Co-parenting in Intact and Divorced Families: Its Impact on Young Adult Adjustment

Jill A. Ferrante
Virginia Commonwealth University

Follow this and additional works at: https://scholarscompass.vcu.edu/etd

Part of the Psychology Commons

© The Author

Downloaded from
https://scholarscompass.vcu.edu/etd/1485

This Thesis is brought to you for free and open access by the Graduate School at VCU Scholars Compass. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of VCU Scholars Compass. For more information, please contact libcompass@vcu.edu.
Co-parenting in Intact and Divorced Families: Its Impact on Young Adult Adjustment
A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science at Virginia Commonwealth University.

by

Jill Allison Ferrante

B.A., Cornell University, 2001

Director: Arnold L. Stolberg, Ph.D.

Department of Psychology

Virginia Commonwealth University

Richmond, Virginia

May, 2005
Acknowledgement

I would like to thank my committee members, Dr. Arnold Stolberg, Dr. Larry Williams, and Dr. Clarissa Holmes, for their supportive and valuable feedback. I would like to extend a special thank you to Dr. Williams who provided much appreciated statistical consultation on this project. I never could have mastered my LISREL syntax without you. I would especially like to acknowledge my committee chair and mentor, Dr. Arnold Stolberg, for his unwavering support with regard to my research and his overall enthusiasm for my professional development. Certainly, the Castile Road Conference will have its page in history. I would also like to thank Dr. Kate Macie for generously allowing me use of the dataset she worked so hard to gather. I would like to thank my family, especially my parents Joe and Carol Ferrante, and friends for their love and encouragement. Their customary holiday inquiries about my research progress continue to motivate me toward graduation day. Most importantly, I would like to thank my fiancé, Michael Gasper, for his endless love and support and for promising to be a cooperative co-parent in the future.
# Table of Contents

List of Tables.......................................................................................................................v
List of Figures.....................................................................................................................vi
Abstract..............................................................................................................................vii
Introduction.........................................................................................................................1
  Co-parenting in Divorced Families.................................................................................2
  General Parenting..........................................................................................................5
  Dimensions of Co-parenting...........................................................................................9
    Conflict.........................................................................................................................9
    Cooperation/Respect.....................................................................................................10
    Communication...........................................................................................................11
    Triangulation...............................................................................................................11
  Co-parenting is Universal..............................................................................................12
Parenting Differences in Divorced and Intact Families.................................................14
Assessment of Co-parenting.............................................................................................17
Statement of the Problem.................................................................................................20
Method...............................................................................................................................23
Participants.........................................................................................................................23
Procedures........................................................................................................................24
| Measures | Co-parenting and Parenting Behaviors | Overall Mental Health | Problems with Intimacy | Work Ethic | Self Esteem | Delinquency | Informational Questionnaire | Data Analyses | Results | Descriptive Statistics | Measurement Models | Structural Equation Models | Mediated Models | Discussion | Strengths and Implications for Intervention | Limitations and Directions for Future Research | References | Appendices | Appendix A: Co-Parenting Behavior Questionnaire | Appendix B: Informational Questionnaire | Vita |
## List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Scales Used in This Study</td>
<td>26</td>
</tr>
<tr>
<td>2.</td>
<td>Distribution of Measures Within The Full Sample</td>
<td>33</td>
</tr>
<tr>
<td>3.</td>
<td>Means and Standard Deviations for Each Measure by Marital Status</td>
<td>34</td>
</tr>
<tr>
<td>4.</td>
<td>Number of Items and Reliabilities of Parcels Constructed for Measurement Models</td>
<td>36</td>
</tr>
<tr>
<td>5.</td>
<td>Correlation Coefficients Among CBQ Factors</td>
<td>40</td>
</tr>
<tr>
<td>6.</td>
<td>Goodness of Fit for Confirmatory Factor Analysis of all Variables</td>
<td>42</td>
</tr>
<tr>
<td>7.</td>
<td>Correlations Among Latent Variables in Measurement Model</td>
<td>43</td>
</tr>
<tr>
<td>8.</td>
<td>Comparison of Mediation Models</td>
<td>44</td>
</tr>
</tbody>
</table>
List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Theoretical model with mediating effects</td>
<td>22</td>
</tr>
<tr>
<td>2. CBQ Measurement model</td>
<td>39</td>
</tr>
<tr>
<td>3. Full mediation model</td>
<td>46</td>
</tr>
<tr>
<td>4. Partial mediation model</td>
<td>48</td>
</tr>
</tbody>
</table>
Abstract

CO-PARENTING IN INTACT AND DIVORCED FAMILIES: ITS IMPACT ON YOUNG ADULT ADJUSTMENT

By Jill Allison Ferrante, B.A.

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science at Virginia Commonwealth University.

Virginia Commonwealth University, 2005.

Major Director: Arnold L. Stolberg, Ph.D., Department of Psychology

Co-parenting is the ideal parenting relationship after divorce, characterized by involvement of both parents in all decisions regarding their children. Children who report that their parents demonstrate healthy co-parenting are generally better adjusted than their peers who experience unhealthy co-parenting. The present study examined the potential mediating roles of co-parenting and parenting practices upon the relationship between marital status and young adult adjustment. Data were analyzed via structural equation modeling. Participants were 340 undergraduate students from intact and divorced/separated families. Data were obtained via questionnaires that tapped a range of adjustment factors (i.e., mental health, fear of intimacy, work ethic, self esteem, delinquency) along with co-parenting and parenting practices from the young adult’s perspective. Results suggest that co-parenting is an important mediator of the relationship
between marital status and young adult adjustment. Clinical and policy implications of study findings will be discussed.
“Co-parenting” describes the unique parenting style that divorced parents must practice. Although these parents have divorced their role as romantic partner, they maintain their role as parenting partner (Mullett & Stolberg, 1999). Lack of physical presence of both parents in a divorced family system requires that parents make an exceptional effort to coordinate childrearing. Divorced parents functioning as a cohesive unit is a relatively new concept; the term co-parenting does not appear in the literature until 1980 (Rosenthal & Hansen, 1980).

Identification of specific co-parenting dimensions has been adapted from developmental psychology research. Traditional parenting literature suggests important parenting dimensions are warmth, monitoring, discipline, communication, and encouraging age-appropriate autonomy (Steinberg, Mounts, Lamborn, & Dornbusch, 1991; Shonkoff & Phillips, 2000, p. 227). These individual parenting attributes remain essential for divorced parents and account for much of the variance in child adjustment (Avenevoli, Sessa, & Steinberg, 1999; Macie, 2002). A separate cluster of parenting dimensions has also been associated with co-parenting in divorced families. Negative co-parenting aspects, such as interparental conflict and triangulation, have been linked to child maladjustment (Stolberg, Camplair, Currier, & Wells, 1987; Shaw, Emery, and Tuer, 1993; Richardson & McCabe, 2001), while positive co-parenting dimensions like respect, involvement, communication, and cooperation are demonstrated protective factors within divorced families (Schoppe, Mangelsdorf, & Frosch, 2001; Macie, 2002).
While co-parenting researchers have built upon the foundational dimensions of general parenting, developmental psychology's study of parenting does not appear to have strived to include co-parenting within its understanding of intact families. Surely, co-parenting is vital in intact families just as it is in divorced families—all parents must parent together. The absence of the term co-parenting in the general parenting literature implies a promotive relationship that may not be there. A recent paper by Feinberg (2003) notes this disconnection in the literature and calls for co-parenting to be conceptualized within the parenting framework.

A first step toward incorporating co-parenting into the general parenting literature might be the examination of co-parenting's role in the link between certain risk contexts and child adjustment (Feinberg, 2003). The following model attempts to integrate co-parenting behaviors into our understanding of general parenting practices. Charles E. Spearman's two-factor theory of intelligence purports that intelligence is encompassed by a general intelligence factor, $g$ or general ability, as well as specific factors, $s$. This general factor plus one or more specific factors account for performance on intelligence tests (Sattler, 2001). Along these same lines, we might consider the existence of a general parenting factor, $p$, and situational factors, $s$, that describe extraordinary events that may alter the nature of parenting. One might conceptualize the frequently studied situational factor of divorce as an example of an extraordinary situational context. It is proposed that co-parenting is not a separate entity but rather a piece of general parenting that is altered by the $s$ of divorce.

_Co-parenting in Divorced Families_
Co-parenting was coined to describe what researchers hypothesized to be the ideal parenting relationship after divorce. This model parent-parent relationship was characterized by mutual involvement of both parents in all decisions regarding their children (Rosenthal and Hansen, 1980). Co-parents maintain a cooperative and constructive relationship with their former partner and opt to prioritize their children’s welfare over their own discord. Although they may no longer wish to be a part of each other’s lives, they understand that the child’s family must remain intact and allow each other to actively participate in childrearing.

Over time, the definition of co-parenting has extended beyond that of shared parenting to include the concept that co-parents work together to support each other’s parenting decisions, while maintaining healthy, yet flexible, boundaries (Maccoby, Depner, & Mnookin, 1990). Therefore, healthy co-parents strive to include each other in parenting decisions and work to compromise on these decisions. Investigators have identified three subtypes of co-parenting: cooperative, conflicted, and disengaged (Maccoby, Depner, & Mnookin, 1990). Cooperative co-parents communicate about their children regularly, have minimal levels of conflict, and praise rather than undermine their co-parent’s childrearing decisions. These parents practice the ideal, healthiest subtype of co-parenting, comprising approximately 25% of all divorcing parents (Maccoby, Depner, & Mnookin, 1990; Maccoby, Buchanan, Mnookin, & Dornbusch, 1993). The second, and most detrimental (Richardson & McCabe, 2001), subtype of co-parenting has been described as conflicted co-parenting. These co-parents communicate about their children, but high levels of conflict, disrespect, and criticism mark this communication.
Unfortunately the distribution of conflicted co-parenting matches that of cooperative co-parenting (Maccoby, Depner, & Mnookin, 1990). Most co-parents fall into the third and final category: *disengaged co-parenting*. These co-parents are involved in their children’s lives but practice parallel parenting whereby they do not communicate, positively or negatively, about their children; they merely stay out of each other’s way. Although this co-parenting subtype describes most families, research has not examined *disengaged co-parenting’s* link to child adjustment.

When the concept of co-parenting first entered the literature, Rosenthal and Hansen (1980) concluded that, “One of the main goals of counseling single-parent families (was) to maintain or establish a positive co-parenting relationship between the parents.” Their claim was without empirical support; however, two decades of research have confirmed this hypothesis. Co-parenting, along with general parenting competence, has been identified as one of the most important contributors to post-divorce young adult adjustment. Young adults who report that their parents demonstrated healthy co-parenting (low conflict, low triangulation, high respect, and high communication) are better adjusted than their peers who experienced unhealthy co-parenting (Macie, 2002).

These findings are also supported within the child adjustment literature. In one notable study conducted by Camara and Resnick (1989), co-parenting cooperation and conflict style were found to be more predictive of children’s adjustment than conflict regarding the spousal relationship. Thus, it is not the overall amount of conflict present that predicts children’s psychological adjustment but the way in which spouses can resolve this conflict towards a cooperative co-parenting relationship. Clearly,
parenting is a vital contributor to children’s post-divorce adjustment. The question remains whether co-parenting is an equally important determinant of children’s development in intact, married families.

*General Parenting*

While the co-parenting relationship is an extremely important predictor of child and young adult adjustment, we cannot disregard the profound impact of general parenting competence. Emotionally responsive, competent parenting is a direct, proximal predictor of children’s resiliency (Wyman, Cowen, Work, Hoyt-Meyers, Magnus, & Fagen, 1999) and overall adjustment (Richardson & McCabe, 2001; Macie, 2002). Many have labeled parenting as the single most important predictor of children’s psychosocial adjustment (Summers, Forehand, Armistead, & Tannenbaum, 1998; Richardson & McCabe, 2001; Martinez & Forgatch, 2002). In fact, poor parenting that includes harsh treatment and lack of clear, firm discipline or supervision is the biggest risk factor for child psychopathology (Sroufe, Duggal, Weinfield, & Carlson, 2000). Parents have a powerful effect on child adjustment because their influence transcends the many biopsychosocial levels that determine development (Bronfenbrenner, 1979). Parents influence their children’s development via at least three identified paths: parent’s mental health, parent’s childrearing beliefs, and the home environment that the parent creates (Shonkoff & Phillips, 2000, p. 289).

While parent’s mental health has important biological and environmental consequences for children (Frick, Lahey, Loeber, Stouthamer-Loeber, Christ, & Hanson, 1992; Emery, Waldron, Kitzmann, & Aaron, 1999), parenting competence predicts child
adjustment over and above parent mental health (Wyman, Cowen, Work, Hoyt-Meyers, Magnus, & Fagen, 1999). Poor parenting, including inadequate discipline and monitoring, predicts involvement with antisocial peers and the development of conduct disorder (Dishion, Patterson, Stoolmiller, & Skinner, 1991; Sroufe, Duggal, Weinfield, & Carlson, 2000). Conversely, positive parenting is protective against children's antisocial behavior (Forehand, Miller, Dutra, & Chance, 1997; Masten, Hubbard, Gest, Tellegen, Garmezy, & Ramirez, 1999).

Though studies agree that parenting competence is a strong predictor of child adjustment (Wyman, Cowen, Work, Hoyt-Meyers, Magnus, & Fagen, 1999; Richardson & McCabe, 2001; Martinez & Forgatch, 2002), definitions of parenting vary greatly across experimenters. Parenting describes the focused and distinct relationship a child has with the adult(s) who is most emotionally invested in and consistently available to him or her (Shonkoff & Phillips, 2000, p. 226). Developmental theorists have long characterized the dimensions of this relationship to include clear standards of conduct, firm control, ample warmth, and open communication (Shonkoff & Phillips, 2000, p. 227). Some have broadened these dimensions to include the encouragement of age-appropriate autonomy (Darling & Steinberg, 1993).

Although investigators recognize that the five dimensions of discipline, monitoring, warmth, parent-child communication, and encouraging age-appropriate autonomy comprise the construct of parenting, studies generally only incorporate one or two of these dimensions into their methodology (Forehand, Miller, Dutra, & Chance, 1997; Sroufe, Duggal, Weinfield, & Carlson, 2000). Studies lacking a comprehensive
operationalized definition of parenting telescope our view of the relationship between parenting and child adjustment.

Monitoring and warmth appear to represent the most frequently studied parenting dimensions within developmental psychopathology research. Lack of parental warmth is a strong predictor of the development of depression (Sroufe, Duggal, Weinfield, & Carlson, 2000) while poor monitoring has been linked to externalizing problems in children and adolescents (Dishion, Patterson, Stoolmiller, & Skinner, 1991; Forehand, Miller, Dutra, & Chance, 1997). Parenting and its specified dimensions clearly have a significant role in the development of both internalizing and externalizing disorders.

As parenting encompasses five interrelated but distinct dimensions, parents can vary greatly along the continuum of each dimension. This variation has been studied extensively and four distinctive parenting subtypes, or styles, have been identified: authoritative, authoritarian, permissive, and indifferent (Baumrind, 1991). These styles are based mainly on parent's demonstrated levels of warmth and control. Within parenting styles, warmth illustrates the amount of support, affection, and encouragement parents provide as opposed to hostility, shame, and rejection (Baumrind, 1991). Control describes the degree to which the child is monitored, disciplined, and regulated rather than being left largely unsupervised (Baumrind, 1991; Darling & Steinberg, 1993). Authoritative parenting, including high levels of both warmth and control, has long been the gold standard parenting style (Steinberg, Elmen, & Mounts, 1989). Authoritarian parenting combines low levels of warmth with high levels of control and has been noted as the style to avoid (Santrock, 1998). Permissive parents offer their children much
warmth but little control. Finally, indifferent parents essentially ignore their children via low levels of warmth and control.

The literature examining the link between parenting and child adjustment frequently utilizes Baumrind's four parenting styles to classify parents into groups. These groups are then compared on a variety of child outcome measures. For example, Laurence Steinberg has consistently linked authoritative parenting to positive adjustment: increased adolescent school performance, stronger school engagement, general child competence, and decreased deviance (Steinberg, Lamborn, Dornbusch, & Darling, 1992; Steinberg, Nancy, Fletcher, Brown, & Dornbusch, 1995; Avenevoli, Sessa, & Steinberg, 1999). Authoritarian parenting, on the other hand, predicts poor outcomes such as low self confidence, increased psychological distress, poor school performance, and increased substance use and deviance (Avenevoli, Sessa, & Steinberg, 1999). Permissive parenting is linked to a mixture of positive and negative outcomes. These children appear to be psychologically well-adjusted, but they have poor school performance and increased deviance (Steinberg, Nancy, Fletcher, Brown, & Dornbusch, 1995). Indifferent parenting results in a similar picture to authoritarian parenting: psychological distress, substance use, and deviance along with low self esteem and school performance (Avenevoli, Sessa, & Steinberg, 1999).

Research on parenting styles and adjustment has been criticized since most studies on authoritative parenting use European American, middle class samples. Critics suggest that the demonized group of authoritarian parents may better serve children of African American families or living in dangerous neighborhoods (Avenevoli, Sessa, &
Steinberg, 1999). Current research suggests this criticism is correct; parenting practices and styles do vary across family structures, SES, and ethnicities (Avenevoli, Sessa, & Steinberg, 1999). Intact families are more authoritative and less indifferent than single parents, but both groups show the same frequency of permissive and authoritarian parenting (Avenevoli, Sessa, & Steinberg, 1999). However, it is important to note that although the distribution of parenting styles differs by family structure, the relationship between authoritative parenting and adjustment does not differ as suggested (Avenevoli, Sessa, & Steinberg, 1999).

Dimensions of Co-parenting

Decades of research on general parenting dimensions and styles have informed our conceptualization of co-parenting dimensions. Like authoritative parents who convey acceptance and behavioral control while encouraging psychological autonomy, successful co-parents express respect for one another while maintaining appropriate boundaries. Co-parenting dimensions are clearly correlated with general parenting dimensions, but they focus on the interactions between parents about their children rather than the parent-child relationship (Macie, 2002). Thus, a distinct set of co-parenting dimensions has been noted in the literature, including conflict, cooperation and respect, communication, and triangulation (Mullett & Stolberg, 1999; McConnell & Kerig, 2002).

Conflict. Interparental conflict is, by far, the most frequently studied co-parenting dimension. We know that interparental conflict disrupts general parenting competence; couple negativity leads to family negativity. For example, fathers have been found to give less support and encouragement to sons as a result of interparental conflict (Kitzmann,
High interparental conflict predicts poor young adult adjustment as well as low intimacy with parents (Richardson & McCabe, 2001). These findings are consistent across child gender (Shaw, Emery, & Tuer, 1993) and marital status (Hetherington & Stanley-Hagan, 1999). Post-divorce interparental conflict decreases children's well-being (Amato & Keith, 1991) so much that the conflict is actually worse on children than the divorce process itself (Morrison, 1999).

While conflict impacts adjustment across family structures and marital status, the impact may be greater for those in intact families. Children in single-parent homes are generally better adjusted than children within high conflict intact families (Hetherington & Stanley-Hagan, 1999). In fact, high conflict intact families look the same or worse than divorced families (Amato & Keith, 1991). Here, divorce is seen as a protective process as it removes the child from the line of fire and improves child adjustment (Amato, Loomis, & Booth, 1995; Booth & Amato, 2001).

**Cooperation/Respect.** Interparental cooperation and respect, goals for healthy co-parenting, serve as positive models for children of divorce. The co-parents who can manage to put aside their relationship differences and cooperate on childrearing matters present a united front to their children. Positive family interactions, marked by support and respect, have been linked to decreased child externalizing behavior problems (Schoppe, Mangelsdorf, & Frosch, 2001). More broadly, high respect between parents predicts healthy psychological outcomes in young adults (Macie, 2002) and children (McConnell & Kerig, 2002).
Communication. Interparental communication, another key dimension of co-parenting, describes the frequency and way in which parents talk to each other about their children and childrearing issues. Its inclusion within the dimensions of post-divorce co-parenting is vital since the amount of communication between parents concerning their children clearly diminishes with time (Amato & Keith, 1991). In one study of parents whose children were going back and forth between households, reports of weekly communication dropped from 67% to 40% over the three years of the study (Maccoby, Buchanan, Mnookin, & Dornbusch, 1993). Other studies concur with these findings, estimating that 61% of divorced parents demonstrate low communication (Macie, 2002). Families with low co-parental communication face increased difficulty being consistent in their expectations and ability to agree on the need for parental intervention with their children. Poor communication prevents parents from being “on the same page” regarding childrearing issues and has been linked to poor child outcomes (Macie, 2002; Feinberg, 2003).

Triangulation. The least empirically examined dimension of co-parenting is that of triangulation. Triangulation occurs when intergenerational boundaries become blurred, transforming children into allies or pawns in interparental conflict (Feinberg, 2003). Research suggests that this behavior occurs most frequently in mother-son dyads (Margolin, Gordis, & John, 2001). In this situation, mothers might inappropriately confide in their sons as if they are the “man of the house”. High levels of triangulation, a behavior exhibited by approximately 56% of divorced couples in one study (Macie,
2002), lead to poor psychological adjustment in children and young adults (Macie, 2002; Feinberg, 2003).

To date, researchers have kept the study of these four dimensions rather separate. This is particularly true for interparental conflict whose literature is much larger than the entire co-parenting literature. Thus, it is important for future studies to use a broad definition of co-parenting in research examining the link between co-parenting and child adjustment. We must better understand the cumulative effect of these co-parenting dimensions upon child and young adult adjustment before isolating these variables.

**Co-parenting is Universal**

While the great majority of co-parenting research has focused on post-divorce parental relationships, co-parenting is beginning to be examined within intact families (Margolin, Gordis, & John, 2001; Schoppe, Mangelsdorf, & Frosch, 2001; McConnell & Kerig, 2002). However, the study of co-parenting in married families has developed as a separate literature focused mainly on the co-parenting of toddlers and pre-school children (Margolin, Gordis, & John, 2001) and the changes in the marital relationship as partners become parents (Deal, Stanley-Hagan, Bass, Hetherington, and Clingempeel, 1999). The rationale for the separation of these literatures is unclear. Further, this new group of research makes the same mistake of divorce-related co-parenting research and limits its sample to intact families only (Schoppe, Mangelsdorf, & Frosch, 2001; McConnell & Kerig, 2002). Clearly, studies are needed that examine the import of co-parenting in both divorced and intact families.
Co-parenting within intact families appears to differ as a function of parent gender and child age. In general, mothers are reported to be more cooperative co-parents than fathers (Margolin, Gordis, & John, 2001; McConnell & Kerig, 2002). This cooperation appears to diminish as the child ages. Intact parents of preschool kids report more spousal cooperation than intact parents of older children (Margolin, Gordis, & John, 2001). These findings are ripe with implications for clinical interventions; however, the generalizability of these findings to divorced families remains unclear.

In a study that attempted to assess the contribution of co-parenting to child adjustment with a sample of young adults from both intact and divorced families, parenting and co-parenting impacted young adult adjustment more profoundly than marital status (Macie, 2002). This evidence suggests that co-parenting, as it is conceptualized within the divorce literature, is vital to intact families as well as divorced families. Previously, co-parenting was not considered to be independent of marital status. Yet just as divorced parents are still parents, married parents are still co-parents. Living situation changes make more explicit an act that is implicit in intact families—collaboration in parenting. It is not the act of cooperation or co-parenting that differentiates divorced from married families, but the extra energy that must be applied to co-parenting within a divorced parenting team.

In other words, closely coordinated co-parenting relationships may mediate the relationship between marital status and young adult adjustment in all families (Feinberg, 2003). The mediating role of co-parenting is hypothesized by many researchers but has not been established as an empirical truth (Feinberg, 2003). This across family structure
conceptualization of co-parenting nicely links the study of co-parenting in divorced and intact families.

Further, co-parenting’s place within the general parenting literature is dubious. Is co-parenting just another dimension of parenting, much like discipline, monitoring, warmth, parent-child communication, and encouraging age-appropriate autonomy? A model loosely inspired by Charles E. Spearman’s two-factor theory of intelligence attempts to find co-parenting’s place within general parenting behavior. Spearman proposed that intelligence is encompassed by a general intelligence factor, \( g \), in addition to specific factors, \( s \). The combined effect of \( g \) and one or more specific factors determines intelligence test performance (Sattler, 2001). Similarly, perhaps there is a general parenting factor, \( p \), and situational factors, \( s \), that connote risk events that may alter the expression of parenting. Within this model, divorce could be considered an extraordinary situational context that puts children at risk to experience diminished parenting and co-parenting. It is proposed that co-parenting is not a separate entity but rather a universal piece of general parenting that is altered by the \( s \) of divorce.

*Parenting Differences in Divorced and Intact Families*

Although co-parenting is likely a universal aspect of general parenting, there is good reason for its previous encapsulation within the study of divorce. While divorce is not actually the reprehensible act many once thought, there are legitimate, noteworthy parenting and co-parenting differences between divorced and intact families (Shaw, Emery, & Tuer, 1993; Macie, 2002). “Divorce may be a contextual marker variable for other concurrent or preexisting factors that intervene in the relationship between divorce
and subsequent adjustment (Martinez & Forgatch, 2002, p. 107). Some of the factors that Martinez and Forgatch allude to are financial strain and transition to a new family structure as well as the quality of parenting and co-parenting behaviors. Of the stressors that can arise as a result of divorce, diminished parenting and co-parenting pose the greatest risk to child and young adult adjustment (Macie, 2002; Martinez & Forgatch, 2002). For example, ineffective parenting practices mediate the association between family structure transitions and child adjustment such that parenting accounts for more variance in child adjustment that family transition (Martinez & Forgatch, 2002). Parenting and co-parenting are clearly the key buffers/risk factors that explain the relationship between divorce and child adjustment.

Divorce is associated with diminished parenting skills. The poor parenting practices that accompany divorce appear to be the true culprit behind the negative outcomes previously linked to marital status. Whether the chicken or the egg came first is a question that plagues this correlational relationship. Parents who divorce report more pre-divorce parenting deficits than those who stay married (Shaw, Emery, & Tuer, 1993). Specifically, they report less concern and greater levels of rejection, economic stress, and parental conflict than those parents who remain intact (Shaw, Emery, & Tuer, 1993). This body of research suggests that divorce has little effect on parenting. Less-skilled parents show parenting deficits before the act of divorce. Thus, parents come out of the divorce process in much the same way that they went into it.

On the other hand, evidence also suggests that the act of divorce causes diminished parenting abilities. A period of decreased monitoring, discipline, and warmth
frequently follows divorce (Hetherington, 1988; Hetherington, Cox, & Cox, 1982). This period of deteriorated parenting has been attributed directly to the stress of divorce and accompanying conflict (Amato, 1993). Divorce causes many distressed parents to be less emotionally and physically available to their children at a critical time when their children are dealing with major life change.

Whether divorce precedes diminished parenting or vice versa, the association between divorce and diminished parenting is of great concern. Young adults from divorced families report that their parents demonstrate poorer co-parenting behaviors than their peers from intact families (Kitzmann, 2000; Macie, 2002). Divorced parents exhibit more interparental conflict and triangulation as well as decreased parental respect and communication. Further, they report that their fathers are less involved and demonstrate less warmth, monitoring, discipline, and communication. Decreased paternal involvement is a well-known result of divorce; however, mothers also display diminished parenting. Specifically, mothers' ability to monitor their children significantly decreases (Macie, 2002). Diminished parenting adds to the risk a child going through the transition of divorce must face.

Further complicating the picture of divorce, these negative parenting behaviors are an expected consequence of divorce. Many would question the divorcing parents who never fight, treat each other with ultimate respect, and talk to each other about their children daily. For most people in the divorcing parent's environment, divorce is equated with conflict. These people are labeled primary decision influencers, those from whom divorcing parents generally seek advice regarding desirable custody arrangements.
Attorneys, family members, and close friends are the most frequently sought out primary decision influencers (Camplair & Stolberg, 1987), as well as the influencers who are retrospectively regarded as the least helpful. The encouragement of negative co-parental behaviors that parents receive from primary decision influencers may contribute to diminished parenting.

The reality that divorce is associated with diminished parenting explains why co-parenting has been limited to divorced families. The 20% of intact families that also exhibit poor parenting and co-parenting behaviors demand that co-parenting extend to intact families (Macie, 2002). Interventions for divorced parents aim to moderate the stress of divorce by teaching parents to maintain authoritative parenting and minimize conflict (Hetherington & Stanley-Hagan, 1999). Now, attempts must be made to understand and improve co-parenting within intact families.

Assessment of Co-Parenting

Before the impact of future co-parenting interventions can be determined, we must be able to measure co-parenting. Assessment measures of co-parenting are few, yet demand for measures of co-parenting is great. Due to the impact of co-parenting on child adjustment, custody evaluations must encompass an evaluation of parents’ current and projected co-parenting skills. For example, Virginia Code § 20-124.3 considers the following information key to determining the best interests of the child regarding custody: “the relative willingness and demonstrated ability of each parent to maintain a close and continuing relationship with the child, and the ability of each parent to cooperate in and resolve disputes regarding matters affecting the child (Best interests of
the child, 2000).” Thus, custody evaluators in Virginia attempt to incorporate an evaluation of co-parenting within their custody evaluation.

Co-parenting interventions are also in demand (Ellis, 2000). As the legal system integrates findings from psychological research on co-parenting and child adjustment, legal statutes increasingly demand divorced or separated parents to attend co-parenting trainings. A number of interventions have been developed to meet these needs, but flawed assessment tools limit our understanding of the effectiveness of these programs (Ellis, 2000). Assessment tools are necessary that can track co-parenting skills over time. Thus, both clinical and research utility would be vast for such a co-parenting measure.

A crucial question in the development of co-parenting instruments has been identification of the best reporter of co-parenting behaviors. Previous assessment of co-parenting has relied almost solely on parent’s reports of family dynamics (Margolin, Gordis, & John, 2001). This is problematic since we know that parents are limited in their ability to be objective reporters of their own behavior, especially their negative behavior (Ahrons, 1981). Parents’ reports can be biased by social desirability as well as lack of insight. Parents’ perceptions of their own and their former partners’ co-parenting behaviors do not correspond (Ahrons, 1981). Finally, the stressor of divorce and the hurt resulting from marital dissatisfaction can influence the objectivity of parents’ perceptions of co-parenting.

Other research, mainly with intact families, has utilized observational methods, such as the Coparenting and Family Rating System, to code co-parenting interactions (Deal, Hagan, Bass, Hetherington, & Clingempeel, 1999; McConnell & Kerig, 2002).
The procedure of these observations is such that one child from a family, along with his or her parents, interact in a laboratory setting. These family interactions are difficult to code as parents decrease their levels of expressed hostility, warmth, assertiveness, coercion, communication, self-disclosure, and power assertion when their children are present (Deal, Hagan, Bass, Hetherington, & Clingempeel, 1999). Since people clearly behave differently when they are being observed, observational assessments of co-parenting are significantly limited. These methods are further limited by their inclusion of only one child within the family. While this procedure is utilized toward experimental parsimony, it is not likely to be the best measure of a family system. Also, these methods have generally only been employed to study co-parenting interactions of parents with very young children (McConnell & Kerig, 2002).

While all current measures of co-parenting have certain limitations, child-report measures provide another avenue to measure co-parenting practices (Macie & Stolberg, 2003; Mullett & Stolberg, 1999). Children, of course, do not witness all of their parents’ interactions, but they are the most direct observer of co-parental interactions aside from the parents themselves. Their perceptions of their parents’ co-parenting abilities may even be more important in determining child and young adult adjustment than parents’ actual co-parenting behavior (Macie, 2002).

The Co-Parenting Behavior Questionnaire (CBQ) (Mullett & Stolberg, 1999) is the first child-centered measure of post-divorce co-parenting behaviors. This measure focuses on both positive and negative co-parenting issues via scales that tap interparental conflict, communication, triangulation, and cooperation or respect. The CBQ was
originally developed using young adults (Mullett & Stolberg, 1999; Macie, 2002) but has since been applied to children aged 10 to 18 (Macie & Stolberg, 2003; Schum, 2003). Though still in its development phase, the CBQ has strong psychometric properties (Macie & Stolberg, 2003; Mullett & Stolberg, 1999; Schum, 2003) and practicality due to its paper-pencil format. As the CBQ was originally developed for use with divorced populations only, its interpretability is limited. Scale creators aim to revise this measure to include subscales for situational contexts other than divorce and further examination of norms and standardization (Schum, 2003). These revisions to the CBQ should increase both clinical and research utility.

Statement of the Problem

Data used in this study were originally collected in fulfillment of a doctoral dissertation, which examined the effects of parental divorce on long-term young adult adjustment. The original study's design separated young adults into two groups by parent's marital status, married and divorced/separated, and compared young adults on a variety of adjustment measures (Macie, 2002). Macie found that perceived parenting and co-parenting behaviors were the greatest predictors of young adult adjustment, accounting for the majority of the variance in young adult adjustment. The current study seeks to further define the role of co-parenting and parenting behaviors, represented by parental hostility, parental cooperation, mothering, and fathering, in regard to young adult adjustment by examining the potential mediating role of these behaviors upon the relationship between marital status and young adult adjustment. The theoretical model for this study is outlined in Figure 1. This study tested the following hypotheses: 1) Marital
status will have direct effects on young adult adjustment; 2) Co-parenting and parenting practices will also have direct effects on young adult adjustment; 3) The influence of marital status on young adult adjustment will be mediated by co-parenting and parenting practices, such that children whose parents divorce will be more likely to experience high parental hostility, low parental cooperation, low mothering and low fathering which, in turn, will lead to poorer young adult adjustment (poor overall mental health, high problems with intimacy in romantic relationships, low work ethic, low self esteem, and high delinquency). If co-parenting and parenting practices are found to mediate the relationship between marital status and young adult adjustment, results will lend some credence to the notion of universal and situation-specific parenting.
Figure 1. Theoretical model with mediating effects.
Method

Participants

Participants were 389 undergraduate students at Virginia Commonwealth University, a large state university in the South-Atlantic region. Subjects eighteen years and older were recruited via undergraduate introductory psychology courses and received course credit for their participation. Aside from age, no eligibility criteria were in place for recruitment; however, participants will be eliminated from analyses if they were over 30 years old (n=14) at the time of the study. Only participants between the ages of 18 and 30 were considered young adults. As this study focused solely on the contexts of divorce and intact marriage, subjects were excluded from analyses if they reported that their parents had never been married (n=31). 340 surveys, 87% of study completers, were included for statistical analyses. Those who reported that their parents were separated were grouped together with those reporting divorce for all analyses that included marital status as a variable.

Preliminary analyses revealed an average participant age of 19.6 years (sd = 2.0) within the sample. Ninety-two percent of subjects were within the traditional college age range, 22 years old or younger. 35.3% of participants were male and 64.7% were female. Subjects were 65.8% Caucasian, 22.0% African-American, and 4.8% Asian. Seven percent reported a racial affiliation other than the three categories mentioned and four participants did not report a racial affiliation. About one third of the subjects (34.1%, N =
116) reported that their biological parents were divorced. 62.2% of subjects reported being employed at least part-time.

The following are descriptive statistics that pertain only to the sample of young adults whose biological parents were divorced. The mean age at the time of parents’ separation was 8.6 years (SD = 5.6). Regarding custody arrangements, 56.6% of participants reported that their mother had primary custody while 7.5% noted that their father had primary custody. 10.4% reported shared custody. 74.0% of subjects reported that their mother was their primary caretaker compared to 18.3% who reported that their father was their primary caretaker. Concerning noncustodial parents, 22.9% of participants never spent time with their nonresidential parent after the separation. Subjects with the next most common visitation arrangement spent time with their noncustodial parent twice a month. Remarriages were quite common. 43.4% reported that their mother had remarried while 52.9% reported that their father had remarried. 80% of mothers remarried only once with a maximum of four remarriages. 76% of fathers remarried only once with a maximum of three remarriages. Finally, participants were asked to rate their adjustment to their parents’ divorce on a 1 (“I still have a hard time with the fact that my parents are separated”) to 5 (“I have adjusted well and am comfortable with the separation”) scale. 65.9% of respondents reported that they have adjusted well with a mean response of 4.4 (SD = 1.0).

*Procedure*

Questionnaire packets were distributed to students enrolled in undergraduate introductory psychology courses. All students in these courses were eligible to
participate. Completion of this study was an option students could select to fulfill a course requirement for research participation. An alternative to research participation was offered in the form of a short paper. Approximately 475 surveys were distributed and 389 were returned, producing a pre-attrition rate of 82%.

Students provided consent by signing an informed consent form that was attached to the assessment battery. As data were collected, this consent form was immediately removed from the questionnaire packet and was kept in a separate file to ensure anonymity. These consent forms were used by the researcher to appropriately grant course credit to study participants. Names and other identifying information were not recorded on the actual questionnaires and were therefore rendered untraceable.

Data were obtained via questionnaires that tapped a broad range of adjustment factors along with a variety of parenting behaviors from the young adult’s perspective. All co-parenting and parenting behaviors were measured by the retrospective report of young adult participants; subjects were asked to think back to their childhood to respond to these items.

Measures

Information on the scales used in this study is summarized in Table 1.
<table>
<thead>
<tr>
<th>Construct</th>
<th>Scales Used in This Study</th>
<th>Scale Sources</th>
<th>Of Items</th>
<th>Alpha&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-Parenting</td>
<td>Parental Hostility</td>
<td>Co-Parenting Behavior</td>
<td>36</td>
<td>.91</td>
</tr>
<tr>
<td></td>
<td>Parental Cooperation</td>
<td>Questionnaire (Mullett &amp; Stolberg, 1999)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parenting</td>
<td>Mothering</td>
<td>Co-Parenting Behavior</td>
<td>52</td>
<td>.96</td>
</tr>
<tr>
<td></td>
<td>Fathering</td>
<td>Questionnaire (Mullett &amp; Stolberg, 1999)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>Positive Symptom Total</td>
<td>Brief Symptom Inventory</td>
<td>53</td>
<td>.96</td>
</tr>
<tr>
<td>Mental Health</td>
<td></td>
<td>(Derogatis &amp; Spencer, 1983)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problems with</td>
<td>Fear of Intimacy</td>
<td>Fear of Intimacy Scale</td>
<td>35</td>
<td>.92</td>
</tr>
<tr>
<td>Intimacy</td>
<td></td>
<td>(Descutner &amp; Thelen, 1991)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Ethic</td>
<td>Initiative</td>
<td>Occupational Work Ethic</td>
<td>23</td>
<td>.94</td>
</tr>
<tr>
<td></td>
<td>Dependable</td>
<td>Inventory (Hill &amp; Petty, 1995)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Esteem</td>
<td>Self Esteem</td>
<td>Rosenberg Self Esteem Scale</td>
<td>10</td>
<td>.87</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Rosenberg, 1965)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delinquency</td>
<td>Delinquency</td>
<td>Young Adult Self Report</td>
<td>9</td>
<td>.73</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Achenbach, 1997)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup> Alpha reliabilities based on study sample.
Each participant completed a battery of self-report questionnaires, which included the following:

(1) *The Co-parenting Behavior Questionnaire (CBQ)*. (Macie & Stolberg, 2003; Mullett & Stolberg, 1999; Schum, 2003). The CBQ is an 86-item instrument designed to assess the co-parenting interactions and parenting behaviors of divorced parents from the viewpoint of the child. This measure targets children between the ages of 10 and 17 and asks them to reflect the behavior of their parents in the past three months. The CBQ contains 12 subscales, indicating Parental Conflict, Co-parental Communication, Triangulation, Co-parental Cooperation, and each of the following parenting skills for both the mother and the father: Warmth, Parent-Child Communication, Monitoring, and Discipline. The 12 scales have good internal consistency, with alpha coefficients reported between .82 and .93. These scales also were demonstrated to have good predictive validity when correlated with measures of child behavior problems and self esteem.

For the purpose of this study, the items of the CBQ were worded in the past tense and participants were asked to answer based on their memory of their childhood experiences. Therefore, the CBQs administered within this study reflect *perceived* co-parenting and parenting behaviors and are increasingly vulnerable to memory biases. The CBQ was administered to all participants, whether their parents were divorced or married. 8 items do not apply to children from intact families (e.g., “My parents fought about where I should live”). Young adults from intact families were either given an alternative similar item to which they could respond (e.g., “My parents fought about matters involving me”) or asked to skip the item. Skipped items were prorated via mean
substitution in order to calculate complete CBQ scores for participants from intact families. See Appendix A for version of CBQ used in this study.

(2) Brief Symptom Inventory (BSI). (Derogatis & Spencer, 1983). The BSI is a 53-item inventory of global psychological symptoms, developed from its longer parent instrument the SCL-90-R. When scored, it yields three global indices: Global Severity Index (GSI), Positive Symptom Total, and Positive Symptom Distress Index. The BSI also yields nine subscale scores for different symptom dimensions. Test-retest reliability coefficients range from .68 to .91. Studies of the BSI have demonstrated good internal consistency and adequate validity (Derogatis, Rickels, & Rock, 1976). For the purpose of comparing groups within this study on this measure, a simple sum score was calculated to indicate the total endorsement of symptoms.

(3) Fear of Intimacy Scale (FIS). (Descutner & Thelen, 1991). The FIS is a 35-item instrument designed for adults to measure fear of intimacy with significant others. In the development of this instrument, intimacy was defined as the exchange of personal thoughts and feelings with another individual who is highly valued. The mean score for a college-aged sample (mean age = 19.1) has been reported as 78.75 (SD = 21.82). The FIS has an alpha of .93, indicating excellent internal consistency, and a test-retest correlation of .89 over one month. Construct validity has been demonstrated by positive correlations with the UCSL Loneliness Scale and negative correlations with the Jourard Self-Disclosure Questionnaire, Miller Social Intimacy Scale, and Need for Cognition.

(4) The Occupational Work Ethic Inventory (OWEI). (Hill & Petty, 1995). The
OWEI is a 50-item questionnaire consisting of adjectives which respondents rate based on the stem “At work I can describe myself as”. Responses are given on a 7-point Likert scale ranging from Never to Always. The alpha coefficient for this scale has ranged from .90 to .95 in previous use. The items represent key concepts identified in previous research on work ethic and work attitude. Factor analysis has indicated 4 factors: Interpersonal skills, Initiative, Being Dependable, and Reversed items. This study utilized only the “Initiative” and “Dependable” scales, which consisted of 23 items.

(5) *Rosenberg Self Esteem Scale.* (Rosenberg, 1965). This instrument consists of 10 items rated on a 5-point Likert scale that are tabulated to reflect the individual’s sense of self-worth. The original instrument used a Guttman rating, but further research was conducted with Likert scaling. Within a college sample, mean scores of 36.5 have been found for women and 38.0 for men. Extensive and acceptable reliability (internal consistency and test-retest) and validity (convergent and discriminant) information exists for the Rosenberg Self-Esteem Scale (Blascovich & Tomaka, 1991).

(6) *The Young Adult Self Report (YASR).* (Achenbach, 1997). This instrument is a part of the Achenbach Empirically Based System of Assessment and is used for young adults aged 18 to 30. The instrument obtains self-ratings of behavioral/emotional problems that are reflected in two broad scales (Internalizing and Externalizing) and 8 syndrome scales. Content validity, criterion-related validity, and construct validity have been demonstrated (Achenbach, 1997).

Only the Delinquency syndrome scale was used in this study to measure the relative acting-out and rule-breaking behavior of young adults. For the purpose of group
comparison, a simple sum of item values was calculated to reflect the total endorsement of items on this measure.

(7) Informational Questionnaire. (Macie, 2002). Participants also completed a questionnaire indicating demographic characteristics, family status variables, relationship variables, financial responsibility, and work responsibility. This questionnaire was written for the original dissertation study as a means of collecting certain necessary information that was not captured by other measures in battery. See Appendix B for full questionnaire.

Independent variables were operationalized in the following manner:

- Marital status: Divorced/Separated vs. Married (Informational Questionnaire)
- Perceived co-parenting practices during childhood (2 scales on Co-parenting Behavior Questionnaire: Parental Cooperation and Parental Hostility)
- Perceived parenting practices during childhood (1 scale each for mother and father on Co-parenting Behavior Questionnaire: Mothering and Fathering; both scales include domains of Warmth, Parent-Child Communication, Monitoring, and Discipline)

Dependent variables were operationalized in the following manner:

- Overall mental health (Brief Symptom Inventory)
- Problems with intimacy in romantic relationships (Fear of Intimacy Scale)
- Work ethic (Occupational Work Ethic Inventory)
- Self esteem (Rosenberg Self Esteem Scale)
- Delinquency (Delinquency scale of Young Adult Self Report)
Analyses

Structural equation modeling (SEM) using LISREL 8.54 (Jöreskong & Sörbem, 2003) was used to determine how well the proposed mediation model outlined in Figure 1 fit the data. When testing mediation models, SEM has several advantages over other statistical techniques. First, SEM is a confirmatory, rather than an exploratory, technique. Driven by theory, SEM allows prior research to guide hypotheses about the relationships among latent variables. Further, SEM allows complete and simultaneous tests of multidimensional constructs and complex relationships. Unlike regression techniques, SEM tests the fit of a model in one step. SEM provides several indices of the overall fit of the model as well as the individual regression coefficients for each path. Additionally, SEM eliminates the confound of measurement error by estimating and removing measurement error such that common variance between factors can be examined (Tabachnick & Fidell, 2001).

SEM analyses result in chi-square values; however, this statistic is not generally meaningful. One disadvantage with chi-square in SEM is that it always decreases when parameters are added to the model. Therefore, models with a large number of parameters tend to make chi-square small, thereby capitalizing on chance and ending with a model containing nonsense parameters. This led researchers to develop additional fit indices to assess model fit. A number of measures of fit have been proposed that take parsimony, or few parameters, as well as fit into account (Tabachnick & Fidell, 2001). The present study focused on just two of these indices: the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA). The CFI compares the fit of the
proposed model to the null model, with values above .90 indicating a good fit (Hu & Bentler, 1999). Another commonly used measure of fit is the Root Mean Square Error of Approximation (RMSEA). In contrast to the CFI, the RMSEA is adjusted for parsimony. RMSEA reflects the number of free parameters in the model in addition to assessing overall fit. Therefore, RMSEA penalizes the inclusion of many parameters that reduce the degrees of freedom without adding to the quality of the model (Millsap, 2002). RMSEA values less than .08 indicate a fair or good fit (Browne & Cudeck, 1993).

Specifically, the mediation hypothesis was tested by examining and comparing the fits in separate models for full mediation and partial mediation. Individual regression coefficients for all paths were examined.
Results

Descriptive Statistics

The distribution properties of all co-parenting and parenting practices scales, as well as all young adult adjustment scales were examined (see Table 2).

Table 2

Distribution of Measures Within The Full Sample

<table>
<thead>
<tr>
<th>Scale</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Observed</th>
<th>Possible Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental Hostility</td>
<td>340</td>
<td>77.42</td>
<td>12.77</td>
<td>31 – 105</td>
<td>22 - 110</td>
</tr>
<tr>
<td>Parental Cooperation</td>
<td>340</td>
<td>43.09</td>
<td>12.19</td>
<td>12 – 60</td>
<td>14 - 70</td>
</tr>
<tr>
<td>Mothering</td>
<td>340</td>
<td>106.99</td>
<td>18.10</td>
<td>42 – 130</td>
<td>26 - 130</td>
</tr>
<tr>
<td>Fathering</td>
<td>340</td>
<td>90.89</td>
<td>25.67</td>
<td>26 – 130</td>
<td>26 - 130</td>
</tr>
<tr>
<td>Overall Mental Health</td>
<td>340</td>
<td>42.24</td>
<td>30.36</td>
<td>1 – 178</td>
<td>0 - 212</td>
</tr>
<tr>
<td>Problems with Intimacy</td>
<td>340</td>
<td>74.86</td>
<td>22.34</td>
<td>36 – 141</td>
<td>35 - 175</td>
</tr>
<tr>
<td>Work Ethic</td>
<td>340</td>
<td>130.25</td>
<td>16.72</td>
<td>57 – 161</td>
<td>23 - 161</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>340</td>
<td>38.37</td>
<td>6.95</td>
<td>20 – 50</td>
<td>10 - 50</td>
</tr>
<tr>
<td>Delinquency</td>
<td>340</td>
<td>2.69</td>
<td>2.56</td>
<td>0 – 12</td>
<td>0 - 18</td>
</tr>
</tbody>
</table>

The means and standard deviations of the scales used in this study are shown in Table 3 by marital status. Independent samples t-tests were conducted to examine group differences. Significant differences were found for parental hostility, parental
cooperation, mothering, and fathering. Young adults from divorced families reported that their parents displayed higher levels of parental hostility and lower levels of parental cooperation, mothering, and fathering behaviors.

Table 3

*Means and Standard Deviations for Each Measure by Marital Status*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Intact</th>
<th></th>
<th></th>
<th>Divorced</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>t</td>
</tr>
<tr>
<td>Parental Hostility</td>
<td>224</td>
<td>80.11</td>
<td>11.67</td>
<td>116</td>
<td>72.21</td>
<td>13.23</td>
<td>-5.43**</td>
</tr>
<tr>
<td>Parental Cooperation</td>
<td>224</td>
<td>47.51</td>
<td>9.62</td>
<td>116</td>
<td>34.55</td>
<td>12.13</td>
<td>-10.00**</td>
</tr>
<tr>
<td>Mothering</td>
<td>224</td>
<td>108.40</td>
<td>17.54</td>
<td>116</td>
<td>104.28</td>
<td>18.93</td>
<td>-7.46*</td>
</tr>
<tr>
<td>Fathering</td>
<td>224</td>
<td>98.35</td>
<td>21.01</td>
<td>116</td>
<td>76.48</td>
<td>27.72</td>
<td>-2.00**</td>
</tr>
<tr>
<td>Overall Mental Health</td>
<td>224</td>
<td>41.52</td>
<td>29.05</td>
<td>116</td>
<td>43.64</td>
<td>32.82</td>
<td>.61</td>
</tr>
<tr>
<td>Problems with Intimacy</td>
<td>224</td>
<td>74.61</td>
<td>22.57</td>
<td>116</td>
<td>75.34</td>
<td>21.98</td>
<td>.28</td>
</tr>
<tr>
<td>Work Ethic</td>
<td>224</td>
<td>130.51</td>
<td>16.85</td>
<td>116</td>
<td>129.73</td>
<td>16.52</td>
<td>-.41</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>224</td>
<td>38.22</td>
<td>6.98</td>
<td>116</td>
<td>38.65</td>
<td>6.91</td>
<td>.53</td>
</tr>
<tr>
<td>Delinquency</td>
<td>224</td>
<td>2.58</td>
<td>2.71</td>
<td>116</td>
<td>2.91</td>
<td>2.24</td>
<td>1.14</td>
</tr>
</tbody>
</table>

* p < .05, ** p < .001

*Measurement Models*

Measurement models represent the relationship between observed variables and the latent constructs that they theoretically measure. Before assessing the fit of the
structural component of a full or hybrid model, one must assess the fit of the measurement model (Anderson & Gerbing, 1988). The measurement model then serves as a baseline to compare the fit of the hypothesized structural model. Measurement models are tested via confirmatory factor analyses whereby the items for each measure (observed variables) are hypothesized to load on a specific latent variable. Measurement models were tested for all variables in this study.

The measurement models examined in this study were based on groups of items, or parcels, rather than individual items. Parcels are useful in confirmatory factor analysis because the intercorrelations, reliabilities, and normality of individual items are generally low, resulting in poor fitting models (Millsap, 2002). Parceling has many advantages, including increased reliability of indicators, fewer violations of normality assumptions, fewer parameters to be estimated, more stable parameter estimations, and simplification of model interpretation (Hau & Marsh, 2004). Parcels of items were created for each measure by randomly assigning items from each scale to parcels and then calculating the sum of items within each parcel. There were three to fourteen items per parcel and two to four parcels per scale. As the use of three to four parcels per scale is recommended, the number of items per parcel was determined by the number of items on each scale. The reliabilities of parcels ranged from .32 to .92. The composition of the parcels and their reliabilities is shown in Table 4.
Table 4

**Number of Items and Reliabilities of Parcels Constructed for Measurement Models**

<table>
<thead>
<tr>
<th>Scale Name</th>
<th>Parcel</th>
<th>Number of Items</th>
<th>Alpha Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental Hostility</td>
<td>1</td>
<td>12</td>
<td>.55</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>10</td>
<td>.74</td>
</tr>
<tr>
<td>Parental Cooperation</td>
<td>1</td>
<td>6</td>
<td>.76</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>8</td>
<td>.85</td>
</tr>
<tr>
<td>Mothering</td>
<td>1</td>
<td>7</td>
<td>.84</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>8</td>
<td>.45</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>6</td>
<td>.92</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td>.57</td>
</tr>
<tr>
<td>Fathering</td>
<td>1</td>
<td>7</td>
<td>.85</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>8</td>
<td>.59</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>6</td>
<td>.92</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td>.80</td>
</tr>
<tr>
<td>Overall Mental Health</td>
<td>1</td>
<td>14</td>
<td>.85</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>13</td>
<td>.91</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>13</td>
<td>.88</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>13</td>
<td>.85</td>
</tr>
<tr>
<td>Problems with Intimacy</td>
<td>1</td>
<td>9</td>
<td>.83</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>9</td>
<td>.75</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>9</td>
<td>.74</td>
</tr>
</tbody>
</table>
Table 4 (continued)

<table>
<thead>
<tr>
<th>Scale Name</th>
<th>Parcel</th>
<th>Number of Items</th>
<th>Alpha Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>8</td>
<td>.66</td>
</tr>
<tr>
<td>Work Ethic</td>
<td>1</td>
<td>6</td>
<td>.83</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>6</td>
<td>.82</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>6</td>
<td>.77</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td>.77</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>1</td>
<td>4</td>
<td>.69</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>.69</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3</td>
<td>.69</td>
</tr>
<tr>
<td>Delinquency</td>
<td>1</td>
<td>3</td>
<td>.55</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>.58</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3</td>
<td>.32</td>
</tr>
</tbody>
</table>
First, the factor structure of the Co-parenting Behavior Questionnaire (CBQ) was examined. In lieu of parcels or specific items, CBQ subscales were used as indicators for four latent variables: Parental Hostility, Parental Cooperation, Mothering, and Fathering. High scores for each of these variables (including Parental Hostility) indicate more positive co-parenting and parenting practices. See Figure 2 for subscale composition, measurement model, and path coefficients. Overall, the CBQ measurement model fit the data well, CFI = .95, $\chi^2 (48, N = 340) = 294.3$, and supported the hypothesis that the CBQ measures four distinct co-parenting and parenting practices. All factor loadings were significant at the $p < .001$ level. The factor loadings for the two Parental Hostility subscales (Triangulation and Parental Conflict) were .74 and .86. For the Parental Cooperation variable, factor loadings were .92 and .87. Both Mothering and Fathering latent variables had four indicators: Warmth, Communication, Monitoring, and Discipline. Factor loadings for the four Mothering subscales ranged from .67 to .96. The Mother Communication subscale had the highest factor loading while the Mother Discipline subscale had the weakest loading. Findings were similar for Fathering subscales. Factor loadings ranged from .77 to .96, where Father Communication had the strongest loading and Father Discipline had the weakest loading.
Figure 2. CBQ measurement model. Values represent standardized path coefficients. All paths were significant at the p<.001 level.
It is notable that the intercorrelations among the four scales of the CBQ were rather high, ranging from .31 to .82. All intercorrelations were significant at the $p < .001$ level, suggesting that the constructs of Parental Hostility, Parental Cooperation, Mothering, and Fathering are highly related. The correlation between Parental Cooperation and Fathering was particularly high (.82). See Figure 2 and Table 5 for all correlation coefficients.

Table 5

*Correlation Coefficients Among CBQ Factors*

<table>
<thead>
<tr>
<th>Scale Name</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Parental Hostility</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2. Parental Cooperation</td>
<td>.48</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>3. Mothering</td>
<td>.31</td>
<td>.50</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>4. Fathering</td>
<td>.38</td>
<td>.82</td>
<td>.37</td>
<td>--</td>
</tr>
</tbody>
</table>

All correlations were significant at the $p < .001$ level.

Next, separate measurement models assessed the unidimensionality of all five young adult adjustment constructs: overall mental health, problems with intimacy in romantic relationships, work ethic, self esteem, and delinquency. This model was tested to confirm the independence and measurement structure of the five young adult adjustment variables. See Table 6 for further information on goodness of fit. First, the measurement model of overall mental health fit the data very well, $\text{CFI} = 1.00$, $\chi^2 (2, N =$
The factor loadings of each parcel ranged from .92 to .95, suggesting that each of the four parcels was an excellent indicator of the latent variable, overall mental health.

In the second measurement model, the factor structure of the Fear of Intimacy Scale (FIS) was examined. This questionnaire is considered to be a unidimensional measure of problems with intimacy in romantic relationships. The unidimensionality of the FIS was upheld, CFI = .98, $\chi^2 (2, N = 340) = 22.45$. Factor loadings of the four created parcels ranged from .81 to .91.

Next, the factor structure of the Occupational Work Ethic Inventory (OWEI) was tested. Items from the Initiative and Dependable subscales of the OWI were balanced across four parcels. The overall model fit was excellent, CFI = 1.00, $\chi^2 (2, N = 340) = 3.36$, confirming the usefulness of the OWI as a single factor measure of work ethic. Factor loadings of the parcels ranged from .87 to .91.

Measurement models for the final two measures of young adult adjustment, the Rosenberg Self Esteem Scale and the Delinquency subscale of the Achenbach Young Adult Self Report (YASR) produced just-identified, or perfect, models. Just-identified models can be used to estimate the model’s parameters but the fit of the model cannot be tested; therefore, it will not be reported (Hoyle & Panter, 1995). This is because just-identified models exactly reproduce the model’s observations (variances and covariances). With regard to self-esteem, factor loadings of the three created parcels were each equal to .83. These strong loadings suggest that the scale contains one dimension.
Finally, factor loadings from the three delinquency parcels ranged from .57 to .76. These loadings provide adequate support for the use of the YASR delinquency subscale.

Table 6

*Goodness of Fit for Confirmatory Factor Analysis of all Variables*

<table>
<thead>
<tr>
<th>Measure</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI$^a$</th>
<th>RMSEA$^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Co-Parenting and Parenting Measure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co-parenting Behavior Questionnaire</td>
<td>294.30</td>
<td>48</td>
<td>.95</td>
<td>.12</td>
</tr>
<tr>
<td><strong>Young Adult Adjustment Measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brief Symptom Inventory</td>
<td>2.82</td>
<td>8</td>
<td>1.00</td>
<td>.03</td>
</tr>
<tr>
<td>Fear of Intimacy Scale</td>
<td>22.45</td>
<td>2</td>
<td>.98</td>
<td>.17</td>
</tr>
<tr>
<td>Occupational Work Ethic Inventory</td>
<td>3.36</td>
<td>2</td>
<td>1.00</td>
<td>.04</td>
</tr>
<tr>
<td>Rosenberg Self Esteem Scale</td>
<td>0</td>
<td>0</td>
<td>JI</td>
<td>JI</td>
</tr>
<tr>
<td>Young Adult Self Report: Delinquency</td>
<td>0</td>
<td>0</td>
<td>JI</td>
<td>JI</td>
</tr>
</tbody>
</table>

$N = 340$, CFI = Comparative fix index, RMSEA = Root Mean Square Error of Approximation, JI = Just-Identified.

$^a$ Values above .90 indicate a good fit.

$^b$ Values below .08 indicate a good fit.

Because the Mathieu et al. (1992) procedure for structural equation modeling requires unidimensional indicators of latent variables, a final measurement model was tested to confirm the unidimensionality of the various young adult adjustment measures:
overall mental health, problems with intimacy, work ethic, self esteem, and delinquency.
The fit of the full measurement model specifying five separate latent variables (overall 
mental health, problems with intimacy, work ethic, self esteem, and delinquency) fit the 
data well, CFI = .99, $\chi^2 (125, N = 340) = 202.9$. The correlations among these latent 
variables are reported in Table 7. The highest correlations were between overall mental 
health and self esteem ($r = -.60$), work ethic and delinquency ($r = -.38$), and work ethic 
and self esteem ($r = .32$). All correlations were significant, indicating moderately strong 
relationships among the five young adult adjustment measures. Because these five 
dependent variables are conceptualized as domains of overall young adult adjustment, 
moderate correlations among the scales would be expected. The strong fit of this 
measurement model supports the notion that each scale taps a distinct adjustment domain.

Table 7

*Correlations Among Latent Variables in Measurement Model*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overall mental health</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2. Problems with intimacy</td>
<td>.25***</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>3. Work ethic</td>
<td>-.16**</td>
<td>-.26***</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>4. Self esteem</td>
<td>-.60***</td>
<td>-.25***</td>
<td>.32***</td>
<td>--</td>
</tr>
<tr>
<td>5. Delinquency</td>
<td>.23***</td>
<td>.15*</td>
<td>-.38***</td>
<td>-.17**</td>
</tr>
</tbody>
</table>

Significance tests based on maximum likelihood estimates.

* $p < .05$, ** $p < .01$, *** $p < .001$
Structural Equation Models

Mediation models. A series of analyses was conducted to determine the extent to which the effects of marital status on young adult adjustment were mediated by co-parenting and parenting practices. Two models were tested. The first model tested a full mediation hypothesis, whereby the direct relationship between marital status and the five young adult adjustment domains would be eliminated when the effects of co-parenting and parenting practices were considered. The second model tested a partial mediation model which differed from the full mediation model by allowing direct paths linking marital status to young adult adjustment. Finally, a chi-square difference test was used to compare to the two mediation models to assess superior fit.

Table 8

Comparison of Mediation Models

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>RMSEA</th>
<th>$\chi^2$ dif.</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mediation Models (N=340)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-1 Full Mediation</td>
<td>1479.81</td>
<td>411</td>
<td>.92</td>
<td>.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-2 Partial Mediation</td>
<td>1458.98</td>
<td>406</td>
<td>.92</td>
<td>.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\chi^2$ Difference Test (N=340)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-1 vs. M-2</td>
<td>20.83*</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05.
The full mediation model (M-1 in Table 8) was tested first. This model explored the mediating role of four co-parenting and parenting practices upon the relationship between marital status and five domains of young adult adjustment (see Figure 1 for theoretical model). This model assumes that marital status has no direct effect on young adult adjustment when the impact of co-parenting and parenting practices is taken into account. The full mediation model (M-1 in Table 8) fit the data well, $\text{CFI} = .92$, $\chi^2 (411, N = 340) = 1479.81$. See Figure 3 for standardized path coefficients. The paths from marital status to parental hostility, parental cooperation, and fathering were all significant and positive, indicating that young adults whose parents were married reported that their parents demonstrated less parental hostility, more parental cooperation, and more fathering than young adults whose parents were divorced.

Paths from parental hostility and fathering to overall mental health were significant and negative, indicating that low parental hostility and high fathering are related to high overall mental health. Only mothering showed significant pathways to problems with intimacy and work ethic, such that high mothering is related to few problems with intimacy in romantic relationships and high work ethic. Paths from parental cooperation and fathering to self esteem were significant, such that low parental cooperation and high fathering are related to high self esteem. Finally, the path from mothering to delinquency was significant and negative, suggesting that high mothering is related to low delinquency. All other paths were nonsignificant. This pattern of results is consistent with a mediated model according to Baron and Kenny (1986).
Figure 3. Full mediation model. Measurement parameters not included to simplify figure.

Values represent standardized path coefficients. To further simplify figure, only significant paths from co-parenting and parenting variables to young adult adjustment variables are shown. * p<.05 ** p<.01 *** p<.001
Next, the partial mediation model (M-2 in Table 8) was examined. This model differs from the full mediation model by allowing direct pathways from marital status to young adult adjustment variables, in addition to the indirect mediation pathways. The partial mediation model assumes that marital status does have a direct impact on young adult adjustment, although co-parenting and parenting practices are significant mediators of this relationship. The partial mediation model fit the data well, $\text{CFI} = .92$, $\chi^2(406, N = 340) = 1458.98$. See Figure 4 for standardized path coefficients. As in the full mediation model, the paths from marital status to parental hostility, parental cooperation, and fathering were both significant and positive, indicating that young adults whose parents were married reported that their parents demonstrated less parental hostility, more parental cooperation, and more fathering than young adults whose parents were divorced.

Parental hostility was significantly related to overall mental health, such that low parental hostility is related to high overall mental health. Both parental cooperation and mothering demonstrated significant pathways to problems with intimacy and work ethic, whereby high parental cooperation and high mothering is related to few problems with intimacy in romantic relationships and high work ethic. Next, paths from parental hostility and fathering to self esteem were significant and positive, such that low parental hostility and high fathering are related to high self esteem. Finally, the path from mothering to delinquency was significant and negative, suggesting that high mothering is related to low delinquency. Notably, even with mediated pathways accounted for within the model, marital status was significantly related to self esteem; divorce was related to
high self esteem. All other paths were nonsignificant. This pattern of results is consistent with a mediated model according to Baron and Kenny (1986).

Figure 4. Partial mediation model. Measurement parameters not included to simplify figure. Values represent standardized path coefficients. To further simplify figure, only significant paths from co-parenting and parenting variables to young adult adjustment variables are shown. * p<.05 ** p<.01 *** p<.001
Finally, the two mediation models were compared to each other to determine superior fit. A chi-square difference test indicated that the partial mediation model fit the data significantly better, $\chi^2(5, N = 340) = 20.83, p < .05$. Thus, we should reject the null hypothesis suggesting that all paths from marital status to the five domains of young adult adjustment are equal to 0. This means that, even after the mediating role of co-parenting and parenting practices is taken into account, there remains a direct relationship between marital status and young adult adjustment.
Discussion

Co-parenting and parenting practices, including parental hostility, parental cooperation, mothering, and fathering, were found to be important partial mediators of the relationship between marital status and young adult adjustment. Contrary to popular belief (Corliss, 2002; McDowell, Padgett, Sachs, & Thigpen, 2000; Wallerstein, Lewis, & Blakeslee, 2000), the process of divorce does not have a direct negative effect on young adult adjustment domains such as overall mental health, problems with intimacy in romantic relationships, work ethic, and delinquency. Greater parental hostility, lower parental cooperation, and lower fathering are associated with, but are not unique to, parental divorce. These unhealthy co-parenting and parenting practices are, in turn, related to poorer young adult adjustment outcomes (i.e., low overall mental health, high problems with intimacy in romantic relationships, low work ethic, low self esteem, and high delinquency). It should be noted that unhealthy co-parenting and parenting practices have deleterious effects for young adults from both intact and divorced families, supporting the notion that co-parenting is a universal concept. Interestingly, mothering practices seem to be generally unaffected by the process of divorce. This finding is likely due to the lower variability of mothering compared to fathering. As descriptive statistics suggested, mothers tend to be consistent figures in their children’s lives. 74% of young adults from divorced families identified their mother as their primary caretaker.

Further, specific co-parenting and parenting practices had unique impacts on the five young adult adjustment measures within intact and divorced families. Consistent
with the literature, low parental hostility was an important predictor of both high overall mental health and high self esteem (Amato & Keith, 1991; Morrison, 1999). Young adults whose parents were able to keep conflict to a minimum and prioritize their children’s welfare above their own discord were generally psychologically well-adjusted and learned to value themselves. Additionally, high parental cooperation and high mothering were related to low fear of intimacy and high work ethic. Parents who modeled cooperative interpersonal relationships and mothers that provided basic parenting skills produced young adults with a stronger work ethic and fewer problems in their own romantic relationships. Consistent with the developmental psychopathology literature on conduct problems (Dishion, Patterson, Stoolmiller, & Skinner, 1991; Sroufe, Duggal, Weinfield, & Carlson, 2000), high mothering was related to low delinquency. Mothers who provide their children with open parent-child communication, consistent monitoring and discipline, and warmth decrease the risk that their children will become involved in delinquent activities. Finally, fathers had a unique impact on their children’s adjustment. High fathering was specifically related to high self esteem, suggesting that young adults fared better when their fathers were consistently involved in their lives. This finding underscores the concept that fathers, not just mothers, are important determinants of their children’s healthy development (Hetherington, Cox, & Cox, 1982; van Schaick & Stolberg, 2001).

Contrary to study hypotheses, a partial mediation model fit the data better than a full mediation model, where marital status was hypothesized to have no direct effect on young adult adjustment. While this suggests that data were explained well by the partial
mediation model, it is important to keep in mind that alternative models may also explain the data well. The results indicated that, even when the influence of co-parenting and parenting practices was considered, marital status continued to have a significant direct effect on self esteem. This relationship was both significant and negative, suggesting that young adults whose parents were divorced had higher self esteem. Although it makes sense that marital status has a unique impact on sub-clinical adjustment symptoms such as self esteem, the direction of this result was unexpected and contradictory to the proposed model.

Replication of the factor structure of the Co-parenting Behavior Questionnaire (Macie & Stolberg, 2003; Mullett & Stolberg, 1999; Schum, 2003) is a second major contribution of this study. Although the CBQ was always targeted toward children between the ages of 10 and 17, the original measurement development study used a convenience sample of college students from divorced families (Mullett & Stolberg, 1999). In the next phase of test development, 12 CBQ subscales (Parental Conflict, Triangulation, Co-parental Communication, Co-parental Cooperation, and each of the following parenting skills for both the mother and the father: Warmth, Parent-Child Communication, Monitoring, and Discipline) were established within the target population of children from divorced families (Macie & Stolberg, 2003). Most recently, the factor structure of the CBQ was reexamined within a sample of 517 children of divorce (Schum, 2003). The present study replicated Schum's (2003) findings: the 12 CBQ subscales load on four higher-order co-parenting and parenting factors (Parental Hostility, Parental Cooperation, Mothering, and Fathering).
This similarity in findings speaks to the robust factor structure of the CBQ. Four higher order factors held up within both the current study’s retrospective case-control design with an undergraduate population and previous work (Macie & Stolberg, 2003; Schum, 2003) utilizing a more appropriate child population for which the CBQ was originally intended. The 12 subscales of the CBQ may be useful clinical indicators of the four higher order co-parenting and parenting factors, data suggest, but they do not hold up empirically as distinct co-parenting and parenting practices. For example, factor loadings within the four mothering and four fathering subscales (Warmth, Parent-Child Communication, Monitoring, and Discipline) were quite high, ranging from .67 to .96. For both Mothering and Fathering, the Parent-Child Communication subscale had the strongest factor loading while the Discipline subscale had the weakest loading. While the strength of the factor loadings for the discipline subscales was less than the other three subscales, results certainly do not support the existence an additional distinct factor within Mothering or Fathering.

Interestingly, within the higher order structure of the CBQ, there was a very high correlation (.82) between the Parental Cooperation and Fathering subscales. Although the relationship between these two factors is quite high, the notion of mothers as gatekeepers supports this finding (Arcona, 2001) and supports a distinction between the two factors. In divorced homes where mothers are generally the primary caretaker, mothers tend to determine the level of involvement a father is allowed with his children.

While there are certainly a number of dimensions within co-parenting and parenting practices and young adult adjustment, indicators of these latent variables
produced highly related constructs. As mentioned above, CBQ subscales were highly correlated. This multicollinearity suggests that successful parents tend to exemplify a myriad of positive parenting practices and unsuccessful parents tend to have a number of skill deficits. For example, parents who communicate frequently and openly with their children are likely to be warm and monitor their children's behavior. Conversely, parents who do not know where their child is after school are unlikely to be consistent disciplinarians or open communicators. As in the CBQ measurement model, when the independence of the five young adult adjustment domains was examined, the hypothesized model fit well but there were many high intercorrelations. Again, this level of correlation is expected since overall mental health, problems with intimacy in romantic relationships, work ethic, self esteem, and delinquency are all indicators of a young adult's overall level of adjustment.

Strengths and Implications for Interventions

This study has a number of methodological strengths. First, the use of structural equation modeling, a theory-driven statistical approach, allowed for prior research to guide hypotheses about the relationships among marital status, co-parenting and parenting practices, and young adult adjustment. SEM allowed for simultaneous testing of these complex relationships.

Next, the multi-dimensional definition of young adult adjustment, employing a variety of empirically validated measures, is a tremendous strength of this study. Most research studying the impact of divorce and parenting on young adult adjustment has relied simply on global measures of adjustment and specific measures of delinquent
behavior (Wallerstein, Lewis, & Blakeslee, 2000). The present study’s comprehensive definition of young adult adjustment and potential parenting influences on children’s adjustment to divorce furthers the considerable controversy about the absoluteness of the presence or absence of a divorce and maladjustment relationship (Hetherington & Stanley-Hagan, 1999; Wallerstein, Lewis, & Blakeslee, 2000). While Hetherington and Stanley-Hagan argue that most children of divorce emerge as “reasonably competent, well-functioning individuals”, Wallerstein et al. decry that divorce scars children well into adulthood. The current study clarifies the relationship between marital status and child adjustment, such that divorce decreases co-parenting and parenting practices which, in turn, negatively impact young adult adjustment.

Next, the use of participants from intact families extends the application of co-parenting beyond divorce. Since poor co-parenting and parenting practices negatively impact young adults from both divorced and intact families, co-parenting appears to be an important predictor of child adjustment for all families. These results lend preliminary support for the hypothesized existence of a general parenting factor, p, and situational factors, s, that describe extraordinary events that may alter the nature of parenting (i.e., divorce, chronic illness, etc.). Co-parenting appears to be a universal process, regardless of marital status, or other situational factors that alter parenting.

The identification of co-parenting and parenting practices as important mediators of the relationship between marital status and young adult adjustment has many implications for clinical practice and social policy. Results provide empirical evidence that co-parenting and parenting practices are necessary targets for intervention when
attempting to ameliorate the negative effects of the divorce process. Further, results support co-parenting and parenting interventions for all children whose parents practice poor co-parenting and parenting skills, not just children of divorce. Since we know that divorce does increase parental hostility and diminish parental cooperation and fathering, it is reasonable to assume that divorced parents would benefit most from co-parenting and parenting interventions. Evidence-based co-parenting and parenting interventions (Stolberg & Gourley, 1996; Stolberg & Mahler, 1990; Stolberg & Mahler, 1994) geared toward families with high parental hostility and low parental cooperation, mothering, and fathering are needed to protect children from these maladaptive co-parenting and parenting practices.

Furthermore, study implications extend to the realm of social policy. Clearly, co-parenting and parenting practices are relevant factors to consider when determining child custody (Best interests of the child, 2000; Gourley & Stolberg, 2000), as they greatly impact young adult adjustment. Parental cooperation should be esteemed by the courts while attempts should be made to remediate parental hostility. Juvenile and family courts dealing with divorced or high conflict intact families might seek to refer families to co-parenting and parenting interventions. Finally, results have implications for paternal involvement in children's lives. Judges should consider the unique impact that positive fathering practices have on young adult self esteem when determining custody and visitation arrangements.

Limitations and Directions for Future Research
Although this study supports the importance of co-parenting and parenting practices in determining young adult adjustment and suggests possibilities for interventions, several limitations must be considered. The sample in this study is limited in generalizability as it is a sample of convenience. While this university setting is relatively diverse in ethnicity and economics, college students in general are likely higher functioning than non-college students. These participants also may have intellectual and/or motivational biases as they have committed themselves to higher learning. This sample is somewhat strengthened, though, by an encompassing definition of young adulthood that goes beyond examining 18- to 22-year-olds who may be experiencing a prolonged adolescence.

The largest limitation of this study is its use of a retrospective case-control design, an observational research method. Certainly, the ideal way in which to examine the role of co-parenting and marital status on young adult adjustment would be a longitudinal design. The current design allows for zero attrition, though pre-attrition remains a problem. The archived nature of this dataset makes its use extremely practical but limitations are abundant. For example, temporal order is not resolved by this design. Do parents with poor co-parenting skills cause their children to be poorly adjusted or do poorly adjusted children elicit negative parenting behaviors? We cannot definitively answer this question without a longitudinal design.

Particularly, the retrospective report of young adults on their parents' parenting and co-parenting behaviors is problematic. This measure does not capture these behaviors with complete accuracy. These reports instead represent perceived parenting and co-
parenting, since memory bias is a notable correlate. While it may be argued that children are better reporters of parenting behaviors than their parents and perceived parenting may better predict young adult adjustment than actual parenting behaviors, retrospective report limits our understanding of this process.

Future studies examining the influence of co-parenting and parenting practices upon the relationship between marital status and child adjustment are necessary in order to address these limitations. Longitudinal analyses would allow for clarification of the nature and direction of the relationships between marital status, co-parenting and parenting practices, and child adjustment. Of course, future studies should seek to include the target population of children whose parents are married or recently divorced, rather than depending upon convenience samples of undergraduates. Replication of study findings within a child population would be useful in further understanding the mediating role of co-parenting and parenting practices upon the impact of marital status upon child adjustment. Finally, it would be useful to examine the potential moderating effects of marital status upon the relationship between co-parenting and parenting practices and child adjustment. These findings could further test the notion of universal and situation-specific parenting by determining whether the relationship between co-parenting and parenting practices and child adjustment differs by marital status.
References


Mathieu, J.E., Tannenbaum, S.I., & Salas, E. (1992). Influences of individuals and


Appendix A
Co-Parenting Behavior Questionnaire

On the following pages, you will see sentences that have to do with you and your parents. Before each sentence, there is a blank space. At the top of each page is a response key like this:

1 = Almost Never
2 = Rarely
3 = Sometimes
4 = Often
5 = Almost Always/Very Often

Think about how your parents acted and what your relationship with them was like when you were a child. If your parents are divorced, think about your two original parents (either your biological mother and father, or adopted parents if you were adopted as an infant) when answering these questions and think about what things were like around the time of their separation and in the few years right after.

In the space below, write the number from the response key that tells HOW OFTEN the behavior or interaction happened when you were a child.
1 = Almost Never
2 = Rarely
3 = Sometimes
4 = Often
5 = Almost Always/Very Often

_____ 1. My parents complained about each other.
_____ 2. My dad told me bad things about my mom.
_____ 3. My parents argued about money in front of me.
_____ 4. When my parents argued, I felt forced to choose sides.
_____ 5. When my parents talked to each other, they accused each other of bad things.
_____ 6. My parents talked nicely to each other.
_____ 7. My mom asked me questions about my dad that I wished she would not ask.
_____ 8. I felt caught between my parents.
_____ 9. My dad asked me to carry messages to my mom.
_____ 10. (If parents were separated) My parents fought about where I should live.
       (If parents were living together) My parents fought about matters involving me.
_____ 11. My dad asked me questions about my mom that I wished he would not ask.
_____ 12. My mom wanted me to be close to my dad.
_____ 13. When my mom needed to make a change in my schedule, my dad would help.
_____ 14. My parents argued in front of me.
1 = Almost Never
2 = Rarely
3 = Sometimes
4 = Often
5 = Almost Always/Very Often

15. My mom used to tell me to ask my dad about child support.

(If parents were not separated, do not answer.)

16. It was okay to talk about my mom in front of my dad.

17. My parents talked to each other about my problems.

18. It was okay to talk about my dad in front of my mom.

19. My parents talked to each other about how I feel about the divorce.

(If parents were not separated, do not answer.)

20. My parents talked to each other about my school and my health.

21. My dad used to get angry at my mom.

22. When my parents talked to each other, they got angry.

23. My parents talked to each other about big choices in my life.

24. My parents talked to each other at least once a week.

(If parents were not separated, do not answer.)

25. My mom told me bad things about my dad.

26. When my mom needed help with me, she would ask my dad.

27. My mom asked me to carry messages to my dad.

28. My mom told me good things about my dad.
1 = Almost Never
2 = Rarely
3 = Sometimes
4 = Often
5 = Almost Always/Very Often

29. My parents talked to each other about the good things that I did.
30. When my dad needed help with me, he would ask my mom.
31. My mom used to get angry at my dad.
32. My dad told me good things about my mom.
33. My dad wanted me to be close to my mom.
34. My parents got along well.
35. My parents used to yell at each other.
36. When my dad needed to make a change in my schedule, my mom would help.
37. My dad liked being with me.
38. My mom and I had friendly talks.
39. My mom asked me about my day in school.
40. When I did something wrong, my mom would talk to me about it.
41. I felt that my mom cared about me.
42. My dad talked to me about big choices in my life.
43. I felt that my dad cared about me.
44. I spent time doing fun things with my mom.
45. My mom knew who my friends were and what they were like.
1 = Almost Never
2 = Rarely
3 = Sometimes
4 = Often
5 = Almost Always/Very Often

46. My mom knew what kinds of things I did after school.
47. My mom liked being with me.
48. I talked to my mom.
49. I had chores to do at my dad’s house. (If parents were separated)
   OR: Dad gave me chores to do. (If parents were together)
50. My dad told me he loved me and gave me hugs.
51. When I left the house, my dad knew where I was and who I was with.
52. If I had problems in school, my dad knew about it.
53. When I broke one of my mom’s rules, she would punish me.
54. My dad asked me about my day in school.
55. My dad knew who my friends were and what they were like.
56. My dad knew what kinds of things I did after school.
57. I had chores to do at my mom’s house. (If parents were separated)
   OR: My mom gave me chores to do. (If parents were together)
58. When I would leave the house, my mom knew where I was and who I was with.
59. My mom talked to me about big choices in my life.
1 = Almost Never
2 = Rarely
3 = Sometimes
4 = Often
5 = Almost Always/Very Often

60. If I had problems in school, my mom would know about it.
61. When I did something wrong, my dad talked to me about it.
62. My dad praised me when I would do something good at home or at school.
63. I talked to my mom about my problems.
64. If I got in trouble at school, my mom would punish me.
65. My mom used to say nice things about me.
66. I spent time doing fun things with my dad.
67. My dad knew who my teachers were and how well I was doing in school.
68. I had rules to follow at my dad’s house. (If parents were separated)
   OR: My dad gave me rules to follow. (If parents were together)
69. I talked to my dad.
70. I talked to my dad about my problems.
71. My dad used to say nice things about me.
72. I had rules to follow at my mom’s house. (If parents were separated)
   OR: My mom gave me rules to follow. (If parents were together)
73. My dad and I had friendly talks.
74. When my dad said he was going to punish me, he did it.
1 = Almost Never
2 = Rarely
3 = Sometimes
4 = Often
5 = Almost Always/Very Often

_____ 75. My mom knew who my teachers were and how well I was doing in school.

_____ 76. When I broke one of my dad’s rules, he would punish me.

_____ 77. My dad talked to me about my friends.

_____ 78. My mom talked to me about my friends.

_____ 79. My dad was patient with me.

_____ 80. I talked to my mom about things that I did well.

_____ 81. My mom praised me when I did something good at home or at school.

_____ 82. My mom told me she loved me and gave me hugs.

_____ 83. If I got in trouble at school, my father would punish me.

_____ 84. My mom was patient with me.

_____ 85. I talked to my dad about things I did well.

_____ 86. When my mom said she was going to punish me, she did it.
Appendix B

Informational Questionnaire

Please provide the following information about yourself.

1. Age

2. Gender (Male/Female)

3. Race

4. My birth parents are (circle one): *If you were adopted, please report the marital status of your adoptive parents.
   a. Married (to each other)
   b. Never been married to each other
   c. Divorced
   d. Separated

5. Are either of your parents deceased? If yes, how old were you when that happened?

6. If your parents (biological or adoptive) are divorced, please answer the questions in the following section. If not, please continue to number 7.
   How old were you when your parents separated?
   With whom did you live most of the time after the separation?
   Who was the nonresidential parent? (the parent you did not live with most of the time)
What was your parents’ custody arrangement? (circle one)

a. Mother had primary physical custody
b. Father had primary physical custody
c. Shared physical custody (equal time with both parents)
d. I don’t know
e. Other…(describe) __________________________________________

How often did you spend time with your non-residential parent (the parent whom you did not live with most of the time)? (circle one)

a. Never or almost never
b. On holidays only
c. About once a month
d. About twice a month
e. Every weekend
f. A couple times per week
g. I spend about equal time with both parents
h. Other (please describe) __________________________________________

Did your mother remarry? _________ How many times? _________
Is she currently married? _________
How old were you when she first remarried? _________

Did your father remarry? _________ How many times? _________
Is he currently married? _________
How old were you when he first remarried? _________
7. What is your current status regarding romantic relationships? (include heterosexual and homosexual relationships)
   a. Single, not dating anyone
   b. Single and dating one or more people casually
   c. Involved in an exclusive dating relationship
   d. Engaged
   e. Married
   f. Divorced

8. Have you ever been in a serious dating relationship? ___________

9. How many serious relationships have you been in that lasted longer than 4 months? __________

10. What is your current GPA? __________

11. How many credit hours of courses are you taking this semester? __________

12. What was your GPA upon graduating high school? __________

13. What is your college major? ________________

14. Who is paying your college tuition? ________________

15. Estimate the amount of debt that you owe, in the form of both loans and credit cards ________________.

16. Estimate the amount of savings you have in your name, either in bank accounts or in the form of investments ________________.
17. Are you currently employed? (include work study as employment) _____

   a. Have you ever been fired from a job? _____ If yes, how long ago? ______
   b. How long have you been working at your present job? ______
   c. How many hours a week do you work? ______
   d. How many days of work have you missed in the past 6 months? ______
   e. How many times were you late for work in the past 3 months? ______
   f. Do you work overtime? ______ How often? ______

18. In the past year, have you... (answer yes or no)

   ...been fired from a job? _____
   ...been reprimanded at work for poor job performance or attendance? _____
   ...had more than two jobs (at different times)? _____
   ...missed scheduled work time more than twice? _____
   ...received a promotion at work? _____
   ...received a raise in wages or salary? _____
   ...been commended (verbally) for good work performance? _____
   ...been rewarded (with money or other gift) for good work performance? _____
IF YOUR PARENTS ARE DIVORCED, PLEASE ANSWER THE FOLLOWING QUESTIONS. (If parents are married, leave these questions blank.)

1. Based on your own opinion, rate your overall adjustment to your parents’ divorce:

1 2 3 4 5

I still have a hard time with the fact that my parents are separated. I have adjusted well and am very comfortable with the separation.

2. How much do you think your parents’ divorce has affected your overall psychological adjustment?

1 2 3 4 5

Not at all A lot (the divorce did not (the divorce had a affect me) big impact on me)

3. WHY do you think your parents’ divorce affected your psychological adjustment?

4. What was the most significant negative aspect of your parents’ divorce for you? (What was the worst part about it for you?)
5. What was the most significant positive aspect of your parents’ divorce for you? (What was the most positive thing that may have come from the divorce?)

6. What about you (your characteristics or personality, or other things you were going through at the time) made your parents’ divorce hard for you or easy for you?
Jill Allison Ferrante was born on November 1, 1979, in Malden, Massachusetts, and is an American citizen. She graduated as valedictorian from Georgetown High School in Georgetown, Massachusetts, in 1997. In 2001, she earned a Bachelor of Arts in Psychology with a concentration in personality and social psychology from Cornell University in Ithaca, NY. At Cornell, she also held academic concentrations in English and Women’s Studies. Her research interests relate to co-parenting interventions for intact and divorced families as well as child custody evaluations. She will earn a Master of Science in Clinical Child Psychology from Virginia Commonwealth University, Richmond, VA, in August 2005. Ms. Ferrante is currently a doctoral candidate in the Clinical Psychology Ph.D. program at Virginia Commonwealth University.