

Father Involvement in Intact Families and Stepfamilies

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### **Abstract**

Father involvement was examined multidimensionally using fathers' and children's reports. A total of 61 fathers and 143 children (intact families and stepfather families) from the Avon Brothers and Sisters Study (ABSS) participated in the current study. Measures of father involvement including engagement in shared activity, monitoring, positivity, and negativity were completed by fathers and children. Agreement between father and child reports of involvement was assessed, involvement was compared between biological fathers and stepfathers, and involvement was predicted statistically using father and child factors (e.g., age, gender). There were modest significant associations between fathers' and children's reports of monitoring of positive events, and father-child positivity. Compared to biological fathers, stepfathers did less monitoring of positive events, and were less positive towards their children. Biological relatedness was a significant predictor of monitoring positive events, monitoring negative events, and positivity. Consistent with previous theoretical and empirical accounts, this study demonstrated that being biologically related to your child influences the level of involvement in fathers.

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## Father Involvement in Intact Families and Stepfamilies

The impact of father involvement and its relationship to child outcomes has been of interest to researchers over the last three decades. Lately, there has been more interest in the associations between various types of father involvement on family functioning and child development. Although researchers have been interested in father involvement, there have been problems in clearly conceptualizing father involvement due to use of varying operational definitions and conceptualizations of involvement. Additionally, studies have utilized mother-reports of father involvement and non-diverse samples (e.g., intact married couples only). To address these concerns, I will use fathers' and children's reports to examine father involvement from a theoretical perspective that conceptualizes involvement multidimensionally (including: engagement in shared activity, monitoring, father-child positivity, and father-child negativity). I will also examine the association between father and child reports of involvement, and compare involvement among biological fathers and stepfathers. Additionally, father and child factors (e.g., age, gender) will be used to statistically predict involvement. Ultimately, the knowledge gained from these analyses can be used in subsequent research to examine father involvement and its associations with child outcomes in families that include fathers in many different types of families.

### **The Importance of Studying Fathers**

Wide acceptance of the contribution of mothers to child development has dominated the literature, often forsaking the importance of studying fathers' contributions. Developmental theories have primarily focused on the importance of mother-child attachment and its contributions to child development while assuming that strong emotional bonds will most likely emerge between mother and child (Bowlby, 1969/1982). Although research has not

demonstrated that father presence is essential to healthy child development, many authors suggest that fathers' involvement has positive psychological and health effects on children and families, and the absence of fathers in single-mother families contributes to lower well-being of children (Dornbusch et al., 1985).

### *Child Outcomes*

In studies that have focused either solely on fathers or on fathers in two-parent families, results suggest that father involvement is beneficial to child development (Phares & Compas, 1992; Pruett, 1998; Teitler, 2001). Fathers are unique and psychologically salient figures in their children's adult lives, demonstrated on several dimensions of psychological well-being that are independent of perceived closeness with mothers (Amato, 1994; Flouri & Buchanan, 2002; Flouri, Buchanan, & Bream, 2002). There has also been research that suggests that healthy father-child relationships are associated with positive effects on child outcomes such as children's intellectual development, social competence, internal locus of control, and the ability to empathize (Radin & Russell, 1983; Snarey, 1993). Additionally, studies have found father involvement to be related to cognitive development and education, mental health, and the quality of children's relationships with both parents and other family members.

Improved academic achievement has been associated with the quality of involvement in fathers (Fagan & Iglesias, 1999), and the amount of time fathers spend with their infant children is associated with their children's cognitive development (Yogman, Kindlon, & Earls, 1995). Studies have shown negative effects of father absence on children, such as lower educational attainment in divorced families (Flouri & Buchanan, 2004). Other studies have found that the association between father involvement and child educational outcomes may be particularly strong for boys (Biller & Kimpton, 1997; Jones, 2004; Santrock, 1972). While father

involvement seems to be associated with positive outcomes in general, some studies show that lower levels of involvement appear to affect boys' psychological adjustment more than girls' adjustment.

Involvement also has been shown to be associated with children's mental health. Studies have demonstrated that the quality of the father-child relationship is related to sons' mental distress (Barnett, Marshall, & Pleck, 1992). Additionally, studies have concluded that high involvement and increased closeness between fathers and adolescents in intact families may protect adolescents from engaging in delinquent behavior and experiencing psychological distress (Harris, Furstenberg, & Marmer, 1998). This may be true even for young children. Dubowitz and colleagues (2001) found that 6-year-olds' perceptions of father support were associated with fewer depressive symptoms and a greater sense of social competence. In addition, empirical support for a link between father involvement and children's mental well being has led researchers to conclude that paternal negativity predicts internalizing (depressive and anxious symptoms) and externalizing (aggressive conduct problems) behavior problems in school-age children (Stocker, Richmond, Low, Alexander, & Elias, 2003).

Research on the effects of father involvement also has focused on children's relationships with their peers as an outcome. Carson and Parke (1996) reported that fathers who responded to their preschoolers with negative affect had children who shared less, were more aggressive, and avoided others when interacting with peers. Additionally, others found that children who reported being securely attached with their fathers also reported less conflict in their interactions with peers (Ducharme, Doyle, & Markiewicz, 2002). Thus, the effects of the relationship between fathers and their children appear to influence children's interactions with other people in their environments.

In sum, studying the possible effects of father involvement on children's outcomes provides a better understanding of the many factors that influence children's healthy development. The short- and long-term effects of father involvement have been demonstrated in a number of studies. Closeness to fathers during childhood is positively related to daughters' and sons' educational and occupational mobility, psychological adjustment, and well-being (Amato, 1994).

*Limitations in prior research on father involvement*

The study of father involvement has been met with two major limitations: the lack of attention paid to fathers in developmental and clinical research, and the absence of father reports of their own involvement. The under-representation of fathers in research has been discussed heavily by researchers (Phares & Compas, 1992; Phares, Fields, Kamboukos, & Lopez, 2005; Phares, Lopez, Fields, Kamboukos, Duhig, 2005). Phares and colleagues (2005) demonstrated that fathers are underrepresented in studies that analyze paternal and maternal effects, looking separately at clinical and pediatric research. Similarly, they found evidence for the lack of inclusion of fathers in studies focusing on developmental psychology (Phares & Compas, 1993). Also, Silverstein and Phares (1996) reported that fathers were neglected in doctoral dissertation studies that focused on developmental psychology and psychopathology. Interestingly, male graduate students were more likely than female graduate students to include fathers in their dissertation research. In light of these findings, Phares and Compas (1992) made a strong case for the necessity of separating data pertaining to fathers and mothers within any given study, to differentiate paternal and maternal effects of involvement.

One additional reason why fathers have not been included in research hinges on the debate about the accuracy of their reports (Wical & Doherty, 2005). In general, studies about



father involvement have been based largely on mothers' reports of their husbands' involvement, yet Phares (1997) questioned whether mothers are more accurate reporters than fathers are of their involvement with their children. The results of her study revealed that mothers are perceived to be the most reliable informants when compared to teachers and fathers, but there was not enough statistical power to detect an effect for fathers in her study. This finding suggests that fathers could be accurate informants, if they were included in sufficiently powered research designs.

The current literature indicates that father and mother reports of father involvement are correlated, with the correlation in most studies ranging from .4 to .8, depending on how involvement is measured. Wical and Doherty (2005) found agreement between fathers' and mothers' reports of father involvement. They explained that studies showing a lack of agreement between fathers and mothers regarding the levels of father involvement may reflect the measures used and the sources of data used. Since studies have failed to compare father reports of involvement with that of their children, the first aim in the current study is to examine the associations between fathers' and children's reports of father involvement, to see if they agree.

## **The Conceptualization of Involvement**

### *Competing Hypotheses and Theory*

Another difficulty in the literature is that researchers have conceptualized and measured father involvement in many different ways, thus leaving no solid conclusions about the effects of involvement. Hawkins and colleagues (2002), Mc Bride, Schoppe, and Moon-Ho Ho (2004) expanded on Lamb-Pleck's (1987) biosocial model of paternal involvement by including a multidimensional conceptualization of father involvement: Responsibility, paternal monitoring, activities with the child, activities in the household, and showing warmth and affection.

McBride and colleagues (2004) found that paternal perceptions of the father's role were the strongest and most consistent predictor of all forms of involvement. In the current study, the construct of involvement shall be defined using three factors: Engagement in shared activities, monitoring child's behavior, as well as positivity (warmth, acceptance) and negativity (hostility, conflict). This selection of factors was based in part on the existing literature, which points to these factors as being some of the most important to consider when investigating father involvement.

One of the limitations in the literature is that nearly all of the research has focused on biological father-child relationships in non-divorced or "intact" families. Because Lamb-Pleck's model (1987) and Mc Bride, Schoope, and Moon-Ho Ho's (2004) multidimensional model of father involvement are rooted in a biosocial theory of paternal behavior, several predictions regarding father involvement in intact and stepfamilies can be made. According to biosocial theory, stepfathers may not be concerned with paternal investment in their stepchildren because of the lack of biological relatedness. Additional support for the idea that stepfathers may be less involved than biological fathers in work that suggests that stepfathers may consciously and unconsciously attempt to establish a sense of togetherness in the family (Marsiglio, 2004). Based on this, one would assume that stepfathers would attempt to be more involved with their stepchildren, but Hetherington and colleagues (1992) found evidence that suggests that stepfathers' attempts to establish rapport and engage in interaction with stepchildren are met with negative responses by children early in the remarriage. This sequence of attempts leads to a disengaged parenting style with little awareness of the stepchild's activities and little attempts to discipline the child. This study aside, few studies have compared involvement in biologically related families and stepfamilies. The second aim of the current study was to compare father

involvement in biological fathers and step fathers using Mc Bride, Schoope, and Moon-Ho Ho's (2004) multidimensional model of father involvement. Based on that model, it is hypothesized that stepfathers will be less involved than biologically related fathers.

Several authors support the view that studying father presence is important. I argue that knowing more about the specific activities to which fathers and children engage are important in understanding the nature of involvement and its effects on child development. The current literature review has provided insight regarding factors that may predict involvement, but relatively few of these studies have used fathers' reports or have included stepfathers. Therefore, no specific hypotheses regarding which factors will account for variability in father involvement are offered. Instead, the third aim of the current study is to use an exploratory analysis to identify factors that are the best statistical predictors of involvement among biological fathers and stepfathers.

### **Summary of Aims and Plan of Analysis**

Although limitations exist in studying father involvement, it is important to address these limitations by examining father involvement multidimensionally and using father reports. There are important interactions between a father and his child that have largely gone unnoticed in research whether from lack of concern or the assumption that fathers "don't matter". Much of the argument that fathers don't matter has been fueled by methodologies that do not address the specific interactions that occur between fathers and their children--primarily, narrow conceptualizations of involvement.

It is the intent of the researcher to provide a descriptive analysis of the behaviors exhibited by biologically related fathers and stepfathers when interacting with their children. To this end, **the first aim** of the current study is to examine the association between fathers' and

children's reports of involvement in intact families and step-father families. Father reports of engagement in shared activity, monitoring, positivity, and negativity will be compared with child reports on the same or comparable measures. In order to test for agreement between father and child reports, correlations will be estimated to compare father and child reports of monitoring, engaging in shared activities, positivity, and negativity. Many studies have examined the association between mother and father reports of involvement, but few have compared father and child reports. Overall, agreement between father and child reports of involvement is expected. The correlations between father and child reports are expected to be positive, and a one-tailed significance test will be used with a critical alpha level of  $p < .05$ .

**The second aim** of the current study is to compare involvement in biologically related fathers and stepfathers. In order to compare biologically related and stepfathers on these dimensions, independent sample t-tests will be used to compare means. Given the results of studies by Hetherington and colleagues (1992) and Marsiglio (2004), it is hypothesized that stepfathers will be less involved in their stepchildren's lives compared to biological fathers. A one sided test of significance will be used at the alpha level of  $p < .05$ . Additionally, post hoc tests of child reports of father involvement will be examined to determine whether the results for fathers' reports of involvement differ for children's reports of involvement.

Child characteristics such as age, gender, and emotional/ behavioral problems have been found to predict involvement, but this has been examined only in intact families, and rarely using fathers' and children's reports of involvement (Flouri, 2004). Therefore, **the third aim** of the study is to use father factors (biological relatedness, father age) and child factors (child age, gender, internalizing/ externalizing behaviors) as statistical predictors of father involvement. As I have hypothesized that stepfathers will be less involved than biological fathers (aim 2), so

biological relatedness is expected to emerge as a significant predictor of involvement. However, no additional hypotheses are offered to explain the effects of father and child factors. A simultaneous multiple regressions will be used to determine the ability of factors that are attributable to fathers (biological relationship and father age) and child factors (age, gender, internalizing/ externalizing behaviors) to predict involvement. A two-tailed test of significance will be used at the alpha level of  $p < .05$ .

## Methods

### *Participants*

The Avon Brothers and Sisters Study (ABSS) from which this study sample is derived is a sub-sample drawn from the Avon Longitudinal Study of Parents and Children (ALSPAC), a study of over 10,000 families. The design of ALSPAC included all the women in the Avon Health District who gave birth between April 1991 and December 1992 (Golding, 1996). It was estimated that 85–90% of the eligible population took part. The families in the ALSPAC study represent those in Britain as a whole, with a slight under-representation of minority groups: at 3% this is lower than the 7.6% for Britain as a whole, but similar to the 4% rate for the geographical area from which the sample is drawn. The level of retention over the first 5 years of the study was 75%, an attrition rate within the range reported for large-scale surveys. The rates of stepfamilies, single-parent and non-step families resemble that of the UK population (O'Connor, Hawkins, Dunn, Thorpe, & Golding, 1998).

In the ABSS sub-sample, approximately 50 families, each with at least two children, were randomly selected from each of four family types: (a) non-stepfamilies in which both parents were biologically related to all children in the family, (b) stepfather families in which at least one child was not biologically related to the resident father, (c) complex stepfamilies in which both

parents had brought children from previous relationships or there was a stepmother, (d) single-mother families. One hundred and ninety-two families were initially recruited: 50 non-stepfamilies, 49 stepfather families, 45 complex stepfamilies and 48 single-mother families.

The data used in the current analysis comes from the third data collection point which includes data reported by the father and target child (the child from the ALSPAC birth cohort) for analysis. There were several inconsistencies in the amount of missing data for father report measures. A total of 51 biologically-related fathers and 10 stepfathers were used for the current analysis (see table 1 for a description of how the data were reported for each research question in this study). Fathers were in their early forties on average ( $M=42$ , years,  $SD=5.35$  range 26-59).

There were more complete data for children's reports. Data from 143 children were analyzed (54 intact families, 52 stepfather families, 17 complex stepfamilies). The children in this study were school age ( $M= 9.15$  years,  $SD= 1.3$ , range= 5-11). Among the 143 children studied, there were 66 boys (mean age = 9.29 years,  $SD = 1.25$ ), and 77 girls (mean age = 9.03,  $SD = 1.35$ ). Forty-nine cases of child report data were excluded from the analysis because they were from families that included single mothers living with a boyfriend, or having nonresident fathers.

### *Procedure*

The families were visited in their homes by interviewers. Parents were interviewed and completed questionnaires. The children who participated in the study were 9 years old on average, and completed a majority of interview items, and some questionnaires. When possible, the resident father and participating child were interviewed.

*Measures*

Involvement was conceptualized as a multidimensional construct with three separate components: 1. engagement in shared activities, 2. monitoring, and 3. positivity and negativity towards the child.

*Engagement in Shared Activities* was assessed using the Expression of Affection Scale. The scale was given to fathers and children to report how often their father engages in activities with them. The 18-item 7-point Likert scale (1=more than once a day to 7= not at all in the last month; reverse scored for analysis) measures the frequency of the activities children share with their parents (e.g., spend time together, play games, and so on) and the emotional expression between children and their parents (e.g., give each other a hug, and work on school work together). Higher scores indicate more engagement in shared activity. Father reports showed acceptable reliability ( $\alpha=.81$ ). The items were summed and averaged to calculate a total score for shared activity. Child reports also showed acceptable reliability ( $\alpha=.88$ ), so the child-reported items were summed and averaged to calculate a total score for shared activity.

*Monitoring of Child Behavior* was assessed using an 11 item questionnaire designed for the study asking fathers how much they know about their children's lives in the following examples: How much do you know about your (step) child's choice of friends, intellectual interests both in and out of school, activities outside of school, and health habits. The questions occur on a 5 point Likert scale ranging from 1= always to 5= never. Items were reverse scored for analysis and higher scores indicated more monitoring behaviors. Cronbach's alpha for father's reports was excellent ( $\alpha=.89$ ). Exploratory factor analysis was used to test unidimensionality of the scale. Two factors were retained with a varimax orthogonal rotation; monitoring of positive things (accounting for 45% of the variance) and monitoring of negative

things (accounting for an additional 26% of the variance). The eight items loaded on monitoring of positive things were: monitoring friends, intellectual interests, activities, dating behaviors, health habits, problem behaviors in school, school life/homework, and what they are doing outside the home. Three items loaded on monitoring of negative events: monitoring smoking, alcohol, and drugs. From this factor analysis, total scores for monitoring positive and negative events were computed by summing and averaging the items on the first and second factors.

Child reports of monitoring were derived using the same procedure used for father reports. Exploratory factor analysis yielded the same two factors; child perception of father's monitoring of positive things (accounting for 44% of the variance) and child perception of father's monitoring of negative things (accounting for an additional 18 of the variance). The same method described above was use to compute these two monitoring scales from children's reports.

Father-reported *positivity and negativity* were constructed from combined questionnaire and interview scales from which composite scales of positivity and negativity were derived. Six questionnaire scales by Hetherington and Clingempeel (1992) were used, which focused on the following: (a) Frequency of parent-child conflict was assessed with a modified version of the Daily Routines Scale (Hetherington & Clingempeel, 1992), a seven point scale with cronbach alpha of .86; (b) Frequency of talking to child about what she or he had done wrong or explaining rules and of parental compromise was measured with a modified version of the Communication about Discipline Scale, a 5 point scale with cronbach alpha of .68; (c) Frequency of use of punitive discipline techniques such as yelling at or ridiculing the child (measured using the Negative Sanctions Scale, a 4 item 5 point scale with cronbach alpha of .66; (d) Expressive and instrumental involvement was measured with the Expression of Affection Scale, an 18 item



7 point scale, with cronbach alpha of .83; (e) Positive and negative aspects of parents' relationships with each child were further assessed with the Parent-Child Relationship Scale, a 15 item 5 point scale which included a positive subscale in which parents reported their enjoyment of spending time with each child, and a negative subscale in which they reported being critical of or nagging the child. Cronbach alpha for the positive subscale was .90, and for the negative scale was .82.

Principle components factor analysis (varimax rotation) was performed using these six subscales and two factors emerged with eigen values greater than one, explaining 59% of the variance, representing a positivity and negativity factor. A negativity total score was calculated from the mean of the z-scores of the scales in factor 1 and similarly for the positivity total score on factor 2. Cronbach alphas for fathers were .67 and .61 for negativity and positivity respectively.

Child factors that were included for analysis were child age in years, gender (coded: 0 = male, 1 = female), internalizing, and externalizing behaviors. *Child adjustment* was measured using children's internalizing and externalizing behaviors using father and mother report (including mother reports increased sample size and maximized power) raw scores on the Child Behavior Checklist (Achenbach, 1991). The externalizing composite score is the sum of the delinquent and aggressive syndrome profiles, and internalizing composite score is the sum of the withdrawn, somatic complaints, and anxious/depressed syndrome profiles. Each item was scored on a 3-point scale, with higher scores indicating more problems (0=not true in the past 6 months, 1=somewhat or sometimes true, 2= very true or often true).

## Results

The results are presented as follows. First, descriptive statistics are presented. Second, correlations between father reports of father involvement and child reports of father involvement are reported (aim 1). Third, t-tests are reported comparing involvement of biologically related fathers to stepfathers, separately for father and child reports (aim 2). Fourth and finally, regression analyses are reported examining the statistical prediction of father and child report of involvement (aim 3) by father factors (biological relatedness and age) and child factors (child age, gender, and adjustment behaviors).

### *Descriptive Statistics*

The means and standard deviations for all variables included in the study are listed in Table 1. For father-reported involvement, a total of 61 fathers were available for analysis in this study. Fifty-one fathers were biologically related to the target child (living in two parent biological families or in stepmother families), and 10 fathers were stepfathers (stepfather only families, and complex [combined stepfather/stepmother] families). For child-reported involvement, a total of 143 children were available for analysis in this study. There were more male children (54% vs. 46% male). 105 of the 143 children lived with their biological fathers, and the remaining 38 children lived with a stepfather.

*Fathers' reports.* A majority of the sample included reports of fathers who were biologically related to the target child in the study (73%). The ages of fathers in the current sample showed large variability (from 26-59 years of age). On average, fathers reported low to moderate engagement in shared activity with their children (ranging from low to high). However, father reports of monitoring positive events, monitoring negative events, positivity, internalizing and externalizing problems had less variability. Overall, fathers reported high

levels of monitoring positive things, monitoring negative things, and positivity, while fathers and mothers alike reported low internalizing and externalizing problems in the target children.

*Children's reports.* Male and female children in the study were almost equally distributed by sex (54% male), and children were 9 years old on average. There was variability in child reports of their father's engagement in shared activity and positivity. Children had a tendency to report low to moderate levels of shared activity, monitoring of positive things, and positivity. Children reported high levels of father monitoring of negative events. Overall, father and child reports suggest that fathers perceive themselves to be moderately involved in their children's lives. Child perceptions of involvement show a similar pattern in that fathers are described as being moderately to highly involved in their children's lives.

#### **Inset Table 1 Here**

##### *Aim 1: Father-Child Agreement*

The first aim was to test the hypothesis that there would be agreement between fathers and children in their reports of father involvement. Positive correlations between father-reported and child-reported variables were expected, and one-tailed significance tests were used to examine the association between father report and child report of involvement (see Table 2). Fathers' and children's reports of positive monitoring and positivity were significant,  $r = .29, p = .05$ ,  $r = .33, p < .01$  respectively. The associations between father and child reports of shared activity and negative monitoring were weak and non-significant,  $r = .11, r = .23$ , respectively. Although the associations were small to moderate, these results indicated that there was some agreement between fathers and their children regarding involvement, thus the hypothesis was supported.

#### **Inset Table 2 Here**

*Aim 2: Biological Fathers vs. Stepfathers Involvement*

The second aim was to compare involvement in biological fathers and stepfathers. It was hypothesized that stepfathers would be less involved with their children. Descriptive statistics and tests of mean differences in involvement between biologically related fathers and stepfathers are presented in Table 3a (fathers' reports) and Table 3b (children's reports).

*Father reports.* First, Levene's test for equality in variances across the biological and stepfather groups was conducted. The variances for biological and stepfathers' monitoring of negative things were significantly different,  $F= 8.74, p <.01$ . All other variances for shared activity, monitoring of positive things, positivity, and negativity were not significantly different ( $p$ 's ranging from 0.14-.72).

The mean values for biological fathers and stepfathers were significantly different in monitoring of positive things  $t(58) = 2.80, p <.01$ , monitoring of negative things,  $t(58) = 3.51, p <.01$ , positivity,  $t(59) = 4.37, p <.01$ , and negativity,  $t(59) = -2.55, p <.01$  (Figure 1). Biological fathers monitored more positive things, more negative things, and were more positive towards their children, and stepfathers were more negative. There were no significant differences between biologically related fathers and stepfathers on engagement in shared activity.

**Insert Figure 1 Here**

*Child Reports.* Father involvement was also examined by using child reports of father involvement (see Table 3b). Levene's test of equality of variances across biological and stepfather groups revealed a significant difference in variance between step and biological fathers on monitoring positive things,  $F= 3.34, p <.05$ . There were no other variance differences on any of the other indicators of involvement ( $p$ 's ranging from .08 to .31).

In terms of mean differences, according to children the biologically related fathers monitored more positive things,  $t(41) = 3.91, p < .01$  and were more positive,  $t(125) = 4.91, p < .01$ , than stepfathers. Like the findings for fathers' reports, children reported no differences between biological fathers and stepfathers on engagement in shared activity. Unlike the findings for fathers' reports, children reported no differences between biological fathers and stepfathers on monitoring of negative things.

### **Insert Figure 2 Here**

#### *Aim 3: Statistical Prediction of Involvement*

The third aim was to examine a variety of father and child factors as statistical predictors of father involvement. First, bivariate correlations between all of the indicators of father involvement (engagement in shared activity, monitoring of positive and negative events, positivity, and negativity) were estimated, to test whether multivariate multiple regressions should be used. The correlations among involvement variables ranged from .00 to .41 (average  $r = .22$ ) for fathers' reports and from .22 to .52 (average  $r = .35$ ) for children's reports. The correlations among involvement variables were not large enough to warrant the use of multivariate multiple regression (Tabachnick & Fidell, 1989 p.373). Therefore, a series of simultaneous regression equations were used to predict each involvement variable separately. Each regression included all father factors and child factors as statistical predictors (biological relatedness (coded: 1 = biological, 2 = step), father age, child age, child gender (coded: 0 = male, 1 = female), internalizing behaviors and externalizing behaviors). Pair-wise deletion was used for missing data to maximize power.

*Father reports.* There were several significant regression equations: predicting monitoring of positive things,  $F(6, 41) = 2.76, p < .05, R^2 = .29$ , monitoring negative things,  $F$

(6, 40) = 2.55,  $p < .05$ ,  $R^2 = .28$ , and positivity,  $F(6, 41) = 3.26$ ,  $p < .05$ ,  $R^2 = .32$ . Biological relatedness was a significant predictor of monitoring negative things,  $B = -.38$ ,  $t = -2.52$ ,  $p < .05$ , and positivity,  $B = -.40$ ,  $t = -2.81$ ,  $p < .01$ . These results suggest that being biologically related to the child predicts higher amounts of monitoring of negative things and more positivity. Child age was a marginally significant predictor of monitoring of positive things,  $B = .26$ ,  $t = 1.97$ ,  $p < .06$ . Regressions for shared activity and negativity were not significant,  $F(6, 38) = 0.88$ ,  $p = .52$ , and  $F(6, 41) = 1.82$ ,  $p = .12$ , respectively. Father age approached significance ( $p = .06$ ) as a predictor of monitoring negative things and child age was a marginally significant predictor of monitoring positive things, suggesting that older fathers report more negative monitoring and older children report more positive monitoring.

**Insert Table 4a Here**

*Child reports.* Father factors and child factors were also used to predict child perceptions of father involvement (see Table 4b). The model for predicting monitoring of positive events was significant,  $F(6, 79) = 3.34$ ,  $p < .01$ ,  $R^2 = .20$ , as well as positivity,  $F(6, 79) = 2.91$ ,  $p < .05$ ,  $R^2 = .18$ . Biological relatedness emerged as a significant predictor of monitoring of positive things,  $B = -.39$ ,  $t = -3.76$ ,  $p < .01$ , and positivity,  $B = -.40$ ,  $t = -3.85$ ,  $p < .01$ ; recall that biological relatedness was coded 1 = biological and 2 = stepfather. These results suggest that being biologically related to the child predicted higher levels of monitoring of negative things and positivity. Regressions for shared activity and monitoring of negative things were not significant,  $p = .36$ ,  $p = .17$ , respectively.

**Insert Table 4b Here**

## Discussion

The goal of this paper was to use father reports of involvement while examining the construct of involvement multidimensionally. The dimensions used for the current study of involvement were those that most closely reflected the conceptualization by McBride and colleagues' (2005): responsibility, warmth, father-child household and child-centered activities, and monitoring. These dimensions were chosen because they include the specific behaviors to which fathers engage with their children, the primary focus of this paper.

### *Inclusion and Accuracy of Father Reports*

One of the gaps in the literature surrounds the infrequent use of father reports of involvement, lack of inclusion of fathers in research, and questionable accuracy of fathers' reports of their involvement. Phares (1992) cited several reasons for the lack of inclusion of father reports in research: recruitment issues, differential bases rates of parental pathology, sex-theory driven research, and false assumptions about involvement based on societal norms. This issue was directly addressed by the design of the current study, because fathers were asked to participate along with their children. This targeted selection increased the likelihood that fathers would participate in the study.

Fathers' accuracy in their self-reports of involvement has been a question for researchers, and addressing this question was **the first aim** of the current study. Previous studies of involvement have compared father and mother reports of involvement (Wical & Doherty, 2005) and have found that fathers' reports are consistent with mothers'. The current study attempted to extend this finding by comparing father and child reports. The findings suggested that fathers' reports of involvement were consistent with their child's report of involvement in monitoring of positive events and positivity. Two caveats are that the effect sizes were modest for these

findings, and only two of the four involvement measures were significantly correlated. This result suggests that there is *some* agreement in father and child reports of involvement, but there is less evidence to conclude that there is absolute agreement between fathers and children on measures of involvement. One possible explanation for this result is that the children in this study were 9 year olds on average. Their age raises questions about accuracy of the children's reports. Consequently, the low correlations could be due to issues of children's reliability, fathers' reliability, or both.

#### *Involvement in Intact and Stepfamilies*

**The second aim** of this study was to compare involvement between biological fathers and stepfathers. Overall, the results suggested that stepfathers tend to be less involved in their children's lives when compared to biologically related fathers. Biological fathers monitored more positive and negative events, were more positive, and were less negative towards their children compared to stepfathers. The results were similar for child reports with the exception that there was no negativity measure for children, and biological and stepfathers did not differ on monitoring of negative events. These results support the hypotheses and findings originally posed by Hetherington and colleagues (1992) who stated that stepfathers tend to be more disengaged and less positive in parenting their stepchildren.

Not only has the hypothesis that stepfathers are less involved in their children been confirmed in empirical studies (Sturgess et al., 2001; Hetherington, 1992), but presented as a theoretical explanation for father involvement and other paternal behaviors (Lamb-Pleck, 1983). Multidimensional models of involvement often include several predictors of involvement (role identity, father-child relationship, father-mother relationship, etc.), but few have included biological relatedness as a predictor of involvement. For example, Parke's (1996) and Doherty



and colleagues' (1998) models include a variety of systems factors (institutional, child, father, mother factors, etc.) that influence involvement, but do not include biological relatedness within the systems that influence involvement. Lamb-Pleck's (1983) biosocial model of paternal behavior includes multidimensional measures of involvement such as responsibility, parental monitoring, activities with the child, activities in the household, and showing warmth and affection. Among these mechanisms, biological relatedness appears to exert a powerful influence on involvement. Father and child reports of biological relatedness significantly predicted involvement (for both fathers' and children's reports) with moderately strong beta weights (.38 on average). This raises questions about interpreting prior studies of father involvement. If and when biological relatedness is not considered in samples that include stepfathers, the effect of biological relatedness would have been unobserved and other conclusions might have been formed about the factors that influence involvement in intact families and stepfamilies.

When interpreting the biological relatedness effect, it's important to consider why being biologically related to a child would influence involvement. Paternal investment theory (Fox & Bruce, 2001) suggests that inclusive fitness (the continuation of one's own genetic influence) explains why biological fathers would be more involved in the lives of their children compared to stepfathers. The implication is that stepfathers would be less likely to be involved in their stepchildren's lives because their involvement will not continue the fathers' genetic inheritance. While not tested in the current study, this theory raises questions about fathers' cognitions associated with their involvement that has not been studied—specifically, their feelings about their children's ability to continue their “legacy”. This should be considered in future studies of involvement that address cognitive predictors of father involvement.

It should be noted that stepfathers were less involved on average, but did show a wide range of involvement in their levels of involvement across measures. In particular, engagement in shared activity (according to father and child reports) and monitoring of negative events (according to child report) revealed that stepfathers are no different from biological fathers on those measures. The discrepancy between father and child report on monitoring negative events supports Marsiglio's (2004) argument that stepfathers attempt to engage in mindfulness behaviors such as being aware of their stepchild's likes and dislikes. This finding suggests that stepfathers are attempting to be involved in their stepchild's lives, but to a lesser degree than biological fathers. Future research should consider this fact and focus on the mechanisms/explanations for the differences in father involvement (cognitions associated with fathers' involvement).

#### *Other Statistical Predictors of Involvement*

The **third aim** of the study was to examine other father and child factors as predictors of involvement, in addition to biological relatedness. Other studies have used some of the same correlates/predictors of involvement, including child age, gender, father age, and biological relatedness (e.g., Mc Bride et al., 2005). While child age was the most substantial child factor correlate of involvement in this sample (.27 on average bivariate correlation), but when entered into regression equations the child age effect did not emerge as significant.. Besides the age differences in the studies (6 year olds versus 9 year olds), one explanation for this difference is that Mc Bride and colleagues study reveals that fathers showed less warmth towards older children, and the current study revealed that fathers are more positive towards older children. It is difficult to explain this difference because Mc Bride and colleagues did not include a measure of child behavior problems in their study. With respect to the other variables mentioned in

McBride's study, several of the demographic factors were significant predictors in Mc Bride's study. Like the current study, biological relatedness was a significant predictor, but with weaker betas (average  $-.09$ ) than the current study. The fact that the biological relatedness effect in the current study is consistent with McBride's finding is a noteworthy replication.

#### *Strengths, Limitations, and Recommendations for Future Study*

Several limitations in the literature on father involvement were addressed in this study. First, father reports of involvement were used extensively as measures of father involvement. These measures proved to be somewhat reliable and consistent with child reports, although the evidence for this was mixed. Second, involvement in stepfamilies was compared with biological father families, addressing the lack of inclusion of diverse family structures in studies of paternal involvement. Third, involvement was conceptualized multidimensionally (engagement in shared activity, monitoring of positive and negative events, positivity, and negativity), in an effort to capture more components of involvement than typically are considered in this literature. Having addressed these limitations in prior research, it is important to consider the strengths and limitations in the current investigation of father involvement.

One major strength of this study is that father reports were used to measure father involvement. This is important because involvement has usually been measured using mother reports. The argument for the use of father reports is that they provide an accurate account of involvement, and they reflect the perceptions of the parent in question; hence, fathers' reports should be used whenever possible. A second strength of the study is the inclusion of child reports of involvement. It is important to include child reports of involvement to form more accurate conclusions about the level of involvement exhibited by fathers. Without child reports, we rely solely on father and mother reports of involvement which could be problematic in

drawing conclusions about the degree to which fathers actually are involved with their children. A third strength of the study is that the findings regarding biological relatedness are backed by theoretical and prior empirical evidence. This finding is important in understanding the complexities of involvement in stepfamilies and other families where biological fathers are not present. In 1990, about 8 out of 10 American children lived with married parents; of these, 16% lived in a stepfamily (U.S. Bureau of the Census, 1994). Because family structure changes over time, children who do not currently have a stepparent may eventually come to live with one; current estimates suggest that about one third of children in the U.S. will live with a stepparent, usually a stepfather, before reaching age 18 (as cited in Hofferth & Anderson, 2003). Although it is difficult to determine from these data an estimate of the number of children with stepfathers, it is important to remember that mothers usually serve as the primary residence for the child under joint custody arrangements after divorce. Because of this, the majority of children living in stepfamilies live at least part of the time with a stepfather. Gaining a sense of how stepfathers interact with their stepchildren will prove to be useful for deriving models and interventions that are applicable to stepfather families, a large and growing segment of the population of families with children and adolescents.

There are some limitations to the current study that must be considered before solid conclusions can be drawn about father involvement. First, there is insufficient power to detect small differences that may exist between fathers in intact families and stepfathers due to the small sample size. In order to provide a more powerful test of the predictors of involvement, studies would need to include a larger sample of father report data. Second, the current study lacks inclusion of fathers from a range of ethnic groups (the current sample was entirely Caucasian sample). The results of this study would be difficult to generalize to other populations

of fathers whose involvement might be predicted by other factors. Future studies should examine involvement in more ethnically diverse samples from intact families and stepfamilies. Third and finally, cognitions (i.e. beliefs about the father's responsibility to be involved) should be examined as having an influence on involvement in fathers.

*Conclusion*

When forming conclusions about father involvement in the lives of their children, it is important to measure it multidimensionally, use father reports, and include participants from diverse family structures (intact families and stepfamilies). The results of the current study suggest that biological relatedness predicts involvement in fathers, when examined in a sample of fathers from intact families and stepfamilies. Current theoretical models should include biological relatedness in the conceptualization of involvement to broadly address paternal investment and behavior in a variety of family types. Once this distinction is made, interventions for improved father-child interactions can be developed to include the patterns of involvement occurring in stepfamilies and potentially other types of family structures.

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**Appendix A.**

**Table 1. Data Structure**

	<b>RQ 1</b>	<b>RQ 2</b>	<b>RQ 3</b>
<b>Father Reports</b>	61		61
Biological Fathers		51	
Stepfathers		10	
<b>Child Reports</b>	61	143	143
<b>Mother Reported Internalizing/Externalizing</b>			108

(N's reported for each research question due to inconsistencies in father report data)

**Appendix B**  
**Table 2. Descriptive Statistics.**

	%	M(SD)	Range	N
<b>Father Report</b>	73 % biological			51
	27 % stepfathers			10
Father age		42.6 (5.35)	26.-59	61
CBCL externalizing		.16 (.20)	.00-1.06	61
CBCL internalizing		.15 (.20)	.00-.87	61
shared activity		2.92 (.55)	1.83-4.17	57
monitor positive		4.38 (.65)	2.57-5.00	60
monitor negative		4.41 (1.27)	1.00-5.00	58
positivity		4.32 (.54)	2.88-5.00	61
negativity		2.33 (.71)	1.00-4.40	61
<b>Mother Report</b>				
CBCL externalizing		.18 (.20)	.00-1.29	108
CBCL internalizing		.14 (.14)	.00-.61	108
<b>Child Report</b>	46 % male			143
	54% female			
Child age		9.15 (1.31)	5-11	143
shared activity		2.75 (.91)	1.06-5.44	116
monitor positive		3.77 (.89)	1.00-5.00	116
monitor negative		4.43 (1.03)	1.00-5.00	116
positivity		1.80 (.66)	.00-3.00	127

FR= father report, MR= mother report, CR= child report, ext= externalizing, int=internalizing

**Appendix C.**

**Table 3. Correlations between Fathers' and Children's Reports of Father Involvement**

	Child Report (SA)	Child Report (PM)	Child Report (NM)	Child Report Positivity
Father Report (SA)	<b>.11</b>	.08	.18	.19
Father (PM)	.15	<b>.29*</b>	.30*	.25
Father Report (NM)	.26	.23	<b>.23</b>	.30*
Father Report Positivity	.06	.29*	.22	<b>.33**</b>

SA= shared activity, PS= monitoring of positive things, NM = monitoring of negative things.

\*p < .05, \*\* p <.01 (1-tailed).

## Appendix D.

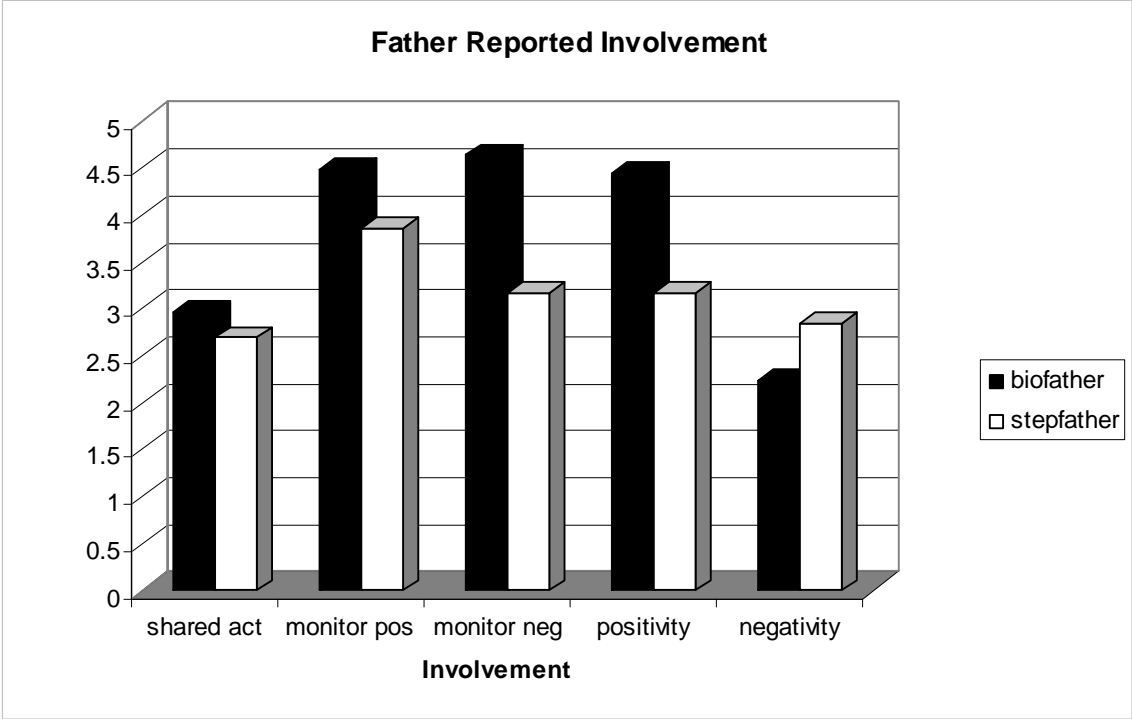
**Table 4a. Means (Standard Deviations) and T-Tests of Father Reported Mean Differences in Father Involvement**

Variable	Shared Activity M (SD)	Monitor Positive M (SD) **	Monitor Negative M (SD) **	Positivity M (SD) **	Negativity M (SD) **
Biological Fathers	2.96 (.57)	4.48 (.58)	4.64 (1.05)	4.44 (.46)	2.24 (.67)
Stepfathers	2.69 (.40)	3.86 (.80)	3.17 (1.66)	3.73 (.52)	2.84 (.72)

\*p < .05, \*\* p < .01. (1 tailed tests of significance)

Appendix E.

Figure 1. Father Reported Biological versus Stepfather Involvement (Test of means)





## Appendix F.

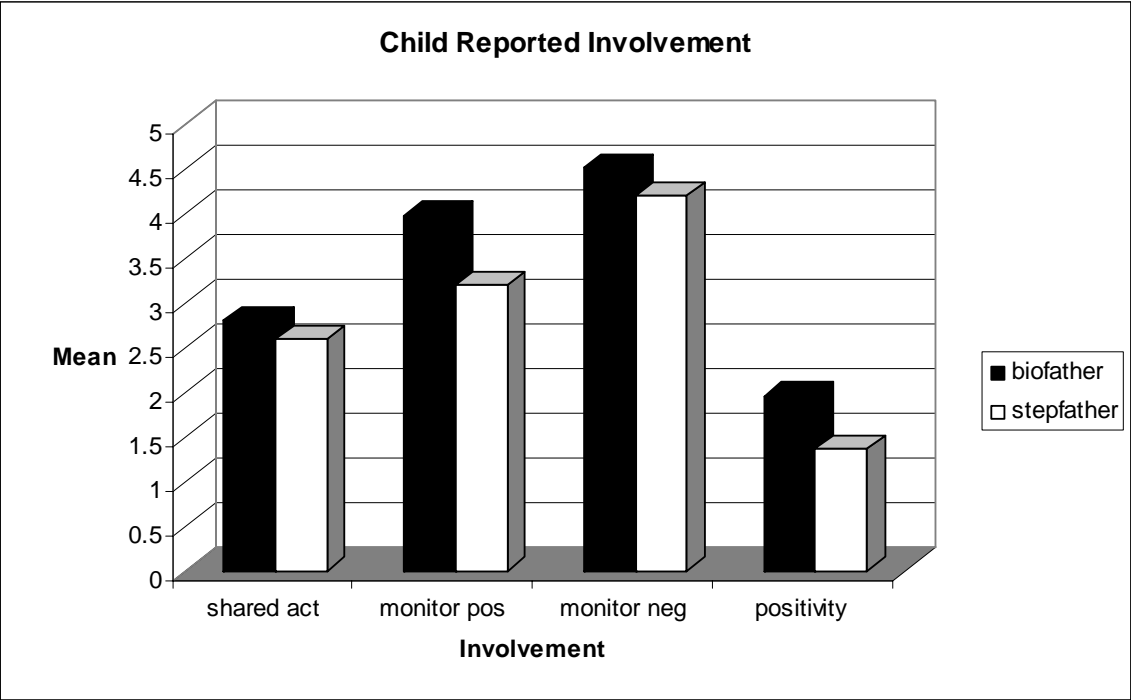
**Table 4b. Means (Standard Deviations) and T-Tests of Child Reported Mean Differences in Father Involvement**

Variable	Shared Activity	Monitor Positive **	Monitor Negative	Positivity **
Biological Fathers	2.81 (.93)	3.98 (.75)	4.51 (.97)	1.96 (9.58)
Stepfathers	2.60 (.87)	3.20 (1.00)	4.20 (1.18)	1.37 (.68)

\*p < .05, \*\* p < .01. (1 tailed tests of significance)

Appendix G.

Figure 2. Child Reported Biological versus Stepfather Involvement (Test of means)



## Appendix H.

Table 5a. Statistical Prediction of Father-Reported Involvement

Variable	Shared Activity Beta	Monitor Positive Beta*	Monitor Negative Beta*	Positivity Beta*	Negativity Beta
<i>Father factors</i>					
Age	.00	.24	.27	-.02	.00
Bio relatedness	-.19	-.25	-.37*	-.40**	.18
<i>Child factors</i>					
Age	-.19	.26	.03	.14	-.01
Gender	-.25	-.10	-.10	.00	.21
FR Internalizing	.11	-.17	-.14	.00	.16
FR Externalizing	-.06	-.02	.14	-.25	1.47

\*p&lt; .05, \*\*p&lt;.01 (coded: 1 = biological, 2 = step)

## Appendix I.

Table 5b. Statistical Prediction of Child-Reported Involvement

Variable	Shared Activity Beta	Monitor Positive Beta**	Monitor Negative Beta	Positivity Beta*
<i>Father factors</i>				
Age	-.03	-.11	.05	-.09
Bio relatedness	-.11	-.39**	-.08	-.40**
<i>Child factors</i>				
Age	-.12	.11	.07	-.04
Gender	-.06	-.00	-.09	.01
MR Internalizing	-.24	.13	.07	.09
MR Externalizing	.26	-.22	-.32*	-.13

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\*p< .05, \*\*p<.01 (coded: 1 = biological, 2 = step)

**Appendix J.**

**Institutional Review Board Application**

**Section 1: General Information**

**What is the Study Title: ABSS Data Archive**

[Note: If this protocol has been submitted to a federal agency for funding, the title of that application **must** match the title of this submission.]

Check this box if this study **only involves the collection or study of existing data**, documents, records, pathological specimens, or diagnostic specimens **and respond only to the following sections within this document:** Section 1: General Information; Section 2: Justification; Section 8: Confidentiality / Anonymity; Section 14: Research Involving Existing Data; and Section 15: Additional Information below (Note: Section 15 is optional).

1. Will this research involve collaboration with another institution?

- No
- Yes

If yes,

- A. Provide the name of the institution(s):
  
- B. Indicate the status of this research project with the other institution’s IRB:
  - Pending approval
  - Approved [submit approval letter with this IRB application]
  - Other institution does not have a human subject protections review board
  - Other, explain:

**Section 2: Justification**

2. Describe the background of this study, including supporting research: **This secondary data analysis of the ABSS dataset focuses on improving our understanding of the links between family relationships (parent-child, marital, sibling, etc.) and child/adolescent social-emotional and psychological development, in different kinds of families (intact, step, and single-parent). There is a growing literature demonstrating that how well adjusted children and adolescents are following parental divorce or remarriage depends to a large extent on the maintenance of warm, accepting relationships with the families, and relative absence of hostility and conflict. We will examine these and related family processes in the ABSS data archive.**

3. Describe the purpose / objectives of this study and the anticipated findings/contributions: **This project involves secondary data analysis (statistical analyses and dissemination of results) of the completed Avon Brothers and Sisters Study (ABSS). Existing data are stored in SPSS data files (stripped of identifiers). The ABSS includes 192 families with school-age and young adolescent children who live in Western England. Some of the families are “intact” (non-divorced), some are step-families (parents are divorced/remarried), and some are headed by single mothers. The children and parents completed interviews and questionnaires in their homes, three times over a seven-year period.**  
**The purpose of the proposed secondary data analyses is to examine the ways in which children’s relationships with their biological and step-parents influence their social-emotional development, including: emotional problems (anxiety, depression); behavioral problems (oppositional/defiant behavior, aggression); peer relationships (closeness and conflict with friends); and relationships with siblings and grandparents. Analysis of ABSS data involves comparisons of intact, step, and single parent families, as well as comparison of older/younger children and males/females. Already, ABSS has made an impact on the field of child development research, and continuing secondary data analyses of the existing data**

will allow further discoveries on these topics.

The PIs publications on the ABSS include:

Deater-Deckard, K., Dunn, J., O'Connor, T. G., Davies, L., & Golding, J. (2003). Using the stepfamily genetic design to examine gene-environment processes in child and family functioning. *Marriage and Family Review*, 33, 131-156.

Deater-Deckard, K., Dunn, J., & Lussier, G. (2002). Sibling relationships and social-emotional adjustment among full- and half-siblings in different family contexts. *Social Development*, 11, 571-590.

Lussier, G., Deater-Deckard, K., & Dunn, J., & Davies, L. (2002). Support across two generations: Closeness to grandparents and children's adjustment following divorce and remarriage. *Journal of Family Psychology*, 16, 363-376.

Dunn, J., & Deater-Deckard, K. (2001). *Children's views of their changing families*. York (UK): York Publishing Services/Joseph Rowntree Foundation.

Dunn, J., Deater-Deckard, K., Pickering, K., Golding, J., ALSPAC Study Team (1999). Siblings, parents and partners: Family relationships within a longitudinal community study. *Journal of Child Psychology and Psychiatry*, 40, 1025-1037.

Dunn, J., Deater-Deckard, K., Pickering, K., O'Connor, T. G., Goodman, R., & Golding, J. (1998). Children's adjustment and prosocial behavior in step-, single-parent, and non-stepfamily settings: Findings from a community study. *Journal of Child Psychology and Psychiatry*, 39, 1083-1095.

Deater-Deckard, K., & Dunn, J. (1999). Multiple risks and adjustment in young children growing up in different family settings: A British community study of stepparent, single mother, and nondivorced families. In E. M. Hetherington (Ed.), *Coping with divorce, single parenting and remarriage: A risk and resiliency perspective* (pp. 47-64). Mahwah, NJ: Erlbaum.

4. Explain what the research team plans to do with the study results (e.g., publish, use for dissertation, etc.): **use for student thesis and for publication**
5. Briefly describe the study design: **secondary data analysis of a cross-sectional survey design**

### Section 3: Recruitment

6. Describe the subject pool, including inclusion and exclusion criteria (e.g., sex, age, health status, ethnicity, etc.) and number of subjects:
7. How will subjects be identified to participate in this research study (If searching existing records to identify subjects, indicate whether the records are public or private. If private, describe the researcher's privileges to the data)?
8. The IRB must ensure that the risks and benefits of participating in a study are distributed equitably among the general population and that a specific population is not targeted because of ease of recruitment. Provide an explanation for choosing this population:
9. Describe recruitment methods, including how the study will be advertised or introduced to subjects [submit all advertising / recruitment forms (e.g., flyers/posters, invitation letter/e-mail, telephone recruitment script, etc.) with this IRB application]:

**Section 4: Requesting a Waiver for the Requirement to Obtain Signed Consent Forms from Participants**

**This section (Section 4) not required for studies qualifying for exempt review**

*Many minimal risk socio-behavioral research studies qualify for a waiver of the requirement for the investigator(s) to obtain signed consent forms from subjects [i.e., researcher does obtain verbal or implied (i.e., consent implied from the return of completed questionnaire) consent from subjects; however, does not obtain written consent from subjects]. Examples of types of research that typically qualify for this type of waiver are as follows: internet based surveys, anonymous surveys, surveys not requesting sensitive information, and oral history projects. You may request a waiver of signed consent for either some or all of the study's procedures involving human subjects.*

10. Are you requesting a waiver of the requirement to obtain signed consent forms from participants?  
 No, consent forms will be signed by all research participants prior to participating in all research procedures [submit consent document template(s) with this IRB application]  
 Yes

**If yes,**

- A. Select **one** of the criteria listed below and describe how your research meets the selected criteria:

**Criteria 1:** [Typically used for anonymous surveys] The only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of confidentiality. Each subject will be asked whether the subject wants documentation linking the subject with the research, and the subject's wishes will govern:

**Or**

**Criteria 2:** The research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context (e.g., sitting down and talking with someone, calling someone at home and asking everyday questions, mall survey, mail survey, internet survey, etc.):

*Either selection of either Criteria 1 or Criteria 2 above, the IRB suggests and may require the investigator to provide subjects with a written or verbal (for telephone interviews) statement regarding the research, which should provide subjects with much of the same information that is required within a consent document. This is typically accomplished by providing subjects with an information sheet (i.e., a document similar to a consent form; however, does not request signatures), supplying the information within the invitation letter, or reading the information sheet to the subject over the phone.*

- B. Will you be providing subjects with a written or verbal statement regarding the research?  
 Yes [submit supporting document(s) (e.g., information sheet, invitation letter) with this IRB application]  
**If yes, check all methods that will be utilized to provide subjects with a statement regarding the research:**  
 Information sheet physically provided to subjects  
 Information sheet will be read to subject over the phone  
 Information captured within the invitation document  
 Other, describe:  
 No, provide justification for not supplying subjects with this information:
- C. Does this waiver of written consent cover all study procedures involving human subjects?  
 Yes  
 No, list the study procedures for which this waiver is being requested to cover (Note: a consent document may be required for the study procedures not included under this waiver):

**Section 5: Consent Process**

11. Check all of the following that apply to this study's consent process:
- Verbal consent will be obtained from participants
  - Written consent will be obtained from participants
  - Consent will be implied from the return of completed questionnaire (if the study only involves implied consent, skip to Section 6 below)
  - Other, describe:
12. Provide a general description of the process the research team will use to obtain and maintain informed consent **and** respond specifically to A-D below:
- A. Who, from the research team, will be overseeing the process and obtaining consent from subjects?
  - B. Where will the consent process take place?
  - C. During what point in the study process will consenting occur (Note: unless waived, participants must be consented before completing any study procedure, including screening questionnaires)?
  - D. If applicable [e.g., for complex studies, studies involving more than one session, or studies involving more of a risk to subjects (e.g., surveys with sensitive questions)], describe how the researchers will give subjects ample time to review the consent document before signing:
    - Not applicable to this study

**Section 6: Procedures**

13. Provide a step-by-step thorough explanation of all study procedures expected from study participants, including the length of sessions involved, and total time commitment:
14. Describe how data will be collected and recorded [submit all data documents (e.g., questionnaire, interview questions, etc.) with this IRB application]:
15. Where will the study procedures take place?

**Section 7: Risks and Benefits**

16. What are the potential risks (e.g., emotional, physical, social, legal, economic, or dignity) to study participants? (do **not** state, "There are no risks involved." Acceptable language = "There are no more than minimal risks involved.")
17. Does this study involve (check one box):  minimal risk or  more than minimal risk to study participants?  
*Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily activities or during the performance of routine physical or psychological examinations or tests.*
18. Explain the study's efforts to reduce the potential risks to subjects?
19. What are the direct or indirect anticipated benefits to study participants and/or society?



**Section 8: Confidentiality / Anonymity**

20. Will the study release personally identifying study results to anyone outside of the research team (e.g., participants identified in publications with individual consent)?
- No  
 Yes

**If yes,**

To whom will identifying data be released?

21. Will researchers be collecting and/or recording identifying information (e.g., name, contact information, etc.) of study participants?
- No (identifying information of participants will not recorded in study files)  
 Yes

**If yes,**

*The IRB strongly suggests and may require that all data documents (e.g., questionnaire responses, interview responses, etc.) do not include or request identifying information (e.g., name, contact information, etc.) from participants. If you need to link subjects' identifying information to subjects' data documents, use a study ID/code on all data documents.*

- A. Describe if/how the study will utilize study codes:
- B. If applicable, where will the linked code and identifying information document (i.e., John Doe = study ID 001) be stored and who will have access (Note: this document must be stored separately from subjects' completed data documents and the accessibility should be limited)?

22. Where will data documents (e.g., questionnaire, interview responses, etc.) be stored? **There are no data documents, other than the computer (SPSS) dataset.**
23. Who will have access to study data? **The PI and Co-Investigator**
24. Describe the study's plans for retaining or destroying the study data: **The archived data will be retained indefinitely.**
25. Does this study request information from participants regarding illegal behavior?
- No  
 Yes

**If yes,**

**Section 9: Compensation**

26. Will subjects be compensated for their participation?
- No  
 Yes

**If yes,**

- A. What is the amount of compensation?

*Unless justified by researcher (in letter B below), compensation should be prorated based on duration of study participation. Payment must not be contingent upon completion of study procedures. In other words, even if the subject decides to withdraw from the study, he/she must be compensated, at least partially, based on what study procedures he/she has completed.*

- B. Will compensation be prorated?  
 Yes, please describe:  
 No, explain why and clarify whether subjects will receive full compensation if they withdraw from the study?

**Section 10: Audio / Video Recording**

27. Will your study involve video and/or audio recording?  
 No  
 Yes

**If yes,**

- A. Select from the drop-down box → select one  
 B. Provide compelling justification for the use of audio/video recording:  
 C. How will data within the recordings be retrieved / transcribed?  
 D. Where will tapes be stored?  
 E. Who will have access to the recordings?  
 F. Who will transcribe the recordings?  
 G. When will the tapes be erased / destroyed?

**Section 11: Research Involving Students**

28. Does your study include students as participants?  
 No (if no, skip to Section 12 below)  
 Yes

**If yes,**

- A. This study involves (select all that apply):  
 Students in elementary, junior or high school (or equivalent)  
 College students (select all that apply):  
 College upperclassmen (Juniors, Seniors or Graduate Students)  
 College freshmen – please note that some college freshmen may be minors (under the age of 18).  
 If the study meets the specified criteria, the IRB may grant a waiver of parental permission to include these minors without individual guardian permission [see question 32B for further information].  
Select one of the following:  
 These minors will be included in this research  
 Minors will be excluded from this study. Describe how the study will ensure that minors will not be included:

- B. Does this study involve conducting research with students of the researcher? (Note: If it is feasible to use students from a class of students not under the instruction of the researcher, the IRB recommends and may require doing so):
  - No
  - Yes, describe safeguards the study will implement to protect against coercion or undue influence for participation:
  
- C. Will the study need to access student records (e.g., SAT or GRE scores, or student GPA scores)?
  - No
  - Yes [if yes, a separate signed consent/assent form (for student’s approval) and permission form (for parent’s approval if subject is a minor) must be obtained and submitted to the Registrar’s office] [submit consent form template(s) with this IRB application]

**Section 11A: Students in Elementary, Junior, or High School**  
[Answer questions 29 & 30 below if your study involves students in **elementary, junior or high school (or equivalent)**]

- 29. Will study procedures be completed during school hours?
  - No
  - Yes

**If yes,**

- A. Students not included in the study may view other students’ involvement with the research during school time as unfair. Address this issue and how the study will reduce this outcome:
  
- B. Missing out on regular class time or seeing other students participate may influence a student’s decision to participate. Address how the study will reduce this outcome:

- 30. You will need to obtain school approval. This is typically granted by the Principal or Assistant Superintendent and classroom teacher. Approval by an individual teacher is insufficient. School approval, in the form of a letter or a memorandum should accompany the approval request to the IRB. Is the approval letter(s) attached to this submission?  Yes or  No, if no, explain why:

**Section 11B: College Students**  
[Answer question 31 below if your study involves **college students**]

- 31. Will extra credit be offered to subjects?
  - No
  - Yes

**If yes,**

- A. Include a description of the extra credit to be provided in Section 9: Compensation above
  
- B. What will be offered to subjects as an equal alternative to receiving extra credit without participating in this study?

**Section 12: Research Involving Minors**  
For more information about involving minors in research, visit our website at <http://www.irb.vt.edu/pages/newstudy.htm#Minors>

32. Does your study involve minors (under the age of 18) (Note: age constituting a minor may differ in other States)?  
 No  
 Yes

If yes,

- A. The procedure for obtaining assent from these minors and permission from the minor’s guardian(s) should have been described in **Section 5** (Consent Process) in this form.

*Researchers may request a waiver of parental permission if the study meets the criteria specified under letter B below. Requesting a waiver for the requirement to obtain informed permission from guardians may be helpful when recruiting college students for minimal risk socio/behavioral research. Most studies involving minors must obtain parental permission prior to the recruitment of minors.*

- B. Are you requesting a waiver of parental permission?  
 No, parents/guardians will provide their permission  
 Yes, describe below how your research meets **all** of the following criteria:  
A) The research involves no more than minimal risk to the subjects:  
B) The waiver will not adversely affect the rights and welfare of the subjects:  
C) The research could not practicably be carried out without the waiver:  
D) (Optional) Subjects will be provided with additional pertinent information after participation:
- C. Does your study reasonably pose a risk of reports of current threats of abuse and/or suicide?  
 No  
 Yes, thoroughly explain how the study will react to these reports (Note: subjects must be fully informed of the fact that researchers must report reasonable threats of abuse or suicide to the appropriate authorities/persons in the Confidentiality section of the Consent or Permission documents):

**Section 13: Research Involving Deception**

For more information about involving deception in research and for assistance with developing your debriefing form, visit our website at <http://www.ibr.vt.edu/pages/newstudy.htm#Deception>

33. Does your study involve deception?  
 No  
 Yes

If yes,

- A. Describe the deception:
- B. Why is the use of deception necessary for this project?
- C. Describe the process of debriefing [submit your debriefing form with this IRB application]:
- D. By nature, studies involving deception cannot provide subjects with a complete description of the study during the consent process; therefore, the IRB must waive a consent process which does not include, or which alters, some or all of the elements of informed consent. Provide an explanation of how the study meets **all** the following criteria for an alteration of consent:  
A) The research involves no more than minimal risk to the subjects:

- B) The alteration will not adversely affect the rights and welfare of the subjects:
- C) The research could not practicably be carried out without the alteration:
- D) (Optional) Subjects will be provided with additional pertinent information after participation (i.e., debriefing for studies involving deception):

*The IRB requests that the researcher use the title "Information Sheet" instead of "Consent Form" on the document used to obtain subjects' signatures to participate in the research. This will adequately reflect the fact that the subject cannot fully consent to the research without the researcher fully disclosing the true intent of the research.*

**Section 14: Research Involving the Collection or Study of Existing Data Documents, Records, Pathological Specimens, or Diagnostic Specimens**

34. Will your study involve the collection or study of existing data?

- No
- Yes

**If yes,**

- A. From where does the existing data originate? **The ABSS Study was conducted by Prof. Judy Dunn at the Institute of Psychiatry, University of London. Prof. Dunn was a former post-doctoral mentor of the PI, and will provide a copy of the de-identified ABSS dataset to the PI upon approval by the IRB.**
- B. Provide a description of the existing data that will be collected: **The data that we will analyze are stored in a single SPSS dataset. We will not be working with any other data documents. These data are arranged as variables in columns, and families as records/rows.**

**Section 15: Additional Information**

35. Provide additional information not captured within this worksheet here [response to this question **not** required]:

Request for Exempt Review

Section 1: Contact Information

Principal Investigator [Faculty or Faculty Advisor] (all fields required) HST = Human Subjects Training

Name: Kirby Deater-Deckard PID: kirbydd HST completed through: other university (attach certificate)
Department: Psychology Email: kirbydd@vt.edu Mail Code: 0436
Signature of Principal Investigator Date

Co-Investigator(s) [Faculty or Student] (all fields required for each Co-Investigator)

Co-Investigator #1
Name: Marshaun B. Glover PID: mbglover HST completed through: VT blackboard course
Organization Name: Psychology Dept, VT Email: mbglover@vt.edu
Signature of Co-Investigator #1 Date

Departmental Reviewer: (not required for all departments)

Name: PID:
Signature of Departmental Reviewer Date

Section 2: General Information

- 1. Project Title: Abss Data Archive
2. Number of Human Subjects: 192 Families (2- or 1-parent, 2-3 children per family)
3. Do any of the investigators on this project have a reportable conflict of interest? No If yes, explain:
[X] All investigators of this project are qualified through completion of human subject protections education. Visit our website at http://www.irb.vt.edu/pages/training.html to view training opportunities accepted by the VT IRB. (Note: Do not submit your IRB application until all investigators are qualified)
[X] All investigators listed on this project, along with the departmental reviewer (if applicable), have reviewed this IRB application and all requested revisions from these parties have been

implemented into this submission. (Note: Do not submit your application until all parties have reviewed and signed off on the final draft of the materials)

**Section 3: Source of Funding**

4. Source of Funding Support (check one box):

Departmental Research [if Dept. Research, skip to Section 4]

Sponsored Research, including VARIOUS funds & OSP/VT foundation funds [if Sponsored Research, respond to letters A-D below]

A. Name of Sponsor [if NIH, specify department]:

B. Title of study as listed on OSP application:

C. OSP number: \* Proposal # (enter 8 digit number, **no** dashes/spaces): , OR

\* Grant # (enter 6 digit number, **no** dashes/spaces): , OR

\* OSP # pending (check box if pending):

D. Is this project receiving federal funds (e.g., DHHS, DOD, etc.)? select one

**Section 4: Exemption Criteria**

*Note:* To qualify for Exemption, the research must meet **all** of the following criteria (a – f):

- (a) Be of minimal risk to the subjects; AND
- (b) Must not involve pregnant women, prisoners or mentally impaired persons; AND
- (c) Must not include survey research with minors unless involving standard educational activities (e.g., educational tests) within the particular education system; AND
- (d) Must not include observation of a minor’s public behavior unless there is no researcher interaction, AND
- (e) Research must not involve video or audio recording of subjects; AND
- (f) **must be in one or more of the following categories:**

5. Please mark/check the appropriate category or categories below which qualify the proposed project for exemption:

- 1. Research will be conducted in established or commonly accepted educational settings, involving normal educational practices, such as (a) research on regular and special education instructional strategies, or (b) research on the effectiveness or the comparison among instructional techniques, curricula, or classroom management methods.
- 2. Research will involve the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, **unless** the subjects can be identified directly or through identifiers linked to the subjects **and** disclosure of responses could reasonably place the subjects at risk or criminal or civil liability or be damaging to the subjects’ financial standing, employability or reputation.
- 3. Research will involve the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under item (2) above, **if** (a) the subjects are elected or appointed public officials or candidates for public office; **or** (b) Federal statute(s) require(s) that the confidentiality or other personally identifiable information will be maintained throughout the research and thereafter.
- 4. Research will involve the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified directly or through identifiers linked to the subjects.

- 5. Research and demonstration projects which are conducted by or subject to the approval of federal agency sponsoring the research, and which are designed to study, evaluate or otherwise examine (a) public benefit or service programs, (b) procedures for obtaining benefits or services under those programs, (c) possible changes in or alternatives to those programs or procedures, or (d) possible changes in methods or levels of payment for benefits or services under those programs.
- 6. Taste and food quality evaluation and consumer acceptance studies, if (a) wholesome foods without additives are consumed, or if (b) a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.



**Appendix K.**

**DOING THINGS WITH YOUR CHILD/STEP-CHILD**

This section is about the things that parents and children sometimes do together. How common is it for you and ..... to do the following things?

<b>How often do you and your child/step-child:</b>	More than once a day	Every day	5 or 6 times in the last week	3 or 4 times in the last week	Once or twice in the last week	Not at all in the last week, but at least once in the last month	Not at all in the last month
Spend time together	1	2	3	4	5	6	7
Give each other a hug, kiss, pat on the back or other physical sign of affection	1	2	3	4	5	6	7
Play games, sports, etc. together	1	2	3	4	5	6	7
Visit friends or relatives	1	2	3	4	5	6	7
Buy or make a gift for another family member	1	2	3	4	5	6	7
Laugh together about something	1	2	3	4	5	6	7
Work on school work together	1	2	3	4	5	6	7
Go for a walk, bike ride, swim, picnic, fishing, jogging, exercising, to the beach, etc.	1	2	3	4	5	6	7
Go to or give a party together	1	2	3	4	5	6	7
Build or make something together (e.g.,	1	2	3	4	5	6	7

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make a model, cook a meal, repair something)							
Play a musical instrument, sing together or listen to music together	1	2	3	4	5	6	7
Praise or give a compliment to each other	1	2	3	4	5	6	7
Go out together shopping or for dinner, to a film, or museum, to get a snack such as ice cream or a coke	1	2	3	4	5	6	7
Get extra privileges, like staying out late or extra dessert	1	2	3	4	5	6	7
Get extra money or something special like a surprise gift	1	2	3	4	5	6	7
Go to see him/her perform or display his/her work or skills in a sporting event, concert, play, art show, etc.	1	2	3	4	5	6	7
Talk about something that is worrying or concerning him/her	1	2	3	4	5	6	7
Participate in a hobby together (e.g., stamp collecting, model building, woodwork,	1	2	3	4	5	6	7

This questionnaire asks about what you know about what your child/step-child likes and does.

<b>How much you <u>know</u> about your child/step-child's life:</b>	Always	Usually	Sometimes	Seldom	Never
Choice of friends, who they are, what they are like	1	2	3	4	5
Intellectual interests, both in and out of school	1	2	3	4	5
Activities outside of school (e.g., sports, jobs, clubs etc.)	1	2	3	4	5
Interest in and activities with boy/girl friend, their dating behaviors	1	2	3	4	5
Health habits, such as amount of sleep, diet, exercise	1	2	3	4	5
Use of tobacco	1	2	3	4	5
Use of alcohol	1	2	3	4	5
Use of drugs	1	2	3	4	5
Problem behavior in school (e.g., skipping school, being late, being sent to the head teacher's office etc.)	1	2	3	4	5
School life such as who his/her teachers are, if and how well he/she does his/her homework, his/her marks etc.	1	2	3	4	5
Where he/she is and what he/she is doing when not at home	1	2	3	4	5

## DISAGREEMENTS WITH YOUR CHILD/STEP-CHILD

Children differ in how easy they are to get along with and how often they get into arguments with their parents etc... The next section lists some of the issues that parents and their children get into arguments about. How often do you and your child disagree about these issues?

How often have <u>you</u> and <u>your child</u> disagreed about:	More than once a day	Every day	5 or 6 times in the last week	3 or 4 times in the last week	Once or twice in the last week	Not at all in the last week, but at least once in the last month	Not at all in the last month
Your child's behaviour towards brothers and sisters	1	2	3	4	5	6	7
How to handle tantrums/crossness	1	2	3	4	5	6	7
Their defiance and disobedience in general	1	2	3	4	5	6	7
Their defiance and disobedience towards you partner	1	2	3	4	5	6	7
Bedtimes	1	2	3	4	5	6	7
Meal times (what gets eaten, when!)	1	2	3	4	5	6	7
TV (how much, which programmes etc.)	1	2	3	4	5	6	7
Table manners, politeness etc.	1	2	3	4	5	6	7
Making too much noise, rushing around, wild play etc.	1	2	3	4	5	6	7
Behaviour in playgroup/school	1	2	3	4	5	6	7
Playing outside (where, when, with whom)	1	2	3	4	5	6	7

**ABOUT YOUR CHILD/STEP-CHILD**

How common is it for you to:	Very common	Common	Somewhat common	Uncommon	Very uncommon
Talk to your child about something he/she did wrong, or to give a reason or explanation of why something he/she did was wrong?	1	2	3	4	5
Yell at your child about something he/she did wrong?	1	2	3	4	5
Take away privileges from your child for something he/she did wrong?	1	2	3	4	5
Ridicule or put your child down when the two of you argue?	1	2	3	4	5
Apologize after an argument turned out wrong?	1	2	3	4	5
Compromise during a disagreement or argument?	1	2	3	4	5
Tell your child to do something "because I said so"?	1	2	3	4	5
Talk over with your child a decision that concerns him/her?	1	2	3	4	5
See that your child obeys rules?	1	2	3	4	5

**YOU AND YOUR CHILD/STEP-CHILD**

	Extremely	Very	Somewhat	A little	Not at all
How much do you enjoy spending time alone with your child/step-child?	1	2	3	4	5
How much do you think your child/step-child enjoys spending time alone with you?	1	2	3	4	5
How satisfied are you with the amount of time you spend alone with your child/step-child?	1	2	3	4	5
How satisfied do you think your child/step-child is with the amount of time you spend alone with him/her?	1	2	3	4	5
Is it easy to be affectionate towards your child/step-child?	1	2	3	4	5
How affectionate is your child/step-child towards you?	1	2	3	4	5
How much do you care about what your child/step-child thinks about you?	1	2	3	4	5
How much does your child/step-child care about what you think of her/him?	1	2	3	4	5
How much do you think you are like your child/step-child?	1	2	3	4	5
How much do you nag your child/step-child about what he/she is doing wrong?	1	2	3	4	5
How much does your child/step-child nag you about what you are doing wrong?	1	2	3	4	5
How much do you criticize your child/step-child?	1	2	3	4	5
How much does your child/step-child criticize you?	1	2	3	4	5
How often does your child/step-child get into disagreements with you?	1	2	3	4	5
How much do you enjoy being your child/step-child's parent?	1	2	3	4	5