

**EXAMINING THE RELATIONSHIPS AMONG AGE, SEX, PARENTING, AND  
CHILDREN'S MENTAL HEALTH OUTCOMES IN REMARRIED AND INTACT  
FAMILIES**

by

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**A thesis submitted in conformity with the requirements  
for the degree of Master of Arts  
Department of Human Development and Applied Psychology  
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## **ABSTRACT**

### **Examining the Relationships Among Age, Sex, Parenting, and Children's Mental Health Outcomes in Remarried and Intact Families**

**Master of Arts, 2000**

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This study investigated the relationships between age, sex, parenting, and children's externalizing and internalizing behaviours in a nationally representative sample of Canadian 4 to 5 (N = 3154) and 10 to 11 (N = 2886) year-olds living in remarried and intact families. Age was found to be a moderator of the relationship between family type and children's outcomes. Child reports indicated that girls in remarried families were showing levels of externalizing similar to boys and levels of internalizing greater than boys in remarried families. This was not found in parent reports. The parenting practices of hostility, consistency, and positive interaction were analyzed as potential mediators and moderators of the relationship between family type and children's outcomes. Mediating effects were not found. Certain moderating effects were found. In 10-11-year-old children, parent reports identified hostile parenting and positive interaction as moderators and child reports identified consistent parenting as a moderator.

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## Chapter 1

### INTRODUCTION

Remarriage is a family transition which significant numbers of children experience (Marcil-Gratton, 1998). Data from the first cycle of the National Longitudinal Survey of Children and Youth (NLSCY), which was collected in 1994-95, indicate that 7.4% of Canadian children aged 0 to 1, 6.5% of children aged 2 to 3, 9.3% of children aged 4 to 5, 8.3% of children aged 6 to 7, 9.8% of children aged 8 to 9 and 10.1% of children aged 10 to 11 live in remarried families (Marcil-Gratton, 1998). Hence, one in ten Canadian children between 10 and 11 years of age have experienced remarriage (Marcil-Gratton, 1998). During this time of transition, demands are made on children to adjust to changes in structure of the family and to concomitant changes in family roles and relationships. Divergent developmental outcomes stem from a combination of risk and protective factors which exist within the individual, family unit, and broader socialization contexts.

Within this developmental framework, the changes which accompany remarriage can evoke stress which can be detrimental to development. Indeed, the vast majority of extant studies that have examined developmental outcomes of children in remarried families in comparison to children in intact families suggest that children living in remarried families are at greater risk for problematic developmental outcomes, including externalizing and internalizing behaviours (Bray, 1988; Lindner, Hagan, & Brown, 1992; Hetherington, 1992; Hetherington, Cox, & Cox, 1987; Lawton & Sanders, 1994; Kasen, Cohen, Brook, & Hartmark, 1996; Pagani, Tremblay, Vitaro, Kerr, & McDuff, 1998). This is a highly robust finding.

Externalizing behaviour problems are a group of behaviours that are characterized by

noncompliance, aggression, destructiveness, attention problems, impulsivity, hyperactivity, and “delinquent” types of behaviour (McMahon, 1994; Keenan & Shaw, 1997). Internalizing behaviour problems are characterized by problems related to fear, shyness, low self-esteem, sadness, and depression (Ollendick & King, 1994). Externalizing and internalizing disorders are the two most common patterns of psychopathology found in children and adolescents (Ollendick & King, 1994).

Numerous studies indicate that children living in remarried families exhibit greater externalizing and internalizing problems than children living in intact families. Examining the relationship between family type, family functioning, and child outcomes in a sample of 60 families, Bray (1988) found that both boys and girls in stepfamilies scored lower on the overall verbal measure of an intelligence test than children in intact families. As well, mothers and stepfathers in stepfamilies rated their children as having significantly more externalizing behaviour problems than mothers and fathers in nondivorced families. Additionally, mothers in stepfamilies rated their children as exhibiting more internalizing and overall behaviour problems than mothers in intact families (Bray, 1988). Further, children in stepfamilies, in comparison to their counterparts in nondivorced, intact families, have received higher scores on externalizing behaviour problems and lower scores on scholastic competence and social competence, have been perceived as reflecting a greater percentage of abnormally high levels of psychopathology (Lindner et al., 1992), have been found to display higher rates of aggressive, impulsive, and antisocial behaviour (Lawton & Sanders, 1994), and have been found to be over four times more at risk for ADHD and almost four times more at risk for conduct disorder (Kasen et al., 1996). In addition to showing more problems than children in intact families, children in remarried

families have also been found to display more problematic outcomes than children in divorced families. A longitudinal study of early adolescent children (Hetherington, 1991c) revealed that mothers in remarried families reported that almost one third of their children were exhibiting serious levels of externalizing and internalizing problems, as measured by the Child Behavior Checklist (Achenbach & Edelbrock, 1983). In contrast, according to maternal reports, 10% of children in intact families and 25% of children in divorced families were displaying high levels of psychopathology (Hetherington, 1991c). Such findings, combined with the increased prevalence of the remarried family as an alternate family form in Canada, emphasize the critical importance of examining the risk factors associated with adjustment difficulties in children in stepfamilies.

#### Age as a Factor Associated with Outcomes in Children Living in Remarried Families

The goals of the present study were threefold. The first goal was to examine the interaction between age and family type with respect to the outcomes of externalizing and internalizing symptomatology. Hetherington (1992) has suggested that early adolescents have the greatest difficulty adjusting to remarriage, whereas younger children appear better able to eventually become attached to and benefit from the presence of a competent stepparent. In developmental terms, early school-age children continue to seek close contact with parents and are more home-centred than early adolescents (Ambert, 1997; Pagani et al., 1997). The parent-child relationship and expressions of affection are more salient for early school-age children than early adolescents and these factors may facilitate greater acceptance of stepparents and, consequently, easier adjustment to remarriage for early school-age children as compared to early adolescents (Ambert, 1997). In contrast, the normative developmental changes which

characterize the stage of adolescence may make adjustment to remarriage more difficult for early adolescents than for children of other ages. The manifold biological, psychological, and social changes typically experienced by adolescents are often quite rapid and extreme.

Early adolescents are dealing with numerous developmental tasks, such as the development of autonomy and the need to cope with pubertal sex fantasies and feelings (Hetherington, 1992). Evidence shows that children of divorced mothers experience greater freedom and power within the family system than do children of intact families (Brody & Neubaum, 1996). Upon remarriage, the custodial parent may seek help and support from the stepparent who, in turn, may attempt to exert parental authority during interactions with their stepchildren (Brody & Neubaum, 1996). Hence, the precocious power and independence children may have enjoyed in single parent households may be lost upon remarriage and, therefore, early adolescents may be particularly sensitive to infringements on their autonomy by stepparents (Hetherington, 1992). Further, the emerging sexuality of early adolescents', which is often accompanied by self-consciousness and need for privacy, may make sharing a residence with a biologically unrelated adult disagreeable and uncomfortable.

Due to the profound nature of the changes which mark adolescence, this period of development has been recognized as a stage of potential risk or resilience (Lerner et al., 1996). Family structure transitions, such as remarriage, which coincide with the crucial developmental transition of early adolescence may overwhelm a child's extant coping resources as each of these changes require considerable adaptation (Graber, Petersen, & Brooks-Gunn, 1996). It may be that the developmental stage of adolescence interacts with the demands of remarriage to cause a greater amount of stress for early adolescents than would be the case if either of these transitions

had been experienced in isolation (Brody & Neubaum, 1996).

Despite the fact that numerous authors suggest that young children and older adolescents appear to adjust better to remarriage than do children between 9 and 15 years of age (Ambert, 1997; Bray, 1988; Hetherington et al., 1987; Lawton & Sanders, 1994; Perry, 1995; Zill, 1988), a mere two studies conducted after 1980 have examined age differences in children's adjustment to remarriage. In the first study, Zill (1988) examined various factors in a national sample of 1,300 children and found little variation in behaviour problem scores of children living in remarried families as a function of the age group of the child in comparison with children from intact families. The behaviours measured comprised both externalizing and internalizing behaviours. Zill (1988) reported a slight but significant trend indicative of more behaviour difficulties in the 15-17-year-old group of children living in remarried families versus the 4-5-year-old group of children living in remarried families which may signify more difficulty adjusting to remarriage in the group of adolescents as compared to the group of younger children. Yet, Zill (1988) recommends exercising caution in the interpretation of this result as the age effect found was relatively weak. Further, it was found that 9-11-year-old children living in father-stepmother families showed slightly higher behavioural difficulties than younger or older children; however caution is again recommended as these may merely reflect chance variations (Zill, 1988). Based on these findings, Zill (1988) concluded that there was little evidence of age differences in adjusting to the family transition of remarriage. The most apparent shortcoming of this study is that the data was collected close to twenty years ago, in 1981, and therefore, may not be entirely applicable today.

Hetherington's (1991c) research is most often cited by authors as providing evidence of

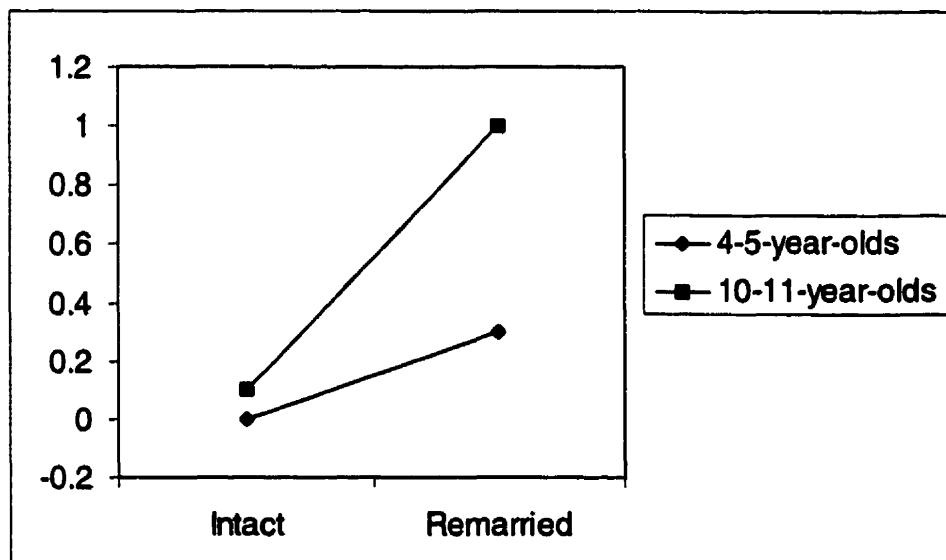
an age difference in children's adjustment to remarriage, with younger and older children adjusting more readily to this transition than early adolescents between 9 and 15 years of age. To examine putative age differences, Hetherington (1991c) compared the findings in two longitudinal studies, the first of which included children who were 4-years-old at the beginning of the study and 10-years-old at the end of the study and the second of which included children who were 11½ years of age at the start of the study and 13½ years of age when the study was completed. Whereas the younger children in the first study adapted over time to the remarriage, showing decreasing behaviour problems over time, older children in the second study showed no significant improvements in adjustment over time (Hetherington, 1991c). This comparison across studies represents the strongest evidence to date of age differences in children's adjustment to remarriage; however, there are methodological limitations of this research. First, there is no direct comparison of children of different ages involved in the same study. In addition, both of the longitudinal studies involved White middle class families and the remarried families comprised mother-stepfather families. Hence, as acknowledged by Hetherington (1991c), the results may not be generalizable to families of other ethnicities, socioeconomic classes, or remarried family structures.

Current knowledge regarding age trends is largely based on a comparison made across two studies that employed diverse methodologies. The National Longitudinal Study of Children and Youth (NLSCY) offers an opportunity to examine the relationship between age, family type, and children's outcomes with a nationally representative sample of Canadian families. Based on previous research and developmental theory, a developmental process in which age moderates the relationship between family type (intact or remarried) and externalizing and internalizing



outcomes is hypothesized. In this study, the moderating hypothesis is explored with a sample of 4-5-year-olds and a sample of 10-11-year-olds. It was predicted that the effects of remarriage would be greater in older than in younger children. This hypothesized effect will be examined by looking at the interaction between family type (intact or remarried) and children's age. It is expected that the relationship between family type and age will be strongest in the older children. The hypothesized moderating effect is represented in Figure 1.

**Figure 1.** Moderator model: Age moderating impact of family type.



To test for moderation, the protective factor, which is age in this study, must interact with the risk factor, which is family type in this study (Curran & Chassin, 1996). Baron and Kenny (1986) define the moderator as a variable which affects the direction and/or strength of the association between an independent variable and a dependent variable. In the moderator model there exists three causal pathways that affect the dependent variables which are, in this study, externalizing and internalizing behaviour. With respect to this thesis, the paths are the impact of

remarriage as a predictor, the impact of age as a moderator, and the interaction or product of these two. Moderation implies that the causal relation between two variables changes as a function of the moderator variable and, therefore, the moderator hypothesis will be supported if the interaction between family type and age is identified as significant (Baron & Kenny, 1986). In other words, it will not be enough to show a significant relationship between age and externalizing and/or internalizing behaviour for children living in remarried families (RF children). Rather, it must be demonstrated that the moderating variable (age) acts differently for RF children and children living in intact families (IF children).

#### **Sex as a Factor Associated with Outcomes in Children Living in Remarried Families**

The second goal was to examine the interaction between sex and family type with respect to the outcomes of externalizing and internalizing behaviour. Whereas boys have been shown to experience more difficulty coping with the family transition of divorce than girls (Hetherington, 1991a; Hetherington et al., 1987), it has been suggested that the opposite is true in the case of remarriage, as girls seem to have more difficulty adjusting to remarriage as compared to boys (Brand, Clingempeel, & Bowen-Woodward, 1988; Bray, 1988; Hetherington, et al., 1987; Hetherington, 1991c). Hetherington (1991a, 1992) suggests that, as boys more often become involved in negative coercive relationships with their divorced custodial mothers, they may have something to gain and little to lose by the introduction of a supportive stepfather. In contrast, girls, who usually have a better relationship with their divorced mothers and have been afforded a greater amount of responsibility and power in divorced households, may have more difficulty adjusting to a remarriage that threatens their close relationship with their mothers and infringes on their new found independence (Hetherington, 1991a).

In a 6-year follow-up of a longitudinal study, conducted when the children in the study were an average of 10 years of age, Hetherington et al. (1987) found that both boys and girls whose mothers had been remarried less than two years exhibited more externalizing problems, according to both self and parent reports, than children in intact families. The girls in remarried families, according to both stepfather and self report, were found to be higher in internalizing problems than children in intact families (Hetherington et al., 1987). Further, boys whose mothers had been remarried more than two years were exhibiting no more problems than boys in intact families and fewer problems, especially in terms of externalizing behaviour, than boys whose divorced mothers had not remarried (Hetherington et al., 1987; Hetherington, 1991a; Hetherington, 1991c). Although girls in remarried families did show more positive adjustment across time, they continued to display more externalizing symptomatology than girls in intact and divorced families even two years following remarriage (Hetherington, 1991c). As previously stated, the methodological limitation of this study is that the sample was restricted to well-educated, White, and middle class mother-stepfather families. Further, it may be that gender differences only occur when remarriage has taken place prior to adolescence. In another study it was found that, even two years following remarriage, both early adolescent girls and boys were displaying many behaviour problems (Hetherington, 1991a). In an earlier study including 6-9-year-old children, girls in remarried families were found to report more negative stresses and had poorer intellectual performance than boys in remarried families; however, no difference was found between boys and girls in remarried families on parent reports of externalizing and internalizing behaviour (Bray, 1988). This sample was not representative of the general population and was limited to one age group of children from White, middle class, stepfather

families. Finally, Brand et al. (1988) found that 9-12-year-old girls had poorer relationships with their stepparents in both stepfather and stepmother families; however, externalizing and internalizing measures were not included in this study.

Evidence shows that 4-16-year-old boys tend to exhibit more externalizing behaviour than 4-16-year-old girls and this finding is consistent across studies using diverse methodologies. Representative findings from the Ontario Child Health study (OCHS) and the National Longitudinal Survey of Children and Youth (NLSCY) community surveys include higher prevalence rates for boys than girls in conduct disorder (8.1% vs. 2.7%), hyperactivity (8.9% vs. 3.3%) (Offord, Boyle, Szatmari et al., 1987), and physical aggression (Offord & Lipman, 1996). In terms of internalizing disorders, the sex ratio during childhood is similar (Costello, 1989). The OCHS rates of emotional disorder for boys and girls in the 4-11-year-old age group were very similar (10.2% vs. 10.7%) (Offord et al., 1987). During adolescence this changes dramatically as girls begin to present a higher prevalence of internalizing difficulties (Costello, 1989; Offord et al., 1987). In light of these gender differences in the prevalence of externalizing disorders and previous research suggesting gender differences in children's adaptation to remarriage, it is hypothesized that gender will moderate the relationships between family status and children's outcomes. With regard to externalizing behaviour, girls in remarried families are expected to show levels of externalizing behaviour similar to boys, whereas in intact families their externalizing behaviour is expected to be much lower than boys. With regard to internalizing behaviour, girls are expected to show much higher levels of internalizing behaviour than boys in remarried families. In intact families, the difference between boys and girls is expected to be negligible.

## Parenting Practices

The third goal was to examine the relationship between the parenting factors of hostility/ineffectiveness, inconsistency, and lack of positive interaction, and poorer outcomes in children living in remarried families to identify whether these parenting practices mediate or moderate between remarriage and children's mental health outcomes. A review of the literature on parenting practices in remarried families, parenting practices with early adolescents versus younger children, parenting practices with early adolescent children living in remarried families, and the association between parenting practices and children's mental health outcomes follows.

### Parenting Practices in Remarried Families

Evidence shows that children in remarried families are generally exposed to less optimal parenting practices than are children in intact families, particularly in the early stages of remarriage. It has been found that children in remarried families experience less warm and more coercive interactions, as well as less effective communication, with their mothers in comparison with children in intact families (Brody & Neubaum, 1996). In a longitudinal study of divorce and remarriage, Hetherington (1991b) found that newly divorced and remarried mothers displayed ineffective control and monitoring of their children's behaviour and, in this respect, they differed most from nondivorced mothers. Hetherington (1991b) further portrayed mothers in the early stages of transition as commonly erratic in their behaviours toward their children, uncommunicative, nonsupportive, and inconsistently punitive. Examining the same data, Hagan, Hollier, O'Connor, and Eisenberg (1992) found that, five months after remarriage, remarried mothers were poorer monitors of their sons' behaviours and that there existed a greater degree of negativity in their relationships with their daughters, as compared to nondivorced mothers. By

17 months, there was no significant difference between intact and remarried samples in the negativity level characterizing mother and daughter relationships, yet ineffective monitoring and control continued to distinguish remarried mothers from nondivorced mothers. However, two years after remarriage, few differences have been identified in the relationships between nondivorced mothers and their children, as compared to relationships between remarried mothers and their children, with the exception of sporadic reports of less effective control and monitoring by remarried mothers (Hetherington, 1992; Hagan et al., 1992). Bray (1988) found that mothers in stepfamilies who had children between 6 and 9 years of age, in contrast to mothers in nondivorced families, reported utilizing less effective discipline practices and behaviour control and having less clearly defined roles. Using hierarchical linear modeling (HLM) growth models with a population-based sample, DeGarmo and Forgatch (1999) found that family transitions had a negative effect on parental discipline strategies and problem solving by slowing down the rate of improvement. Whereas the sample as a whole showed improved parenting practices over time, family structure transitions had a detrimental impact on parenting practices over time (DeGarmo & Forgatch, 1999).

There is also evidence to suggest that stepchildren in blended families experience parenting which differs from that experienced by their stepsiblings. In a study incorporating 130 blended families, differential parental treatment was revealed, as both mothers and fathers were significantly more supportive to their biological adolescent children than they were to their stepchildren (Mekos, Hetherington, & Reiss, 1996). Fathers, but not mothers, engaged in more monitoring and control practices with their own children than with their stepchildren. Further, mothers were involved in more conflicts with their own children than with their stepchildren,

whereas the opposite was found in the case of fathers (Mekos et al., 1996). In blended families, Mekos et al. (1996) describe the stepmother-stepchild relationship as disengaged, characterized by below average levels of support, negativity, and monitoring and the stepfather-stepchild relationship as rejecting and unsupportive, reflected in average levels of negativity and below average levels of support and monitoring.

#### Parenting Practices with Children of Different Ages

There is evidence which indicates that parenting practices change as a function of the age of the child, with older, early adolescent, children being exposed to poorer parenting practices than younger children. A comprehensive review conducted by Paikoff and Brooks-Gunn (1991) revealed that parental involvement with their children decreases as children approach adolescence. In a recent study involving children between 6 and 17 years of age, it was found that mothers' involvement in their children's activities, parental use of positive parenting strategies, such as the use of praise and compliments to acknowledge good behaviour, and parental monitoring and supervision of their children decreased as the child's age increased (Frick, Christian, & Wootton, 1999). In terms of maternal involvement in their children's lives and parental use of positive discipline strategies, the greatest decrease was between the 6-8- and the 9-12-year-old age groups (Frick et al., 1999). Further, Jewsbury-Conger and Conger (1994) found that parents in intact families tended to be more hostile to older siblings than to younger siblings. It may be that there are age groups (prior to nine years of age) when it is easier for parents to exert an influence over their children and other age groups (nine years of age and older) when it is harder to do so (Ambert, 1997). Entry into early adolescence is marked by the enhanced importance of peers, greater influence of social trends, and striving for autonomy and

independence. Such transitions that accompany adolescence may result in less parent-child positive interaction, less consistency in parenting perhaps as a strategy to avoid or lessen parent-child conflict, and greater hostile/ineffective parenting perhaps in response to conflict or changes that mark adolescence which parents may have difficulty adjusting to and, therefore, react with poor parenting practices (Ambert, 1997). It may be that the greater parental disengagement, less parental control, and less parental emotional involvement evident in families with early adolescent children is in response to early adolescents' seeking of enhanced autonomy and freedom (Hetherington, 1991b).

#### Parenting Practices with Early Adolescent Children Living in Remarried Families

Remarriage has been shown to be a factor that diminishes parental positivity, availability, and consistency (Ambert, 1997). Further, parenting practices have been shown to worsen during the developmental stage of early adolescence. Hence, the combination of these factors, remarried families with early adolescent children, will likely be associated with even higher rates of poor parenting practices than either of these factors in isolation. In a longitudinal study including children who were an average of 4 years of age at the beginning of the study and an average of 10 years of age at the end of the study, it was found that maternal control and monitoring increased over time in remarried families (Hetherington, 1991c). In contrast, a longitudinal study of children who were an average of 11½ years of age at the beginning of the study and an average of 13½ years of age at the end of the study, it was found that maternal control and monitoring did not improve over time and rather stabilized at rates significantly below those found in intact and divorced families (Hagan et al., 1991; Hetherington, 1991c). Further, this study revealed a trend of decreasing maternal positivity, control, and monitoring with increasing age of the children



(Hagan et al., 1991). Yet, the fact that age differences were revealed by comparing two studies comprised of different samples and utilizing different methodologies must be kept in mind. In addition, both of these studies were non-representative as they involved White, middle class, stepfather families.

### The Association Between Parenting Practices and Externalizing and Internalizing Outcomes

Research conducted both with intact families and remarried families has consistently found that parenting practices are an important factor in numerous child outcomes, including externalizing and internalizing problems.

#### Hostility/Ineffectiveness

Both externalizing and internalizing disorders have been associated with heightened rates of parental criticism and hostility directed toward the child (Richman, Stevenson, & Graham, 1982). Examining data from a longitudinal study including children who were between 9 and 13 years of age at the beginning of the study, Anderson, Lindner, and Bennion (1991) found that parental negativity was related to children's externalizing symptomatology across family types. In a study which examined changes over time in differences in sibling involvement in delinquent behaviour as a function of differential parental hostility, Jewsbury-Conger and Conger (1994) found that higher rates of parental hostility were associated with heightened delinquency. In the case of both mothers and fathers, analyses suggested that differential displays of parental hostility directly affected change in differential delinquency (Jewsbury-Conger & Conger, 1994). Hence, hostile parenting may partly explain differences in delinquent behaviour of siblings close in age in the same family, even after statistically controlling for the potential confounding effects of age (Jewsbury-Conger & Conger, 1994).

### Inconsistency

Evidence suggests that inconsistent discipline is associated with poor behaviour outcomes, particularly for early adolescent children. In remarried families characterized by consistent and effective discipline practices and rules by mothers and a suitable degree of involvement by mothers and stepfathers, 6-9-year-old girls exhibited fewer behavioural problems according to parental ratings (Bray, 1988). In a study including children between 10½ and 15½ years of age, Curran and Chassin (1996) found that both maternal and paternal consistency of discipline was associated with rates of externalizing behaviour and illicit drug use. Higher rates of consistent discipline were associated with lower levels of externalizing problems (Curran & Chassin, 1996). Similarly, Frick et al. (1999) found that inconsistent discipline was highly associated with conduct problems in children 13-19 years of age.

### Lack of Positive Interaction

Evidence shows that lower parental warmth is related to both externalizing and internalizing disorders (Richman et al., 1982). In a longitudinal study of intact, divorced, and remarried families, Anderson et al. (1991) found that, irrespective of family type, warmth displayed by either parent to the child was negatively associated with externalizing behaviour. Positive parenting behaviours such as affection, warmth and playfulness, and positive involvement (e.g., play a game together, read a book together etc.), have been negatively associated with behavioural problems in 6-7-year-old children (Frick et al., 1999).

In a longitudinal study, Bray (1999) found that the relationship between parenting and children's developmental outcomes was similar in established remarried families and intact families. In terms of parenting styles, authoritative parenting was found to be associated with

less behaviour problems. In contrast, authoritarian parenting was related to poorer outcomes in both long-term remarried families and intact families (Bray, 1999). Further, disengaged parenting was found to be associated with poorer adjustment for boys in remarried families and girls in intact families (Bray, 1999). Lawton and Sanders (1994) assert that parent-child and stepparent-stepchild interaction patterns which may accompany the early stages of remarriage, such as poor supervision, low parental involvement, and increased tolerance of disagreeable behaviour, will likely be linked with heightened behavioural difficulties.

#### Parenting as Mediating or Moderating the Relationship Between Family Type and Outcome

Previous research has shown that parenting practices are poorer in remarried families as compared to intact families, that early adolescents are exposed to less optimal parenting practices than are younger children, that early adolescent children in remarried families likely experience poorer parenting practices than younger children in remarried families, and that hostile and inconsistent parenting as well as lack of positive parent-child interaction are associated both with externalizing and internalizing outcomes. In the present study, the goals are to extend past research and examine potential mediation or moderation effects in which parenting mediates or moderates the relationship between family type and the outcomes of externalizing and internalizing behaviour.

#### Parenting as a Mediator of the Relationship Between Remarriage and Children's Behavioural Outcomes

It is expected that the independent variable of remarried family type will be associated with the mediating variables of high hostility, low consistency, and lack of positive interaction, which in turn will be associated with the outcomes of externalizing and internalizing behaviour. This is expected to be particularly true with the sample of older (10-11-year-old) children. In

order to isolate a mediating variable, there must first be a strong significant independent variable – dependent variable effect to mediate (Holmbeck, 1996). The intention is to show a strong significant relationship between the independent variable of remarriage and the dependent variables of externalizing and internalizing behaviours. To demonstrate mediation, it is necessary to establish the existence of strong relationships between the independent variable and the mediating variable and between the mediating variable and the dependent variable. In terms of this thesis, strong relationships between the independent variable (remarriage) and the mediating variable (poor parenting in the forms of high hostility, low consistency, and low positive interaction) and between the mediating variable (poor parenting) and the dependent variables (externalizing and internalizing) are hypothesized.

#### Parenting as a Moderator of the Relationship Between Remarriage and Children's Behavioural Outcomes

Conversely, it may be that parenting practices are moderating the relationship between remarriage and children's externalizing and internalizing behaviours. The moderator is a variable that affects the direction and/or strength of the relationship between an independent variable (family type in this case) and a dependent variable (externalizing and internalizing in this case). If parenting is a moderator of the effects of family type on children's outcomes, then parenting would have different effects on externalizing and/or internalizing for remarried and IF children. It may be that poorer parenting practices are more strongly associated with externalizing and internalizing behaviours for children from remarried families as compared to children from intact families. This finding would be in line with certain studies within the field of developmental psychopathology which have found that stresses potentiate one another, with the combination of stressors accounting for a much greater risk of disorder than summing the

effects of the stressors considered individually (Jenkins & Keating, 1998; Rutter, 1979; Sameroff, Seifer, & Bartko, 1997).

Evidently, there is much to be learned about the effects of and potential protective and risk factors for Canadian children who are members of remarried families. With a large, nationally representative sample, such relationships can be studied with increased accuracy and in greater detail.

## Chapter 2

### METHOD

#### Sample

The National Longitudinal Study of Children and Youth (NLSCY) is a survey of the health and well-being of approximately 22,800 children across Canada. This is a representative sample of children ranging in age from newborn to 11 years old. The data has been collected by Statistics Canada in association with Human Resources Canada. The data are available for interested researchers to use. All analyses have been carried out on the public data file.

With regard to sampling, the first set of families included in the NLSCY were selected by examining Statistics Canada's Labour Force Survey to identify which families contained children. The second set of families included in the NLSCY were simultaneously taking part in another national longitudinal survey developed by Statistics Canada called the National Population Health Survey (NPHS). For a certain segment of the NPHS household sample, a random selection of one person living in the household was made, with no age restrictions. In the case that the randomly selected person was a child between newborn and 11 years of age, this household was included in the NLSCY. Finally, since the Labour Force Survey excludes the Yukon and Northwest Territories, a third set of families was drawn from the population of private occupied dwellings in these areas. Households which contained at least one child aged newborn to 11 years of age became part of the NLSCY sample. In terms of the selection of the child sample, one child aged newborn to 11 years who lived the majority of the time in each selected household was randomly selected. Then other children in the same household as the selected child were randomly selected to a maximum of four children aged newborn to 11 years per household. The first cycle of the NLSCY comprised a sample of 13,439 households and

22,831 children from newborn to 11 years of age. Data will be collected on the sample of children every two years; however at the present time only cross-sectional data are available. The person who has the most knowledge about the child is referred to as the PMK (person most knowledgeable) and this person has provided the majority of the information about the child. Information was gathered from PMK's through home or telephone interviews and the responses were entered into a computer by the interviewer. Children ten years of age and older have also been interviewed and were instructed to complete the questionnaire in a private setting.

The analyses have been carried out separately on 4-5-year-old children and on 10-11-year-old children. These age groups were chosen due to an interest in developmental relationships. The outcome measures and parenting measures were the same for the 4-5-year-old sample and the 10-11-year-old sample which enabled analytic comparisons. In contrast, internalizing and externalizing outcomes and parenting styles were measured differently in the samples younger than 4-5 years of age versus the samples older than 4-5 years of age. For example, the factor of separation anxiety was included in the behaviour scale for 2-3-year-olds and not in the behaviour scale for older samples and the factors of indirect aggression and property offence were included in the behaviour scale for children aged 4 to 11 and not in the behaviour scale of children younger than 4 years of age. As well, the parenting scale differed for children aged 0 to 23 months and for children aged 2 to 11 years. Although a slightly older sample, such as a sample of early adolescent children aged 12 to 13, would have been ideal in terms of examining the interaction between age and family type, the 10-11-year-old sample was the oldest sample available in the first cycle of the NLSCY.

The number of 4-5-year-old children is 3154 (1429 boys and 1382 girls in intact families and 174 boys and 169 girls in remarried families) and the number of 10-11-year-old children is

2886 (1277 boys and 1219 girls in intact families and 194 boys and 196 girls in remarried families). Only children 10 years and older were interviewed in the NLSCY and therefore no child data exist for 4-5-year-old children. Child report data are included for the 10-11-year-old children in addition to parent report data. Agreement across informants will serve to strengthen findings by providing correlating information. Disagreement across informants may reveal interesting parent/child differential trends. Seven different types of remarried families were represented (See Table 1).

**Table 1 Type of Remarried Family**

<u>Type</u>	<u>Frequency</u>		
	<b>4-5-Year-Olds</b>	<b>10-11-Year-Olds</b>	<b>Combined</b>
Hers	63	131	194
His	8	12	20
Hers and Theirs	225	171	396
His and Theirs	24	33	57
His and Hers	16	28	44
His Hers and Theirs	7	12	19
Neithers	0	3	3
<b>Total</b>	<b>343</b>	<b>390</b>	<b>733</b>

Hers = biological/adopted children of the female parent and the step children of the male parent

His = biological/adopted children of the male parent and the step children of the female parent

Hers and Theirs = children of the female partner as well as children of the new union

His and Theirs = children of the male partner as well as children of the new union

His and Hers = biological/adopted children of the female partner and biological/adopted children of the male partner

His Hers and Theirs = biological/adopted children of the female partner, biological/adopted children of the male partner and children of the new union

Neithers = couple with at least one child other than their own from a previous union who is in a step relationship with both parents

All analyses were performed using weighted data. Weighted data refers to the fact that each person in the sample represents several other people besides her/himself. As an example, in a 2% simple random sample of the population, each person included in the sample represents 50 people in the population. Weighting is a procedure which calculates what this number is. The



weight is then used to determine meaningful estimates from the survey.

## Measures

### Parenting Variables

As part of the NLSCY the PMK was asked to evaluate themselves on variety of parenting variables representing affection in the parent child relationship, positive interaction, parental consistency, hostility, and punishment. Responses were rated on a five point scale. A factor analysis of this information by Statistics Canada revealed three factors: hostile/ineffective, consistency, and positive interaction.

#### Hostility in the Parent - Child Relationship

The hostile/ineffective scale comprised the following items: annoyance, anger, disapproval, lack of praise, difficulties managing the child, parental moods which affected punishment, and ineffective punishment (see Appendix A). There are seven items in the scale. The range is from 0-25 with a high score denoting hostile/ineffective parenting. The internal consistency of the scale was  $\alpha=.71$ .

#### Consistency in the Parent - Child Relationship

The consistency scale was made up of the following items: follow through on commands and punishment, lack of punishment for unacceptable behaviour, difficulties enforcing punishment, and difficulties in maintaining compliance to punishment (see Appendix A). There are five items in the scale. The range is from 0-20 with a high score indicating consistent parenting. The questions in the hostility and consistency scales were rated on a five point scale from never to all the time. Cronbach's alpha was  $\alpha=.66$ .

### Positive Interaction in the Parent - Child Relationship

The positive interaction scale included the following items: praise, the frequency of talk/play, laughter, and game playing in parent child interactions, and amount of time spent engaging in activities considered enjoyable by the child (see Appendix A). There are five items in the scale. The range is from 0-20 with a high score indicating positive parent-child interaction. Each of the questions in the positive interaction scale was rated on a five point scale from never to many times a day. The internal consistency of this scale was  $\alpha=.81$ .

### Income

The PMK was the source of the data gathered on annual family income and household size. From this information Statistics Canada created a five point scale of income adequacy. These five categories are lowest, lower middle, middle, upper middle, highest. See Appendix A for a description of the scale.

### Outcome Variables

Factor analyses performed by Statistics Canada on behavioural variables for children from four to eleven years of age resulted in the following factors: conduct disorder, hyperactivity/inattention, indirect aggression, and emotional disorder.

### Externalizing and Internalizing Behaviour

Externalizing and internalizing disorder are the two most common patterns of psychopathology found in children and adolescents. Externalizing disorder includes conduct disorder, hyperactivity/inattention, and indirect aggression. Internalizing disorder is equivalent to emotional disorder. In order to decrease the number of analyses and the complexity of the data presentation, a composite variable was created for externalizing disorder by combining the items from conduct disorder, hyperactivity, and indirect aggression for each informant

separately. This decision was based on consistent evidence showing that conduct disorder and hyperactivity are strongly related to one another. For example, in a study comparing matched general population and clinical samples of children aged 4-18, McConaughy & Achenbach (1994) found that aggressive behaviour and attention problems (problems of inattention, hyperactivity, and impulsivity) (Achenbach & McConaughy, 1997) were highly related to one another.

The PMK report of children's externalizing behaviours was made up of 19 items. Representative items include: How often would you say that (child's name): Can't sit still, is restless or hyperactive?; Gets into many fights; When mad at someone, says bad things behind the other's back? Children's (10-11-year-old) report of externalizing behaviours was made up of the same 19 items as the PMK report. For example: I can't sit still, am restless or hyperactive; I get into many fights; When mad at someone, I say bad things behind the other's back. The PMK report of children's internalizing behaviours was made up of eight items. Representative items include: How often would you say that (child's name): Seems to be unhappy, sad or depressed?; Is too fearful or anxious?; Is worried? Children's (10-11-year-old) report of internalizing behaviours was made up of the same eight items as that of the PMK report.

Internal consistency, as assessed by Cronbach's alpha, for the PMK's report of externalizing behaviours was  $\alpha=.84$  and for children's reports it was  $\alpha=.85$ . Internal consistency for the PMK's report of internalizing behaviours  $\alpha=.78$  and for children's reports it was  $\alpha=.76$ . Externalizing and internalizing behaviours were rated by PMK's and children on a three point scale. The specific items are presented in Appendix A.

In terms of data presentation, main effects will be presented in tables and interactions will be presented in graphs to allow the direction of the interactions to be more readily understood.

## Chapter 3

### RESULTS

#### Mental Health Outcomes in Children

##### Age as a Factor Associated with Outcomes in Children Living in Remarried Families

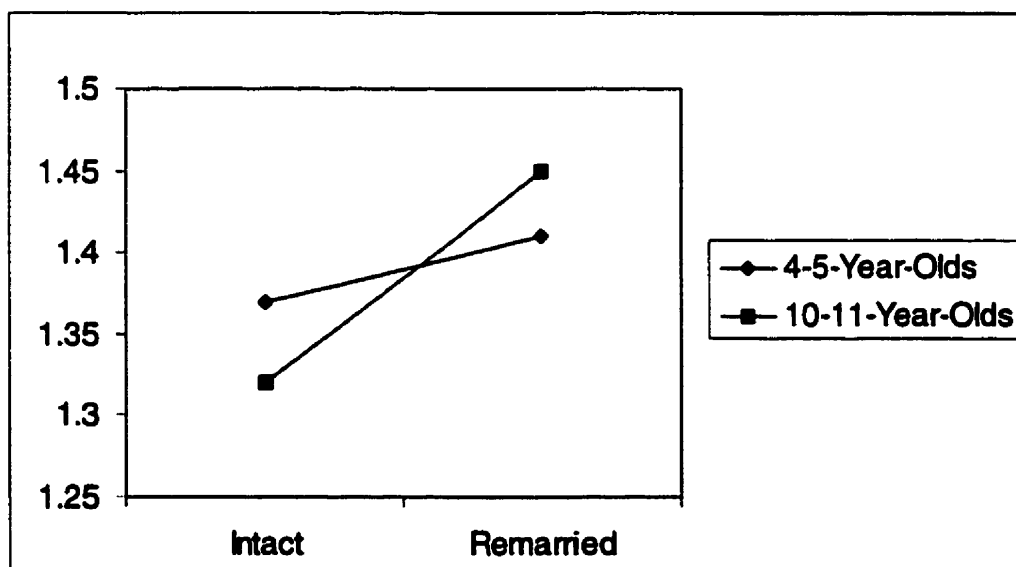
The first goal was to examine the interaction between age and family type with respect to the outcomes of externalizing and internalizing symptomatology. It was hypothesized that age would moderate the relationship between family type and the outcomes of externalizing and internalizing behaviour. We know that externalizing behaviours typically decrease with age (Loeber, Tremblay, Gagnon, Charlebois, 1989; Tremblay, Japel, Perusse et al., 1999) so it was expected that this pattern would be reflected in the intact families whereas the opposite pattern, with 10-11-year-old RF children exhibiting more externalizing behaviours than 4-5-year-old RF children, would be evident in remarried families. It was expected that older (10-11-year-old) RF children would exhibit more externalizing and internalizing problems than younger (4-5-year-old) RF children. An age difference in outcome with the sample of children living in intact families was not predicted. To address this question, family type and age were entered into an analysis of covariance with children's externalizing and internalizing behaviour as the outcome measures and socioeconomic status as a covariate. Although the term moderator is typically used for a significant interaction term in a regression, in this context it is used to refer to a significant ANCOVA interaction between family type and age. As a negative relationship between income level and behavioural difficulties has been demonstrated (Offord & Lipman, 1996), it was important to control for potential effects of socioeconomic status in all of our analyses. Socioeconomic status has been partialled out in all of the analyses; however, it will only be reported on for the initial externalizing and internalizing analyses in order to reduce

repetition in the reporting of results.

Parent reports of externalizing behaviour.

Parent reports of children's externalizing behaviour revealed a main effect of family type,  $F(1,5923) = 54.1, p < 0.001$ . Children in remarried families displayed a greater amount of externalizing behaviour than children in intact families. Further, a main effect of age was found,  $F(1,5923) = 28.9, p < 0.001$ , with 4-5-year-old children exhibiting more externalizing behaviours than 10-11-year-old children. A main effect of socioeconomic status was not found,  $F(1,5923) = 4.8, NS$ . Figure 2 shows a significant interaction between family type and age,  $F(1,5923) = 13.2, p < 0.001$ .

**Figure 2.** Mean of children's externalizing behaviours as a function of family type and children's age – parent report.



Whereas 10-11-year-old children from intact families showed less externalizing behaviour than 4-5-year-old children from intact families, the opposite is true in the case of remarried families, with 10-11-year-old children from remarried families displaying a higher level of externalizing behaviour than 4-5-year-old children from remarried families. Age shows an opposite association

with externalizing behaviour in intact and remarried families. This finding is supportive of the moderating hypothesis.

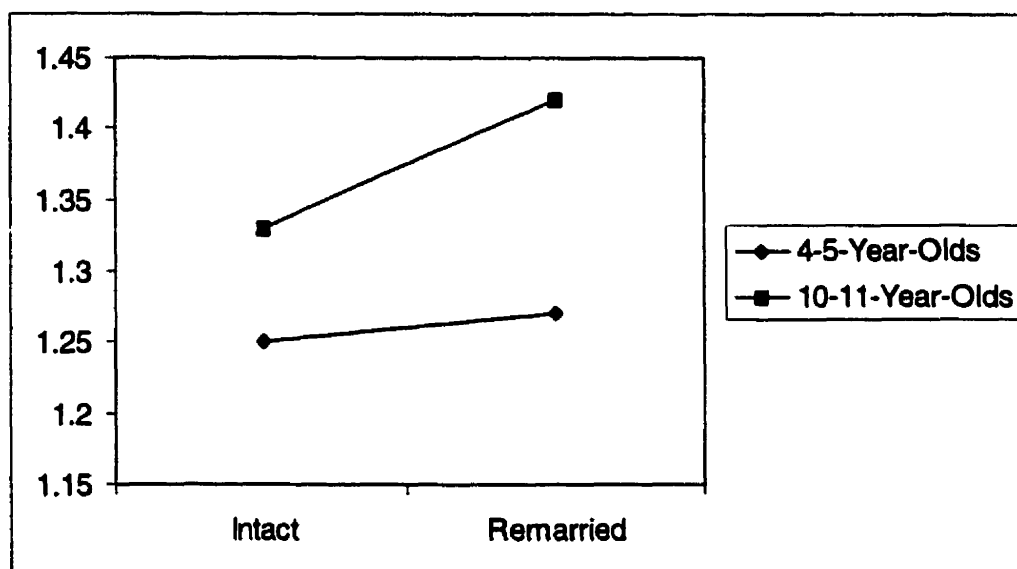
**Child reports of externalizing behaviour.**

Child (10-11-year-old) reports of externalizing behaviour indicated a main effect of family type,  $F(1,2473) = 21.8, p < 0.001$ . Similar to parent reports, child reports indicated that 10-11-year-old children in remarried families showed a significantly higher level of externalizing behaviour than 10-11-year-old children in intact families. A main effect of socioeconomic status was not found,  $F(1,2473) = .03, NS$ . Interaction data are not reported as child data was only available for the 10-11-year-old group of children.

**Parent reports of internalizing behaviour.**

Parent reports of children's internalizing behaviour revealed a main effect of family type,  $F(1,5930) = 27.9, p < 0.001$ . Children in remarried families were found to have significantly higher levels of internalizing symptoms than children from intact families. Age was also found to have a significant effect on children's internalizing symptoms,  $F(1,5930) = 135.1, p < 0.001$ . Older, 10-11-year-old children, were found to present with more internalizing symptoms than younger, 4-5-year-old, children. Socioeconomic status was also related to internalizing symptoms,  $F(1,5930) = 4.8, p < 0.029$ . The interaction between family type and age was also found to be significant,  $F(1,5930) = 8.5, p < 0.004$ . This is depicted in Figure 3.

**Figure 3.** Mean of children's internalizing behaviours as a function of family type and children's age – parent report.



There was less of a difference in levels of internalizing behaviour between younger and older children in the intact families and a greater difference between younger and older children in remarried families with older children showing more internalizing problems than younger children. It seems that older (10-11) age is associated with greater internalizing behaviour in children in both intact and remarried families, but the association is stronger in the remarried group than in the intact group. This finding is also consistent with the moderating hypothesis; however, it is less strongly supportive of this hypothesis as compared to the finding for externalizing behaviour.

#### Child reports of internalizing behaviour.

Child (10-11-year old) reports of internalizing behaviour indicated a main effect of family type,  $F(1,2497) = 18.3, p < 0.001$ . As with the parent reports, 10-11-year-old children in remarried families were found to have significantly higher levels of internalizing symptoms than

10-11-year-old children in intact families. A main effect of socioeconomic status was not found,  $F(1,2497) = .07$ , NS.

### Summary.

The first goal was to determine whether age was moderating the relationship between family type and children's externalizing and internalizing behaviours. It was expected that age would show a different relationship with outcome in remarried than intact families. Support for the moderator hypothesis was found in parent reports of externalizing and internalizing behaviour. Older, 10-11-year-old, children from remarried families showed more externalizing behaviour than younger, 4-5-year-old, children from remarried families, whereas the opposite association was found in intact families. As well, older age was found to be associated with more internalizing behaviours for both intact and RF children; however, this association was much stronger for RF children. Child reports indicated that 10-11-year-old children in remarried families are exhibiting more externalizing and internalizing symptomatology than 10-11-year-old children in intact families.

### Sex as a Factor Associated with Outcomes in Children Living in Remarried Families

The second goal was to examine the interaction between sex and family type with respect to the outcomes of externalizing and internalizing behaviour. It was hypothesized that remarried girls would display levels of externalizing behaviour closer to that displayed by remarried boys and levels of internalizing behaviour greater than that displayed by remarried boys. In contrast, and in accordance with prevalence rates of externalizing and internalizing disorders in boys and girls, it was expected that boys in intact families would display significantly more externalizing behaviours than girls in intact families and that boys in intact families would exhibit similar levels of internalizing behaviours as girls in intact families. To address this question, family type

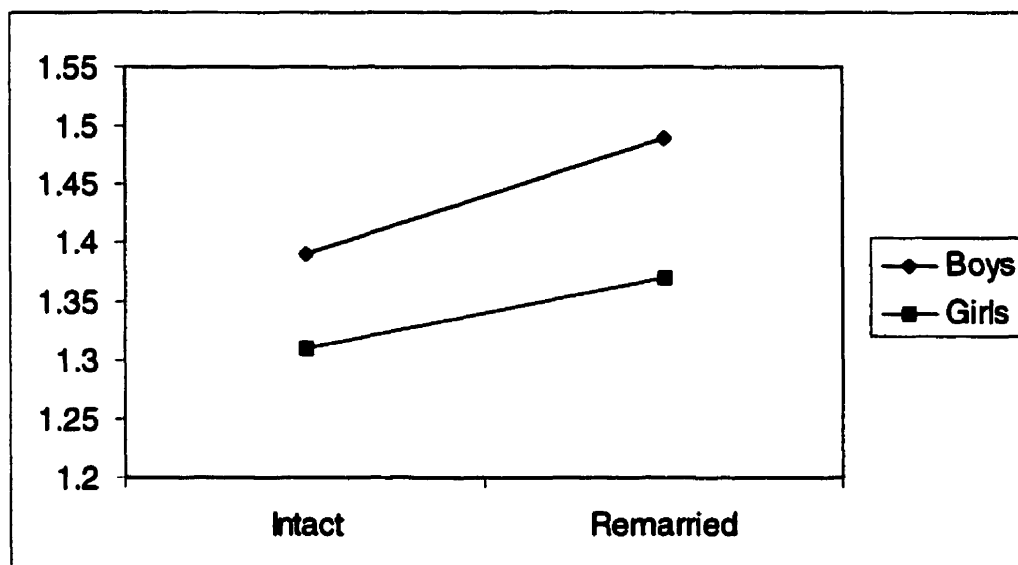


and sex were entered into an analysis of covariance with children's externalizing and internalizing behaviour as the outcome measures and socioeconomic status as a covariate.

Parent reports of externalizing behaviour.

Parent reports of children's externalizing behaviour revealed a main effect of sex,  $F(1,5923) = 152.2, p < 0.001$ . Boys showed a significantly higher level of externalizing behaviour than girls. In addition, the interaction between family type and sex approached significance,  $F(1,5923) = 3.7, p < 0.056$ . This is shown in Figure 4.

**Figure 4.** Mean of children's externalizing behaviours as a function of family type and children's sex – parent report.

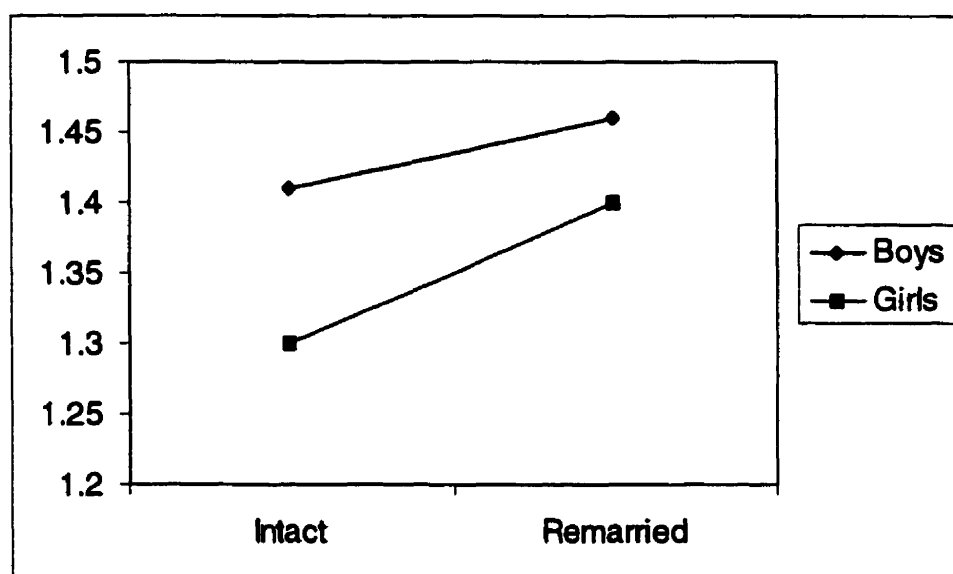


There was a trend for boys and girls in remarried families to show a greater difference in levels of externalizing behaviour than boys and girls in intact families, with boys in remarried families displaying more externalizing behaviour than girls in remarried families. This is an unexpected finding and goes against the hypothesis that girls in remarried families would show similar levels of externalizing behaviour as boys in remarried families.

### Child reports of externalizing behaviour.

Children's (10-11-year-old) reports of their externalizing behaviours indicated a main effect of sex,  $F(1,2473) = 84.1, p < 0.001$ . Analogous with parent reports, boys were found to present with significantly more externalizing tendencies than girls. As is shown in Figure 5, the interaction between family type and sex approached significance,  $F(1,2473) = 3.1, p < 0.077$ , but this interaction was in the opposite direction to that seen with the parent data.

**Figure 5.** Mean of children's externalizing behaviours as a function of family type and children's sex – child (10-11-year-old) report.



There was less of a difference in levels of externalizing behaviour between boys and girls in the remarried families and a greater difference between boys and girls in intact families with boys showing much more externalizing behaviours than girls in intact families. This finding is the opposite of that revealed through parent reports in which a greater difference in externalizing behaviour was found between boys and girls in remarried families as compared with boys and girls in intact families. The direction of the interaction in the child report data is supportive of

the hypothesis but fell short of significance.

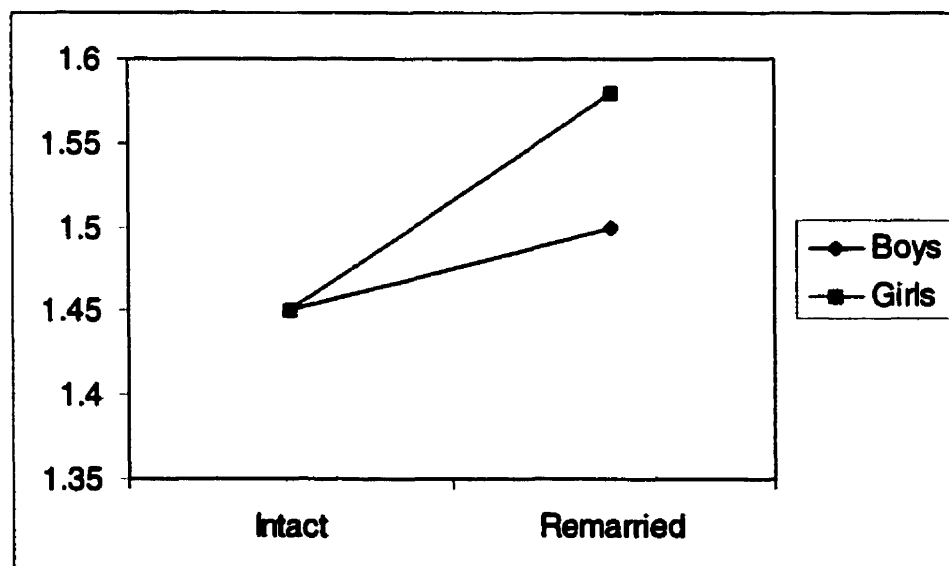
Parent reports of internalizing behaviour.

Parent reports of children's internalizing behaviour indicated that sex was not significantly associated with internalizing behaviour,  $F(1,5930) = 3.6$ , NS. Further, the interaction between family type and sex was not significant,  $F(1,5930) = 0.1$ , NS. It was expected that girls in remarried families would show significantly more internalizing problems than boys in remarried families; however, this was not found.

Child reports of internalizing behaviour.

Sex was not significant as a main effect,  $F(1,2497) = 0.48$ , NS, but the interaction between sex and family type was significant,  $F(1,2497) = 3.9$ ,  $p < 0.048$ . This is shown in Figure 6.

**Figure 6.** Mean of children's internalizing behaviours as a function of family type and children's sex – child (10-11-year-old) report.



There was a greater difference in internalizing behaviour between boys and girls in the remarried

families than in the intact families with girls in remarried families showing more internalizing symptoms than boys in remarried families. This finding differs from that of the parent report data in which the interaction between family type and sex was not found to be significantly associated with internalizing symptoms. This finding is supportive of the hypothesis that girls in remarried families would show more internalizing problems than boys in remarried families whereas girls and boys in intact families would show similar levels of internalizing difficulties.

### Summary.

The second goal was to examine whether gender had a different effect on outcomes in remarried and intact families. This was not supported in parent reports of externalizing or internalizing behaviour. Child reports of externalizing behaviour provided weak support for the hypothesis, as a trend was found showing less of a difference in levels of externalizing behaviour shown by girls and boys in remarried families, compared to girls and boys in intact families. Child reports of internalizing behaviour did support the hypothesis, as the interaction between family type and sex was significant and showed that girls in remarried families were showing more internalizing behaviours than boys in remarried families whereas girls and boys in intact families showed similar levels of internalizing behaviours.

### Parenting as a Mediator or Moderator of the Relationship between Remarriage and Children's Behavioural Outcomes

The third goal was to examine whether parenting practices mediate or moderate the relationship between family type and outcome, particularly in the sample of older (10-11-year-old) children.

#### Parenting as mediating the relationship between remarriage and children's outcomes.

In order to isolate a mediating variable, there must first be a strong significant independent variable – dependent variable effect to mediate (Holmbeck, 1996). In the previous

section of analyses, significant relationships between the independent variable of remarriage and the dependent variables of externalizing and internalizing behaviours were shown. Both parent and child reports indicated that children in remarried families exhibit significantly more externalizing and internalizing behaviours than do children in intact families. The second requirement for mediation is to demonstrate the existence of a strong relationship between the independent variable and the mediating variable, in this case remarriage and parenting. The third requirement is to demonstrate a relationship between the mediating variable and the dependent variable, in this case parenting and outcome. The final step is to show that the independent-dependent variables' relationship is eliminated or reduced (partial mediation) when the mediating variable is included in the analyses.

#### Examining the relationship between remarriage and parenting.

For this examination, family type, age, and sex, were entered into an analysis of covariance with each parenting factor (hostile ineffective, consistency, positive interaction) as the outcome measures and socioeconomic status as a covariate. Age, sex, and socioeconomic status were only entered to ensure that any association between remarriage and parenting was not attributable to age, sex, or socioeconomic status. Consequently, data for each effect will not be reported. Instead, only data on associations between remarriage and parenting will be reported. For a full report of these effects please consult Appendix B. As expected, family type was significantly associated with level of hostile/ineffective parenting,  $F(1,5905) = 6, p < 0.014$ , level of consistent parenting,  $F(1,5888) = 4.8, p < 0.029$ , and level of positive interaction,  $F(1,5927) = 16.2, p < 0.001$ . Children in remarried families experience more hostile/ineffective parenting, less consistent parenting, and less positive interaction than do children in intact families.

### Summary.

The above findings indicate that there is a significant relationship between family type and all three parenting practices – hostile/ineffective parenting, consistent parenting, and positive parenting. In each case, children in remarried families were shown to experience less optimal parenting than children in intact families. For hostile parenting, we also found a significant interaction between family type and age, with 10-11-year old children in remarried families experiencing more hostile parenting than 4-5-year-old children in remarried families. The opposite was found for intact families. For positive parenting, a significant interaction was found between family type and age, with 4-5-year-old children in intact families experiencing more positive parenting than 4-5-year-old children in remarried families. No difference was found between the level of positive parenting experienced by 10-11-year-old children in remarried and intact families. The next step was to demonstrate a relationship between the mediating variable of poor parenting and the dependent variables of externalizing and internalizing behaviours.

### Association between parental hostility, consistency, and positive interaction and children's behavioural outcomes.

To determine the relationship between parenting and outcome, the correlations between each parenting factor and parent reports of externalizing and internalizing as well as the correlations between each parenting factor and child reports of externalizing and internalizing were examined. It was found that hostile parenting was significantly associated with parent reports of children's externalizing behaviour,  $r(6984) = .52, p < .001$ ; and parent reports of children's internalizing behaviour,  $r(6991) = .36, p < .001$ . As in the parent reports, hostile parenting was found to be significantly correlated with child reports of externalizing behaviour,  $r(2908) = .24, p < .001$ ; and child reports of internalizing behaviour,  $r(2934) = .17, p < .001$ .

Higher levels of hostile parenting were associated with higher levels of externalizing and internalizing. For consistent parenting, negative relationships between consistency and parent reports of externalizing,  $r(6966) = -.23, p < .001$ ; and internalizing,  $r(6974) = -.13, p < .001$  were found. There was also a negative correlation found between consistent parenting and child reports of externalizing behaviour,  $r(2901) = -.10, p < .001$ ; and internalizing behaviour,  $r(2927) = -.08, p < .001$ . Lower levels of parental consistency were related to higher levels of parent and child reports of externalizing and internalizing. Positive interaction was found to be negatively related to parent reports of children's externalizing behaviour,  $r(7007) = -.07, p < .001$ ; parent reports of children's internalizing behaviour,  $r(7016) = -.17, p < .001$ ; child reports of externalizing behaviour,  $r(2920) = -.10, p < .001$ ; and child reports of internalizing behaviour,  $r(2946) = -.09, p < .001$ . Lower levels of positive interaction were related to higher levels of parent and child reports of externalizing and internalizing.

#### Testing the mediator model.

Having shown significant relationships between remarriage and all three forms of parenting examined in this study and between each form of parenting and the mental health outcomes of externalizing and internalizing behaviour, the final step was to test the hypothesis that poor parenting mediates the relationship between family type and the outcomes of externalizing and internalizing. To test for this, multiple regressions were performed. For these analyses, initial regressions in which child outcome was entered as the dependent variable and family type and socioeconomic status were entered as independent variables (family type regression coefficient = A) were performed. Family type was entered as a dummy variable. Following this, regressions were performed in which the parenting variable (either hostile, consistent, or positive parenting) was added as an independent variable. With the inclusion of

these parenting variables, a significant reduction in the regression coefficient for family type (regression coefficient B) once the parenting measure was in the equation was expected. A significant reduction was defined as a reduction from coefficient A to coefficient B that was more than twice the standard error of family type. Results of the multiple regression analyses did not support the mediator hypothesis. There was very little reduction in the regression coefficient for family type when the parenting variables were entered into the model. As no support for this hypothesis was found, figures for these analyses have not been given. There is no evidence that hostile parenting, consistent parenting, and/or positive interaction are mediating the relationship between family type and children's mental health outcomes. Hence, the observed relationship between family type and children's mental health outcomes was not accounted for by the parenting variables examined in this study. Yet, it is apparent that both family type and parenting strategies have significant independent effects on child outcomes.

Parenting as moderating the relationship between remarriage and children's outcomes.

Although parenting was not found to mediate the relationship between family type and child outcomes, it may be that parenting moderates the effects of family type on child outcomes. If this were true, the impact of hostile parenting, consistent parenting, and/or positive interaction on children's externalizing and internalizing behaviours would be different for intact and RF children. To test for this, hierarchical regressions were performed to determine whether the interaction terms of hostile parenting x family type, consistent parenting x family type, and positive interaction x family type made significant additions to the prediction of children's mental health outcomes beyond the contributions made by parenting and family type individually. The results of the regression including parent reports of hostile parenting are seen in Table 2.



Hostile parenting - parent reports of externalizing and internalizing.

**Table 2 Summary of Hierarchical Regression Analyses Examining the Role of Hostile Parenting in Moderating the Effects of Family Type in Parents' Report of Externalizing and Internalizing Outcomes for 10-11-Year-Old Children**

10-11-year-old children	B	SEB	B	Change in R2
<b>Externalizing disorder</b>				
<b>Parent report</b>				
<b>N = 2822</b>				
Step 1 SES	-.001	6.10	-.033	.001
Step 2 Family Type	-.123	.016	-.147	.022***
Step 3 Hostile Parenting	.037	.001	.482	.232***
Step 4 Family Type * Hostility	-.012	.004	-.181	.003***
<b>Internalizing disorder</b>				
<b>Parent report</b>				
Step 1 SES	-.001	7.05	-.034	.001
Step 2 Family Type	-.089	.018	-.093	.009***
Step 3 Hostile Parenting	.032	.002	.368	.135***
Step 4 Family Type * Hostility	-.009	.004	-.121	.001*

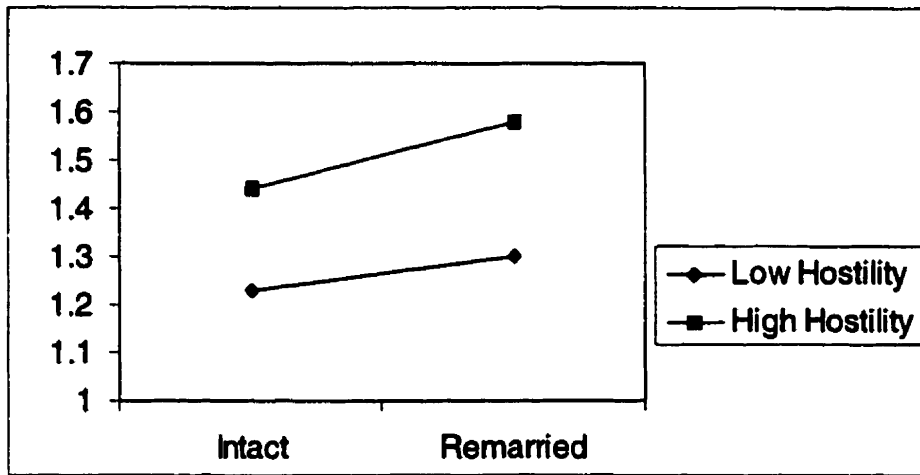
\*  $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$

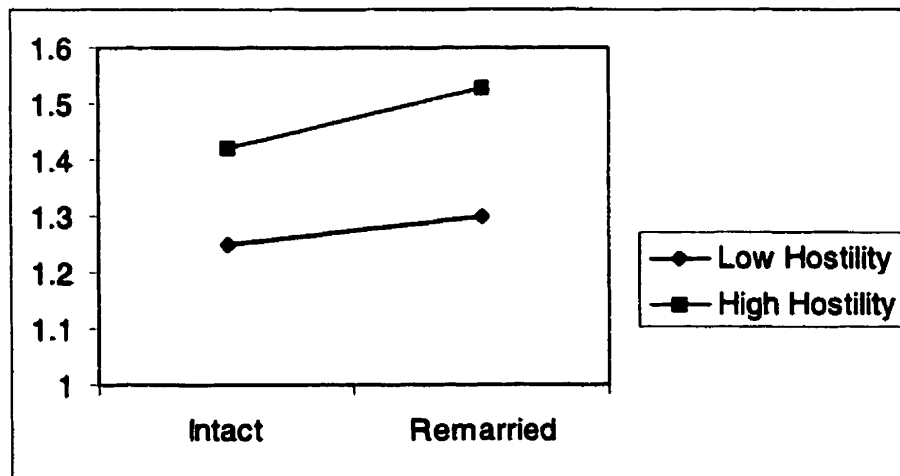
For 4-5-year-olds, hostile parenting was not a moderator of family type effects on parent reports of externalizing and internalizing. For 10-11-year-old children, it was found that hostile parenting was moderating family type effects on parent reports of children's externalizing and internalizing. This is shown in Figures 7 and 8. For illustration, a median split was performed on hostile parenting. In the case of hostile parenting, a low score indicates low hostility and a high score indicates high hostility experienced by the child.

**Figure 7.** Mean of children's externalizing behaviours as a function of family type and hostile parenting – parent report.



It is possible to see, although the effect is very weak, that hostile parenting is more strongly associated with externalizing behaviour for 10-11-year-old children in remarried families than for 10-11-year-old children in intact families.

**Figure 8.** Mean of children's internalizing behaviours as a function of family type and hostile parenting – parent report.



The same pattern was found for parent reports of internalizing behaviour. Hostile parenting is

more strongly associated with internalizing behaviour for 10-11-year-old children in remarried families than for 10-11-year-old children in intact families.

**Hostile parenting - child reports of externalizing and internalizing.**

For 10-11-year-olds, hostile parenting was not a moderator of family type effects on children's reports of externalizing or internalizing.

**Consistent parenting – parent reports of externalizing and internalizing.**

It was found that consistent parenting was not moderating the effects of family type on parent reports of externalizing and internalizing for either age group when parent report of behaviour was the outcome.

**Consistent parenting - child reports of externalizing and internalizing.**

It was found that consistent parenting was not moderating the effects of family type on child reports of externalizing behaviour. Yet, it was found that consistent parenting was moderating the effects of family type on child reports of internalizing behaviour. This can be seen in Table 3.

**Table 3 Summary of Hierarchical Regression Analyses Examining the Role of Consistent Parenting in Moderating the Effects of Family Type in Childrens' (10-11-Year-Old) Report of Internalizing Outcome**

10-11-year-old children	B	SEB	B	Change in R2
<b>Internalizing disorder</b>				
<b>Child report</b>				
<b>N = 2468</b>				
Step 1 SES	-2.93	.001	-.004	.000
Step 2 Family Type	-.095	.021	-.090	.008**
Step 3 Consistent Parenting	-.008	.002	-.071	.005***
Step 4 Family Type * Consistency	-.018	.006	-.305	.004**

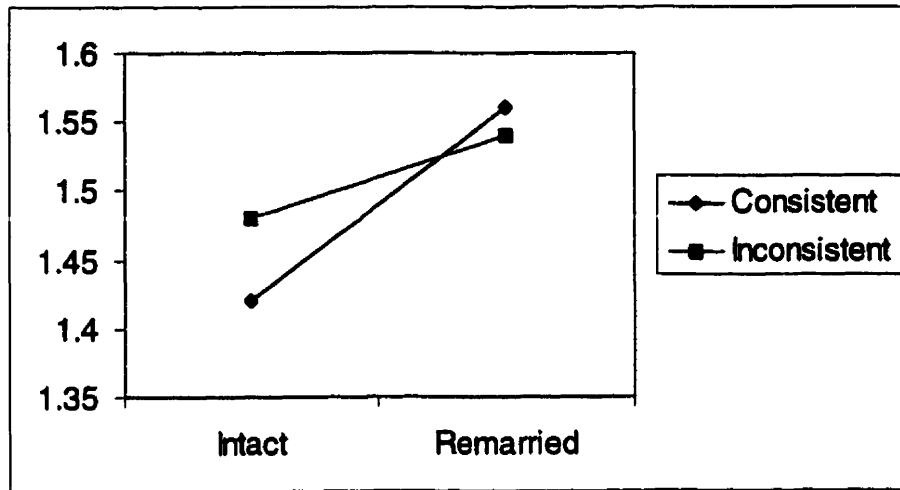
\*  $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$

Evidence was found for a moderating effect of consistency when children's reports of internalizing were examined; however, the pattern was not the pattern hypothesized. Among children in remarried families, consistent parenting was not associated with internalizing behaviour. Among children in intact families, consistent parenting was associated with internalizing behaviour. Children who received less consistent parenting showed higher levels of internalizing problems. For illustration, a median split was performed on consistent parenting. A low score represents low consistency and a high score represents a high degree of parental consistency. This is illustrated in Figure 9.

**Figure 9.** Mean of children's internalizing behaviours as a function of family type and consistent parenting – child (10-11-year-old) report.



Whereas children from intact families displayed higher rates of internalizing symptoms when exposed to inconsistent parenting as compared to consistent parenting, children from remarried families showed higher internalizing behaviours when exposed to consistent parenting than when exposed to inconsistent parenting. This was not found in the parental reports.

Positive interaction - parent reports of externalizing and internalizing.

**Table 4 Summary of Hierarchical Regression Analyses Examining the Role of Positive Interaction in Moderating the Effects of Family Type in Parent Report of Externalizing Outcome**

10-11-year-old children	B	SEB	B	Change in R2
Externalizing disorder Parent report N = 3069				
Step 1 SES	-.001	6.10	-.032	.001
Step 2 Family Type	-.121	.016	-.145	.021***
Step 3 Positive Interaction	-.012	.002	-.113	.013***
Step 4 Family Type * Positive Interaction	.011	.005	.185	.002*

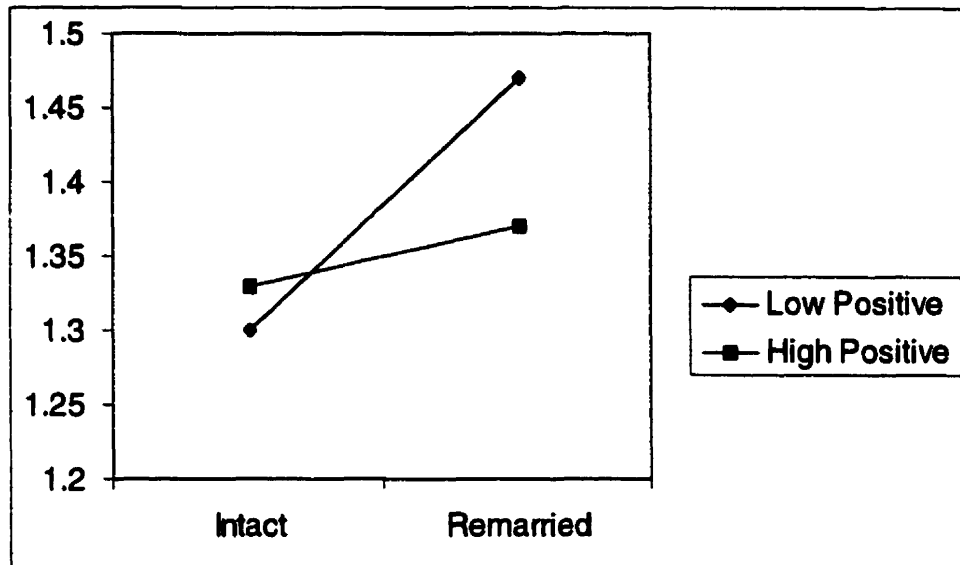
\*  $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$

For 4-5-year-olds, positive interaction was not a moderator of family type effects on parent reports of externalizing and internalizing. For 10-11-year-old children, positive interaction was not a moderator of family type effects on parent reports of internalizing or child reports of externalizing and internalizing. It was found that positive interaction was moderating family type effects on parent reports of children's externalizing behaviour. For illustration, a median split was performed on positive interaction. In the case of positive interaction, a low score indicates low positive interaction and a high score indicates high positive interaction experienced by the child. This is shown in Figure 10.

**Figure 10.** Mean of children's externalizing behaviours as a function of family type and positive interaction – parent report.



It was found that low positive interaction is more strongly associated with externalizing behaviour for 10-11-year-old children in remarried families than for 10-11-year-old children in intact families.

**Positive interaction - child reports of externalizing and internalizing.**

For 10-11-year-olds, positive interaction was not a moderator of family type effects on children's reports of externalizing or internalizing.

**Summary.**

The third aim was to examine whether there was any evidence for mediating or moderating effects of parenting on the relationship between remarriage and children's outcomes. The mediating model would be supported if the association between remarriage and poor child outcomes was found to be explained by parenting practices. The moderating model would be supported if parenting practices were found to be differentially associated with externalizing and

internalizing outcomes for children from intact and remarried families. It was found that children in remarried families do experience more hostile, inconsistent, and less positive parenting than children in intact families. It was also found that hostile parenting, consistent parenting, and positive interaction were related to parent and child reports of externalizing and internalizing, with poorer parenting practices associated with poorer outcomes. Following these findings, mediation was tested for but no evidence was found that any of the parenting practices were mediating the relationship between family type and children's displays of externalizing or internalizing behaviour. Rather, it was found that parenting was moderating the effects of family type on children's outcomes, in some cases. Hostile parenting was found to be more strongly associated with parent reports of externalizing and internalizing in remarried families than in intact families. As well, child reports indicated that children in remarried families showed greater internalizing behaviour when exposed to consistent parenting than when exposed to inconsistent parenting, whereas the opposite is true for children from intact families. Further, parent reports indicated that low positive interaction is more strongly associated with children's externalizing behaviour in remarried families than in intact families.

#### Summary of Results Based on Informant (Parent or Child)

For the purpose of enhancing clarity, a summary of the results, distinguishing between parent and child informant of 10-11-year-old children's outcomes, is provided in Table 5. It can be seen in this table that significant associations between hostile, consistent, and positive parenting and externalizing and internalizing outcomes were found across both parent and child report. Hence, these results can not be explained by within informant bias. As well, both parent and child reports indicated that consistent parenting was not moderating the relationship between family type and externalizing behaviour and that positive interaction was not moderating the



relationship between family type and internalizing behaviour.

In terms of discrepant findings, parent reports revealed a trend in the direction of boys in remarried families displaying more externalizing behaviour than girls as compared to intact families. Child reports indicated a trend in the opposite direction, with girls in remarried families showing levels of externalizing behaviour closer to boys as compared to intact families.

Child reports revealed two significant findings that were not confirmed in parent reports. Child reports indicated that girls in remarried families were exhibiting more internalizing than boys in comparison to intact families. Regarding parenting practices, consistency was found to be moderating the relationship between family type and internalizing behaviour in child reports. These findings were not confirmed in parent reports.

Parent reports revealed three significant findings that were not confirmed in child reports. Parent reports indicated that hostile parenting was moderating the relationships between family type and externalizing and internalizing outcomes and that positive interaction was moderating the relationship between family type and externalizing behaviour. These findings were not found in child reports. With respect to significant parent report findings that were not confirmed in child reports, it is possible that these results may be affected by within informant bias as parents provided information on both parenting practices and externalizing and internalizing outcomes.

**Table 5 Summary of the Significance of Analyses by Informant (Parent and 10-11-Year-Old Child)**

Analysis	Parent report	Child (10-11-year-old) report
Externalizing behaviour as a function of family type and sex	Trend – boys in remarried families more externalizing than girls compared to intact	Trend – girls in remarried families show externalizing closer to boys compared to intact
Internalizing behaviour as a function of family type and sex	NS	S – girls in remarried families more internalizing than boys compared to intact
Association between externalizing and hostile parenting	S – more hostile parenting = more externalizing	S – more hostile parenting = more externalizing
Association between internalizing and hostile parenting	S – more hostile parenting = more internalizing	S – more hostile parenting = more internalizing
Association between externalizing and consistent parenting	S – less consistent parenting = more externalizing	S – less consistent parenting = more externalizing
Association between internalizing and consistent parenting	S – less consistent parenting = more internalizing	S – less consistent parenting = more internalizing
Association between externalizing and positive interaction	S – less positive interaction = more externalizing	S – less positive interaction = more externalizing
Association between internalizing and positive interaction	S – less positive interaction = more internalizing	S – less positive interaction = more internalizing
Externalizing behaviour as a function of family type and hostile parenting	S – hostile parenting more strongly associated with externalizing for children in remarried families compared to intact	NS
Internalizing behaviour as a function of family type and hostile parenting	S – hostile parenting more strongly associated with internalizing for children in remarried families compared to intact	NS
Externalizing behaviour as a function of family type and consistent parenting	NS	NS
Internalizing behaviour as a function of family type and consistent parenting	NS	S – Consistent parenting more strongly associated with internalizing for children in remarried families compared to intact
Externalizing behaviour as a function of family type and positive interaction	S – low positive interaction more strongly associated with externalizing for children in remarried families compared to intact	NS
Internalizing behaviour as a function of family type and positive interaction	NS	NS

## Chapter 4

### DISCUSSION

#### Age as a Factor Associated with Outcomes in Children Living in Remarried Families

The first goal of this study was to determine whether age moderates the relationship between family type and the outcomes of externalizing and internalizing problems. The NLSCY enabled the exploration of such potential age differences with a nationally representative sample of 4-5- and 10-11-year old children. As expected, the data suggest that 10-11-year-old children are encountering greater difficulty in adjusting to the transition of remarriage than are 4-5-year-old children. In the sample of RF children, the 10-11-year-old children exhibited more externalizing behaviour than the 4-5-year-old children. This is in direct contrast to the pattern found with the sample of children from intact families. In this sample, the younger, 4-5-year-old children displayed more externalizing behaviours than the older, 10-11-year-old children. As externalizing behaviours typically decrease with age (Loeber et al., 1989; Tremblay et al., 1999), the findings illustrate that remarriage seems to be affecting this developmental process. Similarly, older children in remarried families showed a significantly greater amount of internalizing symptoms than younger children in remarried families. In contrast, there was very little difference in rates of internalizing behaviours displayed by younger and older children from intact families.

It may be that early adolescents are particularly vulnerable to the transition of remarriage as it occurs in combination with a developmental stage in their lives that demands considerable adjustment. Hence, the remarriage may represent one adjustment too many (Ambert, 1997). In other words, remarriage may lead to an accumulation of stressors for early adolescents. The stage of early adolescence has been identified as a developmental crossroads which affords increased

opportunities for change (Hetherington & Anderson, 1988). The experience of nonnormative and stressful life changes, such as remarriage, during this time may place early adolescents at increased risk for starting on problematic developmental trajectories.

Several normative developmental changes take place during adolescence, with which the requirements of family transitions interact. As adolescents encounter abundant social, emotional, and physical changes, it is normal for them to experience stress during this period. When remarriage occurs during adolescence the concomitant shifts in family and individual functioning occur at a time when children may be particularly in need of a stable and supportive home environment to aid them in the process of coping with normative developmental stress (Brody & Neubaum, 1996; Forehand, Long, & Brody, 1988).

Hetherington (1992) suggests that early adolescents are dealing with numerous developmental tasks, such as the development of autonomy and the need to cope with pubertal sex fantasies and feelings which may make it more difficult for older children to accept a stepparent. Early adolescence is a time when children begin to seek greater independence from their families, and in divorced families a large degree of independence may already have been achieved. Following divorce, studies have found that children in single parent families are expected to assume more household and child-care responsibilities than children in intact families (Hetherington et al., 1988). In examining data from three longitudinal studies, Hetherington (1999) found that adolescents in divorced families were assigned a greater number of tasks and were expected to take on more responsibilities than adolescents in intact families. Parentification, which involves role reversal as a child assumes roles typically identified as parental roles, has been associated with divorce. Upon remarriage, instrumental parentification, which comprises household tasks and care of younger siblings and emotional parentification,

which involves a child emotionally supporting and/or performing the role of confidante for a single parent (Hetherington, 1999) may decline or cease to exist. In this way, the precocious power and independence children may have enjoyed in single parent households may be lost upon remarriage and, therefore, early adolescents may be particularly sensitive to infringements on their autonomy by stepparents (Hetherington, 1992). It is likely that older children would experience more parentification than younger children, which may partly explain why older children have greater problems adjusting to remarriage than younger children. It will be important to examine whether single parent and RF children differ in terms of responsibilities and whether this difference reflects diminished parentification with the transition from single parent to remarried family in future, longitudinal studies using the NLSCY database. As well, early adolescents' physical development may make adjustment to the transition of remarriage particularly challenging. Their custodial parent's renewed sexual activity at close proximity may be difficult for early adolescents who are beginning to discover their own sexuality (Ambert, 1997).

The vast majority of children in remarried families have also experienced another significant family transition, divorce, that should be considered when attempting to account for developmental outcomes shown by children of remarried families. One possibility is that the sleeper effect of divorce is reflected in the finding in this study that older children are demonstrating more problems adjusting to remarriage than younger children. The sleeper effect of divorce pertains to a phenomenon in which children who experience divorce between four and six years of age do not deal with this transition until they enter adolescence (Hetherington, Cox, & Cox, 1982). Bray (1999) presents results from a longitudinal study which initially selected remarried families 6 months, 2 ½ years, and 5 to 7 years after remarriage and intact families with

comparably aged children and then reinterviewed the families 3 to 4 years later. Bray (1999) found that children in the 6-month and 5-to-7-year remarried family groups had more behaviour problems, more stress, and lower social competence than comparable-age children in intact families. In contrast, few differences in children's adjustment between the 2 ½-year remarried families and intact families were found. In the longitudinal followup, adolescents in remarried families had more difficulty coping with the developmental issues of adolescence than children in intact families (Bray, 1999). Bray (1999) explains that the stage of adolescence is marked with a struggle for individuation and autonomy and a critical part of the struggle to determine one's own identity involves interaction with parents. Problems may arise in remarried families as an important person, the second biological parent, is required to complete this process and may not be readily available. As the data for time since remarriage was not available for the present study, it was not possible to test for this effect; however, it is an important issue to consider in future research.

It is also possible that the greater number of externalizing and internalizing behaviours shown by 10-11-year-old RF children as compared to 4-5-year-old RF children is related to the process of divorce which may exert a more negative impact on children in middle childhood or early adolescence as compared to preschool age children. Anderson, Greene, Hetherington, and Clingempeel (1999) examined data from a longitudinal study of remarriage involving 202 families with a child between the ages of 9 and 13. They found that entering parental divorce as a predictor in a regression coefficient resulted in the disappearance of the effect of parental remarriage on adolescents' externalizing from cross-sectional and longitudinal analyses (Anderson et al., 1999). This finding indicates that adolescents from both single parent and remarried families had greater externalizing behaviours than adolescents from intact families but

that children who had experienced divorce, from both single parent and remarried families, did not differ in levels of externalizing. One implication of this finding is that the initial differences in externalizing behaviour between adolescents in intact and remarried families are not accounted for by remarriage. This suggests, in turn, that the differences are attributable to factors associated with the transition of divorce. In future research, it will be important to test directly whether the transition of divorce accounts for higher levels of externalizing and internalizing in children of different ages. This would be possible through a regression analysis in which the experience of divorce was entered, as well as a dummy variable for remarriage. In the event that remarriage lost its effect on children's outcomes, this would reflect that the effect was due to the experience of divorce rather than remarriage. Access to the data that unambiguously coded divorce was not available in the present study. Although it is known that all children in remarried families experienced divorce, it was not known that all children in single parent families had experienced divorce. There may have been some children in single parent families who had not experienced divorce, but instead lost a parent through death, or had always been in single parent homes. This information was on the confidential Statistics Canada file and access to this information was not possible for this project.

#### **Sex as a Factor Associated with Outcomes in Children Living in Remarried Families**

The second goal of this study was to examine the relationship between gender and outcomes in children living in intact and remarried families. It was expected that girls in remarried families would demonstrate greater difficulty adjusting to remarriage by showing rates of externalizing behaviour similar to that of boys in remarried families and rates of internalizing behaviour exceeding those shown by boys. These findings were not expected for children in intact families. Instead, it was expected that boys in intact families would show significantly

more externalizing behaviours than girls in intact families and that rates of internalizing behaviour would be similar for boys and girls in intact families. The findings indicate mixed support for the hypotheses.

On the basis of parent report, there was a trend in the direction of boys showing higher levels of externalizing in association with living in a remarried family than girls. Parent report did not indicate a significant interaction between family type and sex when internalizing was the outcome. These findings do not support the hypotheses.

Child reports completed by the 10-11-year-old sample of children revealed a trend in the direction of girls in remarried families reporting levels of externalizing behaviour closer to those reported by boys than girls in intact families. Hence, there is a trend reflecting less of a gap in externalizing behaviours shown by remarried boys and girls as compared to intact boys and girls where the boys show much more externalizing behaviours than the girls. The opposite was found with parent reports. In terms of internalizing problems, child reports indicate that girls in remarried families are experiencing a significantly greater amount of internalizing behaviour problems than boys in remarried families whereas girls and boys in intact families report equivalent levels of internalizing behaviours. This finding supports the hypothesis; however, this was not found in the parent reports.

Hence, it seems that remarried parents perceive their sons as presenting with significantly more externalizing problems than their daughters but no such effect was seen for internalizing problems. It may be that boys do react more negatively to remarriage than girls. Previous research has shown that boys are more affected by a variety of family stresses than girls (Hetherington, 1991a; Hetherington et al., 1987; Jenkins & Smith, 1991). Yet, there is some research indicating that remarriage is the exception to this general pattern, as certain studies have



found that girls show more difficulties adjusting to remarriage than boys (Hetherington, 1991a; Hetherington, 1991c; Hetherington et al., 1987). As it was not possible to control for the experience of divorce in the present study, it may also be that the finding of an effect of remarriage on children's outcomes is actually reflecting an effect of divorce. Although this may explain parent report findings that boys in remarried families show more externalizing behaviours than girls as compared to intact families, it does not explain child report findings that girls in remarried families show poorer outcomes than boys as compared to intact families. Conversely, it may be that remarried parents are less aware of their daughters' externalizing behaviours or more aware of their sons' externalizing behaviours. As boys typically display higher rates of externalizing behaviours than girls (Offord et al., 1987; Offord & Lipman, 1996), remarried parents may be expecting more externalizing behaviours in their sons in response to the remarriage and, therefore, more readily notice, externalizing behaviours shown by their sons as compared to their daughters.

In contrast, child reports indicate that 10-11-year-old girls in remarried families present with levels of externalizing similar to those exhibited by remarried boys and levels of internalizing greater than those shown by remarried boys. The issue of discrepant parent and child reports has been addressed in the literature and there are indications that informant variance is high. In a meta-analysis, Achenbach, McConaughy, and Howell (1987) found that the correlations between parent and child reports averaged .25. It seems that the highest agreement is found on children's behaviours that are concrete and observable externalizing behaviours, whereas there is lower agreement on children's internalizing behaviours, with children reporting more internalizing than parents (Cairns & Cairns, 1994; Epkins, 1996; Herjanic & Reich, 1997;

Morkos, Poznanski, Grossman, & Freeman, 1987; Phares, Compas, & Howell, 1989; Rey, Schrader, Morris-Yates, 1992).

Children's self-reports have been identified as a form of private information which differs from the public information used in such measures as parent reports (Hetherington et al., 1987). This may especially be the case in measures of internalizing behaviour, where such emotions as anxiety and sadness may be less evident and, perhaps, less troublesome, to parents than are externalizing behaviours such as aggression and hyperactivity (Hetherington et al., 1987). Internalizing symptoms reflect internal states and it is likely that those experiencing such symptoms would be more aware of their presence than others (Herjanic & Reich; Rey, Schrader, & Morris-Yates, 1992). Together with the finding that children become more reliable self-reporters as they grow older (Cairns and Cairns, 1994; Edelbrock, Costello, Dulcan, Kalas, & Conover, 1985), there is, then, the implication that older children may be the most accurate informants of their own internalizing symptoms. Therefore, it may be that the 10-11-year-old children accurately reported on their internalizing behaviours, behaviours which may be more difficult for parents to identify as they are less tangible than externalizing behaviours. In this case, it would seem that 10-11-year-old girls' difficulties in adjusting to remarriage are reflected in rates of externalizing closer to that shown by boys and rates of internalizing higher than boys in remarried families.

Hetherington (1991) proposes that a mother's remarriage may be more difficult for girls, as boys are often involved in coercive and ambivalent relationships with their mothers prior to remarriage and hence have little to lose and something to gain from remarriage, whereas, following divorce, girls are often afforded a greater degree of responsibility and power than that bestowed upon girls in intact families and enjoy more positive relationships with their divorced

mothers than boys in analogous situations. Indeed, Hetherington (1999) found that girls experience marginally more instrumental parentification than boys and significantly more emotional parentification than boys. Therefore, girls may perceive stepfathers as both a threat to their newly acquired independence and to their close relationship with their mothers (Hetherington, 1991; Vuchinich, Hetherington, Vuchinich, & Clingempeel, 1991). This may explain why girls have been found to exhibit more enduring antagonism and resistance to the new stepfather (Hetherington, 1992). In stepmother families, girls may see their stepmothers as a threat to their relationship with their biological parents, whereas boys may perceive of the stepmother as an additional support system (Brand et al., 1988).

Further, the emerging sexuality of early adolescents', which is often accompanied by self-consciousness and need for privacy, may make sharing a residence with a biologically unrelated adult disagreeable and uncomfortable. Pubertal development may partly account for our finding that 10-11-year-old girls in remarried families report more internalizing problems than boys in remarried families. Aspects of pubertal development are experienced by girls in their 10<sup>th</sup> year of life whereas pubertal development in boys typically begins one to two years later than that of girls (Graber, Petersen, & Brooks-Gunn, 1996). Thus, the 10-11-year-old boys in our sample may not be experiencing as many difficult transitions as the 10-11-year-old girls in our sample.

## Parenting Practices

The third goal of this study was to determine whether poor parenting practices mediate or moderate the relationship between family type and externalizing and internalizing outcomes.

### Parenting Practices in Remarried Families

It was expected that children in remarried families would be exposed to more hostility, less consistency, and less positive interaction than children in intact families. As hypothesized, children in remarried families were found to be experiencing more hostile/ineffective parenting, less consistent parenting, and less positive interaction with their parents than children in intact families. It may be that remarried parents are so preoccupied with the challenging transitions taking place in their own lives that they, consequently, engage in poorer parenting practices with their children than parents in intact families. Conversely, this finding may reflect child driven effects. It may be that behavioural problems shown by children in remarried families impact upon parenting practices, resulting in poorer parenting in remarried as compared to intact families.

### Parenting Practices with Early Adolescent Children Living in Remarried Families

In terms of hypothesized age differences, it was found that older children from remarried families were exposed to more hostile parenting than older children from intact families whereas family type was not linked to hostile parenting in the group of 4-5-year-old children. Further, 10-11-year-old children in remarried families were found to be experiencing less positive interaction than 4-5-year-old children in remarried families; however, the same was true in intact families. Against the hypotheses, no difference in the levels of consistent parenting experienced by older and younger children in remarried families was found. Hence, it seems that 10-11-year-old children in remarried families are exposed to more hostile parenting than 10-11-year-old

children in intact families whereas the same difference was not observed in the case of the 4-5-year-old sample; however, 10-11-year-old RF children do not experience less consistent parenting than 4-5-year-old children in remarried families.

Our finding that 10-11-year-old children in remarried families are exposed to more hostile parenting than 4-5-year-old children in remarried families may be related to poorer parenting practices during remarriage interacting with normative transitions which occur during early adolescence. During remarriage, conflict regarding issues of independence and autonomy become particularly salient (Brody & Neubaum, 1996). The issues of parental authority and control and child power in the family that are invariably associated with remarriage become more intense because they are superimposed upon a period of development in which the child is especially sensitized to these issues (Brody & Neubaum, 1996). Hence, parents may have difficulty coping with the transitions of remarriage and the transitions that their early adolescent is undergoing and, therefore, respond to their early adolescents' with increased hostility.

It is also important to consider potential child effects. It may be that the direction of effect is the opposite of that hypothesized. It is possible that the increased externalizing and internalizing behaviours shown by RF children as compared to IF children impact upon parenting practices, leading to more hostile and inconsistent parenting in remarried families as compared to intact families. The transition of divorce may teach certain children strategies of aversive control and elevated levels of problem behaviours following divorce may shape parental behaviour and lead to parental reaction in remarried families (Anderson et al., 1999). In support of this possibility, Anderson et al. (1999) report a finding in which parenting was discovered to be unrelated to adolescent adjustment over time in remarried families, however, the behaviour of

the adolescents' led to future changes in parenting for both mothers and stepfathers. Future longitudinal studies will be more able to address this issue.

### The Association Between Parenting Practices and Externalizing and Internalizing Outcomes

It was also expected that poor parenting would be related to externalizing and internalizing for both children in remarried and intact families. The finding that parenting factors are associated with child outcomes has been repeatedly replicated in the literature. Harsh parental punishment and discipline, lack of parental monitoring and supervision, and lack of attachment, acceptance, nurturance, and love within the parent child relationship have been identified as risk factors for children in developing externalizing and internalizing disorder (Barnes & Farrell, 1992; Pakiz, Reinherz, & Frost, 1992; Patterson, Reid, & Dishion, 1992). There is no reason to believe that there is a weaker association between parenting factors and child outcomes in remarried families and, indeed, poor parenting practices have been associated with poorer outcomes in children living in remarried families (Bray, 1988; Bray, 1999; Lawton & Sanders, 1994).

In the present study, the relationships between hostile/ineffective parenting, consistent parenting, and positive parent-child interaction and the child outcomes of externalizing and internalizing behaviours were examined. It was expected that each of these parenting factors would be linked to child outcomes and this was found. There was consistent agreement across informants as both parent and child reports reflected a relationship between hostile parenting, consistent parenting, and positive interaction and externalizing and internalizing behaviours. This finding is particularly robust as, in the case of child reports, parenting was reported on by the parent and outcomes were reported on by the child whereas parent reports reflect within reporter effects (parent reported on both parenting and outcomes) and are, therefore, more

suspect. It may be that poor parenting has direct effects on children's outcomes and/or indirect effects on children's outcomes by prompting children to retreat from familial supports and rely to a greater extent on peers (Pakiz et al., 1992). Excessive peer orientation can have negative consequences and start children on problematic developmental trajectories. This may also partly explain why early adolescents exhibit more behavioural problems, as entry into adolescence is marked by increased interaction with peers (Berndt, 1996). It has been found that adolescents are less influenced by their peers when they experience supportive and involved parenting and are more influenced by their friends when they are exposed to poor parenting practices (Berndt, 1996). However, this study did not find that parenting was mediating the relationship between remarriage and children's externalizing and/or internalizing behaviours.

#### Parenting as a Mediator of the Relationship Between Remarriage and Children's Behavioural Outcomes

Next, the hypothesis that parenting mediates the relationship between remarriage and children's mental health outcomes was examined. The multiple regression analysis did not support the mediator hypothesis. Hence, although parenting and remarriage have significant independent effects on children's outcomes, there was no evidence that parenting is mediating the relationship between remarriage and children's externalizing and internalizing behaviours. Other factors such as the impact of divorce, the relationship between the child and the stepparent, the relationship between the child and the non-custodial parent, the complexity of the remarried family structure, and the potential role of cumulative risk (i.e., children in remarried families likely experience many more risk factors than children in intact families such as exposure to marital disharmony, the transition of divorce, being a member of a single-parent family, and the transition of remarriage) need to be considered.

### Parenting as a Moderator of the Relationship Between Remarriage and Children's Behavioural Outcomes

The analyses seemed to indicate that, in certain instances, poor parenting may be moderating the relationship between remarriage and externalizing and internalizing outcomes. One finding was that hostile parenting and lower positive interaction seem to have more of a negative impact upon RF children as compared to IF children, as reported by parents. It was found that RF children exposed to high levels of hostile parenting showed more externalizing and more internalizing problems than IF children exposed to similarly high levels of hostile parenting. Additionally, RF children experiencing lower positive interaction showed more externalizing than IF children exposed to lower positive interaction. These results were not found when children reported on their externalizing and internalizing behaviour. Hence, it is possible that the significant relationships were due to informant bias as parents provided information on both parenting practices and children's outcomes. Alternatively, these findings may reflect that children learning to adapt to a new family type are more sensitive to parental displays of annoyance, disapproval, anger, moodiness, management difficulties, ineffective discipline, lack of parental praise, and less time laughing and sharing special time with a parent, than children who have not experienced a change in family composition. This is in line with evidence that risk factors potentiate one another. It has been found that development is most compromised when multiple risks occur together (Jenkins & Keating, 1998; Rutter, 1979; Sameroff, Seifer, & Bartko, 1997). In the present study, the risks for children in remarried families may include exposure to marital disharmony, the transition of divorce, living in a single parent family, the transition of remarriage, and exposure to poorer parenting practices as compared to children in intact families.



When families undergo several consecutive transitions, and the stressors associated with them are repeated, child adjustment may be affected. Repeated family transitions may lead to cumulative difficulty in functioning. Hetherington's (1991a, 1991b) work supports this notion. When adjustment differences emerged among children from intact, single-mother, and remarried families, children in intact families had the fewest problems, those in divorced families had an intermediate number of problems, and those in remarried families had the most problems, including externalizing and internalizing behaviour. Hence, this repetition of stressors may have cumulative effects and children's ability to cope with such stressors may be overextended. As well, it is possible that the RF children showing problematic externalizing and/or internalizing behaviours have other risk factors in addition to experiencing the family transitions of divorce and remarriage. Deater-Deckard and Dunn (1999), in a study of preschool children, found that exposure to multiple risk factors, such as maternal depression and parental stress, was linked to greater behavioural and emotional problems. In future studies, it would be interesting to distinguish the amount of variance in children's externalizing and internalizing behaviours accounted for by various risk factors, including remarriage.

In addition, child reports suggest that RF children show more internalizing behaviours when exposed to consistent parenting than when exposed to inconsistent parenting. The opposite is true of IF children. This finding may be explained by the precocious power and independence experienced by children of divorced families, particularly girls, which may be lost upon remarriage and the reinstatement of a two parent family (Hetherington, 1992). A return of consistent parenting may be resented by children who have previously enjoyed greater independence and responsibility. Further, it is possible that some new stepparents are actively involved in consistent parenting and this will likely be resented by children (Fine, Coleman, &

Ganong, 1999). Yet, a methodological problem complicating interpretation of the findings is the discrepant parent and child reports. As parent reports do not confirm child reports that RF children show more internalizing when exposed to consistent parenting, interpretation of this result is more difficult.

The present study has revealed factors which may be related to externalizing and internalizing behaviours exhibited by RF children. Certain limitations of this study are worth noting. Firstly, this study has only looked at associations and, as the data are cross sectional, it is not possible to discern the direction of causality of these findings. Although the direction of effect has been discussed in terms of parent to child throughout this study, it is possible that children's disturbance increases the possibility of divorce and continues to drive associations, such as between remarriage and poor parenting.

Additionally, there was a great reliance on parental reports of parenting and children's outcomes. Child reports were only available for the 10-11-year-old children. Yet, the information gleaned from the child reports was valuable and, in certain cases, interestingly discrepant from parental reports. In future research it will be important to include children from divorced families whose parents have not remarried. Although data on single parent family status was available in the public release NLSCY data file, it was not possible, using the public data set, to distinguish between those parents who had always been single and those who had divorced. Such analyses will have to be carried out in the future when access to those more detailed and confidential data can be achieved. As well, the length of time since remarriage is an important factor to consider in future studies as past studies have indicated that problematic social, academic, psychological, and behavioural outcomes may diminish as the time since remarriage increases (Hetherington, 1987). Further, examination of the number and nature of

responsibilities held by children in intact, divorced, and remarried families and the relation between this variable and children's behavioural outcomes is possible in longitudinal studies using information from the NLSCY database.

Appendix A  
Parenting, Income, Externalizing and Internalizing Measures

**Hostile/Ineffective Parenting**

Response options: 01 Never 02 Less than half the time 03 About half the time 04 More than half the time 05 All the time

Aprcq04: How often do you get annoyed with (child's name) for saying or doing something he/she is not supposed to?

Aprcq08: Of all the times that you talk to (child's name) about his/her behaviour, what proportion is praise?

Aprcq09: Of all the times that you talk to him/her about his/her behaviour, what proportion is disapproval.

Aprcq13: How often do you get angry when you punish (child's name)?

Aprcq14: How often do you think that the kind of punishment you give him/her depends on your mood?

Aprcq15: How often do you feel you are having problems managing him/her in general?

Aprcq18: How often do you have to discipline him/her repeatedly for the same thing?

**Consistent Parenting**

Response options: 01 Never 02 Less than half the time 03 About half the time 04 More than half the time 05 All the time

Aprcq10: When you give him/her a command or order to do something, what proportion of the time do you make sure that he/she does it?

Aprcq11: If you tell him/her he/she will get punished if he/she doesn't stop doing something, and he/she keeps doing it, how often will you punish him/her?

Aprcq12: How often does he/she get away with things that you feel should have been punished?

Aprcq16: How often is he/she able to get out of a punishment when he/she really sets his/her mind to it?

Aprcq17: How often when you discipline him/her does he/she ignore the punishment?

**Positive Interaction**

Response options: 01 Never 02 About once a week or less 03 A few times a week 04 One or two times a day 05 Many times each day

Aprcq01: How often do you praise (child's name) by saying something like "Good for you!" or "What a nice thing you did!" or "That's good going!"?

Aprcq02: How often do you and he/she talk or play with each other, focusing attention on each other for five minutes or more, just for fun?

Aprcq03: How often do you and he/she laugh together?

Aprcq06: How often do you do something special with him/her that he/she enjoys?

Aprcq07: How often do you play games with him/her?

## **Income**

**Lowest:** Household income is less than 10,000 and household size is 1-4 persons; or Household income is less than 15,000 and household size is more than 5 persons.

**Lower middle:** Household income is 10,000-15,000 and household size is 1-2 persons; or Household income is 10,000-19,000 and household size is 3-4 persons; or Household income is 15,000-30,000 and household size is 5 or more people.

**Middle:** Household income is 15,000-29,999 and household size is 1-2 persons; or Household income is 20,000-39,999 and household size is 3-4 persons; or Household income is 30,000-59,999 and household size is 5 or more persons.

**Upper middle:** Household income is 30,000-59,999 and household size is 1-2 persons; or Household income is 40,000-79,999 and household size is 3-4 persons; or Household income is 60,000-79,999 and household size is 5 or more persons.

**Highest:** Household income is 60,000 or more and household size is 1-2 persons; or Household income is 80,000 or more and household size is 3 or more persons.

## **PMK's Reports of Children's Externalizing Behaviours**

Response options: 1. Never or not true 2. Sometimes or somewhat true 3. Often or very true

How often would you say that (child's name):

Abecq6b: Can't sit still, is restless or hyperactive?

Abecq6g: Gets into many fights?

Abecq6i: is distractible, has trouble sticking to any activity?

Abecq6j: When mad at someone, tries to get others to dislike that person?

Abecq6n: Fidgets.

Abecq6p: Can't concentrate, can't pay attention for long?

Abecq6r: When mad at someone, becomes friends with another as revenge?

Abecq6s: Is impulsive, acts without thinking?

Abecq6w: Has difficulty awaiting turn in games or groups?

Abecq6x: When another child accidentally hurts him/her (such as by bumping into him/her) assumes that the other child meant to do it, and then reacts with anger and fighting?

Abecq6z: When mad at someone, says bad things behind the other's back?

Abecq6aa: Physically attacks people?

Abecq6ff: Threatens people?

Abecq6hh: Cannot settle to anything for more than a few moments?

Abecq6jj: Is cruel, bullies or is mean to others?

Abecq6ll: When mad at someone, says to others: let's not be with him/her?

Abecq6nn: Kicks, bites, hits other children?

Abecq6qq: Is inattentive.

Abecq6tt: When mad at someone, tells the other one's secrets to a third person?

**Children's (10-11-year-olds) Reports of Externalizing Behaviours**

Response options: 1. Never or not true 2. Sometimes or somewhat true 3. Often or very true

Ad1cq01b: I can't sit still, am restless or hyperactive.

Ad1cq01g: I get into many fights.

Ad1cq01j: I try, when I am mad at someone, to get others to dislike him/her.

Ad1cq01l: I destroy things belonging to my family or other children.

Ad1cq01n: I fidget.

Ad1cq01p: I can't concentrate, can't pay attention.

Ad1cq01r: When I am mad at someone, I become friends with another as revenge.

Ad1cq01s: I am impulsive, act without thinking.

Ad1cq01w: I have difficulty awaiting my turn in games or groups.

Ad1cq01x: I assume, when another child accidentally hurts me (such as by bumping into me), that the other child meant to do it, and then react with anger and fighting.

Ad1cq01z: When mad at someone, I say bad things behind the other's back.

Ad1cqaa: I physically attack people.

Ad1cqff: I threaten people.

Ad1cqhh: I cannot settle to anything for more than a few moments.

Ad1cqjj: I am cruel, bully or am mean to others.

Ad1cqll: When mad at someone, I say to others - let's not be with him/her.

Ad1cqnn: I kick, bite, hit other children.

Ad1cqtt: When mad at someone, I tell the other one's secrets to a third person.

Ad1cqqr: I am inattentive, have difficulty paying attention to someone.

**PMK's Reports of Children's Internalizing Behaviours**

Response options: 1. Never or not true 2. Sometimes or somewhat true 3. Often or very true

How often would you say that (child's name):

Abecq6f: Seems to be unhappy, sad or depressed?

Abecq6k: Is not as happy as other children?

Abecq6q: Is too fearful or anxious?

Abecq6v: Is worried?

Abecq6cc: Cries a lot?

Abecq6ii: Appears miserable, unhappy, tearful, or distressed?

Abecq6mm: Is nervous, highstrung, or tense?

Abecq6rr: Has trouble enjoying him/her self?

**Children's (10-11-year-olds) Reports of Internalizing Behaviours**

Response options: 1. Never or not true 2. Sometimes or somewhat true 3. Often or very true

Ad1cq01f: I am unhappy, sad or depressed.

Ad1cq01k: I am not as happy as other children.

Ad1cq01q: I am too fearful or anxious.

Ad1cq01v: I am worried

**Ad1cq01cc:** I cry a lot.

**Ad1cq01ii:** I feel miserable, unhappy, tearful, or distressed.

**Ad1cq01mm:** I am nervous, highstrung or tense.

**Ad1cq01rr:** I have trouble enjoying myself.

**Appendix B**  
**Summary of Data when Family Type, Age, and Sex Entered Into an Analysis of Covariance With Each Parenting Factor (Hostile/Ineffective, Consistency, Positive Interaction) Entered as the Outcome Measures and SES Entered as a Covariate**

**Parent Reports of Hostile/Ineffective Parenting**

A main effect of socioeconomic status was not found,  $F(1,5905) = 2.3$ , NS. Age [ $F(1,5905) = 16.8, p < 0.001$ ] and sex [ $F(1,5905) = 48.4, p < 0.001$ ] were significantly associated with hostile ineffective parenting. Younger (4-5-year-old children) experienced a greater amount of hostile ineffective parenting than older (10-11-year-old) children. As well, boys were reported to be exposed to higher levels of hostile ineffective parenting than girls. The means and standard deviations of hostile ineffective parenting scores as reported by parents as a function of age, and sex are given in Table B1.

**Table B1 Mean and Standard Deviation of Hostile Parenting as Reported by Parents as a Function of Age and Sex**

VARIABLE	Mean	SD
<b>Age:</b>		
4-5-year-olds	9.11	3.72
10-11-year-olds	8.64	3.83
<b>Sex:</b>		
Boys	9.26	3.85
Girls	8.50	3.67



The interaction between family type and age was significant. Whereas 10-11-year-old children from intact families experienced less hostile parenting than 4-5-year-old children from intact families, the opposite is true in the case of remarried families, with 10-11-year-old children from remarried families experiencing more hostile parenting than 4-5-year-old children from remarried families. Age shows an opposite association with hostile parenting in intact and remarried families. The interactions between family type and sex and between age and sex were not significant,  $F(1,5905) = 0.22$ , NS and  $F(1,5905) = .94$ , NS, respectively.

#### Parent Reports of Consistent Parenting

A main effect of sex was not found,  $F(1,5888) = 0.07$ , NS and socioeconomic status was also not found to be associated with consistent parenting,  $F(1,5888) = 1.3$ , NS.. The means and standard deviations of consistent parenting as reported by parents as a function of family type and age can be seen in Table B2.

**Table B2 Mean and Standard Deviation of Consistent Parenting as Reported by Parents as a Function of Family Type and Age**

Variable	Mean	SD
<b>Family Type:</b>		
Intact	14.97	3.35
Remarried	14.68	3.55
<b>Age:</b>		
4-5-year-olds	14.54	3.53
10-11-year-olds	15.05	3.37

The interaction between family type and age was not significant,  $F(1,5888) = 0.6$ , NS. As well, the interaction between family type and sex was not significant,  $F(1,5888) = 1$ , NS and the interaction between age and sex was not significant,  $F(1,5888) = 0.3$ , NS.

#### Parent Reports of Positive Interaction

Age [ $F(1,5927) = 1373.4$ ,  $p < 0.001$ ] was found to be associated with level of positive interaction. Positive interaction was higher in families with 4-5-year-old children, as compared to families with 10-11-year-old children. The main effect of sex approached significance,  $F(1,5927) = 3.4$ ,  $p < .064$ . There was a trend for girls to be experiencing more positive interaction with their parents than boys. The means and standard deviations of positive parent-child interaction as reported by parents as a function of family type and age are given in Table B3.

**Table B3 Mean and Standard Deviation of Positive Interaction as Reported by Parents as a Function of Family Type and Age**

VARIABLE	Mean	SD
<b>Family Type:</b>		
Intact	13.22	3.13
Remarried	12.71	3.25
<b>Age:</b>		
4-5-year-olds	14.59	2.77
10-11-year-olds	11.54	2.78

A significant interaction between family type and age was found,  $F(1,5927) = 4$ ,  $p < .046$ . There is a greater difference on positive parenting between 4-5- and 10-11-year-old children in the intact families than the remarried families with 4-5-year-old children in intact families experiencing more positive interaction than 4-5-year-old children in remarried families.

The interactions between family type and sex [ $F(1,5927) = 0.1, NS$ ] and between age and sex [ $F(1,5927) = 1.1, NS$ ] were not significant.

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