

UC Davis

UC Davis Previously Published Works

Title

Mothers and Fathers Matter: The Influence of Parental Support, Hostility, and Problem Solving on Adolescent Friendships

Permalink

<https://escholarship.org/uc/item/0gt3n821>

Journal

Journal of Family Issues, 39(8)

ISSN

0192-513X

Authors

Flynn, Heather Kohler
Felmlee, Diane H
Shu, Xiaoling
[et al.](#)

Publication Date

2018-06-01

DOI

10.1177/0192513x18755423

Copyright Information

This work is made available under the terms of a Creative Commons Attribution-NonCommercial-NoDerivatives License, available at <https://creativecommons.org/licenses/by-nc-nd/4.0/>

Peer reviewed

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/322860060>

Mothers and Fathers Matter: The Influence of Parental Support, Hostility, and Problem Solving on Adolescent Friendships

Article in *Journal of Family Issues* · January 2018

DOI: 10.1177/0192513X18755423

CITATIONS

12

READS

952

4 authors:



Heather Flynn

Sonoma State University

10 PUBLICATIONS 139 CITATIONS

[SEE PROFILE](#)



Diane Felmlee

Pennsylvania State University

95 PUBLICATIONS 3,653 CITATIONS

[SEE PROFILE](#)



Xiaoling Shu

University of California, Davis

32 PUBLICATIONS 999 CITATIONS

[SEE PROFILE](#)



Rand D Conger

University of California, Davis

372 PUBLICATIONS 44,333 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



[Article View project](#)



[Inequalities View project](#)



Mothers and Fathers Matter: The Influence of Parental Support, Hostility, and Problem Solving on Adolescent Friendships

Journal of Family Issues

1–24

© The Author(s) 2018

Reprints and permissions:

sagepub.com/journalsPermissions.nav

DOI: 10.1177/0192513X18755423

journals.sagepub.com/home/jfi



Heather Kohler Flynn¹ , Diane H. Felmlee²,
Xiaoling Shu³, and Rand D. Conger³

Abstract

We examine the pathways by which parents influence adolescents' close friendships, focusing on three types of behavioral styles: hostile, warm, and problem solving. Structural equation models are estimated using data at two time points from the Iowa Youth and Families Project ($N = 227$ friendship pairs). Results suggest that the lives of adolescents and both their mother and father are inexorably linked. Observed interactions with a close friend at Time 2 reveal teens recreate their parents' original hostile, supportive, and problem-solving styles from Time 1. This outcome depends on (a) type of behavior and (b) gender. Mothers' supportive behavior, fathers' problem solving, and both parents' hostile behavior significantly influence adolescents' comparable interaction styles. Adolescents' subsequent behavior toward their friend significantly affects friendship quality. Lower levels of hostile behavior in female youth, increased problem solving by

¹Sonoma State University, Rohnert Park, CA, USA

²Pennsylvania State University, University Park, PA, USA

³University of California, Davis, CA, USA

Corresponding Author:

Heather Kohler Flynn, Department of Sociology, Sonoma State University, 1801 East Cotati Avenue, Rohnert Park, CA 94928, USA.

Email: heather.flynn@sonoma.edu

males, and supportive actions toward a friend for both relate positively to rewarding friendships.

Keywords

adolescents, dyadic relationship/quality/satisfaction, father–child relationship, family processes, gender and family, life course, mother–child relationship, quantitative, friendship, peer relationships

Adolescents place high value on their peer relationships and friendships, and these ties become particularly salient during the transition from childhood into adulthood (Parks, 2007). Friendships constitute a potent force in adolescence, further influencing many dimensions of youths' lives, including their academic outcomes (Vaquera & Kao, 2008), mental health (Ueno, 2005), aggressiveness (Felmlee & Faris, 2016), and prosocial and antisocial behavior (Rodkin & Hanish, 2007). Therefore, it remains important for research to continue to develop an in-depth understanding of the factors that produce high-quality, well-functioning friendships among young people.

We also know that parents play a critical role in the social development of their offspring. A child's relationship with his or her parents forms a basis for development that remains relevant throughout adolescence and young adulthood, both for peer relationships and for psychological well-being (Bagwell & Schmidt, 2011; Helsen, Vollebergh, & Meeus, 2000). Parent–adolescent closeness is linked to long-term developmental outcomes in adulthood, including higher self-esteem, closer social relationships, and decreased crime (Giordano, Cernkovich, Groat, Pugh, & Swinford, 1998). In contrast, a lack of parental involvement has been found to have a broad range of adverse outcomes for youth, including risk-taking behavior and deviant peer relationships (Dishon, Nelson, & Bullock, 2004; Ehrlich, Dykas, & Cassidy, 2012).

At the same time, relatively few empirical studies investigate the underlying processes by which parents influence the social relationships of young people (Cui, Conger, Bryant, & Elder, 2002; Wise & King, 2008). Here we argue that the ties of parents and their adolescents remain inexorably linked in a localized network, and that there are interdependent, specific, behavioral processes by which parents shape their children's affective connections. In an empirical analysis, we investigate the behavioral mechanisms by which mothers and fathers may influence the social lives of their offspring. In particular, we examine the degree to which three types of parental behavior—hostile, warm, and problem solving—affect an adolescent's interactions with a friend, which in turn are apt to shape friendship quality.

The Linked Lives of Parents, Adolescents, and Friends

Several theories propose mechanisms by which parents influence their children and subsequent close relationships. For example, Bowlby's (1979) attachment theory suggests that early family experiences provide a template for relationships formed later in the life course. Parental support is so critical, according to attachment theory, that children who cannot rely on it tend to have significant complications building relationships and developing trust throughout their lives. Social learning theory, in addition, claims that children acquire social behaviors from their parents, and that they subsequently apply these learned skills to relationships outside of the family (Bandura, 1977). Both theories suggest a process of indirect socialization whereby parents influence their children's peer interactions and relationships indirectly through their experiences with their offspring (Updegraff, McHale, Crouter, & Kupanoff, 2001).

More recently, a life course perspective also provides insights into adolescent relationships (Johnson, Crosnoe, & Elder, 2011), highlighting the ways in which youth are linked to their social network and to developmental processes in the life course. Friendships are embedded in and influenced by a broader system of relationships that illustrate the fundamental, life course principle of linked lives (Elder, 1998), a concept that resonates with a relational and social network approach toward interaction (Felmlee & Sprecher, 2000). Lives are lived interdependently through this web of shared relationships expressed in the personal networks of friends and family over time (Elder, 1998). Therefore, life course theory, in addition to theories of attachment and social learning, suggests that the family environment offers a promising avenue of inquiry to further understand the interwoven pathway between parents, adolescents, and the development of close and satisfying friendships.

Parent–Child Relationship

Research that examines the unique dyadic relationship mothers and fathers have with their sons and daughters is relatively scarce. Studies that do exist reveal that the gendered structure of the parent–child relationship often influences behavioral interaction, and that fathers and mothers often relate to their sons and daughters in distinct ways. For example, adolescents whose fathers are more involved in their lives exhibit lower levels of aggression and antisocial behavior than do those with less involved fathers (Carlson, 2006). Meanwhile, mothers tend to provide more warmth and support toward their adolescents than do fathers (Bagwell & Schmidt, 2011). While social support

from both parents is important (Flynn, Felmlee, & Conger, 2014), Allen and Daly (2007) find that children with involved fathers are more likely to have positive peer relations. For instance, boys typically shared more recreational and work activities with their fathers relative to girls (Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). Thus, parenting remains a gendered activity (Heard, 2007), and scholars maintain that maternal and paternal influences should be examined independently (McKinney & Renk, 2008)

At the same time, both mothers and fathers influence the social relationships of their offspring. For example, although mothers are more involved and more knowledgeable about peer interactions than are fathers, both parents' direct involvement in adolescent lives relates positively to teens' friendship and peer experiences (Updegraff et al., 2001). Current studies suggest that adolescents of both sexes with supportive parents are apt to be in more satisfying friendships (Flynn et al., 2014; Theran, 2010). Importantly, satisfying companionships predict positive developmental and social outcomes throughout the life course and become increasingly significant as teenagers seek to establish independence from their family (Parks, 2007). However, we have a limited understanding of the processes and actual mechanisms by which parental behavior influences the social lives of their progeny (Cui et al., 2002; Wise & King, 2008). A notable exception is Cui et al. (2002) who found that parents' supportive behavior promotes adolescent supportive behavior toward their friends. They argue that teenagers will imitate the types of behavior they experience from their parents, and this process has consequences regarding an adolescent's ability to establish quality friendships. Furthermore, others find that both observed and parent-reported negativity and hostility is associated with peer conflict (Gallagher, Huth-Bocks, & Schmitt, 2015; Stocker & Youngblade, 1999), which suggests that youth also model the negative behavioral styles of their parents.

Gender, Friendship Quality, and Behavioral Interaction

A large body of literature indicates that the social significance of intimacy and close relationships varies between males and females. The gender composition of a friendship dyad is likely to influence friendship quality, with a good deal of research indicating that boys and young men have less satisfying friendships compared with girls and young women (e.g., Bagwell & Schmidt, 2011). Adolescent girls express more positive feelings within their friendships and have higher levels of friendship quality compared with adolescent boys (Brendgen, Markiewicz, Doyle, & Bukowski, 2001; Flynn et al., 2014; Thomas & Daubman, 2001). Girls and women tend to characterize friendship in intimate and expressive terms, whereas boys and men often

define friendship based on shared activities and status (e.g., Bagwell & Schmidt, 2011), although adolescent boys also value intimate, close friendships (Way, 2013).

Theories of gender socialization and constructionism suggest that expectations for behavior and norms shape interaction and identity such that girls are encouraged to value interconnectedness and cooperation more highly than boys; moreover, youth reinforce and reconstruct such gender stereotypes in their peer groups (Grusec & Hastings, 2015). These gender stereotypes shape perceptions of acceptable behavior, particularly for boys in later adolescence, who identify more strongly with masculine conventions (see Way, 2011). Thus, girls are more likely than boys to come to value and experience intimacy and support in their social ties, resulting in gender differences in the behavior and quality of adolescent friendships.

Variations and similarities between the two genders also emerge in specific interaction styles and behavior, which in turn influence peer relationships. Girls and boys display aggressive behavior, for example, but they do so in disparate ways: females are more likely to use indirect, relational tactics of aggression whereas males tend to use more direct, physical, and verbal forms of confrontation (Faris & Felmlee, 2011). Brendgen et al. (2001) found that positive behavior was significantly associated with rewarding friendships, whereas negative behavior was related to less satisfying friendships for both genders. Importantly, although girls and boys did not appear to use different response strategies to achieve good quality bonds, they did show differential behavioral styles in their interaction with their friends (e.g., girls emphasized harmonious relations whereas boys displayed a more confrontational style; Brendgen et al., 2001). Additional research during problem-solving tasks suggests similar mechanisms regarding indirect and direct behavior: girls prefer to use suggestions and softened directives whereas boys display more dominance and have a higher tendency to assert themselves (Strough, Berg, & Meegan, 2001).

The Current Study

Here, we explore the extent to which parental relationship quality and behavioral styles influence adolescent behavioral interactions with their peers and subsequent friendship quality, using data from two-time points. We argue that (a) key parental behaviors affect youths' interactions with their friends and those (b) interactions then influence the nature of adolescents' friendships. Specifically, we examine three types of parental behaviors—hostile, supportive, and problem solving—and their effects on subsequent peer interactions and friendship quality. Finally, we consider the degree to which the influence

of parents on their offspring differs, depending on the gender composition of the parent-adolescent dyad (mother/daughter; mother/son; father/daughter; father/son) and the friendship dyad (male/male; female/female). We carry out a series of structural equation models using data at two-time points from the Iowa Youth and Families Project ($N = 227$) with responses from fathers, mothers, adolescents, and their friends (Conger et al., 2001).

Our study makes three improvements over previous research. First, we employ a conceptual framework that emphasizes the wider social network in which youth friendships are embedded. Earlier work often examines developmental or psychological forces or focuses on only one dimension of the social environment (see Flynn et al., 2014, and Parks, 2007, for notable exceptions). Despite recommendations to consider multiple social ties when studying close relationships (Blieszner, 2006; Felmlee & Sprecher, 2000; Furman & Shomaker, 2008; McKinney & Renk, 2008), such interconnections are rarely the focus of attention. Here, we argue it is critical to examine the influence on youth friendship of multiple relationships, including those between adolescents and their mother, their father, and the friendship pair, itself.

Second, we develop, and examine, a theoretical argument concerning the specific mechanisms that directly link parents to their children's social lives. We argue that several behavioral, interaction styles on the part of mothers and fathers influence the subsequent tendencies of their children to interact with friends in a similar fashion, which in turn affects youth's friendships. The key interaction styles include hostile, warm, and problem-solving behavior.

Third, this study also has several methodological strengths, such as relying on measures based both on observed, friendship interaction as well as self-reports. Most friendship studies focus solely on the self-reports of one person in the relationship. Such an approach limits our understanding of the friendship (Phillipsen, 1999). Friends are understudied and underutilized as informants; a multi-informant approach to the study of youth emotional and behavioral functioning helps to address problems associated with self-report data and to enhance the validity of assessments (Swenson & Rose, 2009). Finally, the current study utilizes data collected using two-time points, with reports from the mother, father, and the adolescent at one point in time and reports from the adolescent and his or her close friend a year and a half later. Problems of causal direction, therefore, are less of a concern than with cross-sectional studies.

Hypotheses

The present study examines the processes by which parents' behavior influences the subsequent behavioral interactions of their offspring toward their

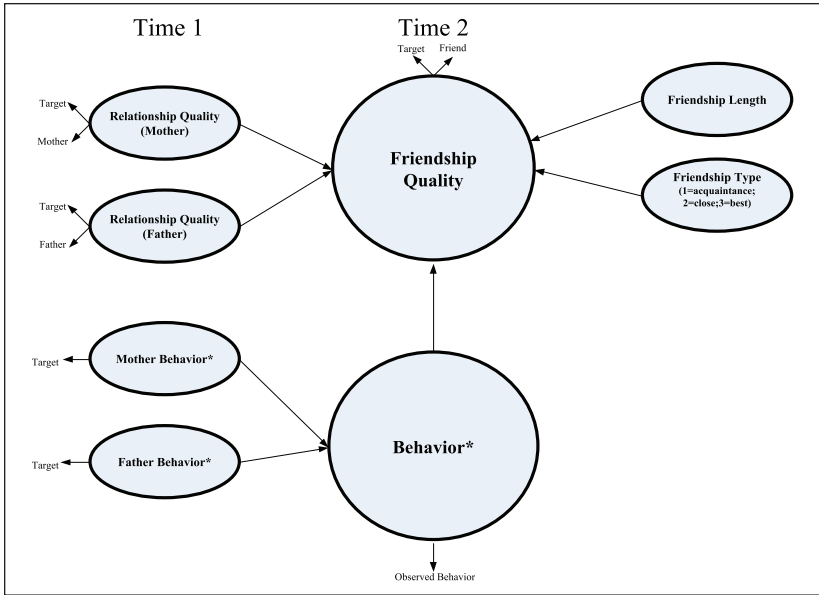


Figure 1. The hypothesized model of parental relationship quality and behavior on adolescent behavior and friendship quality.

*Behavior is the latent construct that changes in each model: Model 1, Hostile Behavior; Model 2, Supportive Behavior; Model 3, Problem Solving.

friend which, in turn, affect adolescent friendship quality. The hypothesized relationships in Figure 1 are developed from the theoretical perspectives and empirical findings just reviewed. Results for each model are separated by gender to explore the possibility that the links between family processes and adolescents’ friendships differ by the gendered structure of parent, adolescent, and peer social relationships.

We anticipate the following:

Friendship Quality: Time 1 and Time 2

Hypothesis 1: Adolescent girls will have significantly higher friendship quality compared with adolescent boys.

Parent/Child Relationship Quality Time 1

Hypothesis 2: Positive relationship quality between fathers/mothers and adolescents will result in higher friendship quality for both adolescent girls and adolescent boys.

Parent–Adolescent Behavior Time 1 With Adolescent–Friend Behavior Time 2

Hypothesis 3: Higher levels of hostile behavior between fathers/mothers and adolescents will result in higher levels of hostile behavior between adolescents and their friends.

Hypothesis 4: Higher levels of warm behavior between fathers/mothers and adolescents will result in higher levels of warm behavior between adolescents and their friends.

Hypothesis 5: Higher levels of problem-solving behavior between fathers/mothers and adolescents will result in higher levels of problem-solving behavior between adolescents and their friends.

Adolescent Behavior Time 2 With Friendship Quality Time 2

Hypothesis 6: Lower levels of hostile behavior between adolescents and their friends will result in higher friendship quality.

Hypothesis 7: Higher levels of warm behavior between adolescents and their friends will result in higher friendship quality.

Hypothesis 8: Higher levels of problem-solving behavior between adolescents and their friends will result in higher friendship quality.

Method

Participants and Procedures

Two waves of data from the Iowa Youth and Families Project (IYFP) are used to evaluate the hypotheses. The IYFP survey began in 1989 and recruited families from 34 public and private schools in eight counties located in north central Iowa. Families were eligible for participation if they had an adolescent who was (a) in 7th grade, (b) living with both biological parents, and (3) living with a sibling who was within 4 years of the adolescent's age. At study initiation, focal or target adolescents ranged in age from 12 to 14 years with a mean age of 12.6. The study followed this cohort of youth from early adolescence to the young adult years. Approximately 78% of the eligible families agreed to participate in the first wave of the study ($N = 451$).

The data set used in the current study has unique advantages that make it worthy of further study, including that it has information from both parents, their adolescents, and the adolescents' friend. Another strength of the data is the use of *both* questionnaire responses in addition to observed videotaped interactions. Furthermore, it is a longitudinal study, with information collected at two points in time: 1994, Time 1, and 1995, Time 2. We evaluate questionnaire responses from the mother, father, and adolescent regarding

relationship quality and behavior at Time 1. Questionnaire responses and videotaped interactions from the adolescent and his or her friend are assessed in the Time 2 data. We chose the Time 2 wave because adolescents were interviewed with a close friend or romantic partner who was not a member of their family. Of 420 eligible adolescents, 247 (59%) chose to be interviewed with a close or best friend. A small percentage of friendship pairs were cross-sex (5%), and they were dropped from the analyses. As a result, 227 same-gender adolescents and their friends had complete data for all the variables of interest. Female friendship pairs make up 51% ($n = 117$) of the sample. The average age of the respondents in this sample is 17.6 years at Time 1 and 19.2 years at Time 2.

Videotaped Behavioral Interaction Procedure. For the Time 2 data, adolescents and their close or best friend who agreed to participate in the study completed two videotaped tasks designed to assess their interaction: Task 1 (interaction) and Task 2 (problem solving). Before the videotaped interaction, the adolescent and his or her close or best friend completed a short questionnaire that identified topics about which they had disagreements. The items for this questionnaire came from a pilot test in which adolescents listed all the issues with which they typically disagreed with their friends. The first task (friend interaction) lasted 25 minutes and required the dyad to discuss topics such as similarities and differences in their life goals, their relationships with other people, and how they spent their time together. The second task (problem solving) lasted 15 minutes. In this situation, the adolescents and their friends were asked to discuss and try to resolve problems related to disagreements identified on the initial questionnaire. Both individuals completed questionnaires regarding their relationship after completing the tasks.

Trained observers coded the videos using the Iowa Family Interaction Rating Scale. This is a 9-point global rating system that evaluates behavioral exchanges ranging from 1 = *The behavior is not at all characteristic of the person being rated* to 9 = *The behavior is mostly characteristic of the person being rated* (Melby et al., 1998). Observers received 200 hours of training and had to pass extensive written and viewing tests; separate, independent coders were used for each task.

Measures

Friendship Quality Times 1 and 2. Our dependent variable, friendship quality, is evaluated using 13 indicators from the adolescents' and friends' self-reports. Items reflect the following dimensions of friendship quality: dependability, soothing, and caring. This scale was developed specifically for the

IYFP and is adapted from questions developed by Kessler, Price, and Wortman (1985) and Rook (1984). Examples of the friendship quality scale include items that assess how often the respondent's friend: keeps promises, understands feelings, shows concern, and lets one down. All indicators are ordinal and consist of 5-point scales (ranging from *never* to *always*). Items stated negatively are reverse coded. The reliability level (alpha level) for the total friendship quality scale in the present study is .91 for adolescents and .88 for their friends.

Parent/Child Relationship Quality Time 1. Relationship Quality is evaluated using questionnaire responses from father and mother regarding their relationship with their daughter/son, and from adolescents regarding their relationship with their mother and their father. The questions include the following: (a) All in all, how happy are you with your relationship with your child/mother/father (1 = *very unhappy*; 4 = *very happy*) and (b) All in all, how satisfied are you with your relationship with your child/mother/father (1 = *very dissatisfied*; 4 = *very satisfied*). The reliability scores (alpha levels) for the relationship quality scales with the mother and with the father are .95. The alpha level for fathers' report is .87 and for mothers' report is .88.

Parent Behavior Time 1. Parent behavior is evaluated based on the adolescent's report of his or her mother and father's behavior over the past year. Three scales identified hostile (13 indicators), warm (9 indicators), and problem-solving behavior (16 indicators) and were created specifically for the IYFP. All indicators are ordinal and consist of 7-point scales (ranging from *never* to *always*). The hostile behavior scale includes items such as (a) How often does your mom/dad insult or swear at you? (b) How often does your mom/dad criticize you or your ideas? Examples from the warm behavior scale include the following: (a) How often does your mom/dad listen carefully to your point of view? (b) How often does your mom/dad act supportive and understanding toward you? The problem-solving scale includes items such as (a) How often does your mom/dad listen to your ideas about how to solve the problem? (b) How often does your mom/dad seem uninterested in helping to solve the problem? Items stated negatively are reverse coded such that the higher scoring items indicate higher levels of supportive, hostile, or cooperative problem-solving behavior. The alpha levels for the parental behavior scales are as follows: mothers' hostile behavior = .94; fathers' hostile behavior = .93; mothers' warm behavior = .94; fathers' warm behavior = .93; mothers' problem solving = .96; fathers' problem solving = .95.

Friendship Behavior Time 2

Hostile Behavior. We measure hostile behavior using five indicators of adolescents observed behavior toward their friends. Indicators are derived from the observer's perception of the following: hostility, contempt, angry coercion, reciprocation of hostility, and antisocial behavior ($\alpha = .85$). Higher scores indicate higher levels of hostile behavior.

Warm Behavior. Five indicators are used based on the observer's perception of adolescents' supportive behavior toward their friends. The indicators are warmth/support, assertiveness, listener responsiveness, positive communication, and prosocial behavior ($\alpha = .86$).

Problem Solving. Problem solving is measured with three indicators from the second task (problem solving) in the videotaped observed interaction between the adolescents and their friends. Problem-solving measures include the observer's perception of the adolescent's effective process, solution quality, and solution quantity ($\alpha = .71$).

Control Variables

Our analysis also includes the following control variables. *Type of Friendship* is coded 1 for *a close friend but a not best friend*, and 2 for *a best friend*. A total of 40.5% of the pairs represent close but not best friends, and 59.5% represent best friends. The *Length of Friendship* refers to the time when the pair became friends and is divided into four categories: 1 = *After High School*; 2 = *High School*; 3 = *Middle or Junior High School*; 4 = *Elementary School*. On average, friendship dyads have known one another since junior high school, for nearly 7 years.

Analytic Approach

Modeling Friendship Quality

We estimate three structural equation models of friendship quality to evaluate the hypothesized model in Figure 1. Maximum likelihood estimates of the model coefficients were obtained using LISREL (Jöreskog & Sörbom, 2006). First, we estimated baseline models where none of the measurement errors could covary. Then, we estimated models where residuals for some of the indicators could covary based on previous research and theory. This procedure adjusts for biases in measurement that may be correlated (Bollen, 1989).

Thus, error covariance was estimated between mothers' and fathers' relationship quality in all models. We also estimated error covariance between mothers' and fathers' hostile behavior, supportive behavior, and problem-solving behavior. The model fit improved in all cases; therefore, we include improved models in the final analyses. The causal paths in the structural equation models reflect the fact that the behavioral interactions took place before the relationship quality assessment. Because earlier reports suggest that the gendered structure of social relationships differ (McKinney & Renk 2008), the models were run separately for males and females. The goodness of fit statistics indicates that the final models fit the data well.

Results

Descriptive Results

Means and standard deviations for the variables and analysis of variance tests for gender differences are provided in Table 1. Descriptive results suggest that parents are similarly happy and satisfied in their relationships with their adolescents: findings are consistent across relationships—father/son, father/daughter, mother/son, and mother/daughter. Female adolescents also perceive similar levels of happiness and satisfaction with both parents. Adolescent sons report significantly higher relationship quality with their mothers compared with adolescent daughters ($F = 8.36$). Sons perceive their fathers as significantly more hostile compared with daughters ($F = 6.41$) in contrast to daughters who believe their fathers to be significantly warmer and more supportive compared with sons ($F = 5.35$). Mothers behave in a similar manner toward daughters and sons while fathers behave comparably with problem solving.

Descriptive results using paired samples t tests to evaluate parent–adolescent dyads (see Table 2) suggest that daughters believe that their mothers exhibit more hostility than do their fathers ($t = 2.47$), but no significant differences exist for daughters' perception of mothers' and fathers' supportive behavior or problem solving. Sons, on the other hand, perceive their mothers and fathers to engage in comparable levels of hostile interactions; however, sons consider their mothers to be significantly more supportive ($t = 3.27$) and to engage in more effective problem solving ($t = 2.02$) relative to fathers. The descriptive results highlight the importance of the gendered structure of the relationship between parent and child and the significance of dividing subsequent analyses by gender.

Regarding adolescent behavior toward their close friend, the only significant gender difference exists in warm behavior (see Table 1). Specifically,

Table 1. Means, Standard Deviations, and Analysis of Variance Tests for Gender Differences.

	Female (N = 111)		Male (N = 110)		F value
	Mean	SD	Mean	SD	
<i>Relationship Quality Time 1</i>					
Adolescent relationship with mother	6.70	1.45	7.21	1.02	8.36***
Mother relationship with adolescent	7.17	1.09	7.09	1.07	0.28
Adolescent relationship with father	6.69	1.39	6.77	1.33	0.18
Father relationship with adolescent	7.11	1.04	7.04	1.13	0.19
<i>Parent Hostile Behavior Time 1</i>					
Mother's hostile behavior	30.51	12.65	30.08	11.75	0.06
Father's hostile behavior	27.55	11.86	31.71	11.74	6.41**
<i>Parent Warm Behavior Time 1</i>					
Mother's warm behavior	47.54	11.80	46.13	9.20	0.90
Father's warm behavior	46.12	11.69	42.59	10.03	5.35*
<i>Parent Problem Solving Time 1</i>					
Mother's problem solving	85.05	17.88	85.15	14.33	0.00
Father's problem solving	85.25	16.31	82.74	13.94	1.39
<i>Adolescent Hostile Behavior Time 2</i>					
Observed hostile behavior	11.17	6.53	10.68	5.91	0.34
<i>Adolescent Warm Behavior Time 2</i>					
Observed warm behavior	31.53	6.73	25.08	5.93	56.03***
<i>Adolescent Problem Solving Time 2</i>					
Observed problem solving	9.70	3.86	9.30	3.52	0.67
<i>Friendship Quality Time 2</i>					
Adolescent report	59.72	5.41	53.95	7.24	46.17***
Friend report	58.79	5.27	54.04	7.04	33.33***
<i>Length of Friendship Time 2</i> (1 = after high school; 4 = elementary)					
	2.19	1.22	2.74	1.24	11.40***
<i>Type of Friendship Time 2</i> (1 = close; 2 = best)					
	2.62	0.49	2.57	0.50	0.43

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$ (2-tailed tests).

females were more supportive, responsive, and communicative during the videotaped interaction tasks compared with males ($F = 56.03$). Neither hostile nor problem-solving behavior differed by gender. Thus, males and females revealed comparable levels of hostility and problem solving in their observed interactions. Males had been in friendships for a significantly

Table 2. Paired Samples *t* Test of Parent–Adolescent Relationship Quality and Behavior by Sex (*t* Test Statistic).

	Daughters (<i>N</i> = 117)	Sons (<i>N</i> = 110)
<i>Relationship Quality Time 1</i>		
Adolescent relationship with Mother vs. Father	0.12	3.21*
Mother vs. Father relationship with Adolescent	1.23	0.48
<i>Parent's Hostile Behavior Time 1</i>		
Mother vs. Father Hostile Behavior	2.47*	-1.64
<i>Parent's Warm Behavior Time 1</i>		
Mother vs. Father Warm Behavior	1.31	3.27*
<i>Parent's Problem Solving Time 1</i>		
Mother vs. Father Problem Solving	-0.13	2.02*

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$ (2-tailed tests).

longer amount of time compared with females ($F = 11.40$), but the sexes did not differ in their classification of friendship (e.g., close or best friend). Female adolescents and their friends were involved in significantly higher quality friendships relative to male adolescents and their friends (Adolescent $F = 46.17$; Friend $F = 33.33$). This result strongly supports our first hypothesis. Adolescent females have significantly higher friendship quality compared with adolescent males.

Structural Equation Models

Parent/Adolescent Relationship Quality. Findings from the Structural Equation Models show that results vary by gender and suggest, overall, that parent and adolescent relationship quality and behavioral interaction influence adolescents' friendship quality and hostile behavior (see Figure 2), warm behavior (see Figure 3), and problem-solving skills (see Figure 4). All models support our second hypothesis for mothers/sons and mothers/daughters: positive relationship quality with mothers significantly relates to higher levels of friendship quality for adolescent males and females. Results for fathers were confirmed for daughters but not for sons: high relationship quality with fathers predicts more rewarding friendships for females, but not males. Indeed, for boys, a relatively negative relationship with their father is significantly related to more satisfying friendships. We expand on potential explanations for this finding in the discussion section.

Parent Behavior. We also assess whether parental behavior influences subsequent friendship interaction and behavior. Confirming the third hypothesis,

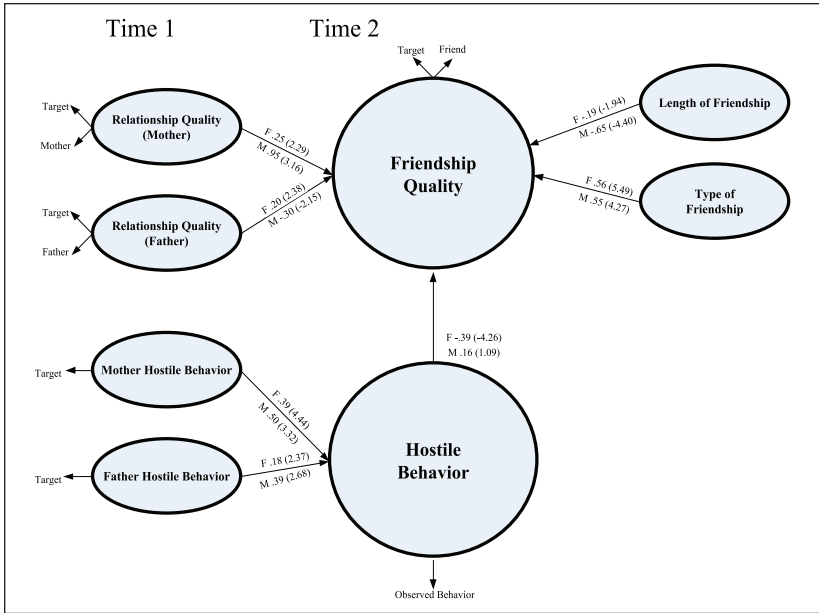


Figure 2. Structural equation model of hostile behavior (standardized solution: $n = 117$ female; $n = 110$ male).

Note. t values in parentheses.

Female model ($N = 117$): $\chi^2/df = 2.11$; goodness of fit index = .92; Bayesian information criterion = -126.16. Male model ($N = 110$): $\chi^2/df = .94$; goodness of fit index = .96; Bayesian information criterion = -153.91.

hostile actions on the part of both mother and father significantly affect adolescent hostile behavior toward his or her friend (see Figure 2). Youth who experience hostile interactions from a parent during the previous year are more likely to emulate that conflictual interaction style with their friend the following year. Regarding Hypothesis 4, supportive behavior from mothers toward adolescent sons and daughters also influences later adolescent supportive behavior toward their friend (see Figure 3). Although the path between father’s warm behavior and adolescent’s supportive behavior is not significant, it is in the expected direction for both sexes. Results suggest that supportive behavior on the part of either parent, but in particular a mother, influences her child’s warm behavior toward his or her friend. Conversely, in our fifth hypothesis regarding problem solving, it is fathers, but not mothers, who positively affect their child’s ability to solve problems for both sons and daughters (see Figure 4). Thus, fathers’ cooperative and constructive problem solving is significantly related to their adolescents’ later problem-solving

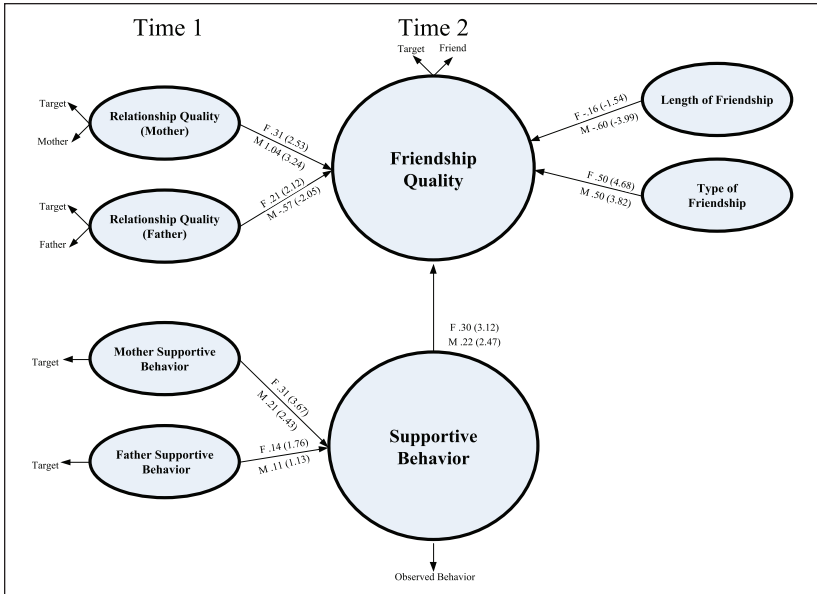


Figure 3. Structural equation model of supportive behavior (standardized solution: $n = 117$ female; $n = 110$ male).

Note. t values in parentheses.

Female ($N = 117$): $\chi^2/df = 2.01$; goodness of fit index = .93; Bayesian information criterion = -128.77. Male ($N = 110$): $\chi^2/df = 1.11$; goodness of fit index = .96; Bayesian information criterion = -149.65.

skills with their friend. In sum, adolescent males and females tend to be influenced by and emulate, at least one of their parents, depending upon the type of behavior.

Adolescent Behavior, and Friendship Quality, and Gender. After taking parental influences into consideration, supportive adolescent behavior has an independent influence on overall friendship quality, confirming Hypothesis 7. Warm behavior is significantly associated with friendship quality both for females ($b = .30, p \leq .01$) and males ($b = .22, p < .05$). In other words, during the videotaped interaction tasks, adolescents who displayed more warmth and support toward their friends, as well as assertiveness, listener responsiveness, positive communication, and prosocial behavior, have more satisfying friendships. These findings imply that regardless of gender, youth can achieve high-quality bonds if they interact with their friends in a supportive and warm manner.

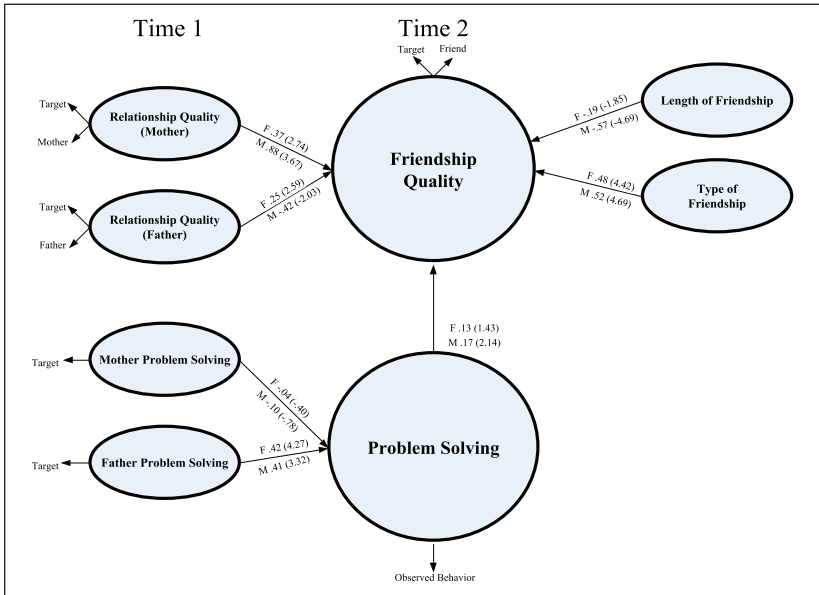


Figure 4. Structural equation model of problem solving behavior (standardized solution: $n = 117$ female; $n = 110$ male).

Note. t values in parentheses.

Female ($N = 117$): $\chi^2/df = 2.89$; goodness of fit index = .89; Bayesian information criterion = -111.06. Male ($N = 110$): $\chi^2/df = .90$, goodness of fit index = .96; Bayesian information criterion = -161.28.

Hostile behavior for females and problem-solving behavior for males also are significantly linked to friendship quality, providing mixed results for Hypotheses 6 and 8. Female hostile behavior negatively influences friendship quality ($b = -.39, p < .001$), while no significant effect was present for males. Therefore, although adolescent boys may emulate the hostile behavior that they learn from their parents, their friendship quality does not suffer significantly because of it. Problem-solving ability, however, does influence friendship quality for males. Adolescent boys who engage in cooperative and constructive problem solving with their friends report more satisfying friendships ($b = .17; p < .05$). This is not the case for adolescent girls. Regardless of their problem-solving skills, effective problem solving does not appear to contribute significantly to satisfying friendships for females, although the trend is in the same direction. The goodness of fit statistics are provided for all models in the text below the figures and suggest that all models fit the data well and are relatively strong.

Discussion

Friendship as a Mirror Image of Child–Parent Relationship

The goal of this research was to understand better the linked pathways of influence that occur between parents, their children, and their children's friends. Overall, we find the nature of an adolescent's friendship tends to mirror that of their relationship with their parents in three ways. First, adolescents whose mothers are supportive appear to mimic this behavior with their friends and, ultimately, achieve more satisfying friendships regardless of gender. Second, adolescents who have hostile parents, on the other hand, also imitate that negative behavior with their friends, echoing previous laboratory and self-report research findings (i.e., Dishon et al., 2004; Wise & King, 2008). Because of damaging, hostile interactions, friendship quality suffers significantly for females. Finally, adolescents whose fathers are cooperative and constructive in problem solving replicate those skills with their friends, and males who emulate those skills attain more rewarding friendships. This latter finding corroborates earlier research showing that males value problem solving more than females (Bagwell & Schmidt, 2011; Strough et al., 2001; Yeung et al., 2001).

Linked Lives: Parents–Children and Adolescents–Peers

Our results highlight the usefulness of examining the fundamental, theoretical processes by which parents mold their children's lives. As suggested by Bowlby (1979) and Bandura (1977), children undergo processes of attachment and social learning that provide a template for future relationships. Our research also has implications for recent developments in the study of friendship across the life course, especially given that empirical studies of friendship from such a perspective are uncommon (Crosnoe, 2000). Here, we see that the application of the life course perspective, and specifically the incorporation of the social network concept of linked lives (Elder, 1998), add value to traditional approaches. Viewing friendship from a linked lives lens provides insights into the crucial role of the wider social environment within which youth remain embedded. We see that young people's lives are linked over time: parental behavior and relationship quality with their offspring influences later adolescent behavior with their peers. More specifically, in all models tested here, we found that for males and females, both the father–child and the mother–child relationship influence adolescents' friendships, although the particular type of influence can vary by the gender composition of the relationship. For example, the happier and more satisfied at one point in time are sons and daughters with their maternal relationship, and daughters (but not sons) with their paternal relationship, then the greater is the likelihood that the

adolescent will be in a positive and satisfying friendship at a later point in time. These findings highlight the importance of examining dyadic parent–adolescent relationships (McKinney & Renk, 2008).

Notably, we also find that a parent’s hostile, warm, and problem-solving behaviors later influence how the child exhibits behaviors with their friend, while controlling for the quality of the relationship with the parent. Parents’ behavior is significantly and similarly linked to their children’s related actions, regardless of the gender of their child. For example, children who experience hostile interactions with their mother and/or father are likely to emulate that behavior with their friends. Also, those whose mother engages in warm behavior are more apt to engage in warm, friendly interactions, a result suggesting that *mothers’* warm interaction influences adolescent peer experiences and outcomes. However, note that in certain cases we find that it is fathers, and not mothers, that matter. Adolescents whose *father* is cooperative and constructive in problem-solving skills also are likely to apply those skills with their friends.

Gender Differences in the Effect of Father–Child Relationship on Friendship

Relationship quality between a father and an adolescent significantly influences the child’s friendship quality for both males and females but in an opposite manner. Positive father–daughter relationship quality but negative father–son relationship quality, leads to more satisfying friendships. It is possible that relationship quality with mothers sets the standard for friendships for adolescent males, regardless of the relationship with their fathers. Or it could be that boys who are dissatisfied with their fathers put more time and energy into their friends and this results in quality friendships. Other studies find this to be the case: youth turn to friends when parents are not available (Bagwell & Schmidt, 2011; Helsen et al., 2000). Another explanation could be related to gender socialization (Grusec & Hastings, 2015) and gender stereotyping (Way, 2011) where young men distance themselves from feminine traits, such as a close father/son relationship, to identify as more masculine. Further research is necessary to determine the origins of this finding and the degree to which it replicates in other situations.

Gender Differences in the Influence of Interaction Styles on Adolescent Behavior

Our results suggest that parents employ similar methods of interaction with their children, regardless of the child’s gender but that the gendered structure of

the parent–adolescent relationship shapes outcomes. Several interpretations of these findings exist, including (a) the gender of the parent influences adolescents, (b) adolescents value different behaviors from their fathers and mothers, or (c) a combination of those mentioned above. Theories of gender suggest that societal belief systems encourage females to be supportive and interdependent, whereas males are urged to be competitive and solve problems. Such beliefs help to explain our findings that in their subsequent interaction with a close friend, adolescents appear to model their mothers' supportive style but their fathers' problem-solving behavior. This pattern may occur because mothers often exhibit greater warmth and support, whereas fathers may be particularly adept at certain types of problem solving. An alternative explanation could be that adolescents learn to value their mothers' supportive interactions and their fathers' constructive problem-solving skills, which shapes the way they interpret and respond to their parents' actions. Most likely, a combination of the two mechanisms accounts for our findings; that is, parents, enact gendered behavior, and adolescents attend to and value that behavior.

Gendered Structure of the Friendship Dyad

The gendered structure of a friendship dyad also significantly influences the type of behavior imitated, and the kind of behavior relates to friendship quality. Supportive behavior on the part of males and females increases the likelihood of satisfying and rewarding friendships. In other words, a positive, warm, interaction style is significantly linked to high-quality friendships, regardless of gender. Hostile behavior is detrimental only for female friendship quality, however, and problem-solving behavior is beneficial for male friendships alone. In other words, adolescent boys appear to maintain friendship quality despite hostile behavior and adolescent girls' friendships do not suffer significantly because of poor problem-solving skills.

Our findings, again, reinforce the relevance of gender norms and expectations. Social success is valued more highly among girls than boys, and therefore being mean to peers has heightened implications for girls' social reputations (Hussong, 2000). The current research demonstrates that hostility also directly influences girls' friendships: girls who deviate from the gendered norm are in less satisfying relationships. At the same time, our results imply that males place higher regard than do females on social problem solving, a trait associated with masculinity (Wang, 2007). Boys who fail to display traditionally masculine, constructive, problem-solving skills experience less satisfying male friendships.

Furthermore, we illustrate that differences in behavioral styles may account for the oft-reported mean difference in friendship quality between the genders, as suggested previously (Brendgen et al., 2001). The results of

our study imply adolescent girls and boys both can achieve gratifying close relationships, but that discrepant interaction styles contribute to such an outcome. Girls attain satisfying friendships if they interact supportively and without hostility, whereas boys' ties are rewarding when they are supportive, but also constructive problem solvers. Moreover, perhaps low levels of hostility are easier for females to maintain in a social interaction than are advanced skills at problem solving for males. Such tendencies could help to explain females' frequent advantage over males in experiencing enhanced friendship quality, as found herein.

This study, nevertheless, does have limitations. Future research is necessary to test the generalizability of the findings to other age groups, ethnicities, and to urban areas. Although other reports show that the results from the larger data set tend to replicate in urban populations (i.e., Conger, Patterson, & Ge, 1995) and with samples of minority families and adolescents (i.e., Conger et al., 2002), we cannot be confident that will be the case in the present study. Future research should address the degree to which social network members continue to influence friendship in a variety of life stages to gain a balanced approach to all aspects that contribute to this important social bond.

In conclusion, this study provides evidence that both parents make a substantial contribution to the social lives of their offspring, and it points to the social mechanisms involved. Importantly, we find that adolescents tend to reflect the types of behavior they experience with their parents and this has important consequences for their ability to establish fulfilling friendships. Female friendships benefit when girls model their parents' lack of hostility, whereas those of males strengthen when boys reflect their father's problem-solving skills. Finally, both boys and girls can achieve satisfying close ties when they have a positive relationship with a supportive mother, and they, in turn, interact warmly with their friends.

Acknowledgment

The authors express their appreciation to Bill McCarthy for his helpful comments on this work.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: During the past several years, support for this research has come from multiple sources, including the National Institute of

Mental Health (Grants MH00567, MH19734, MH43270, MH48165, and MH51361), the National Institute on Drug Abuse (Grants DA05347, HD047573), the Bureau of Maternal and Child Health (Grant MCJ-109572), the National Institute of Child Health and Human Development (HD047573), the MacArthur Foundation Research Network on Successful Adolescent Development Among Youth in High-Risk Settings, and the Iowa Agriculture and Home Economics Experiment Station (Project No. 3320).

ORCID iD

Heather Kohler Flynn  <https://orcid.org/0000-0002-7900-4404>

References

- Allen, S., & Daly, K. (2007). *The effects of father involvement: An updated research summary of the evidence inventory*. Guelph, Ontario, Canada: Centre for Families, Work & Well-Being, University of Guelph.
- Bagwell, C., & Schmidt, M. (2011). *Friendships in childhood and adolescence*. New York, NY: Guilford Press.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Blieszner, R. (2006). A lifetime of caring: Dimensions and dynamics in late-life close relationships. *Personal Relationships, 13*, 1-18.
- Bollen, K. (1989). *Structural equations with latent variables*. New York, NY: Wiley.
- Bowlby, J. (1979). *The making and breaking of affectional bonds*. London, England: Tavistock.
- Brendgen, M., Markiewicz, D., Doyle, A. B., & Bukowski, W. M. (2001). The relations between friendship quality, ranked-friendship preference, and adolescents' behavior with their friends. *Merrill-Palmer Quarterly, 47*, 395-415.
- Carlson, M. J. (2006). Family structure, father involvement, and adolescent behavioral outcomes. *Journal of Marriage and Family, 68*, 137-154.
- Conger, R., Lasley, P., Lorenz, F. O., Simons, R., Whitbeck, L. B., Elder, G. H., Jr., & Norem, R. (2001). *Iowa Youth and Families Project, 1989-2000*. Davis, CA: Family Research Group.
- Conger, R., Patterson, G., & Ge, X. (1995). It takes two to replicate: A mediational model for the impact of parents' stress in adolescent adjustment. *Child Development, 66*, 80-87.
- Conger, R., Wallace, L. E., Sun, Y., Simons, R., McLoyd, V., & Brody, G. (2002). Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology, 38*, 179-193.
- Crosnoe, R. (2000). Friendships in childhood and adolescence: The life course and new directions. *Social Psychology Quarterly, 63*, 377-391.
- Cui, M., Conger, R., Bryant, C., & Elder, G. H., Jr. (2002). Parental behavior and the quality of adolescent friendships: A social contextual perspective. *Journal of Marriage and Family, 64*, 676-689.
- Dishon, T. J., Nelson, S. E., & Bullock, B. M. (2004). Premature adolescent autonomy: Parent disengagement and deviant peer process in the amplification of problem behavior. *Journal of Adolescence, 27*, 515-530.

- Elder, G. H., Jr. (1998). The life course as developmental theory. *Child Development, 69*, 1-12.
- Ehrlich, K. B., Dykas, M. J., & Cassidy, J. (2012). Tipping points in adolescent adjustment: Predicting social functioning from adolescents' conflict with parents and friends. *Journal of Family Psychology, 26*, 776-783.
- Faris, R., & Felmlee, D. (2011). Status struggles: Network centrality and gender segregation in same- and cross-gender aggression. *American Sociological Review, 76*, 48-73.
- Felmlee, D. H., & Faris, R. (2016). Toxic ties: Networks of friendship, dating, and cyber victimization. *Social Psychology Quarterly, 79*, 243-262.
- Felmlee, D. H., & Sprecher, S. (2000). Close relationships and social psychology: Intersections and future paths. *Social Psychology Quarterly, 63*, 365-376.
- Flynn, H. K., Felmlee, D. H., & Conger, R. (2014). The social context of adolescent friendships: Parents, peers, and romantic partners. *Youth & Society, 49*, 679-705. doi:10.1177/0044118X14559900
- Furman, W., & Shomaker, L. B. (2008). Patterns of interaction in adolescent relationships: Distinct features and links to other close relationships. *Journal of Adolescence, 31*, 771-788.
- Gallagher, E., Huth-Bocks, A., & Schmitt, T. (2015). The impact of mothers' relationship on quality and parenting on children's peer relationships. *Journal of Family Issues, 36*, 421-442.
- Giordano, P. C., Cernkovich, S., Groat, T., Pugh, M. D., & Swinford, S. (1998). The quality of adolescent friendships: Long term effects? *Journal of Health and Social Behavior, 39*, 55-71.
- Grusec, J., & Hastings, P. (2015). *Handbook of socialization: Theory & research* (2nd ed.). New York, NY: Guilford Press.
- Heard, H. E. (2007). Fathers, mothers, and family structure: Family trajectories, parent gender, and adolescent schooling. *Journal of Marriage and Family, 69*, 435-450.
- Helsen, M., Vollebergh, W., & Meeus, W. (2000). Social support from parents and friends and emotional problems in adolescence. *Journal of Youth and Adolescence, 29*, 319-335.
- Hussong, A. M. (2000). Distinguishing mean and structural sex differences in adolescent friendship quality. *Journal of Social and Personal Relationships, 17*, 223-243.
- Johnson, M. K., Crosnoe, R., & Elder, G. H. (2011). Insights on adolescence from a life course perspective. *Journal of Research on Adolescence, 21*, 273-280.
- Jöreskog, K. G., & Sörbom, D. (2006). *LISREL 8 user's reference guide*. Chicago, IL: Scientific Software International.
- Kessler, R., Price, R. H., & Wortman, C. B. (1985). Social factors in psychopathology: Stress, social support, and coping processes. *Annual Review of Psychology, 36*, 531-572.
- McKinney, C., & Renk, K. (2008). Differential parenting between mothers and fathers: Implications for late adolescents. *Journal of Family Issues, 29*, 806-827.
- Melby, J., Conger, R., Book, R., Rueter, M., Lucy, L., Repinski, D., . . . Scaramella, L. (1998). *The Iowa Family Interaction Rating Scales*. Ames, IA: Institute for Social and Behavioral Research.

- Parks, M. R. (2007). *Personal relationships and personal networks*. Mahwah, NJ: Lawrence Erlbaum.
- Phillipsen, L. (1999). Associations between age, gender, and group acceptance and three components of friendship quality. *Journal of Early Adolescence, 19*, 438-464.
- Rodkin, P. C., & Hanish, L. D. (2007). *Social network analysis and children's peer relationships*. San Francisco, CA: Jossey-Bass.
- Rook, K. S. (1984). The negative side of social interaction: Impact on psychological well-being. *Journal of Personality and Social Psychology, 46*, 1097-1108.
- Stocker, C., & Youngblade, L. (1999). Marital conflict and parental hostility: Links with children's sibling and peer relationships. *Journal of Family Psychology, 13*, 598-609.
- Strough, J., Berg, C. A., & Meegan, S. P. (2001). Friendship and gender differences in task and social interpretations of peer and collaborative problem-solving. *Social Development, 10*, 1-22.
- Swenson, L., & Rose, S. (2009). Friends' knowledge of youth internalizing and externalizing adjustment: Accuracy, bias, and the influences of gender, grade, positive friendship quality, and self-disclosure. *Journal of Abnormal Child Psychology, 37*, 887-901.
- Theran, S. A. (2010). Authenticity with authority figures and peers: Girls' friendships, self-esteem, and depressive symptomatology. *Journal of Social and Personal Relationships, 27*, 519-534.
- Thomas, J., & Daubman, K. (2001). The relationship between friendship quality and self-esteem in adolescent girls and boys. *Sex Roles, 45*, 53-65.
- Ueno, K. (2005). The effects of friendship networks on adolescent depressive symptoms. *Social Science Research, 34*, 484-510.
- Updegraff, K., McHale, S., Crouter, A., & Kupanoff, K. (2001). Parents involvement in adolescents' peer relationships: A comparison of mothers' and fathers' roles. *Journal of Marriage and Family, 63*, 655-668.
- Vaquera, E., & Kao, G. (2008). Do you like me as much as I like you? Friendship reciprocity and its effects on school outcomes among adolescents. *Social Science Research, 37*, 55-72.
- Wang, X. (2007). A model of the relationship of sex-role orientation to social problem-solving. *Sex Roles, 57*, 397-408.
- Way, N. (2011). *Deep secrets: Boys, friendship, & the crisis of connection*. Cambridge, MA: Harvard University Press.
- Way, N. (2013). Boys' friendships during adolescence: Intimacy, desire, and loss. *Journal of Research on Adolescence, 23*, 201-213.
- Wise, R., & King, A. (2008). Family environment as a predictor of the quality of college students' friendships. *Journal of Family Issues, 29*, 828-848.
- Yeung, W. J., Sandberg, J. F., Davis-Kean, P. E., & Hofferth, S. L. (2001). Children's time with fathers in intact families. *Journal of Marriage and Family, 63*, 136-154.