

ADOLESCENT FRIENDSHIP QUALITY AND EMOTIONAL ADJUSTMENT:
EXAMINING THE ROLE OF MOTHERS' OWN FRIENDSHIPS

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GARY C. GLICK

Dr. Amanda J. Rose, Thesis Supervisor

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The undersigned, appointed by the Dean of the Graduate School, have examined the thesis entitled

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Presented by Gary C. Glick

A candidate for the degree of Master of Arts

And hereby certify that in their opinion it is worthy of acceptance.

Professor Amanda Rose

Professor Charles Borduin

Professor Christine Proulx

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ABSTRACT

The present study examines associations between youths' friendships and the friendships their mothers have with other adults. It was hypothesized that youth whose mothers have friendships high in positive qualities would have more positive friendships themselves and report decreased internalizing symptoms. Similarly, children of mothers whose friendships were high in negative qualities were expected to report increased negative qualities in their own friendships as well as increased internalizing symptoms. A sample of 172 fifth, eighth, and eleventh grade youth and their mothers were recruited to test these hypotheses, however, only the latter hypothesis was supported. Although mothers who reported high levels of conflict in their own friendships had children whose friendships were characterized by increased conflict, similar associations did not emerge for positive qualities. Further, youth whose mothers reported higher levels of negative qualities in their friendships were more likely to report increased internalizing symptoms themselves, even after reports of the mother-child relationship, youths' friendship quality, and mothers' own internalizing symptoms were controlled.

Adolescent Friendship Quality and Emotional Adjustment:
Examining the Role of Mothers' Own Friendships

CHAPTER ONE

INTRODUCTION

The idea that children are influenced by relationships that their parents have with other adults outside of the family is well supported by theory (see Belsky, 1984; Bronfenbrenner, 1979; 1986; Cochran & Brassard, 1979), though understudied by empirical research. Although many such relationships may impact children's social and emotional adjustment, the present study focuses specifically on mothers' friendships to address two major aims. First, it may be that specific qualities of mothers' friendships are related to the same qualities in the friendships of their children. For example, if mothers have friendships that are characterized by high levels of support and affection, their children might, in turn, be more likely to have friendships defined by such qualities themselves. Likewise, it may be that children of mothers whose friendships are characterized by high levels of conflict and negativity will be more likely to experience high levels of negative qualities in their own friendships. In support of this, past work does report similarities between the qualities of mothers' friendships and those of their preadolescent children (Doyle, Markiewicz, & Hardy, 1994; Simpkins & Parke, 2001). The current work tests whether these associations generalize to the friendships of adolescents as well. In addition, no existing work on the associations between mothers'

and youths' friendships has taken into account the potentially confounding impact of the mother-child relationship. That is, it may appear that mother-friend relationship quality is related to child-friend relationship quality only because mother-friend relationship quality is also related to mother-child relationship quality, which is the true predictor of youths' relationship quality with friends.

Second, the current study will also extend past research by considering the impact of mothers' friendships on their adolescents' emotional adjustment. Some existing research with younger children suggests that mothers' friendships may be linked to youths' internalizing difficulties (e.g. anxiety, depression; Homel, Burns, & Goodnow, 1987). Mothers' poor relationship quality with friends may directly effect youths' emotional adjustment by increasing the levels of conflict and negative affect youth are exposed to. However, like work on children's friendship qualities, it is unclear whether such links generalize to adolescents. More importantly, the current work will extend this earlier research by controlling for other factors that may explain the association between mother-friend relationship quality and adolescents' emotional adjustment. It could be that links between mothers' friendship quality and youths' emotional adjustment only appear to be significant because mothers' friendship quality is related to mother-child relationship quality and/or child-friend relationship quality, which are actually the predictors of internalizing symptoms.

Also, although fathers' social networks play an important role in the development of children's friendships and emotional adjustment too, the present study focuses specifically on the contributions of mothers. An extensive body of research suggests that adolescents spend more time with mothers than fathers and generally experience greater

closeness with mothers relative to fathers (see Steinberg & Silk, 2002). Moreover, in addition to the logistical difficulties of recruiting a large enough sample of fathers, the few studies that have assessed friendships of both mothers and fathers report that mothers' friendships have a greater overall impact on youths' social and emotional adjustment (Oliveri & Reiss, 1987; Simpkins & Parke, 2001).

Associations Between Mothers' Friendships and Adolescents' Friendships

The present research tests the idea that the quality of mothers' friendships will be related to the quality of their adolescent children's friendships. Conceptually, mothers' friendships may influence the friendships of their children through several processes. One of these processes was initially described by Bandura (1977), whose social learning theory posits that youth model the behaviors of the adults in their lives, particularly parents. The way parents carry themselves in their own friendships may have a particularly salient influence on youth because making and maintaining friendships is a social task common to both youths and their parents. Cochran and Brassard (1979) were the first to explicitly posit that children may learn how to interact with friends by modeling the ways in which parents' interact with their own adult friends.

In fact, there is some empirical support for the idea that mothers' friendships are related to the friendships of their children. Several studies have indicated that mothers with larger friendship networks have children who have more friends themselves (Homel et al., 1987; Markiewicz, Doyle, & Brengden, 2001; Uhlendorff, 2000). However, in this body of research mothers' friendships are operationalized in terms of *quantity*, as opposed to *quality*. Such research focuses on the number of friends mothers have in their social network as a proxy for the social support that they derive from such networks.

However, a recent review regarding social networks suggests that the presence or number of social ties that mothers have may have less of an impact on the resources they derive from their social relationships (e.g., nurturance, advice, coping strategies) than the nature and quality of these ties (Balaji et al., 2007). In fact, in one of the few studies to utilize an adolescent sample, Oliveri and Reiss (1987) found that mothers' number of friends was not significantly related to their youths' number of friends but that the frequency of contact that mothers and youth had with their respective friends were related. These results suggest the need to assess more than simply the *presence of* adult friends in mothers' lives as related to their adolescents' social development.

More specifically, it is likely beneficial to consider the impact of the *quality* of mothers' close friendships. Although parents with large social networks might afford their younger children more opportunities for cognitive and social stimulation and more potential playmates (via the children of parents' friends), the qualities of mothers' friendships might also be most closely related to the same qualities in their children's friendships. This may be especially true in adolescence when youths' friendships begin to more closely resemble the friendships of their parents.

In fact, some evidence does suggest that the features of parents' friendships are related to the features of their children's friendships. In two past studies, the positive features of mothers' friendships were correlated with positive features in youths' relationships with their own friends. In a sample of 3rd to 6th grade youth, Doyle et al. (1994) found that children of mothers who rated their best friend as a source of interesting and stimulating ideas rated their own friends as more helpful. Moreover, children of mothers who reported that they derived more self-affirmation from their close

friends reported more closeness in their own friendships. An additional study examined adolescents' perceptions of the degree to which their mothers derived support and satisfaction from their social networks (e.g. "My mom's relationships with her friends are very satisfying"; "My mom is generally satisfied with her friends' support or help"). These perceptions were related to positive friendship quality in adolescents' own same-sex best friendships (Markiewicz et al., 2001).

In addition, a third study (Simpkins & Parke, 2001) extended these studies in two important ways. First, the *same* qualities in mothers' and children's friendships were compared via the administration of a standardized assessment in which both mothers and youth completed identical items regarding their relationship with a close, same-sex friend. This approach facilitated the comparison of specific relationship qualities in mothers' and children's friendships. Second, negative qualities of mothers' friendships and those of their children were assessed in addition to positive qualities. The authors assessed these qualities using the Friendship Quality Questionnaire (FQQ; Parker & Asher, 1993) with a sample of 4th grade children ($N = 125$). For girls, negative qualities of their mothers' friendships (e.g., both observed and self-reported conflict) were related to negative qualities in their own friendships. However, the positive qualities of mothers' friendships were not associated with the positive qualities in their own friendships. For boys, the friendship qualities of their mothers were not associated with any of the same qualities in their own friendships.

The present study, in which the positive and negative qualities of mothers' friendships and their adolescent children's friendships were assessed using identical measures, extends these past studies in three ways. First, this study extends past work to

assess both mother- and adolescent-reports of qualities in their respective friendships. The only prior study discussed earlier that considered the associations between features of mothers' friendships and youths' friendships in adolescents relied on the adolescents' perceptions of their mothers' friendships (Markiewicz et al., 2001). As such, it is unknown the degree to which the associations were driven by adolescents' potentially biased perceptions that their mothers' friendships are like their own. This association also may have been inflated due to shared-method variance. The current study circumvents these problems by utilizing mothers' reports of their own friendships.

Second, the present study also extends the work of Markiewicz et al. (2001) by assessing negative qualities in mothers' friendships, in an adolescent sample, in addition to more positive qualities. Work with younger children seems to suggest that levels of negative interaction in mothers' friendships may have more of an impact on their children's friendships than the presence of positive qualities (Simpkins & Parke, 2001). As children's friendships increase in closeness and intimacy with the onset of adolescence, resembling the friendships of adults to an increasingly greater degree, it is possible that mothers' friendships serve as a more applicable model in adolescence than in childhood. Thus, when negative qualities are exhibited frequently in mothers' own friendships, youth may be especially likely to consider high levels of such qualities as acceptable in their own friendships, when in actuality they may be perceived as off-putting to friends and a hindrance to the development of closeness and intimacy.

The last, and perhaps the most important, limitation of past work is that the possibility that associations between the qualities present in mothers' and youths' friendships might be accounted for by the quality of the mother-child relationship has not

been tested. That is, it could only *appear* that mothers' friendships are related to children's friendships because the quality of mothers' friendships is correlated with the quality of mothers' relationships with their children, and mother-child relationship quality is the true predictor of their children's friendship quality. Some previous work is consistent with this idea. First, several studies suggest associations between mothers' relationship quality with friends and their relationship quality with their children (Akiyama, Antonucci, Takahashi, & Langfahl, 2003; Birditt, Jackey, & Antonucci, 2009). Other research also demonstrates similarities between the qualities of youths' relationships with mothers and their relationships with friends. Youth who experience positive quality in the mother-child relationship also tend to report high levels of positive qualities in their close friendships (Cui, Conger, Bryant, & Elder, 2002; De Goede, Branje, Delsing, & Meeus, 2009; Furman, Simon, Shaffer, & Bouchey, 2002). In addition, levels of negative interaction have been shown to be similar across these relationships (Cui et al., 2002; De Goede et al., 2009; Shomaker & Furman, 2009).

Therefore, in the current study, mother-child relationship quality is controlled while examining the relationship between mothers' relationship quality with friends and youths' relationship quality with friends. To do this, the same standardized assessment that was administered to assess the qualities of mothers' and children's relationships with friends also was administered to assess the qualities of the mother-child relationships. If the relationship between mother-friend relationship quality and the quality of youths' relationship with their friends holds while controlling for mother-child relationship quality, the findings would provide especially strong evidence for a unique impact of mothers' friendships on their children's friendships. Conceptually, it is plausible that

there is an impact of mother-friend relationship quality on child-friend relationship quality that is independent of the influence of the mother-child relationship. Mother-friend relationships and child-friend relationships are similar in that they are both characterized by reciprocity and relatively equal exchange. In contrast, the parent-child relationship is qualitatively different in that it is not an egalitarian relationship characterized by equal power. Therefore, the ways in which mothers carry themselves in their relationships with friends may serve as a better model for their children's interactions with their friends than mothers' interactions with their children.

Parents' Friendships and Adolescents' Emotional Adjustment

Bronfenbrenner (1979; 1986) noted the importance of exosystem models, whereby children's psychological development is affected by settings that parents themselves may spend a good deal of time in (e.g. social networks, places of work), even though children themselves may have relatively limited access to. The current study draws from these models to consider the impact that mothers' friendships may have on youths' emotional adjustment. Even though several studies have considered the role that mothers' friendships play in youths' social adjustment, only one past study has considered the impact of mothers' friendships on youths' emotional adjustment. In this study, parents who reported having "friends that you see regularly and that you could call on in a crisis" had children who reported lower levels of negative emotionality (Homel et al., 1987). The present study extends this past work by examining whether mothers' who report poor relationship quality with their friends have children who report increased internalizing difficulties. In addition, the current study extends past work by considering whether the relation between mothers' friendship quality and youths' emotional

adjustment holds after controlling for: (a) mother-child relationship quality and (b) youths' relationship quality with their own friends.

Specifically, we propose that mothers' positive friendship quality will buffer youth from internalizing problems, whereas having friendships marked by negative qualities will confer risk for internalizing symptoms. Mothers' surrounding themselves with positive, high-quality friendships might increase positive affect in their homes, contributing to their children's overall- well-being. However, it may also be that mothers' who surround themselves, and consequently their children, with poor-quality relationships may contribute to their children's distress simply by the toxic presence that these interactions bring to households. Mothers' whose friendships are characterized by high levels of negative interaction, in particular, may instill increased levels of interpersonal concern in their adolescent children, thus contributing to their distress. In fact, research has found support for such a process, deemed the "costs of caring" (e.g. Kessler & McLeod, 1984), particularly among daughters of mothers' who report high levels of distress (Davies & Lindsay, 2004; Gore, Aseltine, & Colten, 1993).

However, in considering these associations, it will be important to ensure that the relationship between mothers' friendships and youths' internalizing symptoms holds while controlling for the potentially more proximal influence of the mother-child relationship, as well as for youths' own friendships. Consider first the possible role of the mother-child relationship. One possibility is that the quality of mothers' friendships is related to the quality of the mother-child relationship, which is the true predictor of youths' emotional adjustment. This possibility is consistent with studies that have reported similarities between mothers' friendships and the relationships they have with

their children (Akiyama et al., 2003; Birditt et al., 2009) and other studies suggesting that mother-child relationship quality is linked to youths' emotional adjustment (Collarossi & Eccles, 2000; Gil-Rivas, Greenberger, Chen & Lopez-Lena, 2003; Greenberger & Chen, 1996; Greenberger, Chen, Tally, & Dong, 2000; Rubin et al., 2004; Vazsonyi & Belliston, 2006). As such, controlling for mother-child relationship quality is important in order to test whether mothers' friendships have a unique impact on youths' internalizing symptoms.

In addition, it also is important to ensure that the relationship between mothers' relationship quality with friends and youths' adjustment holds while controlling for youths' relationships with their own friends. That is, it could be that the relationship qualities of mothers' friendships are associated with those qualities in youths' friendships (as discussed in regards to the first aim of the current research), which is the predictor of youths' emotional adjustment. In fact, past research has indicated that youths' friendship quality is linked to their emotional adjustment (Collarossi & Eccles, 2000; La Greca & Harrison, 2005; Rubin et al., 2004).

Finally, the current study will also test whether the effect of mothers' friendships and youths' emotional adjustment holds after mothers' own emotional adjustment is controlled for. The idea that mothers' emotional adjustment would predict youths' own emotional distress, through both genetic and environmental factors, has received empirical support (Kaslow, Deering, Racusin, & 1994; Cicchetti & Toth, 1998; Repetti, Taylor, & Seeman, 2002; McLeod, Weisz, & Wood, 2007). Therefore, mothers provided reports of their own emotional adjustment, which were controlled in all analyses that included youths' emotional adjustment.

Developmental Differences

An additional focus of this study is to assess whether the relationship between mothers' friendship qualities and the qualities of their children's own friendships differs across early, middle, and late adolescence. Although most adolescents and their parents are able to maintain relatively positive relationships throughout adolescence (Collins & Steinberg, 2006; Furman & Buhrmester, 1992) some extant research suggests that parent-child closeness declines across the adolescent years (Buhrmester & Furman, 1987; Laursen & Williams, 1997; Seiffge-Krenke, 1999). This may be explained, in part, by increases in parent-child conflict from the early to middle adolescent years (Laursen, Coy, & Collins, 1998; Shanahan, McHale, Osgood, & Crouter, 2007). In addition, children also spend increasingly less time with their parents as they move through adolescence (Larson, Richards, Moneta, Holmbeck, & Duckett, 1996), thus affording them fewer opportunities to be exposed to their parents' friends. Therefore, it could be that mothers' friendships bear less resemblance to those of their children as they move through the adolescent years.

The present study also will test whether relationships between mothers' friendships and youths' emotional adjustment is moderated by age. As stated, as youth move through adolescence they typically have less direct contact with mothers, therefore, mothers' friends may have less of an impact on youths' emotional adjustment. Moreover, as youth spend less time with parents and report decreased levels of closeness with age, the negative impact of mothers' poor relationship quality in friendships on youths' emotional well-being may decline throughout the adolescent years. However, an alternative hypothesis is that youths' empathic understanding of their mothers'

interpersonal difficulties actually increases throughout development, suggesting that the effects of poor relationship quality in mothers' friendship might actually be stronger among older youth.

Gender Differences

Finally, the present study will consider the role of gender, including whether associations between mothers' and youths' friendship qualities are moderated by gender. Social learning theorists (e.g., Mischel, 1970) have suggested that children acquire social relational behaviors more readily from same-sex parents than from opposite-sex parents. In regards to mothers, this idea was supported by the work of Simpkins and Parke (2001) who reported that, although the qualities of boys' friendships were generally unrelated to the friendships of their mothers, negative qualities of girls' friendships were related to the same qualities in the friendships of their mothers. The current study will consider this possible gender moderation in adolescence.

In addition, the present study will assess whether associations between mothers' friendships and youths' emotional adjustment are moderated by gender. It may be that these associations are strongest for daughters because they are more vulnerable to the "costs of caring" in their relationships with mothers (Davies & Lindsay, 2004; Gore et al., 1993). If daughters spend more time with and experience greater closeness with mothers relative to sons, it stands to reason that the poor relationship quality of in mothers' friendships could be more strongly related to emotional adjustment problems in daughters than in sons.

CHAPTER TWO

Method

Participants

Youth in grades 5, 8, and 11 from eight schools in three Midwestern school districts were invited to participate. Participants were recruited in two cohorts, one of which was assessed in the winter semester of one school year and the other in the fall semester of the subsequent school year. Trained graduate students visited each classroom to introduce themselves and the project. Parental consent forms were then mailed home to the parents of each student. These forms explained the purpose of the study and asked parents or guardians to check either “Yes,” “No,” or “I would like more information about this study” to indicate whether or not they agreed to let their child participate in the study or required more information before making a decision. Returned consent forms were then collected from the students’ classrooms the following week. First and second reminder letters were mailed to the homes of students who had not yet responded to the initial mailing. A self-addressed stamped envelope was included with each reminder letter for convenience. Graduate research assistants visited the classrooms several times during this period to collect returned parental consent forms and provide extra consent forms where necessary or requested. Finally, a fourth consent form with a self-addressed stamped envelope was hand-delivered to the classrooms of children for whom no response had been given. Of the 743 students recruited for participation, 84% ($N = 623$) were granted consent to participate. Of these youth, 610 participated in the study (2 did

not participate due to special needs, 6 moved from the district, and 5 were repeatedly absent).

An additional letter was then sent to the homes of youth who had agreed to participate in the study. These letters indicated that an additional focus of the research project was to study the relationships that primary female caregivers' (hereafter referred to as "mothers") had with their children and with their own friends. Of the 610 youth who participated in the study, 39% of their parents ($N = 239$) agreed to complete surveys themselves as part of this additional focus of the present research project. Of these 239 parents, 6 identified as fathers and were excluded from analyses. An additional 3 caregivers identified as grandmothers and 1 identified as a foster parent. Because the nature of the caregiver-child relationship may be different such homes, these cases were excluded from analyses. In addition, the relationship of 7 additional primary female caregivers to study youth could not be determined; therefore, these cases were also excluded from analyses. This resulted in a final sample of 222 mothers.

Because a primary focus of the present study was to investigate the associations between aspects of mothers' friendships and aspects of youths' friendships, as well as youth adjustment, only youth whose mothers participated in the study were included in analyses. Of these 222 participants, 172 (77%) had reciprocal same-sex friends to report on, which is consistent with past research (e.g., see Parker & Asher, 1993). Additional details on the friendship nominations procedure are given in the measures section. Of the 50 youth who did not have reciprocal same-sex friends to report on, 46 youth reported on a non-reciprocal friend and 4 youth reported on a cross-sex friend. We required that youth have a reciprocal friendship to be included in analyses as peer relations researchers

have consistently argued that reciprocity is a defining feature of friendships (Berndt, 1982; Hartup & Stevens, 1997). Further, we chose to exclude youth who reported on cross-sex friendships because these relationships may differ from same-sex friendships in many important respects (Kuttler, La Greca, & Prinstein, 1999).

Of the 172 youth in the final sample, 48 were in the fifth grade (18 boys, 30 girls), 56 were in the eighth grade (21 boys, 35 girls) and 68 were in the eleventh grade (32 boys, 36 girls). The youth sample was 92% Caucasian, with the remainder of the sample identifying as African American, Asian American, Latino, Native American, or Multiethnic (none more than 3% of the total sample). Of these youth, 95% identified their biological mother as their primary female caregivers, 3% identified their adoptive mother and 2% identified a step-mother. Of the mothers who participated in the study, 96% identified as Caucasian, with the remainder identifying as African American, Hispanic, or Native American (none more than 2% of the total sample). Mothers' mean age was 42.09 years ($SD = 5.74$).

Representative analyses were conducted to assess whether the 172 youth who were included in the final sample differed from the 438 youth who were not included in the final sample (because they did not have mother-report data and/or a same-sex reciprocal friend to report on). Chi-squared tests were computed to determine whether these two groups differed in terms of sex or grade. In addition, t -tests were computed for all continuous variables to determine whether the groups differed on any of these variables. There were no significant differences ($p < .05$) between youth included in the final sample and youth who were excluded from the final sample on any of these variables.

Procedure

Data for the present study were collected as part of a larger project investigating social relationships and adjustment. Students whose parents had given them consent to participate in the study completed all questionnaires in a group format during regular class time. Participating students were first asked to sign a youth assent form. Trained graduate or undergraduate research assistants read aloud all questionnaire items and answered any questions that youth had with regards to the meaning of specific questionnaire items. Each group of students took part in two 45 minute data collection sessions that were spaced approximately two weeks apart. Administrators made additional trips to the schools in order to collect data for those youth who were absent during one or both of the group sessions.

Mothers who agreed to participate in the study were asked to complete a consent form and a packet of questionnaires that was included with the initial letter requesting their participation in the study. Mothers were instructed to sign the consent form, complete the enclosed questionnaires, and return both in a self-addressed stamped envelope provided along with the letter. Mothers who did not want to participate were asked to check "No" on the consent form and return the form by mail. The letter also stipulated that male caregivers could participate as well, although few chose to do so. First and second reminder letters were mailed to the homes of parents who had not yet returned the packet of questionnaires.

Measures-Youth Report

Demographic Information-Youth. Youth were asked to answer a brief questionnaire to provide basic demographic information (see Appendix A). Youth

provided information about their gender and racial/ethnic background. They were also asked to indicate the nature of their relationship to their primary female caregiver (e.g. biological mother, step-mother).

Friendship Nominations. When relationship qualities were evaluated in youths' friendships, these constructs were assessed in regards to a specific friend. The friends who they answered the questions about were chosen using a widely-used friendship nomination procedure (e.g., Parker & Asher, 1993; Rose, 2002; Rose & Asher, 1999). For the friendship nominations procedure, rosters including the names of participating classmates were presented to each youth. Participants in fifth-grade were given the names of all children who had consent to participate in their self-contained classrooms. Because eighth- and eleventh-grade students did not remain in a particular classroom throughout the school day, these students were presented with names of all participating students in their entire grade. This procedure is similar to those used in other studies involving elementary, middle, and high school youth (e.g., Rose, 2002). Participants were instructed to circle the names of their "three best friends." Youth also were asked to identify their closest friendship by drawing a star next one of the three names that they circled to indicate their "very best friend." Youth were considered to have a reciprocal friendship if one of the three classmates who they circled also circled their name.

As mentioned, participants were assigned to report on their closest (i.e., highest-priority) friendship. Priority was determined with a similar procedure used in past research (Rose, 2002; Rose & Asher, 1999). First priority was given to friendships in which a youth "starred" his or her very best friend and that friend "starred" him or her in return. Next, priority was given to friendships in which a youth "starred" a very best

friend and that friend circled his or her name in return. Third, priority was given to friendships in which a youth circled (but did not star) the name of a friend and was “starred” in return. Finally, priority was given to a situation in which two friends circled each others’ names but did not star one another.

Youth with only one reciprocal friendship reported on that friend. Youth with two or more reciprocal friendships reported on their highest priority friendship. Youth who were not identified as having any reciprocal friendships reported on a non-reciprocal friendship. As in past research (e.g., Parker & Asher, 1993; Rose & Asher, 1999), data regarding nonreciprocal friendships were excluded from analyses. As noted, of the 222 participants, 172 (77%) had at least one reciprocal same-sex friend.

Network of Relationships Inventory-Youth. To assess the quality of youth’s highest-priority friendship, as well as the quality of relationships with their mothers, youth responded to the Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985; see Appendix B). The NRI was designed with the intent to make explicit comparisons across multiple relationships (Furman & Buhrmester, 1985; Furman, 1996). The NRI assesses nine positive features of relationships (3 items for each feature): affection, admiration, companionship, instrumental aid, intimacy, nurturance, reliable alliance, satisfaction, and support. The NRI also assesses the following four negative features of relationships (3 items for each feature): antagonism, conflict, criticism, and dominance. Each item is rated on a 5-point Likert scale ranging from 1 “Little or none” to 5 “The most.” The measure has been found to be internally reliable (e.g. Buhrmester, 1990; Furman & Buhrmester, 1992) and highly valid (see Furman, 1996 for a review). In the current study, to assess friendship quality, this measure was customized by inserting

the names of each youth's best friend into each item. To assess relationship quality with mothers, "mom" was inserted into each item.

As in past research, (Furman, 1996), youth were given composite scores for both positive and negative relationship qualities. Scores for positive relationship quality were computed separately for youths' relationships with their friend and with mothers. These scores were the mean of the 27 items of the nine positive NRI subscales (i.e. affection, admiration, companionship, instrumental aid, intimacy, nurturance, reliable alliance, satisfaction, and support). Scores for negative relationship quality were the mean of the 12 items assessing the four negative NRI subscales (i.e. antagonism, conflict, criticism, and dominance). In addition to considering composite scores of positive and negative relationship qualities, in order to examine whether the associations with any specific subscales were of particular importance (e.g., conflict, support), analyses were conducted with the specific subscales. Youths' positive and negative relationship quality scores were highly reliable for their relationships with both mothers ($\alpha = .95$, $\alpha = .86$, respectively) and friends ($\alpha = .97$, $\alpha = .88$, respectively). Of the 13 subscales that assessed youths' friendship quality (nine positive and four negative), Cronbach alphas for 12 were greater than .70. For the dominance subscale, Cronbach alpha was .60. Of the 13 subscales that assessed youths' relationships with mothers, Cronbach alphas for 11 were greater than .70. Internal reliability was lower for criticism ($\alpha = .65$) and dominance ($\alpha = .55$).

Youth Self-Report. The Youth Self-Report (YSR; Achenbach, 1991; Achenbach & Rescorla, 2001) items were rated on a 3-point Likert scale ranging from 0 "Not True" to

2 “Very True or Often True” (see Appendix C for list of items). Youth were asked to report on each item as it pertains to their adjustment or behavior over the past six months.

The items of the YSR are grouped according to three broad-band subscales: internalizing, externalizing and other problems. Each of these three broad-band subscales is comprised of several more specific narrow-band scales. The internalizing subscale includes three narrow-band scales: anxious/depressed, withdrawal/depressed, and somatic complaints. The externalizing subscale includes two narrow-band scales: rule-breaking behavior and aggressive behaviors. The third broad band-scale, other problems, includes three narrow-band scales: social problems, thought problems, and attention problems. The YSR has been extensively utilized in past research and has been shown to be both a highly reliable and valid assessment of youth adjustment (Achenbach, 1991; Lexcen, Vincent, & Grisso, 2004; McConaughy, 1993).

Of interest in the current study was the internalizing subscale. Youth in the first cohort completed the 1991 version of the YSR (Achenbach, 1991). Youth assessed in the second cohort completed an updated version of the YSR (Achenbach & Rescorla, 2001). However, most items were included on both versions. The 2001 version included 32 items on the internalizing scale. Of these, 29 items were administered to youth in both cohorts and these items are used to comprise the internalizing scale in the present study. Youths’ internalizing scores were highly reliable ($\alpha = .89$).

Measures-Mother Report

Demographic Information-Mother. Mothers provided demographic information that included their age and racial/ethnic background (see Appendix D). This information was used to describe the sample.

Network of Relationships Inventory-Mother. To assess the quality of mothers' relationships with their child enrolled in the study, mothers also responded to the Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985; see Appendix E). Mothers responded to the same 42 items that youth responded to. These items were used to calculate positive and negative relationship quality composite scores, in the same fashion as had been done with youth's NRI items. Parents' report of NRI items in response to relationships with their children has been shown to be internally reliable (e.g. Buhrmester, 1990) and highly valid (Furman, 1996) in past research. In addition, mothers were also asked to respond to NRI items in response to the relationship with their closest female friend. These items were used to calculate positive and negative relationship quality composite scores, in the same fashion as had been done with mother's relationships with their children. Scores also were computed for each of the nine positive quality and four negative quality subscales. These scores were used in additional analyses to examine whether associations with any specific subscales were of particular importance. Mothers' positive and negative relationship quality scores were reliable for their relationships with both their children ($\alpha = .90$, $\alpha = .89$, respectively) and friends ($\alpha = .96$, $\alpha = .78$, respectively). Of the 13 subscales that assessed mothers' friendship quality (nine positive and four negative), Cronbach alphas for 10 were greater than .70. Cronbach alphas were lower for antagonism ($\alpha = .62$), criticism ($\alpha = .60$), and dominance ($\alpha = .57$). Of the 13 subscales that assessed mothers' relationships with their adolescent children, Cronbach alphas for 11 were greater than .70. Reliabilities were lower for support ($\alpha = .48$) and dominance ($\alpha = .48$).

Brief Symptom Inventory. To assess mothers' own psychological functioning,

mothers responded to the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983; see Appendix F). Mothers' rated 51 items based on the degree to which each was distressing or bothersome over the past week on a 3-point Likert scale from 1 ("not at all") to 5 ("extremely").

Items on the BSI were grouped according to nine subscales, each reflecting a distinct type of symptoms. These subscales include: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. The two items assessing suicidality were not used. Of interest in the current study were the five depression scale items and six anxiety scale items. A mean score of these items was computed and used as a control variable in analyses where youths' internalizing symptoms were included as a dependent variable. Additional subscale scores were not used in analyses for the present study. Mothers' depression and anxiety BSI scores were highly reliable ($\alpha = .93$) in the current study.

Imputation of Missing Data

Some of the 172 youth included in analyses were missing data for some items on various measures. In fact, only 62% of youth (107 of 172) had data for every youth-report and mother-report item of every measure. However, the percent of youth who had complete data for every item on the individual measures ranged from 86% to 94% across measures, which suggests that the amount of missing data was relatively minimal for any given measure. It is possible for these patterns to co-exist because youth who were missing an item on one measure were not necessarily the same youth who were missing items on other measures. However, the use of listwise deletion to address missing data would have resulted in losing over one-third of participants from the sample. Therefore,

multiple imputation (MI) was used to address missing data.

Multiple imputation (MI) was performed with Proc MI in SAS (SAS Institute Inc., 2006). MI uses an algorithm to predict a likely score for each missing data point and then adds a randomly generated plausible error term to that score. This is then repeated multiple times, creating multiple datasets, which are aggregated to produce final estimate of parameters of interest (Rubin, 1987; Widaman, 2006). Although sometimes as few as 5 datasets are imputed, it is recommended that at least 100 be imputed to produce stable parameter estimates across imputations (Graham, Olchowski, & Gilreath, 2007). Therefore, 100 imputations were computed in the present study. PROC MIANALYZE (SAS Institute Inc., 2008) was used to aggregate results across datasets.

MI is appropriate for missing data when the data are missing at random (MAR) or missing completely at random (MCAR). MAR means the probability of missing data on a particular variable should be unrelated to what the scores of the data would have been were they not missing (Rubin, 1987). MCAR means that probability of missing data on a particular variable is unrelated both to what the score would have been had the data not been missing data and to the scores on other study variables. To test the latter point, a series of analyses were computed to test whether the 107 youth who had complete data for all items were different from the youth with at least one missing item. For each variable, the sample of youth with missing data was limited to those with complete data for that variable (*Ns* ranged from 59 to 65). Chi-squared analyses revealed that these two groups did not differ in terms of sex and grade. *T*-tests indicated that youth with incomplete data also did not differ from youth with complete data on any youth- or mother-report measure. In addition, although there is not a way to test whether the

likelihood of having missing data for a particular variable is related to what the data would have been were they not missing, there was no reason to suspect that this would be the case. Therefore, the use of MI was considered appropriate.

CHAPTER THREE

Results

In the first subsection, the decision to aggregate mother- and adolescent-reports of mother-child relationship quality is discussed. In the second subsection, descriptive data are provided, including tests of sex and grade differences in study variables. The third subsection addresses the first major aim of the study – whether mothers’ friendship quality is associated with adolescents’ own friendship quality. The fourth subsection addresses the second major aim of the study – whether mothers’ friendship quality is associated with adolescents’ internalizing symptoms. In the final subsection, supplementary analyses are described that test whether the results of the major research questions are would have differed had separate mother- and adolescent-report data of mother-child relationship quality been used instead of the aggregate report.

Aggregating Youth- and Mother-Reports of Mother-Child Relationship Quality

Researchers face a dilemma regarding how to utilize different reporter’s assessments of the same relationships. Past research indicates a positive correlation between mother and adolescent self-reports of mother-child relationship qualities but the relations are fairly weak (see Feinberg, Howe, Reiss, & Hetherington, 2000, for a review). This suggests that mothers and adolescents have somewhat different perceptions of the quality of their relationship. In the current study, there was a small, positive association between mothers’ and youths’ reports of positive relationship quality ($r = .20$, $p < .01$). The association between mothers’ and youths’ report of negative relationship

quality was positive but non-significant ($r = .12, ns$). However, correlations computed for the four negative relationship quality subscales indicated significant associations between mother- and youth-reports of conflict ($r = .23, p < .01$) and antagonism ($r = .19, p < .05$). The association was not significant for criticism ($r = .03$). Most notably, though, a marginal *negative* correlation was found between mothers and adolescents reports of dominance ($r = -.14, p = .09$). This is likely because mothers report on the degree to which youth are dominant in the relationship, whereas adolescents report on the degree to which mothers are dominant in the relationship.

Some researchers have dealt with mother and youth reports of relationship quality by aggregating these scores in order to provide a more complete assessment of the mother-child relationship (Conger et al., 1992; Patterson, Bank, & Stoolmiller, 1990; Power, Welsh, & Wright, 1994). Given that mothers' and youths' reports of relationship quality were generally positively correlated in the current study, the mother-child relationship quality scores used in the analyses were the mean of mother- and youth-reports. This approach was chosen to capture both mothers' and adolescents' perceptions regarding their relationship. However, in the last section of the Results, supplementary analyses were performed to determine whether different results would have emerged if mother-reports or youth-reports of mother-child relationship quality were considered separately instead of using the composite mother-child relationship quality score.

Descriptive Statistics and Sex and Grade Differences in Study Variable

Means and standard deviations for all variables and correlations among the variables are presented in Table 1. In addition, a 2 (Sex) X 3 (Grade) analysis of variance (ANOVA) was conducted for each of the primary study variables to assess sex and grade

differences, as well as sex by grade interactions. None of the sex by grade interactions were significant but several of the main effects for sex and grade were. The F values for sex and grade from the ANOVAs and the means for males and females as well as for fifth-, eighth-, and eleventh-grade youth are presented in Table 2. Girls scored higher for positive friendship quality and positive mother-child relationship quality than did boys. Girls also reported higher internalizing symptoms. Significant grade effects emerged for positive and negative relationship quality with mothers. For positive quality with mothers, post-hoc (Tukey) tests indicated that fifth- grade youth scored higher on positive quality than both eighth- or eleventh-grade youth. There was no difference in positive relationship quality between eighth- and eleventh-grade youth. For negative quality with mothers, post-hoc (Tukey) tests indicated that eighth-grade youth scored higher on negative relationship quality than both fifth- and eleventh-grade youth. However, there was no difference in negative relationship quality between fifth- and eleventh-grade youth.

Associations Between Mothers' Friendship Quality and Youths' Friendship Quality

It was hypothesized that mothers' relationship qualities with a same-sex friend would be related to adolescents' report of the same qualities in their own friendships. Analyses were first conducted for positive friendship qualities. A hierarchical linear regression model was conducted in which the dependent variable was youths' positive friendship quality. The first step of this model included sex and grade as control variables. The second step included mother-child positive relationship quality (composite score based on mother- and youth-reports). The third step included mothers' positive friendship quality to assess the unique contribution of mothers' own friendships. On a

fourth step, two-way interaction terms of mother-friend positive quality with sex and with grade were tested (the Sex X Grade interaction term was included as well as it must be in the model in order to test for three-way interactions). Finally, on a fifth step, the three-way interaction term of mothers' positive friendship quality with both sex and grade was tested.

The results of this model are presented in Table 3. Step 1 was significant, with a significant effect of sex emerging. Girls' reported greater positive friendship quality. On step 2, a significant effect of mother-child positive relationship quality emerged, indicating that more positive relationship quality with mothers was related to youths' higher positive friendship quality. Of primary interest, on step 3, the effect of mothers' own positive friendship quality was not a significant predictor of positive qualities in youths' friendships. Further, no interactions with sex and/or grade were significant. Steps including these interaction terms are not presented in Table 3 in order to conserve space. Notably, a review of the correlational analyses (see Table 1) also indicates that the bivariate relationship between mothers' positive friendship quality and youths' positive friendship quality was not significant, indicating that the nonsignificant relationship in the regression analyses was not due to the inclusion of the control variables on Steps 1 and 2.

A parallel hierarchical linear regression model was computed for negative relationship quality (see Table 3). In this model, youths' negative friendship quality was the dependent variable. Sex and grade were entered on step 1 but neither was significant. On step 2, negative relationship quality with mothers was entered and was significant. More negative relationship quality with mothers predicted greater negative friendship

quality for youth. Of primary interest, on step 3, mothers' negative friendship quality was entered; however, the effect was not significant. Further, no significant interactions with sex and/or grade emerged. Bivariate correlations (see Table 1) also indicated that the association between mothers' and youths' negative friendship quality was not significant.

Although these null findings ran counter to initial predictions, it was still possible that the friendships of mothers and their adolescent children were related in more nuanced ways. To test this possibility, analyses parallel to the ones described above were conducted separately for each of the nine subscales that comprise positive relationship quality and for each of the four subscales that comprise negative relationship quality. The nine positive qualities were: affection, admiration, companionship, instrumental aid, intimacy, nurturance, reliable alliance, satisfaction, and support. In these analyses, none of the specific positive friendship quality scores for mothers' friendships significantly predicted any of the same qualities in adolescents' friendships. In addition, no interactions with sex and/or grade emerged in any of these models. The details of these results are not presented in order to conserve space.

These analyses were then repeated with each of the four subscales that comprise the negative relationship quality score: antagonism, conflict, criticism, and dominance. In these analyses, each of the specific negative relationship qualities in the mother-child relationship was a significant positive predictor of the same negative quality in adolescents' own friendships. For antagonism, criticism, and dominance, however, mothers' reports of these qualities in their own friendships did not predict these qualities in the friendships of their adolescent children. In addition, no interactions with sex and/or grade emerged these models. The details of these analyses are not presented. In contrast,

mothers' who reported high levels of conflict in their friendships were more likely to have adolescent children who reported high levels of conflict in their own friendships. The results of the model for conflict are presented in Table 3. No interactions with sex and/or grade emerged in this model.

Associations Between Mothers' Friendship Quality and Youths' Emotional Adjustment

Analyses next examined whether mothers' friendship qualities were related to the emotional adjustment of their adolescent children. Analyses were first conducted for positive friendship quality. A hierarchical linear regression model was conducted in which the dependent variable was youths' internalizing symptoms. The first step of this model included the following control variables: sex, grade, and mothers' report of their own internalizing symptoms. On the second step, positive quality in the mother-child relationship and adolescents' positive friendship quality were entered as predictors. Of primary interest, mothers' positive friendship quality was then entered on the third step. On a fourth step, two-way interaction terms of mothers' positive friendship quality with sex and grade were tested (the Sex X Grade interaction term was included as well as it must be in the model in order to test for the three-way interaction). Finally, on a fifth step, a three-way interaction term of mothers' positive friendship quality with both sex and grade was tested.

The results of this model are presented in Table 4. On step 1, sex and grade were both significant predictors of youths' internalizing symptoms. Girls and younger youth reported greater internalizing symptoms. The effect of mothers' internalizing symptoms was non-significant. On step 2, neither positive mother-child quality nor youths' positive friendship quality predicted internalizing symptoms. On step 3, mothers' positive

friendship quality also was not associated with youths' internalizing symptoms. No interactions of mothers' positive friendship quality emerged with either sex and/or grade. Steps that include these interaction terms are not presented in Table 4. Note that the relationship between mothers' positive friendship quality and youths' internalizing symptoms also was not significant in the correlational analyses (see Table 1) indicating that the null result in the regression analyses was not due to the inclusion of control variables.

An additional hierarchal regression analysis was then computed to examine the relationship between mothers' negative friendship quality and adolescents' internalizing symptoms. Adolescents' internalizing symptoms was entered as the dependent variable. On the first step, sex, grade, and mothers' own internalizing symptoms were entered as control variables. On the second step, negative quality in the mother-child relationship and adolescents' negative friendship quality were entered as predictors. On the third step, mothers' own negative friendship quality was entered. On a fourth step, two-way interaction terms of mothers' negative friendship quality with sex and grade were tested (the Sex X Grade interaction term was included as well as it must be in the model in order to test for three-way interactions). Finally, on a fifth step, a three-way interaction term of mothers' negative friendship quality with both sex and grade was tested. These results are presented in Table 4.

On step 1, although sex and grade were again significant predictors of adolescents' internalizing symptoms, mothers' own internalizing symptoms was not. On step 2, negative quality in the mother-child relationship did not predict adolescent internalizing symptoms, but adolescents' negative friendship quality did predict greater

internalizing symptoms. On the next step, the effect of mothers' own negative friendship quality was significant, with mothers' negative friendship quality predicting greater adolescent internalizing symptoms. This finding indicated that mothers' negative friendship quality made a unique contribution to adolescents' internalizing symptoms after controlling for both negative mother-child relationship quality and adolescents' own negative friendship quality, in addition to sex, grade, and mothers' own internalizing symptoms.

Next, analyses parallel to the ones described above were conducted for each of the relationship quality subscales. The analyses were first conducted for each of the nine positive relationship quality subscales. These results indicated that none of the nine positive qualities in mothers' friendships were associated with adolescents' internalizing symptoms, after controlling for sex, grade, and mothers' own internalizing symptoms, as well as for the positive quality in the mother-child relationship and the adolescents' positive friendship quality. Furthermore, no interactions with either sex or grade were significant in any of these models. The details of these results are not presented in order to conserve space.

Analyses were then repeated for each of the four negative friendship quality subscales. These results are presented in Table 5. As in previous analyses, on the first step of these models, sex and grade emerged as significant predictors of adolescents' internalizing symptoms, though mothers' own internalizing symptoms did not. In the first model, conflict was entered. In terms of conflict, on the second step, conflict in the mother-child relationship did not predict internalizing symptoms although conflict in adolescents' friendships predicted greater internalizing symptoms. Of primary interest, on

the third step, conflict in mothers' friendships predicted greater adolescent internalizing symptoms. In the next model, antagonism was considered. On the second step, antagonism in the mother-child relationship did not predict internalizing symptoms though antagonism in adolescents' friendships did predict greater internalizing symptoms. Most importantly, on the third step, antagonism in mothers' friendships uniquely predicted adolescents' internalizing symptoms. In the third model, criticism was considered. On the second step, although criticism in the mother-child relationship did not predict internalizing symptoms, criticism in adolescents' friendships did predict greater internalizing symptoms. However, on the third step, criticism in mothers' friendships did not predict adolescents' internalizing symptoms. Finally, in the fourth model, dominance was considered. On the second step, neither dominance in the mother-child relationship or in adolescents' friendships predicted internalizing symptoms. However, on the third step, dominance in mothers' friendship was a marginally significant predictor of greater internalizing symptoms. In general, these results suggest that high levels of negative qualities in mothers' friendship were consistently related to heightened emotional distress among adolescents.

Supplementary Analyses: Are the Results Consistent Across Adolescents' and Mothers' Reports of Relationship Quality?

In this section, analyses used to test the two major research aims were repeated to test whether the results would have differed had separate mother- and adolescent-reports of mother-child relationship quality been used instead of the composite score. Recall that for the first research aim, in which adolescents' friendship quality was the outcome variable, mother-child relationship quality was entered on the second step of the

regression analyses as a control (after sex and grade were entered on Step 1). Then, mothers' own friendship quality was entered on Step 3. Considered first was whether the same effects of mother-child relationship quality emerged using separate adolescent-reports and mother-reports of mother-child relationship quality that emerged when the mother-child relationship quality composite score was used. When the composite mother-child relationship quality score was used, for positive friendship quality, negative friendship quality, and every positive and negative subscale, the effect of mother-child relationship quality on adolescents' friendship quality was significant. These findings replicated when adolescents' reports of mother-child relationship quality were used. However, when mothers' reports of mother-child relationship quality were used, the effects were not significant for positive friendship quality, for negative friendship quality, or for any positive and negative subscale.

Of even greater interest for the current research, however, was whether the same effects of mothers' friendship quality on youths' own friendship quality would emerge regardless of which index of mother-child relationship quality was controlled. In the original analyses, when the mother-child relationship quality composite score was controlled, neither mothers' positive friendship quality nor any of the positive subscales predicted adolescents' own friendship quality. These findings replicated when adolescents' reports of mother-child relationship quality were controlled and when mothers' reports of mother-child relationship quality were controlled. Interestingly, for the composite negative relationship quality score, the effect of mothers' friendships was not significant when the composite mother-child relationship quality score was controlled but became significant when only mothers' reports were controlled (the effect remained

non-significant when only adolescents' reports were controlled). Similarly, for the antagonism and dominance subscales, the effects of mothers' friendships on adolescents' friendships were not significant when the composite mother-child relationship quality score was controlled but became significant when only mothers' reports were controlled (for antagonism and dominance) or only adolescents' report were controlled (for dominance). Last, for the conflict and criticism subscales, the findings replicated across reporters. Conflict in mothers' friendships predicted adolescents' friendship conflict when mother-child relationship quality was controlled regardless of whether adolescents' reports, mothers' reports, or the composite score of mother-child conflict was controlled. Criticism in mothers' friendships did not predict criticism in adolescents' friendships regardless of which index of mother-child criticism was controlled. Together, the findings suggest that the index of mother-child relationship quality used as a control variable typically did not effect the results regarding whether mothers' friendship quality predicted adolescents' own friendship quality. Moreover, in the few cases in which it did, more significant effects emerged when only adolescents' reports or only mothers' reports of were controlled. This suggests that using the composite index of mother-child relationship quality was a conservative approach.

In regards to the second research aim of whether mothers' friendship quality predicted adolescents' internalizing symptoms, regression analyses were performed predicting adolescents' internalizing symptoms from sex, grade, and mothers' own internalizing symptoms (Step 1), mother-child relationship quality and adolescents' friendship quality (Step 2), and mothers' own friendship quality (Step 3). For both positive and negative relationship quality, as well as for the positive and negative

subscales, the effect of mother-child relationship quality (on the second step) on adolescents' internalizing symptoms was non-significant regardless of which report of mother-child relationship quality was used. In regards to the effects of mothers' friendships (entered on the third step) on internalizing symptoms, the effects of negative friendship quality, and the negative subscales of conflict and antagonism were significant regardless of which index of mother-child relationship quality was controlled (on the second step). Moreover, the effects of positive friendship quality, all positive qualities subscales, and the negative subscale of criticism were not significant regardless of which index of mother-child relationship quality was controlled. In addition, although dominance in mothers' friendships was a marginal predictor of adolescents' internalizing symptoms when the composite measure of mother-child relationship quality score was controlled, the effect became significant when only mother-reports or only adolescent-reports were controlled. In summary, the results generally did not vary depending on the index of mother-child relationship quality used and, in the one case that they did, the results indicated that using the composite was a more conservative approach.

CHAPTER FOUR

Discussion

Throughout the past several decades, child development research has benefitted from a marked increase in the attention given to ecological models and the role of contexts external to the family (e.g. school, day care, peers) in youth's social and emotional adjustment (see Bronfenbrenner, 1986; Cicchetti & Toth, 1998; Dishion & Stormshak, 2007 for reviews). Yet since Cochran & Brassard (1979) first posited that parental social networks might also be a context that carries an influence on youths' adjustment, relatively few studies have addressed this claim. Even fewer have examined the qualities of parents' friendships directly and whether the nature of these relationships might be related to youths' own relationships with peers (see Doyle et al, 1994; Simpkins & Parke, 2001 for exceptions). In extending these past efforts, the present study finds that high levels of conflict in mothers' friendships predicted conflict in the friendships of their adolescent children. Moreover, this study is the first to suggest that negative qualities in mothers' friendships may have deleterious effects on youths' emotional well-being.

The first aim of the current study was to examine whether the qualities of mothers' friendships predicted the quality of youths' own friendships. This study extends past work on the influence of mothers' friendships on youths' friendships in three important ways. First, the present study extends past work with adolescents (e.g. Markiewicz et al., 2001) by assessing mothers' own reports of their friendship quality, as opposed to their adolescents' perceptions of their mothers' friendship quality. Second,

this study is the first to assess negative qualities, in addition to positive qualities, of adolescents' friendships and the friendships of their mothers. Finally, in examining the associations between the qualities of mothers' friendships and the qualities of their adolescent children's own friendships, identical qualities in the mother-child relationship were controlled. As such, the present study provides a strong test of whether qualities in mothers' own friendships predict qualities of youths' own friendships. Although significant associations between mothers' friendship quality and adolescents' friendship quality did not emerge for positive qualities (e.g. companionship, affection) or for some of the negative qualities (e.g. criticism, dominance), conflict in mothers' friendships was associated with greater conflict in youths' own friendships.

Finding a significant relation between conflict in mothers' friendships and their adolescent children's friendships was particularly noteworthy given that conflict in the mother-child relationship was controlled. That is, it could have been that having conflictual friendships undermined mothers' parenting ability (e.g., due to increased stress), which led to elevated mother-child conflict, which was be the true predictor of youths' conflict with friends (see Cui et al., 2002; De Goede et al., 2009; Shomaker & Furman, 2009). If this were the case, it would *appear* that mothers' friendship quality and youths' friendship quality were related, but the relation would become non-significant when the mother-child relationship was controlled. However, in the current research, the association between conflict in mothers' own friendships and conflict in their children's friendships held after controlling for mother-child conflict.

What processes might explain the influence of mothers' friendships on youths' friendships above and beyond the much more proximal influence of the mother-child

relationship? Cochran and Brassard (1979) drew from social learning perspectives (Bandura, 1977) to posit that youth look to their parents as models for friendship. Perhaps mothers who carry themselves in a highly conflictual manner with friends signal to their children that such behavior is acceptable, or even normative, in the context of friendships. Moreover, Bandura's (1986) social cognitive theory stipulates that children encode the context in which a given behavior is modeled, in addition to the behavior itself. Thus, the context in which they witnessed the behavior (i.e., the mothers' own friendships) serves as a reference point for future contexts in which to display the behavior themselves. It may be that mothers' friendships are a particularly applicable context that youth consider in constructing their own schemas about the qualities of close, egalitarian relationships with their own same-age, same-sex peers. Because the mother-child relationship is not egalitarian, the degree to which conflict occurs in the mother-child relationship may not be relevant enough to *fully* explain youths' adoption of a conflictual style in their own friendships.

Notably, though, only conflict in mothers' own friendships predicted youths' friendship adjustment. Perhaps the behavioral manifestations of conflict (e.g. arguing, getting mad or upset at someone) are more salient to youth than the display of more positive relationship qualities (e.g. companionship, affection). Conflicts between mothers and their friends may more readily seize youths' attention than an embrace, a smile, or words of support. Even other negative qualities that were assessed in the present study, such as dominance or criticism, may not be as noticeable to adolescents as explicit arguments and disagreements.

The second major aim of the present study was to examine whether the quality of

their mothers' friendships was associated with youths' emotional adjustment. Past research indicates that children of mothers with dependable friends have less emotional distress (Homel et al., 1987). The current study makes important extensions to this past research by assessing mothers' reports of *specific* positive and negative qualities of a single, close friendship and controlling for qualities in the mother-child relationship, qualities in youths' best friendships, and mothers' own emotional adjustment.

Results indicated that mothers' negative friendship quality was uniquely related to youths' internalizing symptoms after all of these aforementioned variables were controlled. In contrast, mothers' positive friendship quality was unrelated to youths' internalizing symptoms. It is important that the association between mothers' negative friendship qualities and youths' emotional adjustment held while controlling for negative qualities in the mother-child relationship, negative qualities in youths' own best friendships, and mothers' own emotional adjustment. In regards to the mother-child relationship, as mentioned, it could have been that mothers' negative friendship quality was simply a correlate of mother-child negative relationship quality, which was the true predictor of youths' internalizing symptoms. Similarly, it was possible that (consistent with the first research aim) mothers' negative friendship quality predicted youths' negative friendship quality, which was the true predictor of youths' internalizing symptoms. However, because the relationship between mothers' negative friendship quality and youths' emotional adjustment held while controlling for both negative quality in the mother-child relationship and in youths' own friendships, the results suggest a more direct link between mothers' negative friendship quality and youths' emotional adjustment. Finally, it also might have been that mother's own internalizing problems

accounted for the relationship between mothers' friendship quality and youths' internalizing problems (i.e. mothers' internalizing symptoms was the predictor of both mothers' own friendship problems and their children's internalizing symptoms). However, the association between mothers' negative friendship quality and youths' internalizing symptoms also was not accounted for by mothers' internalizing symptoms.

Given that the association between mothers' friendship quality and youths' internalizing symptoms held while controlling for mother-child negative quality, youths' negative friendship quality, and mothers' own emotional adjustment, it is important to consider how the negative qualities of mothers' friendships might have a direct impact on youths' emotional adjustment. One possibility is that mothers whose friendships are characterized by high levels of negative interaction may instill increased levels of interpersonal concern in their adolescent children. Kessler and McLeod (1984) referred to this as the "costs of caring," or the vicarious distress that individuals experience when exposed to the stress of close others. It may be that youth acutely sense the difficulty that their mothers have in interacting positively with other adults, feel sorry for their mothers, and, in turn, feel more distressed themselves. Smith and Rose (in press) expanded on this idea by introducing the concept of empathetic distress, whereby individuals share in others' negative affect along with them and experience it as their own. Youth whose mothers' have problems in friendships may experience such empathetic distress, which contributes to their own internalizing problems. This distress may be intensified if mothers talk extensively with youth about their friendship problems. In fact, Waller and Rose (2010) found that mothers' excessive discussion of *their own problems* with their adolescent children predicted their children's distress.

Another possibility is that adolescents' exposure to mothers' negativity with other adults provides a window into mothers' lives that adolescents find distressing. It may be that the roles that mothers take on in their own friendships are not consistent with the impressions revealed to their children through the maternal role. If youth see their mothers as particularly contentious or conflictual with other adults, this may highlight their mothers' imperfections, which may be distressing to youth. Interestingly, such effects may be particularly strong for youth whose mothers form friendships with the mothers of their own friends. Adolescents who see their mothers carry themselves in a negative manner with parents of their own friends may be at least mildly embarrassed and potentially highly distressed. Future research should directly assess whether negative qualities in mothers' friendships have an especially negative impact on their adolescents' emotional adjustment when mothers build friendships with the mothers of youths' own friends.

Again, it's interesting that results emerged for internalizing symptoms for mothers' negative friendship quality but not for mothers' positive friendship qualities. These findings mirror those indicating that mothers' conflict with friends, but none of their positive friendship qualities, influenced the qualities of adolescents' own friendships. The results suggest that the lack of positive qualities in mothers' friendships is less distressing to adolescents than the presence of negative qualities.

Finally, the present study also tested sex and developmental differences. Girls' friendships and relationships with their mothers were defined by greater levels of positive qualities than were boys, which is consistent with past research (see Rose, Smith, Glick, & Schwartz-Mette, in press; Rose & Rudolph, 2006). Girls also reported higher levels of

internalizing symptoms than boys, which also is consistent with past research (see Hankin & Abramson, 2001). Developmental differences also emerged. Specifically, fifth-graders' relationships with mothers were defined by greater levels of positive quality than either eighth- or eleventh-graders. In addition, eighth-graders' relationships with mothers were defined by greater negative qualities than fifth- or eleventh-graders. These developmental differences fit with the findings of past research as well (De Goede, Branje, & Meeus, 2009; Furman & Buhrmester, 1992)

Despite these mean level differences, evidence did not suggest that the associations between the qualities of mothers' friendships and the friendships of their children were moderated by sex and/or grade. Furthermore, associations between mothers' friendship qualities and youths' internalizing symptoms also were not moderated by sex and/or grade. This is somewhat surprising, given that the "costs of caring" in close relationships are more pronounced among girls than boys (Gore et al., 1993; Smith & Rose, in press). Given that the current study involved relatively small samples of girls and boys within each grade, replicating these findings with a design with even greater power will be important.

Other limitations should be discussed as well. First, these findings are based on cross-sectional data, making it impossible to draw conclusions regarding the direction of effect. Future research should employ a longitudinal design to confirm that mothers' friendship qualities predict changes in youths' negative friendship qualities and internalizing symptoms over time. Of course, the other direction of effect seems unlikely. That is, it seems that parents would be unlikely to model the negative qualities of their children's friendships in their own friendships or that youths' internalizing symptoms

would somehow drive their parents to negative interactions with friends. Nevertheless, a longitudinal design is needed to confirm the hypothesized direction of effect. Moreover, the sample was primarily European American, and examining these relationships among families of different racial and ethnic groups would provide more information with respect to the generalizability of the findings.

In addition, future research should consider expanding the assessment of mothers' relationships with friends. This is especially true in regards to negative friendship quality, and conflict in particular, which produced the most significant results. The current research relied on a single conflict score, but past research highlights the importance of employing more fine-tuned assessments of conflict that delineate frequency of conflict, affect expressed during conflict, and how conflicts are resolved (Adams & Laursen, 2007; Laursen & Hafen, 2010). Future research could test whether some of these aspects of conflict in mothers' friendships are more damaging to youths' friendship quality and emotional well-being than others. In addition, the current study considered the quality of only one of mothers' friendships. Future research might consider the qualities of multiple friendships. Perhaps mothers who have negative interactions with *many* friends represent a particularly toxic influence on youths' emotional adjustment, as opposed to mothers who have a single troublesome friendship. Furthermore, it may be that mothers who have negative interactions with friends also have problems in other relationships that their children could potentially bear witness to, such as with neighbors, teachers, and parents of their children's friends. Future research could assess mothers' social networks more broadly and may find that youth whose mothers' extra-familial relations are *consistently* defined by negative qualities are most at risk for friendship and emotional adjustment

problems.

In addition, future research should consider the role of fathers' social relationships. Such studies should test whether fathers' relationships with friends also predict the qualities of their children's own friendships and their children's internalizing symptoms. Given the considerable variation in the amount of time that fathers interact with their children, taking into account the degree of father-child interaction may be important. Additionally, if the qualities of fathers' friendships impact their children's friendship quality and internalizing symptoms, it would be of interest to know whether the effects of mothers' and fathers' friendships are unique and each hold while controlling for the other.

Moreover, taking mothers' relationship with the spouse or other romantic partner into account may be important because the nature of the relationship between the mother and her partner may influence the relationships and outcomes of interest in the current research. First, direct effects of the relationships between mothers and their partners might exist. Specifically, youth may model the qualities of the relationships that parents have with their partners in their own relationships with friends (see Kerns, Contreras, & Neal-Barnett, 2000 for a review). Moreover, an extensive literature has documented direct effects of marital conflict and dissatisfaction, above and beyond divorce or marital status, on youths' emotional adjustment (Jekielek, 1998; Morrison & Cherlin, 1995; Peris & Emery, 2004). In the current data set, a one-item mother-report assessment of satisfaction with the romantic partner was available (Locke & Wallace, 1959). Supplementary analyses (not presented) indicated that this variable was not related to youths' internalizing symptoms. However, significant effects might emerge with a more

thorough assessment of mothers' romantic relationship quality. In addition, the nature of mothers' relationships with romantic partners also might moderate the relationships examined in the current research. For example, the damaging effects of mothers' low-quality friendships may be strongest for mothers who also have poor-quality romantic relationships. Again, supplementary analyses of the current data set (not presented) did not support this hypothesis, but a more comprehensive assessment of the quality of the romantic relationships might have produced different results. Future research drawing on family systems models that explores the interplay among parents' relationships with each other and their friends, parents' relationships with their children, and the children's social and emotional adjustment should be especially useful.

In conclusion, although friendships across all life stages are generally considered to be a positive source of support, the present study suggests that when mothers' friendships are defined by conflict and negativity, they may have negative implications for their children. Specifically, negative qualities in mothers' friendships were associated with higher levels of conflict in youths' own friendships and with youths' own emotional maladjustment. Collectively, these results provide a crucial step towards highlighting how the qualities of parents' friendships can impact adolescents' social and emotional adjustment.

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Table 1

Descriptive Statistics and Correlations among Study Variables

N=172	1.	2.	3.	4.	5.	6.	7.
1. Youths' Positive Friendship Quality <i>M</i> = 3.51 (<i>SD</i> = 0.89)							
2. Youths' Negative Friendship Quality <i>M</i> = 1.76 (<i>SD</i> = 0.64)	.02						
3. Positive Mother-Child Quality <i>M</i> = 3.74 (<i>SD</i> = 0.80)	.26***	-.02					
4. Negative Mother-Child Quality <i>M</i> = 2.20 (<i>SD</i> = 0.71)	.13	.34****	-.26***				
5. Mothers' Positive Friendship Quality <i>M</i> = 2.87 (<i>SD</i> = 0.81)	.01	.05	.05	.05	.		
6. Mothers' Negative Friendship Quality <i>M</i> = 1.31 (<i>SD</i> = 0.29)	.08	.14	.00	.21**	-.15*		
7. Adolescents' Internalizing Symptoms <i>M</i> = 0.43 (<i>SD</i> = 0.29)	-.05	.22**	-.04	.15*	.08	.27***	
8. Mothers' Internalizing Symptoms <i>M</i> = 1.33 (<i>SD</i> = 0.50)	-.06	.00	-.06	.13	.10	.16*	.12

Notes. * $p < .05$; ** $p < .01$; *** $p < .001$; **** $p < .0001$.

Table 2

Mean Comparisons by Sex and Grade: Friendship Quality, Mother-Child Relationship Quality, and Internalizing Symptoms

	Sex			Grade			
	Females <i>M (SD)</i>	Males <i>M (SD)</i>	<i>F</i> value	5 th Grade <i>M (SD)</i>	8 th Grade <i>M (SD)</i>	11 th grade <i>M (SD)</i>	<i>F</i> value
N = 172							
Positive Friendship Quality	3.64 (0.84)	3.34 (0.92)	4.30*	3.43 (1.01)	3.70 (0.84)	3.42 (0.81)	3.02
Negative Friendship Quality	1.77 (0.65)	1.75 (0.64)	0.02	1.75 (0.69)	1.81 (0.71)	1.72 (0.54)	0.27
Positive Mother- Child Quality	3.61 (0.53)	3.48 (0.47)	4.14*	3.77 (0.45)	3.49 (0.56)	3.45 (0.46)	4.65**
Negative Mother- Child Quality	1.96 (0.47)	1.88 (0.46)	0.21	1.79 (0.39)	2.09 (0.53)	1.88 (0.42)	9.20****
Internalizing Symptoms	0.51 (0.31)	0.31 (0.21)	19.88****	0.51 (0.37)	0.42 (0.25)	0.37 (0.25)	2.45

Notes. * $p < .05$; ** $p < .01$; **** $p < .0001$. *F* values are from 2 (sex) X 3 (grade) ANOVAs computed for each study variable. Interactions of sex and grade were tested though none were significant.

Table 3

Summary of Regression Analyses: Associations Between Friendship Qualities of Mothers' and Their Adolescents

(N = 172)	Adolescents' Positive Friendship Quality				Adolescents' Negative Friendship Quality				Adolescents' Friendship Conflict			
	β	t value	R^2	ΔR^2	β	t value	R^2	ΔR^2	β	t value	R^2	ΔR^2
<i>Step 1:</i>												
Sex	-.17	2.15*	.028*		-.01	0.11	.001		-.03	0.43	.006	
Grade	.00	0.02			-.04	0.35			-.07	0.69		
<i>Step 2:</i>												
Mother-Child Relationship Quality	.25	3.24**	.087**	.059**	.34	4.57****	.118****	.117****	.29	3.81***	.086***	.080***
<i>Step 3:</i>												
Mothers' Friendship Quality	.01	0.07	.088**	.001	.10	1.18	.129****	.011	.26	2.96**	.153**	.067*

Notes. * $p < .05$; ** $p < .01$; *** $p < .001$; **** $p < .0001$.

Table 4

Summary of Regression Analyses: Associations Between Mothers' Friendship Qualities and Adolescents' Internalizing Symptoms

Adolescents' Internalizing Symptoms				
(N = 172)	β	t value	R ²	ΔR^2
<i>Step 1:</i>				
Sex	-.32	4.50****	.150****	
Grade	-.15	2.13*		
Mothers' Internalizing Symptoms	.10	1.43		
<i>Step 2:</i>				
Positive Mother-Child Quality	-.10	1.35	.171****	.021
Youths' Positive Friendship Quality	-.09	1.13		
<i>Step 3:</i>				
Mothers' Positive Friendship Quality	.08	1.14	.178****	.007
(N = 172)	β	t value	R ²	ΔR^2
<i>Step 1:</i>				
Sex	-.32	4.50****	.150****	
Grade	-.15	2.13*		
Mothers' Internalizing Symptoms	.10	1.43		
<i>Step 2:</i>				
Negative Mother-Child Quality	.06	0.81	.200****	.050*
Youths' Negative Friendship Quality	.20	2.56*		
<i>Step 3:</i>				
Mothers' Negative Friendship Quality	.18	2.40*	.229****	.029*

Notes. * $p < .05$; **** $p < .0001$.

Table 5

Summary of Regression Analyses: Associations Between Mothers' Friendship Quality Subscales and Adolescents' Internalizing Symptoms

Adolescents' Internalizing Symptoms					Adolescents' Internalizing Symptoms				
(N = 172)	β	t value	R^2	ΔR^2	β	t value	R^2	ΔR^2	
<i>Step 1:</i>					<i>Step 1:</i>				
Sex	-.32	4.50****	.150****		Sex	-.32	4.50****	.150****	
Grade	-.15	2.13*			Grade	-.15	2.13*		
Mothers' Internalizing Symptoms	.10	1.43			Mothers' Internalizing Symptoms	.10	1.43		
<i>Step 2:</i>					<i>Step 2:</i>				
Mother-Child Conflict	.05	0.65	.206****	.056**	Mother-Child Antagonism	.11	1.41	.202****	.052*
Child-Friend Conflict	.23	2.95**			Child-Friend Antagonism	.19	2.48*		
<i>Step 3:</i>					<i>Step 3:</i>				
Mother-Friend Conflict	.17	2.40*	.235****	.029*	Mother-Friend Antagonism	.16	2.11*	.224****	.022*

Notes. * $p < .05$; ** $p < .01$; **** $p < .0001$.

Table 5 (continued)

(N = 172)	Adolescents' Internalizing Symptoms				Adolescents' Internalizing Symptoms				
	β	t value	R ²	ΔR^2	β	t value	R ²	ΔR^2	
<i>Step 1:</i>					<i>Step 1:</i>				
Sex	-.32	4.50****	.150****		Sex	-.32	4.50****	.150***	
Grade	-.15	2.13*			Grade	-.15	2.13*		
Mothers' Internalizing Symptoms	.10	1.43			Mothers' Internalizing Symptoms				
<i>Step 2:</i>					<i>Step 2:</i>				
Mother-Child Criticism	-.07	0.78	.193****	.043*	Mother-Child Dominance	.06	0.84	.162****	.012
Child-Friend Criticism	.24	2.81**			Child-Friend Dominance	.08	0.89		
<i>Step 3:</i>					<i>Step 3:</i>				
Mother-Friend Criticism	-.01	0.11	.193****	.000	Mother-Friend Dominance	.12	1.61 [†]	.176****	.014 [†]

Notes. [†]p = .10; *p < .05; **p < .01; ****p < .0001.

Appendix A

Basic Information

1. I am (circle one)

- A. Male (a boy)
- B. Female (a girl)

2. The following category best describes my racial/ethnic background (circle one):

- A. Black / African American
- B. B. American Indian
- C. Asian American
- D. White / European American
- E. Hispanic / Latino
- F. Other (please write what best describes you)

3. I am ____ years old.

4. Some of the questions you will answer today ask you to think about **your "Mom" but we know that many different kinds of women help to take care of kids. When answering these questions please think about the woman who is responsible for taking care of you. Please answer about the same person every time, even if more than one woman cares for you. For example, if you have a mother and a step-mother please just pick the one who takes care of you MOST days to answer about. Please put a check next to ONE line below to tell us who you will be thinking about when you answer questions about your "Mom."**

- _____ Mother who gave birth to me
- _____ Mother who adopted me
- _____ Step-mother
- _____ Foster-mother
- _____ Father's girlfriend
- _____ Grandmother on my Mom's side of the family
- _____ Grandmother on my Dad's side of the family
- _____ Other (who is she? _____)

Do you live with her? _____ Yes _____ No

If there is not a woman who has any responsibility for raising you please check here:

_____ There is NOT a woman who helps take care of me.

If there is not a woman who has any responsibility for raising you then please think about the man who is responsible for taking care of you, for example your Dad, when answering all questions.

Appendix B

My Relationships

Now we would like you to answer the following questions about the people in your life. Sometimes the answers for different people may be the same but sometimes they may be different.

1. How much free time do you spend with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

5. How much do you talk about everything with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

7. How much does this person like or love you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	S/he Always Does	S/he Often Does	About the Same	I Often Do	I Always Do
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

11. How satisfied are you with your relationship with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

12. How often does this person point out your faults or put you down?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

13. How often does this person get his/her way when you two do not agree about what to do?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

16. How much do you and this person disagree and quarrel?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

21. How much does this person really care about you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	S/he Always Does	S/he Often Does	About the Same	I Often Do	I Always Do
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

25. How good is your relationship with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

26. How often does this person criticize you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

27. How often does this person end up being the one who makes the decisions for both of you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

34. How much do you take care of this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	S/he Always Does	S/he Often Does	About the Same	I Often Do	I Always Do
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

40. How often does this person say mean or harsh things to you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

41. How often does this person get you to do things his/her way?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Mom	1	2	3	4	5
(FRIEND)	1	2	3	4	5
(FRIEND2)	1	2	3	4	5
(GIRL/BOYFRIEND)	1	2	3	4	5

43. How long have you been friends with (FRIEND1)?

less than 1 yr. 1 – 2 yrs. 2 – 3 yrs. 3 – 4 yrs. 4 – 5 yrs.
 5 – 6 yrs. 6 – 7 yrs. 7 – 8 yrs. 8 – 9 yrs.
 more than 9 yrs.

How long have you been friends with (FRIEND2)?

less than 1 yr. 1 – 2 yrs. 2 – 3 yrs. 3 – 4 yrs. 4 – 5 yrs.
 5 – 6 yrs. 6 – 7 yrs. 7 – 8 yrs. 8 – 9 yrs.
 more than 9 yrs.

How long have you been friends with (GIRL/BOYFRIEND)?

less than 1 yr. 1 – 2 yrs. 2 – 3 yrs. 3 – 4 yrs. 4 – 5 yrs.
 5 – 6 yrs. 6 – 7 yrs. 7 – 8 yrs. 8 – 9 yrs.
 more than 9 yrs.

Appendix C

List of items on the Child Behavior Checklist

1. I act too young for my age
2. I have an allergy
3. I argue a lot
4. I have asthma
5. I act like the opposite sex
6. I like animals
7. I brag
8. I have trouble concentrating or paying attention
9. I can't get my mind off certain thoughts
10. I have trouble sitting still
11. I'm too dependent on adults
12. I feel lonely
13. I feel confused or in a fog
14. I cry a lot
15. I am pretty honest
16. I am mean to others
17. I daydream a lot
18. I try to get a lot of attention
19. I destroy my own things
20. I destroy things belonging to others
21. I disobey my parents
22. I disobey at school
23. I don't eat as well as I should
24. I don't get along with other kids
25. I don't feel guilty after doing something I shouldn't
26. I am jealous of others
27. I am willing to help others when they need help
28. I am afraid of certain animals, situations, or places, other than school
29. I am afraid of going to school
30. I am afraid I might think or do something bad
31. I feel that I have to be perfect
32. I feel that no one loves me
33. I feel that others are out to get me
34. I feel worthless or inferior
35. I accidentally get hurt a lot
36. I get in many fights
37. I get teased a lot
38. I hang around with kids who get in trouble
39. I hear sounds or voices that other people think aren't there
40. I act without stopping to think
41. I would rather be alone than with others
42. I lie or cheat
43. I bite my fingernails
44. I am nervous or tense
45. Parts of my body twitch or make nervous movements
46. I have nightmares
47. I am not liked by other kids
48. I can do certain things better than most kids
49. I am too fearful or anxious
50. I feel dizzy
51. I feel too guilty
52. I eat too much
53. I feel overtired
54. I am overweight
55. Physical problems **without known medical causes:**
 - a. Aches or pains (**not** stomach or headaches)
 - b. Headaches
 - c. Nausea, feel sick
 - d. Problems with eyes (**not** if corrected by glasses)
 - e. Rashes or other skin problems
 - f. Stomachaches or cramps
 - g. Vomiting, throwing up

56. I physically attack people
57. I pick my skin or other parts of my body
58. I can be pretty friendly
59. I like to try new things
60. My school work is pretty poor
61. I am poorly coordinated or clumsy
62. I would rather be with older kids than
with kids my own age
63. I would rather be with younger kids than
with kids my own age
64. I refuse to talk
65. I repeat certain acts over and over
66. I run away from home
67. I scream a lot
68. I am secretive or keep things to myself
69. I see things that other people think aren't
there
70. I am self-conscious or easily embarrassed
71. I set fires
72. I can work well with my hands
73. I show off or clown
74. I am shy
75. I sleep less than most kids
76. I sleep more than most kids during day
and/or night
77. I have a good imagination
78. I have a speech problem
79. I stand up for my rights
80. I steal at home
81. I steal from places other than home
82. I store up things I don't need
83. I do things other people think are strange
84. I have thoughts that other people would
think are strange
85. I am stubborn
86. My moods or feelings change suddenly
87. I enjoy being with other people
88. I am suspicious
89. I swear or use dirty language
90. I like to make others laugh
91. I talk too much
92. I tease others a lot
93. I have a hot temper
94. I threaten to hurt people
95. I like to help others
96. I am too concerned about being neat
or clean
97. I have trouble sleeping
98. I cut classes or skip school
99. I don't have much energy
100. I am unhappy, sad, or depressed
101. I am louder than other kids
102. I use alcohol or drugs for nonmedical
purposes
103. I try to be fair to others
104. I enjoy a good joke
105. I like to take life easy
106. I try to help other people when I can
107. I wish I were of the opposite sex
108. I keep from getting involved with others
109. I worry a lot

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Address is: 210 McAlester Hall,
University of Missouri-Columbia,
Columbia, MO 65211;
e-mail: lpsf38@mizzou.edu;
Telephone: (573) 884-7387;
Fax: (573) 882-7710

Appendix D

Demographic Information

Please fill out the following information about you and your family. Remember that you do not need to provide your name.

1. I am _____ years old.

2. My racial/ethnic background is:

_____ Caucasian _____ African-American _____ Asian-American
 _____ Hispanic/Latino _____ Native American _____ Biracial
 _____ Other

3. My current marital status:

_____ married (____ yrs) _____ not married _____ divorced (____ yrs. ago)

4. My current living situation is:

_____ living with a spouse/partner _____ living alone

5. My current spouse/partner is _____ years old. (If applicable)

6. My current spouse/partner's racial/ethnic background is: (If applicable)

_____ Caucasian _____ African-American _____ Asian-American
 _____ Hispanic/Latino _____ Native American _____ Biracial
 _____ Other

7. Marital status of birth parents of your child (check all that apply):

_____ married _____ not married _____ divorced (____ yrs. ago)
 _____ living together _____ separated _____ one parent deceased
 _____ both parents deceased _____ mother remarried _____ father remarried

8. If you are living with a spouse/partner or are in a dating relationship:

Circle the number in the table below which best describes the degree of happiness, everything considered, of this relationship. The middle point, 4 (“happy”), represents the degree of happiness which most people get from these relationships, and the scale gradually ranges on one side to those few who are very unhappy in these relationships, and on the other, to those few who experience extreme joy or felicity in these relationships.

Very Unhappy			Happy			Perfectly Happy
1	2	3	4	5	6	7

9. My highest level of education is:

- 8th grade graduate or less some high school
- high school graduate/GED trade or vocational school
- some college college graduate
- graduate/professional degree (M.A., Ph.D., M.D.)

10. I am currently:

- working full-time working part-time
- not working retired

11. Occupation (please be specific): _____

12. My current spouse/partner's highest level of education is:

- 8th grade graduate or less some high school
- high school graduate/GED trade or vocational school
- some college college graduate
- graduate/professional degree (M.A., Ph.D., M.D.)
- not applicable (no spouse/partner)

13. My current spouse/partner is:

- working full-time working part-time
- not working retired
- not applicable (no spouse/partner)

14. Occupation (of spouse/partner): _____

15. Our total yearly household income is (please include salary/wages, child support/alimony, and government benefits):

- | | | |
|--|---|--|
| <input type="checkbox"/> < \$5,000 | <input type="checkbox"/> \$5,000 - \$10,000 | <input type="checkbox"/> \$10,000 - \$20,000 |
| <input type="checkbox"/> \$20,000 - \$30,000 | <input type="checkbox"/> \$30,000 - \$40,000 | <input type="checkbox"/> \$40,000 - \$60,000 |
| <input type="checkbox"/> \$60,000 - \$80,000 | <input type="checkbox"/> \$80,000 - \$100,000 | <input type="checkbox"/> > \$100,000 |

16. Below please list the following information about each person living in the home BESIDES yourself, your spouse/partner, and the child participating in this study:

<u>Age</u>	<u>Relationship to the child (e.g., step-brother, grandmother)</u>
1.	_____
2.	_____
3.	_____
4.	_____
5.	_____

6.

7.

Other children not living in the home?

If yes, what is his/her:

___ Yes

___ No

___ Age

___ Gender

___ Age

___ Gender

___ Age

___ Gender

___ Age

___ Gender

Appendix E

My Relationships

Now we would like you to answer the following questions about the people in your life. Sometimes the answers for different people may be the same but sometimes they may be different. Please answer these questions about your child who is participating in the study and about your best or closest female friend.

1. How much free time do you spend with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

5. How much do you talk about everything with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

7. How much does this person like or love you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	S/he Always Does	S/he Often Does	About the Same	I Often Do	I Always Do
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

11. How satisfied are you with your relationship with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

12. How often does this person point out your faults or put you down?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

13. How often does this person get his/her way when you two do not agree about what to do?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

16. How much do you and this person disagree and quarrel?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

21. How much does this person really care about you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	S/he Always Does	S/he Often Does	About the Same	I Often Do	I Always Do
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

25. How good is your relationship with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

26. How often does this person criticize you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

27. How often does this person end up being the one who makes the decisions for both of you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

34. How much do you take care of this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	S/he Always Does	S/he Often Does	About the Same	I Often Do	I Always Do
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

40. How often does this person say mean or harsh things to you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

41. How often does this person get you to do things his/her way?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

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

	Little or None	Somewhat	Very Much	Extremely Much	The Most
My Child	1	2	3	4	5
My Friend	1	2	3	4	5

Appendix F

How I Have Been Feeling

The following items list problems people sometimes have. Please read each item carefully and circle the number for each of the following statements that best describes how much that problem has distressed or bothered you during the past 7 days including today.

1. **Nervousness or shakiness inside.**

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely
2. **Faintness or dizziness.**

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely
3. **The idea that someone else can control your thoughts.**

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely
4. **Feeling others are to blame for most of your troubles.**

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely
5. **Trouble remembering things.**

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely
6. **Feeling easily annoyed or irritated.**

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely
7. **Pains in heart or chest.**

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely
8. **Feeling afraid in open spaces or on the streets.**

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely
9. **Feeling that most people cannot be trusted.**

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely
10. **Poor appetite.**

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely
11. **Suddenly scared for no reason.**

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

- 12. Temper outbursts that you could not control.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |
- For each of the following statements, please circle the number that best describes how much that problem has distressed or bothered you during the past 7 days including today.**
- 13. Feeling lonely even when you are with people.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |
- 14. Feeling blocked in getting things done.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |
- 15. Feeling lonely.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |
- 16. Feeling blue.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |
- 17. Feeling no interest in things.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |
- 18. Feeling fearful.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |
- 19. Your feelings being easily hurt.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |
- 20. Feeling that people are unfriendly or dislike you.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |
- 21. Feeling inferior to others.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |
- 22. Nausea or upset stomach.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |
- 23. Feeling that you are watched or talked about by others.**
- | | | | | |
|------------|--------------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little bit | Moderately | Quite a bit | Extremely |

24. Trouble falling asleep.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

25. Having to check and double-check what you do.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

For each of the following statements, please circle the number that best describes how much that problem has distressed or bothered you during the past 7 days including today.

26. Difficulty making decisions.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

27. Feeling afraid to travel on buses, subways, or trains.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

28. Trouble getting your breath.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

29. Hot or cold spells.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

30. Having to avoid certain things, places, or activities because they frighten you.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

31. Your mind going blank.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

32. Numbness or tingling in parts of your body.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

33. The idea that you should be punished for your sins.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

34. Feeling hopeless about the future.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

35. Trouble concentrating.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

48. Feelings of worthlessness.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

49. Feeling that people will take advantage of you if you let them.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

50. Feelings of guilt.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

51. The idea that something is wrong with your mind.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely