995). Patriarchal terrorism and common couple violence: Two forms of violence against women. *Journal of Marriage and the Family, 57*, 283-294.

- Katz, L. F., & Gottman, J. M. (1996). Spillover effects of marital conflict: In search of parenting and coparenting mechanisms. In J. McHale & P. Cowan (Eds.), *Understanding how family-level dynamics affect children's development: Studies of two-parent families* (pp. 57-76). San Francisco: Jossey-Bass.
- Katz, L. F., & Low, S. M. (2004). Marital violence, co-parenting, and family-level processes in relation to children's adjustment. *Journal of Family Psychology, 18*, 372-382.
- Kitzmann, K. M. (2000). Effects of marital conflict on subsequent triadic family interactions and parenting. *Developmental Psychology, 36*, 3-13.
- Krishnakumar, A., & Buehler, C. (2000). Interparental conflict and parenting behaviors: A meta-analytic review. *Family Relations, 49*, 25-44.
- Kurdek, L. A. (1994). Conflict resolution styles in gay, lesbian, heterosexual nonparent, and parent couples. *Journal of Marriage and the Family, 56*, 705-722.
- Levendosky, A. A., & Graham-Berman, S. A. (2001). Parenting in battered women: The effects of domestic violence on women and their children. *Journal of Family Violence, 16*, 171-191.
- Lindahl, K. M., Clements, M., & Markman, H. (1997). Predicting marital and parent functioning in dyads and triads: A longitudinal investigation of marital processes. *Journal of Family Psychology, 11*, 139-151.
- Low, S., Monarch, N. D., Hartman, S., & Markman, H. (2002). Recent therapeutic advances in the prevention of domestic violence. In P. A. Schewe (Ed.), *Preventing violence in relationships: Interventions across the life span*. (pp. 197-221). Washington, DC: American Psychological Association.

- Lyons-Ruth, K., Wolfe, R., & Lyubchik, A. (2000). Depression and the parenting of young children: Making the case for early preventive mental health services. *Harvard Review of Psychiatry, 8*, 148-153.
- Margolin, G. (1992). Coparenting Questionnaire. Unpublished instrument, University of Southern California, Los Angeles.
- Margolin, G., John, R. S., Ghosh, C. M., & Gordis, E. B. (1996). Family interaction process: An essential tool for exploring abusive relations. In D. D. Cahn & S. A. Lloyd (Eds.), *Family violence from a communication perspective* (pp. 37-58). Thousand Oaks, CA: Sage Publications.
- McGuigan, W. M., Vuchinich, S., & Pratt, C. C. (2000). Domestic violence, parents' view of their infant, and risk for child abuse. *Journal of Family Psychology, 14*, 613-624.
- McHale, J. P. (1995). Coparenting and triadic interactions during infancy: The roles of marital distress and child gender. *Developmental Psychology, 31*, 985-996.
- McHale, J. P. (1997). Overt and covert coparenting processes in the family. *Family Process, 36*, 183-201.
- McHale, J. P., Kazali, C., Rotman, T., Talbot, J., Carleton, M., Lieberman, R. (2004). The transition to coparenthood: Parents' prebirth expectations and early coparental adjustment at 3 months postpartum. *Development and Psychopathology, 16*, 711-733.
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.

- Owen, A. E., Thompson, M. P., & Kaslow, N. J. (2006). The mediating role of parenting stress in the relation between intimate partner violence and child adjustment. *Journal of Family Psychology, 20*, 505-513.
- Plichta, S. B. (2004). Intimate partner violence and physical health consequences: Policy and practice implications. *Journal of Interpersonal Violence, 19*, 1296-1323.
- Quinlivan, J. A., & Evans, S. F. (2005). Impact of domestic violence and drug abuse in pregnancy on maternal attachment and infant temperament in teenage mothers in the setting of best clinical practice. *Archives of Womens Mental Health, 8*, 191-199.
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401.
- Sagrestano, L. M., Carroll, D., Rodriguez, A. C., & Nuwayhid, B. (2004). Demographic, psychological, and relationship factors in domestic violence during pregnancy in a sample of low-income women of color. *Psychology of Women Quarterly, 28*, 309-322.
- Schafer, J., Caetano, R., & Clark, C. L. (2002). Agreement about violence in U.S. couples. *Journal of Interpersonal Violence, 17*, 457-470.
- Schoppe-Sullivan, S. J., Mangelsdorf, S. C., Frosch, C. A., & McHale, J. L. (2004). Associations between coparenting and marital behavior from infancy to the preschool years. *Journal of Family Psychology, 18*, 194-207.
- Slep, A. M. S., & O'Leary, S. G. (2005). Parent and partner violence in families with young children: Rates, patterns, and connections. *Journal of Consulting and Clinical Psychology, 73*, 435-444.

- Stets, J. E. (1992). Interactive processes in dating aggression: A national study. *Journal of Marriage and the Family, 54*, 165-177.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., Sugarman, D. B. (1996). The revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues, 17*, 283-316.
- Szinovacz, M. E., & Egley, L. C. (1995). Comparing one-partner and couple data on sensitive marital behaviors: The case of marital violence. *Journal of Marriage and the Family, 57*, 995-1010.
- Taylor, J. A. (1953). A personality scale of manifest anxiety. *Journal of Abnormal and Social Psychology, 48*, 285-290.
- Tolan, P., Gorman-Smith, D., & Henry, D. (2006). Family violence. *Annual Review of Psychology, 57*, 557-583.

Table 1

Prevalence and Frequency of Violence Perpetrated by Mothers and Fathers, Calculated as Highest Report by Either Reporter

	Annual Prevalence				Annual Frequency	
	Mother		Father		Mother	Father
	<i>n</i>	%	<i>n</i>	%	<i>M(SD)</i>	<i>M(SD)</i>
Low Severity						
1) Threw something that could hurt	37	22.2	18	10.8	0.87 (2.94)	0.59 (2.86)
2) Twisted arm or hair	10	6.0	13	7.8	0.35 (2.31)	0.17 (0.66)
3) Pushed or shoved	35	21.0	20	12.0	0.97 (3.07)	0.54 (2.60)
High Severity						
4) Used a knife or gun	2	1.2	1	0.6	0.10 (1.16)	0.01 (0.08)
5) Punched or hit with something that could hurt	15	9.0	6	3.6	0.40 (1.90)	0.04 (0.19)
6) Choked	3	1.8	4	2.4	0.12 (1.20)	0.04 (0.34)
7) Slammed against wall	5	3.0	7	4.2	0.15 (1.24)	0.08 (0.43)
8) Beat up	1	0.6	1	0.6	0.09 (1.16)	0.01 (0.08)
Any item endorsed / Sum of all items	49	29.3	28	16.8	3.05 (11.80)	1.47 (5.53)

Table 2

Results of Mothers' and Fathers' Violence Perpetration Predicting Parental Distress

	Model 1			Model 2			Model 3			Model 4		
	B	SE	<i>t</i>	Physical Health			Mental Health			Relationship Distress		
				β	SE	<i>t</i>	β	SE	<i>t</i>	β	SE	<i>T</i>
Mothers' Violence												
Intercept	2.42	0.34	7.09**	2.03	0.35	5.77**	2.30	0.32	7.29**	2.51	0.33	7.60**
Parent	-0.15	0.05	-2.96**				-0.16	0.05	-3.12**	-0.15	0.05	-3.02**
Time	-0.08	0.05	-1.41	-0.10	0.05	-1.95 [†]	-0.11	0.05	-2.20*	-0.10	0.05	-1.98*
Parent*Time	0.16	0.07	2.14*				0.16	0.07	2.24*	0.17	0.07	2.28*
Mediator				0.08	0.02	4.85**	0.19	0.02	7.78**	0.16	0.03	5.48**
Violence	0.08	0.03	2.75**	0.02	0.03	0.84	0.02	0.02	0.77	0.00	0.03	0.03
Violence*Time	-0.05	0.03	-1.80 [†]									
Fathers' Violence												
Intercept	2.30	0.35	6.56**	2.05	0.35	5.88**	2.27	0.32	7.01**	2.46	0.34	7.27**

Parent	-0.15	0.05	-2.96**				-0.16	0.05	-3.13**	-0.15	0.05	-3.02**
Time	-0.10	0.05	-2.00*	0.06	0.05	1.09*	-0.11	0.05	-2.20*	-0.10	0.05	-1.98*
Parent*Time	0.16	0.07	2.17*				0.16	0.07	2.25*	0.17	0.07	2.29*
Mediator				0.07	0.02	2.84**	0.19	0.02	7.70**	0.16	0.03	5.39**
Violence	0.08	0.03	2.43*	0.10	0.04	2.77**	0.02	0.03	0.75	0.02	0.03	0.61

Note. Parent represents the difference between the estimates for mothers' versus fathers' parental distress. Model 1 represents the baseline model of violence predicting parental distress; Models 2, 3, 4, and 5 represent mediation models involving physical health problems, mental health problems, and relationship distress, respectively. All models controlled for mothers' age, marital status, mothers' and fathers' education and antisocial behavior, and fathers' behavior problems since age 15. Model 2 represents tests of mediation within parent only (mothers' violence to mothers' physical health to mothers' parental distress and fathers' violence to fathers' physical health to fathers' parental distress).

** $p < .01$ * $p < .05$ † $p < .10$

Table 3

Results of Mothers' and Fathers' Violence Perpetration Predicting Parental Efficacy

	Mothers' Violence			Fathers' Violence		
	B	SE	<i>t</i>	B	SE	<i>t</i>
Intercept	95.02	7.13	13.33**	96.21	7.30	13.19**
Parent	-7.26	0.78	-9.27**	-7.29	0.79	-9.27**
Time	1.34	0.86	1.57	2.03	0.80	2.54*
Violence	-0.98	0.60	-1.64	-0.68	0.65	-1.05
Violence*Time	1.29	0.59	2.18*			

Note. Parent represents the difference between the estimates for mothers' versus fathers' parental efficacy. All models controlled for mothers' age, marital status, mothers' and fathers' education and antisocial behavior, and fathers' behavior problems since age 15.

** $p < .01$ * $p < .05$ † $p < .10$

Table 4

Results of Mothers' and Fathers' Violence Perpetration Predicting Coparenting

	Mothers' Violence			Fathers' Violence		
	B	SE	<i>t</i>	β	SE	<i>t</i>
Model 1: Baseline Intercept	-0.66	0.66	-1.00	-0.29	0.67	-0.44
Violence	-0.12	0.05	-2.44*	-0.20	0.06	-3.37**
Model 2: Physical Health	-0.06	0.03	-2.05*	-0.03	0.04	-0.66
Violence	-0.08	0.05	-1.54	-0.20	0.07	-2.89**
Model 3: Mental Health	-0.16	0.04	-4.00**	-0.16	0.04	-3.82**
Violence	-0.09	0.05	-1.81 [†]	-0.16	0.06	-2.65**
Model 4: Relationship Distress	-0.31	0.05	-6.11**	-0.29	0.05	-5.86**
Violence	-0.02	0.05	-0.35	-0.09	0.06	-1.56
Model 5: Positive Comm	0.17	0.08	2.14*	0.16	0.08	2.05*
Violence	-0.11	0.05	-2.24*	-0.18	0.06	-2.76**

Note. Model 1 represents the baseline model of violence predicting coparenting; Models 2, 3, 4, and 5 represent mediation models involving physical health problems, mental health problems, relationship distress, and positive communication, respectively. All models controlled for mothers' age, marital status, mothers' and fathers' education and antisocial behavior, and fathers' behavior problems since age 15. Model 2 represents tests of mediation within parent only (mothers' violence to mothers' physical health to mothers' parental distress and fathers' violence to fathers' physical health to fathers' parental distress).

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

Table 5

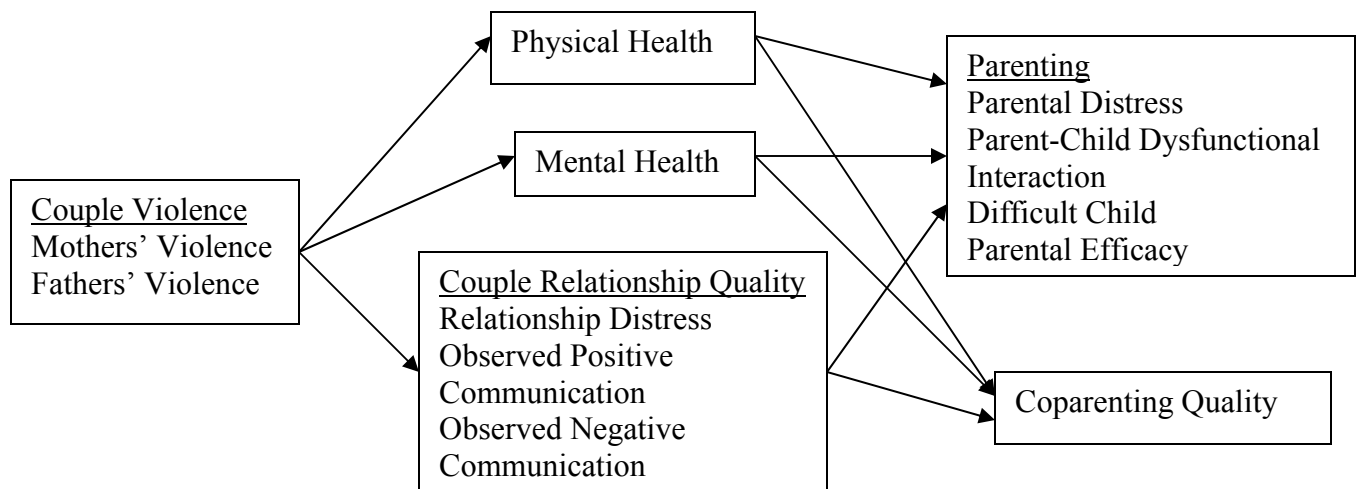
Associations between Mothers' and Fathers' Violence and Hypothesized Mediators

	Mother's Violence			Father's Violence		
	β	SE	t	β	SE	t
Physical Health Problems						
Mother	0.29	0.10	3.08**	0.06	0.12	0.50
Father	-0.12	0.10	-1.26	-0.37	0.12	-3.18**
Mental Health Problems	0.15	0.04	3.79**	0.20	0.05	4.03**
Relationship Distress	0.34	0.05	7.40**	0.35	0.06	5.87**
Positive Communication	-0.08	0.03	-2.45*	-0.11	0.04	-2.77**
Negative Communication	0.00	0.04	0.09	0.02	0.05	0.37

Note. Separate estimates for mothers' and fathers' physical health problems are presented because they were significantly different.

** $p < .01$ * $p < .05$ † $p < .10$

Figure 1. Theoretical model tested in the current study



Running Head: DIFFERENTIAL TREATMENT AND MARRIAGE

CHAPTER 3

Interparental Incongruence in Differential Treatment of Adolescent Siblings: Links with Marital Quality

Marni L. Kan, Susan M. McHale, and Ann C. Crouter

Pennsylvania State University

We are grateful to the families who participated in this study. We thank Matthew Bumpus, Melissa Fortner, Kelly Davis, Aryn Dotterer, Heather Helms, Julia Jackson-Newsom, Ji-Yeon Kim, Mary Klute, Carolyn Ransford, Cindy Shearer, Corinna Jenkins Tucker, Shawn Whiteman, and Kim Updegraff for their assistance in conducting this study. This study was funded by a grant from the National Institute of Child Health and Human Development (RO1-HD32336), Ann C. Crouter and Susan M. McHale, co-principal investigators. Portions of this paper were presented at the biennial meetings of the Society for Research on Adolescence, March 2006, San Francisco. Correspondence should be addressed to Marni L. Kan, Department of Human Development and Family Studies, S-113 Henderson Building, University Park, PA, 16802. Telephone: 814-865-6019. Fax: 814-865-6004. Electronic Mail: mlk272@psu.edu.

Abstract

This study examined longitudinal links between incongruence in mothers' versus fathers' differential treatment of adolescent-age siblings and parents' marital quality. Multilevel models including 200 families, over 4 waves, spaced across six years tested whether incongruence in differential intimacy and conflict predicted trajectories of mothers' and fathers' reports of marital conflict and satisfaction, and vice versa. Analyses showed that changes in interparental incongruence covaried longitudinally with changes in marital quality and that these linkages became stronger over time. These results extend previous cross-sectional research with younger children and are consistent with theories regarding family alliances and coparenting. Discussion focuses on the reciprocal relations between incongruence in parents' differential treatment of siblings and marital quality as an important aspect of family systems.

Key Words: adolescence, family systems, marital quality, parental differential treatment, siblings

Interparental Incongruence in Differential Treatment of Adolescent Siblings: Links with Marital Quality

The significance of the nonshared environment for individual differences in development (Dunn & Plomin, 1990) has directed attention to parents' differential treatment of siblings, and a body of work has linked differential treatment to youth adjustment and both sibling and parent-offspring relationships (e.g., Brody, Stoneman, & McCoy, 1992; Dunn, Stocker, & Plomin, 1990; McHale & Pawletko, 1992). Most studies of differential treatment have focused on mothers or examined mothers' and fathers' differential treatment as independent dynamics, but some work suggests that within-family *patterns* of mothers' and fathers' differential treatment may have important implications for youth (Crouter, McHale, & Tucker, 1999; McHale, Crouter, McGuire, & Updegraff, 1995; Volling, 1997; Volling & Elins, 1998). Grounded in a family systems framework, the current study advanced research in this area by examining the longitudinal associations between congruence and incongruence in mothers' and fathers' differential treatment and both parents' perceptions of marital quality.

Incongruence in Parental Differential Treatment: A Family-Level Construct

According to a family systems framework, families can best be understood as complex integrated units that include individuals with different needs and perspectives (Cox & Paley, 1997; Minuchin, 1985). One tenet of family systems theory is that processes operating at a family level cannot be reduced to individual or dyadic phenomena: the family system is more than just the sum of its parts (Minuchin, 1985; O'Connor, Hetherington, & Reiss, 1998). Rather than making inferences about family functioning based on information about a single individual or dyad in a family, family systems researchers are faced with the

challenge of operationalizing and studying family-level constructs. A second principle of family systems theory is that families are composed of subsystems (e.g., marital, parent-child, sibling) that are interrelated (Cox & Paley, 1997; Minuchin, 1985; O'Connor et al., 1998); understanding of one subsystem is incomplete if processes operating in other subsystems are not considered. Finally, as systems, families self-stabilize and self-organize in response to external and internal forces and changes (Cox & Paley, 1997; Minuchin, 1985). Consequently, transition points such as the birth of a child or a residential move may provide insight into systemic family processes. Together these tenets suggest that, rather focusing only on between-family differences, it is essential to study within-family phenomena, both in terms of distinct experiences of family members and change within families over time, in order to understand how families operate. Indeed, for over two decades researchers have called for studies that measure and analyze family-level processes (Cox & Paley, 1997; Minuchin, 1985; O'Connor et al., 1998). Unfortunately, as a result of limited research designs and statistical methods, few studies have succeeded in doing so.

The construct of interparental patterns of differential treatment incorporates information about multiple family subsystems: mother-child relationships with two siblings, father-child relationships with two siblings, and marital dynamics. As such, it moves research beyond the dyadic and triadic levels. Some prior studies on parental differential treatment have examined patterns and implications of congruence and incongruence in mothers' versus fathers' differential treatment of siblings. This work has found that families in which parents are incongruent in their reports of differential treatment (e.g., one parent treats both children equally whereas the other parent favors one child) evidence more stress in terms of parental adjustment as well as sibling and parent-child relationships (Crouter et al., 1999; McHale et

al., 1995; Volling, 1997; Volling & Elins, 1998). This research has also suggested that incongruence in differential treatment is related to the quality of parents' marital relationships. We built upon this work by focusing on longitudinal links between incongruence in parental differential treatment and marital quality.

Two family systems perspectives offer insights regarding the potential associations between incongruence in differential treatment and marital quality. First, stemming from the field of family therapy, some work suggests that, when subsystem boundaries are not maintained, parent-offspring coalitions and marital dysfunction will ensue (Minuchin, 1985). Indeed, evidence suggests that both weak marital alliances and discrepant parent-child alliances characterize distressed families (Gilbert, Christensen, & Margolin, 1984; Minuchin, 1974). Early researchers theorized that mothers in dissatisfying marriages compensated by becoming over-involved with a target child (Hoffman, 1976) or displaced their tension, exhibiting more conflict with a particular child (Gilbert et al., 1984). Parent-offspring coalitions may also lead to marital difficulties by precluding interparental alliances (Minuchin, 1974). In these situations, poorer marital quality would be associated with greater incongruence in mothers' and fathers' treatment of one of their offspring. Grounding their notion in such a family systems perspective, Reiss and colleagues (1994) asserted that variations in patterns of differential treatment may be apparent when one child is more involved than the other in their parents' efforts to cope with marital conflict.

Coparenting frameworks (Feinberg, 2003) suggest two additional dimensions of family functioning, triangulation and agreement about child rearing, which may be relevant to the link between differential treatment and marital quality. Similar to the ideas of parent-child coalitions and weak boundary maintenance mentioned above, incongruence in

differential treatment may reflect triangulation, in which children are pulled into interparental conflict and take sides with one parent in the course of marital discord. Marital dysfunction may also be exhibited by parents who disagree about child rearing values and practices: In the case of sibling dynamics, rather than coordinating their child rearing strategies, parents may differ in the extent to which they favor one child or the other because they have different ideas about the appropriateness of such practices (Feinberg, Reiss, Neiderhiser, & Hetherington, 2005).

Results of the few studies that have examined congruence and incongruence in mothers' versus fathers' differential treatment are generally consistent with family systems and coparenting research frameworks: Parents who were incongruent in their differential treatment tended to report poorer marital quality than parents who were congruent in their treatment of siblings (Crouter et al., 1999; McHale et al., 1995; Volling, 1997; Volling & Elins, 1998). Each of these studies, however, used cross-sectional data; in addition, families were categorized as either displaying congruence in differential treatment or not, rather than allowing for the possibility that interparental incongruence is situated along a continuum. Additionally, this research was conducted with parents of young or school-aged children. The normative stressors that families experience and the transformations in family relationships that often occur as offspring move into and through adolescence (e.g., Collins, 1997) suggest that adolescence is a period of family life in which the interparental alliance is likely to be challenged. Indeed, a family systems perspective proposes that periods of transition are important foci for research, as changes that occur at one or more levels reverberate throughout the system, leading to reorganizations of relationships and new family patterns (Cox & Paley, 1997; Minuchin, 1985). Volling (1997; Volling & Elins, 1998) speculated that

differences between siblings' development, which may become more pronounced in adolescence, may promote or even necessitate different types of relationships with different offspring. The extent to which mothers and fathers respond in *similar* ways to their offspring's developmental transitions, in turn, may affect and be affected by their well-being as a couple. Thus, we extended research on links between incongruence in differential treatment and marital quality to study families with adolescents.

Theories on coparenting and family alliances are not clear about the direction of effects linking parent-offspring and marital dynamics. Although prior research tested whether incongruence in differential treatment was linked to marital dynamics with the assumption that parent-child alliances would lead to a deterioration of the marriage relationship, it also is possible that marital dysfunction leads to greater incongruence in differential treatment, for example, when two children are differentially involved in marital problems or one child becomes a scapegoat. Incongruence and marital quality also may reciprocally influence each other. The available evidence provides support for each of these scenarios: Prior studies have established associations between incongruence in mothers' and fathers' differential treatment and marital quality, but by using cross-sectional designs, have been unable to explore direction of effects. Accordingly, in this study we examined associations in both directions: Incongruence in differential treatment was examined as a predictor of marital quality, and marital quality was examined as a predictor of incongruence in differential treatment.

The Present Study

The complexity of capturing the experiences of multiple individuals in a family as they change over time requires advanced designs and analytical approaches. The current study moved in this direction and extended prior work by examining links between mothers'

and fathers' differential treatment and marital quality longitudinally using a multilevel modeling strategy. This approach allowed us to test several hypotheses.

First, we predicted that variations in the extent of incongruence in differential treatment (rather than simply its presence or absence) would predict levels of marital quality, and vice versa. We therefore treated mothers' and fathers' differential treatment as continuous variables rather than collapsing parents into categories to describe differential treatment patterns. The conceptual advantage of this method was that we were able to examine the extent to which incongruence in differential treatment was incrementally related to marital quality—in both directions—rather than being limited to describing between-group differences in marital quality. We examined differential intimacy and conflict because these dimensions most closely approximate the affection/enjoyment and discipline dimensions examined in research with parents of younger children (Crouter et al., 1999; McHale et al., 1995; Volling, 1997; Volling & Elins, 1998). Moreover, whereas most prior work has used parents' ratings of their differential treatment, we used adolescents' reports of their relationship with each parent to create indices of differential treatment, reasoning that parental self reports would be more subject to social desirability pressures.

Second, whereas previous work has used data collected at one point in time to test whether families that are relatively high in differential treatment incongruence also report relatively poorer marital quality (a between-family effect), we also tested whether within-family *changes* in incongruence over time would be associated with *changes* in marital quality and vice versa (i.e., a within-family effect). The latter focus on longitudinal covariation of dynamics within families is stronger evidence in support of causal linkage because stable third variables (e.g., parental personality, mental health) can be ruled out as

causes of both incongruence in differential treatment and marital quality (Horney, Osgood, & Marshall, 1995).

Third, we tested whether the associations between incongruence in differential treatment and marital quality would differ across mothers' and fathers' marital evaluations. Some prior work has found similar links between incongruence in differential treatment and marital quality for mothers' and fathers' reports (Crouter et al., 1999; McHale et al., 1995; Volling & Elins, 1998), but in other research, the patterns differed (Volling, 1997). More generally, there is evidence that links between parent-child and marital dynamics are differentially strong for men versus women (Belsky, Youngblade, Rovine, & Volling, 1991; Cowan, Cowan, & Kerig, 1992; Parke & Tinsley, 1987). The inconsistency across prior studies meant that we did not advance a directional hypothesis, but treated this as an exploratory question.

Finally, we moved beyond the field's prior focus on early and middle childhood to study families longitudinally across adolescence, and we tested the hypothesis that links between incongruence in differential treatment and marital quality would vary as a function of the gender composition of the sibling dyad. Some evidence suggests that mothers and fathers experience different levels of intimacy and conflict in their dyadic relationships with sons versus daughters (Collins & Russell, 1991), and that differential treatment is more common in mixed gender than same gender dyads (McHale & Crouter, 2003). To date, however, no studies have examined the gender composition of the sibling dyad as a moderator of the links between incongruence in differential treatment and marital dynamics. Given prior evidence that differences in mothers' and fathers' treatment of daughters and sons are more normative, and therefore less likely to be a sign of marital difficulties, we

tested the prediction that incongruence in mothers' versus fathers' differential treatment would be more strongly related to marital quality in families with same gender as opposed to mixed gender sibling dyads.

Method

Participants

Participants were mothers, fathers, and adolescents from 200 families who participated in a longitudinal study of family relationships. All of the families were recruited through local school districts when their oldest child was in the 4th or 5th grade with a letter outlining the nature of the study, the eligibility criteria, and the compensation they would receive for participating. Eligible families included married couples that were never divorced, in which both parents were employed, and with two eldest children no more than 4 years apart in age. Families returned postcards if they were interested in participating. Over 90% of families that returned a postcard and met the criteria agreed to participate after receiving further information about the details of the study.

Families that participated were primarily middle and working class and resided in rural areas, towns, and small cities. Most (97%) were European American and the remaining 3% were Asian American and Latino. The analyses include data from four waves of the study over a six year period, when the measures of interest were collected. At the first occasion (1996), median annual family income was \$58,050 ($SD = \$31,472$). Parents' average educational attainment at this time point was 14.7 years (i.e., some college or post high school training; $SD = 2.0$) and parents had been married for an average of 14.5 ($SD = 2.4$) years. Mean ages were 37.6 years ($SD = 3.9$) for mothers, 39.9 years ($SD = 5.0$) for fathers, 11.8 years ($SD = 0.6$) for firstborn adolescents, and 9.2 years ($SD = 0.9$) for secondborn

adolescents. At the last occasion, firstborn and secondborn adolescents were 17.3 ($SD = 0.8$) and 14.8 ($SD = 1.2$) years old, respectively. The sample was approximately equally divided among the four possible gender constellations of the sibling dyad. Although the sample was not nationally representative, it was only slightly more educated and otherwise generally representative of the racial and economic background of families from the region of the state where the data were collected (*author citation deleted*).

There was minimal sample attrition. Two families had dropped out of the study before the first occasion and one couple had separated before the first occasion and therefore had no marriage data, leaving 200 families in the sample for this study. A total of 11 families experienced a marital separation or parental death during the four waves of the study that were included in our analyses, and were missing data on marital quality at some occasions as a result. These families did not differ from other families on demographic characteristics. Although mothers in these families reported higher marital conflict than other families, $t(1, 198) = -2.00, p < .05$, adding a dummy variable as a control did not alter the results; therefore these families were retained in analyses.

Procedures

Data were collected through separate home interviews with mothers, fathers, and adolescents during which family members reported on their family relationship experiences, individual qualities and attitudes, and individual well-being. At each phase of the study, human subjects procedures were reviewed and families were paid an honorarium (\$100 or \$200 depending on the year of the study) for their participation.

Measures

Parents' Marital Quality. Mothers' and fathers' reports of conflict and satisfaction in the marital relationship were measured each year. Marital conflict was measured using the Marital Interactions Scale (Braiker & Kelley, 1979) with the sum of five items, for instance, "How often do you and your partner argue with one another?" Items were rated on a 9-point scale from *not at all* or *never* to *very much* or *very often*. Cronbach's alphas ranged from .73 - .77 and .62 - .73 for mothers and fathers, respectively, across the years of the study. Satisfaction was assessed with the seven-item Domains of Marriage scale (Huston, McHale, & Crouter, 1986), which asked about satisfaction in areas such as communication and division of labor. Cronbach's alphas ranged from .85 - .88 for mothers and from .83 - .88 for fathers across the years of the study. Items were rated on a 9-point scale from *extremely dissatisfied* to *extremely satisfied*. Correlations between the marital measures ranged from .47 - .57 for mothers and from .38 - .57 for fathers, and correlations between mothers' and fathers' reports ranged from .34 - .53 across the years of the study.

Parent-Offspring Relationship Quality. Adolescents' reports of *intimacy* and *conflict* with their mothers and fathers were measured each year and were used to create the incongruence variables used in the analyses. *Intimacy* with mothers and fathers was assessed using an eight-item measure adapted from Blyth, Hill, and Thiel (1982). Items (e.g., "How important is your mother/father to you?") were rated on a 5-point scale. Cronbach's alpha ranged from .77 - .89 for firstborn adolescents and .74 - .87 for secondborn adolescents across the years of the study. *Conflict* with mothers and fathers was assessed using a measure of the frequency of conflict in 11 domains such as chores, homework, and social life. This measure was based on the work of Smetana (1988), who identified issues that caused conflicts in parent-offspring relationships. Items were rated on a 6-point scale, and higher

scores indicate more frequent conflict. Cronbach's alphas ranged from .79 - .85 for firstborn adolescents and from .78 - .90 for secondborn adolescents across the study. Correlations between the parent-offspring relationship indices ranged from .11 - .37 for firstborns and from .00 - .29 for secondborns, and correlations between siblings' reports of their relationship experiences ranged from .02 - .33.

Parental Differential Treatment and Interparental Incongruence. Parental differential treatment scores for mothers and fathers were created for intimacy and conflict by subtracting the secondborn's report from the firstborn's report. This score therefore reflected the relative difference in each parent's relationship experiences with his or her two offspring. Correlations between mothers' and fathers' differential treatment ranged from .47 - .57 for intimacy and from .73 - .84 for conflict across the years of the study. Given that we had no predictions about the extent to which different types of incongruence (e.g., mother favors one child and father treats equally; mother favors one child and father favors the other child) were more or less important for marital quality, indices of incongruence in differential treatment were created by taking the absolute value of the difference between mothers' and fathers' differential treatment scores for each of the parent-offspring relationship measures. These incongruence scores for intimacy and conflict were used in all analyses.

Background Characteristics. During the home interviews, parents reported on age and gender of family members, and parental education, income, and marital duration.

Results

Preliminary Analyses

Correlations between background characteristics (parent education, income, marital duration, and age at transition to parenthood) and the independent and dependent variables

were examined to evaluate the need to include control variables in the analyses. None of these variables were correlated with both marital quality and interparental incongruence, and including them as control variables in the analyses did not alter the results; therefore, no demographic characteristics were controlled in analyses.

Analytic Strategy

To test our first two hypotheses—that incongruence between mothers' and fathers' differential treatment and marital quality would be incrementally related and that both between-family differences and within-family changes over time in incongruence and marital quality would be associated—a multilevel modeling (MLM) strategy was used. This approach accounted for dependencies in the data (i.e., correlations within individuals over time; within-family correlations between parents). Given that the data were unbalanced (i.e., time intervals between measurement occasions were not equal), exact time in study was used as the time structure for the growth models and was centered at the first occasion of measurement (time = 0; this is reflected in the X-axis of the figures). Between- and within-family associations between incongruence in parents' differential treatment and marital quality were examined separately. Predictors (incongruence and marital quality in respective models) at the first occasion were grand mean centered to reflect between-family (i.e., time-invariant) effects, and change in incongruence or marital quality from the first occasion reflected within-family (i.e., time-varying) effects.

All analyses were conducted using SAS Proc Mixed. In growth models, fixed effects that represented average initial level (intercept) and average rate of change across time (linear slopes) were estimated, as well as interindividual variance, or random effects, around these estimates. After estimating best-fitting growth models for each dependent variable,

between- and within-family effects of independent variables were added as potential predictors of both level and change. Predictors were first examined in separate models for each of the outcomes. Then, significant predictors were combined in final models. All predictors remained significant in the final models unless otherwise reported. The significance of fixed effects was evaluated with Wald tests in which degrees of freedom were estimated using the Satterthwaite method. Models that differed in random effects were compared using restricted maximum likelihood deviances. Pseudo- R^2 values were calculated as indices of effect size to estimate the proportion of variance accounted for at each level. Both level-1 (within families over time) and level-2 (between families) values represent the change in intercept and residual variance from unconditional growth models to models with predictors, but level-2 values were adjusted for the number of level-1 units (i.e., 4 time points; Snijders & Bosker, 1999). Linear variance was excluded from the models to calculate these values; estimates should not be affected by this change (Snijders & Bosker, 1999).

Incongruence in Differential Treatment Predicting Marital Quality

To examine the extent to which incongruence in differential intimacy and conflict predicted mothers' and fathers' marital conflict and satisfaction, a series of three-level multivariate models was estimated in which mothers' and fathers' reports of marital quality were treated as two time-varying dependent measures. The unconditional growth model for marital conflict included separate fixed and random intercepts and linear terms for mothers and fathers. The unconditional growth model for marital satisfaction included separate fixed and random intercepts and random linear terms for mothers and fathers, and a single fixed linear term across parents. Parameter estimates for the final conditional models are shown in Table 1.

Marital Conflict. There were no significant effects of incongruence in differential intimacy for marital conflict. A significant interaction involving between-family incongruence in differential conflict and time indicated that parents who were initially more incongruent had more rapid increases in marital conflict over time. Additionally, a significant effect of within-family incongruence in differential conflict was qualified by an interaction involving within-family incongruence in differential conflict and time. This effect indicated that covariation between incongruence and marital conflict became stronger (more positive) over time. Incongruence in differential conflict accounted for 0.9% and 2.1% of the level-1 variance and 1.1% and 1.5% of the level-2 variance in mothers' and fathers' marital conflict, respectively.

Marital Satisfaction. A significant within-family effect of incongruence in differential intimacy indicated that increases in incongruence over time were associated with decreases in parents' marital satisfaction. Incongruence in differential intimacy accounted for 0.2% and 1.5% of the level-1 variance and 0.2% and 0.5% of the level-2 variance in mothers' and fathers' marital satisfaction, respectively. A significant interaction involving between-family incongruence in differential conflict and time indicated that parents who were initially more incongruent had more rapid decreases in marital satisfaction over time. Additionally, a significant effect of within-family incongruence in differential conflict was qualified by an interaction involving within-family incongruence in differential conflict and time. This effect indicated that covariation between incongruence and marital satisfaction became stronger (more negative) over time. Incongruence in differential conflict accounted for 1.9% and 3.8% of the level-1 variance and 1.7% and 2.8% of the level-2 variance in mothers' and fathers' marital satisfaction, respectively.

Figure 1 illustrates the between and within-family effects of incongruence in differential conflict on fathers' marital satisfaction (results were identical for mothers). Values on the independent and dependent variables were standardized to facilitate interpretation. High and low incongruence refers to values at one standard deviation above and below the mean, respectively, at the first occasion. Increases and decreases in incongruence are of one standard deviation across the study. These findings show that on average, families with low initial incongruence increased more in marital satisfaction over time than families with average incongruence; in contrast families with high initial incongruence, on average, decreased more in marital satisfaction over time than families with average incongruence. Additionally, families that decreased in incongruence over time increased in marital satisfaction, particularly between the last two waves of the study, whereas families that increased in incongruence over time decreased in marital satisfaction, and the rate of decrease was faster across the last two waves of the study.

Marital Quality Predicting Incongruence in Differential Treatment

To examine the extent to which mothers' and fathers' marital conflict and satisfaction predicted incongruence in differential intimacy and conflict, a series of two-level models was estimated in which the incongruence variables were treated as single time-varying dependent measures. The unconditional growth models for incongruence in both differential intimacy and differential conflict included fixed and random intercepts and linear terms. Parameter estimates for the final conditional models are shown in Table 2.

Incongruence in Differential Intimacy. There were no significant effects of marital conflict for incongruence in differential intimacy. A significant within-family effect of marital satisfaction indicated that decreases in satisfaction over time were associated with

increases in incongruence in differential intimacy. Marital satisfaction accounted for 0.9% of the level-1 variance and 1.6% of the level-2 variance in incongruence in differential intimacy.

Incongruence in Differential Conflict. A significant interaction involving within-family marital conflict and time indicated that covariation between marital conflict and incongruence became stronger (more positive) over time. This effect did not remain significant in the final model. Marital conflict accounted for 0.6% of the level-1 variance and 1.0% of the level-2 variance in incongruence in differential conflict. A significant interaction involving between-family marital satisfaction and time indicated that parents who were initially less satisfied had more rapid increases in incongruence over time. This effect was marginal in the final model. Additionally, a significant interaction involving within-family marital satisfaction and time indicated that covariation between marital satisfaction and incongruence became stronger (more negative) over time. Marital satisfaction accounted for 1.3% of the level-1 variance and 2.4% of the level-2 variance in incongruence in differential conflict. Figure 2 illustrates the between and within-family effects of marital satisfaction on incongruence in differential conflict. Values on the independent and dependent variables were standardized to facilitate interpretation. High and low satisfaction refers to values at one standard deviation above and below the mean, respectively, at the first occasion. Increases and decreases in satisfaction are of one standard deviation across the study.

Differences in Effects for Mothers and Fathers

To test our hypothesis that associations between incongruence and marital quality would be similar for mothers' and fathers' reports of marital quality, fixed effects were parameterized as main effects, which represented the effects for mothers, and interactions

with a dummy-coded father variable, which represented the difference between the effect for mothers' reports and the effect for fathers' reports. If the difference was not significant, the interaction term was dropped so that the main effect represented the effect across both parents' reports. The associations between incongruence in differential treatment and marital quality did not differ for mothers versus fathers in any of the models; therefore, only effects across parents' reports were retained.

Gender Composition of the Sibling Dyad

To test our prediction that associations between incongruence in mothers' and fathers' differential treatment and marital quality would vary as a function of the gender composition of the sibling dyad (specifically, that the link between incongruence and marital quality would be weaker for mixed gender sibling dyads), a dummy coded variable representing whether the offspring were the same (= 0) or mixed gender (= 1) was added to each of the separate models as a main effect and in interactions with the predictor variables. Of 32 possible interactions, only one was significant: The interaction involving between-family incongruence in differential conflict and time was a significantly weaker predictor of marital conflict in families with mixed gender dyads than in families with same gender dyads, $\beta = -.06$, $SE = .03$, $p < .05$. Although this pattern was predicted, given the number of tests conducted, our data do not provide strong evidence of gender constellation moderation.

Discussion

This study examined longitudinal links between incongruence in mothers' versus fathers' differential treatment and marital quality. In support of a family systems perspective and our hypotheses, we found that the extent to which mothers and fathers are similar or different from each other in their treatment of two offspring represents an important family-

level dynamic that is incrementally associated with marital quality over time. These findings are consistent with prior cross-sectional work, which has shown that incongruent patterns of mothers' versus fathers' differential treatment are related to poorer marital quality in families of early and middle childhood-aged offspring (Crouter et al., 1999; McHale et al., 1995; Volling, 1997; Volling & Elins, 1998). As in these prior investigations, we found that incongruence in differential treatment predicted both positive (i.e., satisfaction) and negative (i.e., conflict) dimensions of marital quality, and we additionally found that both positive and negative dimensions of marital quality predicted incongruence in differential treatment. Whereas incongruence in differential intimacy was only associated with marital satisfaction, incongruence in differential conflict was associated with both marital conflict and marital satisfaction. The results of this study also suggest that incongruence in differential treatment is a salient family process during the transitional period of adolescence.

The theoretical underpinnings of this study (i.e., in ideas about parent-offspring coalitions and coparenting) give rise to at least two possible interpretations of our findings. First, high incongruence between mothers' and fathers' differential treatment may represent the presence of parent-offspring coalitions in families, which may be by-products or causes of marital difficulties (e.g., Minuchin, 1985). Thus, for instance, when one parent experiences differential intimacy with two offspring because of an alliance with one of them, that alliance may become more extreme as marital satisfaction decreases. Alternatively, high incongruence may represent a poor coparenting relationship between parents, in which mothers and fathers parent differently because of different attitudes about their offspring's behavior or different parenting values and goals (e.g., Feinberg, 2003). The latter interpretation makes the most sense in the context of differential conflict. For example,

marital conflict may increase as one parent becomes more involved in conflict with an offspring making the transition to adolescence, but not the sibling, and the other parent disagrees with this approach (Feinberg et al., 2005). Future research should assess tendencies for family members to form alliances and the quality of parents' coparenting relationships in order to further explore these two possible scenarios.

The longitudinal design of this study allowed us to test the prediction that there would be associations involving both between-family differences and within-family changes in incongruence and marital quality. Covariation between incongruence and marital quality over time provides stronger evidence of causal linkage than between-family associations, because stable third variables, whether measured or not, can be eliminated as causes of both incongruence and marital quality (Horney et al., 1995). Nonetheless, our results suggest that incongruence in differential treatment and marital quality are reciprocally linked, as significant associations were found in both directions. Although the effects in the final models predicting marital quality were slightly stronger and more consistent than those predicting incongruence, the two types of models may not be directly comparable due to different model specifications (i.e., that the former type are multivariate models whereas the latter are not). Family systems frameworks indeed suggest that associations between family subsystems are reciprocal; although most studies focus only on one direction of effect, our data suggest that researchers should examine both directions in future work.

It is notable that the associations between incongruence in differential treatment and marital quality involved interactions between time and between-family incongruence, main effects of within-family incongruence, and interactions between time and within-family incongruence. Unlike prior cross-sectional work, we did not find that the overall level of

incongruence in differential treatment in families was related to parents' overall level of marital quality. Rather, our findings suggest that two different processes may be occurring in families. First, interparental incongruence in differential treatment early in adolescence has implications for *trajectories* of marital quality thereafter, and vice versa. Therefore, if parent-child coalitions are established in families as youth enter adolescence, they may create a disturbance in the marital subsystem that is difficult to overcome. Similarly, if marital quality is poor in early adolescence, discrepant patterns of parent-adolescent relationships may develop over time. Second, changes in interparental incongruence in differential treatment are associated with changes in marital quality over time. Thus, couples are not doomed by temporary incongruence that may result from changing expectations of adolescents or episodes of poor communication between parents, because decreases in incongruence are associated with improvements in marital quality. Likewise, marital difficulties may lead to temporary incongruence in relationships, but reconnection in the marriage may help eliminate family alliances and improve coparenting.

How can we reconcile the ideas that early experiences predict trajectories of functioning but ongoing changes play a role as well? First, these processes may work together, such that both early experiences and changes in experiences contribute to family dynamics over time. Another explanation is that different processes characterize different families. Adolescence is a time when families, as systems, contend with multiple internal and external changes, and some families may be more successful at self-organizing and self-stabilizing than others. Thus, some marital dyads may not be able to overcome early perturbations in family systems. Among these couples, the extent of incongruence may be relatively stable over time, perpetuating trajectories of marital quality, or the level of marital

quality may be stable, perpetuating pathways of incongruence. In contrast, other marital dyads may be able to reorganize in response to challenges, and may experience increases and decreases in marital quality as they become more or less successful at maintaining an interparental alliance, or may experience more or less incongruence as the quality of the marriage fluctuates. The idea that transitions are handled differently in different families is reflected in early theorizing about the flexibility of alliances in dysfunctional versus functional families (see Gilbert et al., 1984). More intensive data collection, such as diary data or qualitative interviews with families, may help to illuminate these processes. Nonetheless, the longitudinal linkages between incongruence in differential treatment and marital quality that we found have important implications for theorizing about the different ways in which family subsystems can influence one another.

We also examined differences in the associations between incongruence and marital quality for mothers' versus fathers' marital evaluations. Consistent with most previous research (e.g., Crouter et al., 1999; McHale et al., 1995; Volling & Elins, 1998), there were no differences. Incongruence in differential treatment appears to be associated, in similar ways, with mothers' and fathers' perceptions of marital quality.

Though we predicted that the gender composition of the sibling dyad would moderate the associations between incongruence in differential treatment and marital quality, only one interaction was significant: Even though it may be normative for mothers and fathers to have different types of relationships with sons versus daughters, such incongruence was generally associated with poorer marital quality. Our findings add to the literature showing that patterns of incongruence in differential treatment do not vary as a function of offspring gender (Volling, 1997; Volling & Elins, 1998) by suggesting that, at least among families

with adolescents, the associations between incongruence and marital quality also do not vary by gender.

Although this study replicates and extends prior research on incongruence in mothers' versus fathers' differential treatment, it is not without limitations. One major challenge for family systems researchers is to balance complexity with parsimony. We had no hypotheses about the direction of differences between mothers' and fathers' differential treatment and therefore chose to make our analyses more interpretable by creating absolute difference scores to represent incongruence. As a result, incongruence in our sample could reflect multiple different patterns. For instance, high incongruence could mean that the mother favors the older child whereas the father favors the younger child (or vice versa), that the mother treats both children equally whereas the father favors one of the children (or vice versa), or that the mother favors one child slightly and the father favors that same child a great deal (or vice versa). Given the analytical approach of this study, we did not determine whether these configurations were present in our data, nor could we examine potential differences in the implications of these patterns. Although our approach was appropriate given our research questions, a future direction for research is to tease apart different types of incongruence to learn whether they have different associations with marital quality.

Another limitation of the present study was that it relied on a White sample of intact families. Indeed, much of the work on differential treatment has been conducted with similarly homogenous samples (Brody et al., 1992; Crouter et al., 1999; McHale et al., 1995; Volling, 1997; Volling & Elins, 1998). Though the use of the current sample provides for a relevant comparison with previous research, it limits the generalizability of the findings. Incongruence in differential treatment may be linked with marital quality in different ways in

different populations, and may be more or less common to begin with. Additionally, of course, incongruence in differential treatment is a construct that is only applicable to families with two parental figures and at least two offspring. Nonetheless, given that separated or divorced parents or two adults who are not romantically involved can be co-parents, the degree of incongruence in differential treatment is a dynamic in many types of family configurations, and alternative family contexts should be the focus of future research.

It is important to recognize that the size of the effects found in this study were small and limit the conclusions that can be made about the practical significance of the associations between incongruence in differential treatment and marital quality. Indeed, it is likely that other factors within the family, such as personality characteristics, adolescent behaviors, changing work and academic experiences, and family stressors are important influences on interparental incongruence and on marital quality. Moreover, the parents in our study were generally involved in stable marriages, meaning that variation in problematic family dynamics was limited and highlighting the importance of examining these processes in a broader sample. Nonetheless, there is a strong theoretical basis for studying links between incongruence and marital quality, and from a dynamical systems framework (Magnusson & Cairns, 1996), even small effects can produce important changes over time. For instance, Figure 1 shows that a one-standard deviation increase in incongruence across the study, when incongruence was high to begin with, produced a half-standard deviation decrease in marital satisfaction during that time. Prior research has not reported the sizes of effects between incongruence in differential treatment and marital quality; thus, it is difficult to know whether stronger effects than the ones we found are evident in families with younger offspring, or when alternative measurement procedures are used.

In sum, this study advanced research on parental differential treatment by examining the longitudinal associations between incongruence in mothers' versus fathers' differential treatment of two adolescent offspring and marital quality. Results of previous research were supported; between-family differences and, to a greater extent, within-family changes in incongruence predicted parents' marital conflict and satisfaction over time, and vice versa. These findings suggest that more advanced methodological and statistical approaches to studying families as systems can begin to illuminate complex family-level processes. More work in this area with diverse families and research that gathers more information about the dynamics underlying incongruence in differential treatment will be needed to continue to advance knowledge in this field. Nonetheless, this study adds to an understanding of how families of adolescents work and paves the way for future research on processes involving marital, coparenting, and parent-offspring relationships.

References

- Belsky, J., Youngblade, L., Rovine, M., & Volling, B. (1991). Patterns of marital change and parent-child interaction. *Journal of Marriage and the Family*, *53*, 487-498.
- Blyth, D., Hill, J., & Thiel, K. (1982). Early adolescents' significant others: Grade and gender differences in perceived relationships with familial and nonfamilial adults and young people. *Journal of Youth and Adolescence*, *11*, 425-450.
- Braiker, H. B., & Kelley, H. H. (1979). Conflict in the development of close relationships. In R. Burgess & T. Huston (Eds.), *Social exchange in developing relationships* (pp. 135-168). New York: Academic Press.
- Brody, G., Stoneman, Z., & McCoy, J. K. (1992). Associations of maternal and paternal direct and differential behavior with sibling relationships: Contemporaneous and longitudinal analyses. *Child Development*, *63*, 82-92.
- Collins, W. A. (1997). Relationships and development during adolescence: Interpersonal adaptation to individual change. *Personal Relationships*, *3*, 1-14.
- Collins, W. A., & Russell, G. (1991). Mother-child and father-child relationships in middle childhood and adolescence: A developmental analysis. *Developmental Review*, *11*, 99-136.
- Cowan, P. A., Cowan, C. P., & Kerig, P. K. (1992). Mothers, fathers, sons, and daughters: Gender differences in family formation and parenting style. In P. A. Cowan, D. Field, D. A. Hansen, A. Skolnick, & G. E. Swanson (Eds.), *Family, self, and society: Towards a new agenda for family research* (pp. 165-195). Hillsdale, NJ: Erlbaum.
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology*, *48*, 243-267.

- Crouter, A. C., McHale, S. M., & Tucker, C. J. (1999). Does stress exacerbate parental differential treatment of siblings? A pattern-analytic approach. *Journal of Family Psychology, 13*, 286-299.
- Dunn, J., & Plomin, R. (1990). *Separate lives: Why siblings are so different*. New York: Basic Books.
- Dunn, J., Stocker, C., & Plomin, R. (1990). Nonshared experiences within the family: Correlates of behavior problems in middle childhood. *Development and Psychopathology, 2*, 113-126.
- Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting: Science & Practice, 3*, 95-131.
- Feinberg, M. E., Reiss, D., Neiderhiser, J. M., & Hetherington, E. M. (2005). Differential association of family subsystem negativity on siblings' maladjustment: Using behavior genetic methods to test process theory. *Journal of Family Psychology, 19*, 601-610.
- Gilbert, R., Christensen, A., & Margolin, G. (1984). Patterns of alliances in nondistressed and multiproblem families. *Family Process, 23*, 75-87.
- Hoffman, L. (1976). Breaking the homeostatic cycle. In P. Guerin, Jr. (Ed.), *Family therapy: Theory and practice* (pp. 501-519). New York: Gardner Press.
- Horney, J., Osgood, D. W., & Marshall, I. H. (1995). Criminal careers in the short-term: Intra-individual variability in crime and its relation to local life circumstances. *American Sociological Review, 6*, 655-73.

- Huston, T. L., McHale, S. M., & Crouter, A. C. (1986). Changes in the marital relationship during the first year of marriage. In R. Gilmour & S. Duck (Eds.), *The emerging field of personal relationships* (pp. 109-132). Hillsdale, NJ: Erlbaum.
- Magnusson, D., & Cairns, R. B. (1996). Developmental science: Toward a unified framework. In R. B. Cairns, G. H. Elder, & E. J. Costello (Eds.), *Developmental Science* (pp. 7-30). New York: Cambridge University Press.
- McHale, S. M., & Crouter, A. C. (2003). How do children exert an impact on family life? In A. C. Crouter & A. Booth (Eds.), *Children's influence of family dynamics: The neglected side of family relationships* (pp. 207-220). Mahwah, NJ: Erlbaum.
- McHale, S. M., Crouter, A. C., McGuire, S. A., & Updegraff, K. A. (1995). Congruence between mothers' and fathers' differential treatment of siblings: Links with family relations and children's well-being. *Child Development*, *66*, 116-128.
- McHale, S. M., & Pawletko, T. M. (1992). Differential treatment of siblings in two family contexts. *Child Development*, *63*, 68-81.
- Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development*, *56*, 289-302.
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.
- O'Connor, T. G., Hetherington, E. M., & Reiss, D. (1998). Family systems and adolescent development: Shared and nonshared risk and protective factors in nondivorced and remarried families. *Development and Psychopathology*, *10*, 353-375.
- Parke, R. D., & Tinsley, B. R. (1987). Family interaction in infancy. In J. D. Osofsky (Ed.), *The handbook of infant development* (pp. 295-317). New York: Wiley.

- Reiss, D., Plomin, R., Hetherington, E. M., Howe, G., Rovine, M., Tryon, A., & Stanley, M. (1994). The separate worlds of teenage siblings: An introduction to the study of the nonshared environment and adolescent development. In E. M. Hetherington, D. Reiss, & R. Plomin (Eds.), *Separate social worlds of siblings: Importance of nonshared environment on development* (pp. 63-110). Hillsdale, NJ: Erlbaum.
- Smetana, J. G. (1988). Concepts of self and social convention: Adolescents' and parents' reasoning about hypothetical and actual family conflicts. In M. R. Gunnar and W. A. Collins (Eds.), *Minnesota Symposia on Child Psychology, Vol. 21: Development during the Transition to Adolescence* (pp. 79-122). Hillsdale, NJ: Erlbaum.
- Snijders, T. A. B., & Bosker, R. (1999). *Multilevel analysis*. Thousand Oaks, CA: Sage.
- Volling, B. L. (1997). The family correlates of maternal and paternal perceptions of differential treatment in early childhood. *Family Relations, 46*, 227-236.
- Volling, B. L., & Elins, J. L. (1998). Family relationships and children's emotional adjustment as correlates of maternal and paternal differential treatment: A replication with toddler and preschool siblings. *Child Development, 69*, 1640-1656.

Table 1

Final Conditional Model Parameters- Incongruence in Differential Intimacy and Conflict Predicts Mothers' (M) and Fathers' (F) Marital Conflict and Satisfaction

Parameter	Marital Conflict			Marital Satisfaction		
	Estimate	SE	<i>t/z</i>	Estimate	SE	<i>t/z</i>
Fixed Effects:						
M Intercept	19.59	0.43	45.75**	47.44	0.65	72.79**
F Intercept	18.87	0.33	56.83**	49.38	0.49	100.03**
M Linear ¹	0.16	0.07	2.29*	-0.29	0.09	-3.25**
F Linear	-0.05	0.07	-0.71			
BFI Intimacy				-0.04	0.13	-0.31
WFI Intimacy				-0.12	0.05	-2.59**
BFI Conflict	-0.03	0.06	-0.50	-0.003	0.09	-0.04
BFI Conflict x Linear	0.04	0.01	2.59*	-0.08	0.02	-3.53**
WFI Conflict	-0.10	0.04	-2.50*	0.13	0.06	2.32*
WFI Conflict x Linear	0.05	0.01	3.75**	-0.09	0.02	-5.01**
Variance Components:						
M Residual Variance	10.92	0.80	13.60**	26.52	2.01	13.17**
F Residual Variance	10.73	0.80	13.39**	18.20	1.35	13.51**
M-F Residual Covariance	1.08	0.57	1.88 [†]	3.79	1.18	3.20**
M Intercept Variance	30.06	3.71	8.10**	73.93	9.14	8.09**
F Intercept Variance	15.50	2.27	6.84**	42.33	5.44	7.79**
M-F Intercept Covariance	13.54	2.28	5.93**	24.27	5.34	4.55**

M Linear Variance	0.33	0.09	3.50**	1.03	0.27	3.81**
F Linear Variance	0.33	0.10	3.37**	0.93	0.20	4.63**
M-F Linear Covariance	0.26	0.07	3.56**	0.70	0.18	3.93**

Note: BFI = Between-Family Incongruence. WFI = Within-Family Incongruence.

¹Linear term for marital satisfaction is effect across both parents' reports of satisfaction.

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

Table 2

Final Conditional Model Parameters- Mothers' (M) and Fathers' (F) Marital Conflict and Satisfaction Predicts Incongruence in Differential Intimacy and Conflict

Parameter	Incongruence in Intimacy			Incongruence in Conflict		
	Estimate	SE	<i>t</i> / <i>z</i>	Estimate	SE	<i>t</i> / <i>z</i>
Fixed Effects:						
Intercept	4.19	0.21	20.00**	5.45	0.31	17.71**
Linear	0.14	0.06	2.23*	-0.27	0.08	-3.52**
BF Marital Conflict				-0.04	0.04	-0.87
BF Marital Conflict x Linear				0.004	0.01	0.39
WF Marital Conflict				-0.07	0.05	-1.31
WF Marital Conflict x Linear ¹				0.02	0.01	1.44
BF Marital Satisfaction	-0.02	0.01	-1.46	0.001	0.02	0.03
BF Marital Satisfaction x Linear ¹				-0.01	0.01	-1.80 [†]
WF Marital Satisfaction	-0.03	0.02	-2.24*	0.02	0.04	0.64
WF Marital Satisfaction x Linear				-0.02	0.01	-2.18*
Variance Components:						
Residual Variance	7.69	0.33	23.59**	11.93	0.51	23.32**
Intercept Variance	6.45	0.89	7.27**	15.34	1.92	8.01**
Intercept- Linear Covariance	-1.03	0.22	-4.62**	-2.96	0.45	-6.64**
Linear Variance	0.61	0.08	7.15**	0.82	0.13	6.34**

Note: BF = Between-Family. WF = Within-Family. The effects of marital quality are across both parents' reports.

¹Term was significant at $p < .05$ in separate model predicting incongruence in differential conflict.

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

Figure Captions

Figure 1. Interactions involving between-family and within-family interparental incongruence in differential conflict and time for fathers' marital satisfaction.

Figure 2. Interactions involving between-family and within-family marital satisfaction and time for interparental incongruence in differential conflict.

Figure 1

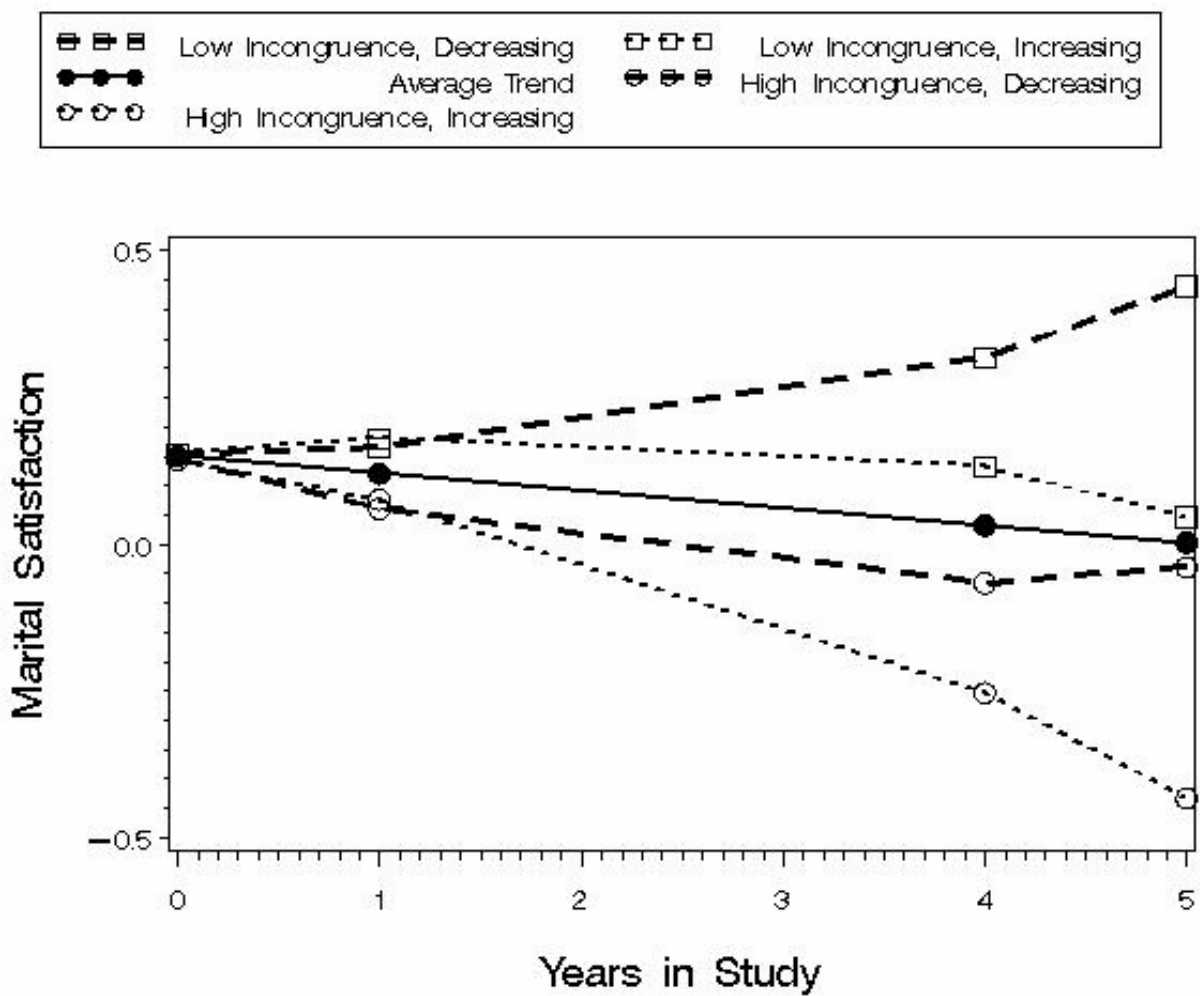
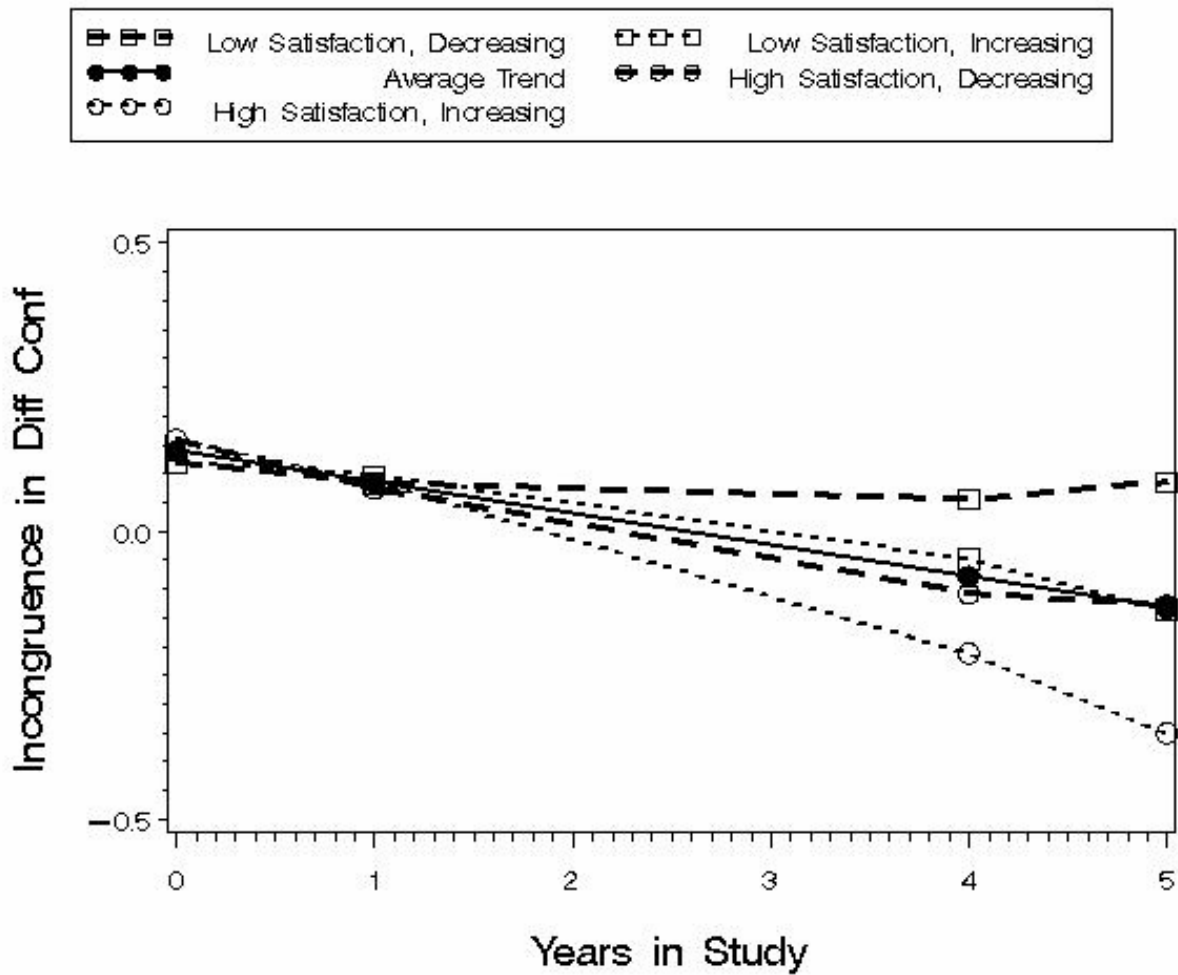


Figure 2



APPENDIX A

Items Assessing Power in Romantic Relationships

Global Power

In general, which of you has/had more power in your relationship?

Emotional Investment

Which of you is/was more likely to give up spending time with friends to spend time as a couple? (R)

Which of you is/was more likely to end the relationship (break up with the other)?

Which of you puts/put more effort into making the relationship work? (R)

Which of you is/was more committed to making the relationship last? (R)

Which of you is/was more in love with the other? (R)

Availability of Alternatives

Who would have an easier time finding a new partner if the relationship were to end/Who had an easier time finding a new partner when the relationship ended?

Who would start dating someone else more quickly if the relationship ended/ Who started dating someone else first after the relationship ended?

Note. (R) = reverse scored

APPENDIX B

Descriptive Statistics on Hypothesized Predictors and Correlates of Power

		<i>M</i>	<i>SD</i>	Range
	Parent Education	14.69	2.01	11.00-20.00
Gender	Parent Gender Role Orientation			
	Adolescent Gender Attitudes			
	Adolescent Instrumentality	22.35	3.34	15.00-30.00
	Adolescent Expressivity	22.99	3.18	13.00-29.00
Resources	Time with Mothers	7.64	4.00	0.00-19.46
	Time with Fathers	6.56	4.58	0.00-24.21
	Mother Knowledge	79.54	8.96	43.75-100.00
	Father Knowledge	72.44	12.34	37.50-95.83
	Parent Marital Quality			
	Adolescent Peer Competence	3.28	0.46	1.60-4.00
	Adolescent Body Mass Index	21.42	3.21	14.53-34.42
	Adolescent Athletic Skills			
Adjustment	Adolescent Romantic Intimacy	4.11	0.62	2.29-5.00
	Adolescent Depressive Symptoms	2.25	2.75	0.00-14.00
	Adolescent Risky Behavior	30.07	8.89	18.00-55.00

Note. Blank cells represent composite variables that were standardized.

VITAE

Marni L. Kan

EDUCATION:

Ph.D. Human Development and Family Studies	The Pennsylvania State University	2007
M.S. Human Development and Family Studies	The Pennsylvania State University	2004
B.S. Psychology (summa cum laude)	Brandeis University	2002

HONORS:

Kligman Graduate Fellowship	2006-2007
Bennett Prevention Research Fellowship	2004-2006

RESEARCH EXPERIENCE:

2003-present	Family Foundations: A Strong Start Mark E. Feinberg (Principal Investigator) National Institutes of Child Health and Human Development Grant
2002-present	Penn State Family Relationships Project Susan M. McHale & Ann C. Crouter (Principal Investigators) National Institutes of Child Health and Human Development Grant
2005	Research Associate, RTI International Contract (Office of Population Affairs, Centers for Disease Control and Prevention) and grant (National Institutes on Drug Abuse) research with Olivia Silber Ashley and K.K. Lam

SELECTED PUBLICATIONS:

- Kan, M. L. & Cares, A. C. (2006). From “friends with benefits” to “going steady”: New directions in understanding romance and sex in adolescence and emerging adulthood. In A. C. Crouter and A. Booth (Eds.), *Romance and sex in adolescence and emerging adulthood: Risks and opportunities* (pp. 241-258). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kan, M. L. & McHale, S. M. (in press). Clusters and correlates of experiences with parents and peers during early adolescence. *Journal of Research on Adolescence*.
- Kan, M. L. & McHale, S. M. (in press). Parental involvement in adolescent romantic relationships: Patterns and correlates. *Journal of Youth and Adolescence*.

SELECTED PRESENTATIONS:

- Kan, M. L., Winchell, M. E., & McHale, S. M. (2007, March). *Romantic partner preferences in adolescence: Individual and family correlates*. Poster presented at the Society for Research in Child Development, Boston, MA.
- Kan, M. L. & McHale, S. M. (2006, July). *Parental involvement in adolescent romantic relationships: Patterns and correlates*. Paper presented at the International Association of Relationship Research, Rethymno, Crete, Greece.
- Kan, M. L., & Feinberg, M. E. (2006, May). *Effects of an intervention program during the transition to parenthood on links between parenting experiences and couple relationship quality*. Poster presented at the Society for Prevention Research, San Antonio, TX.