

Changes in Parents' Stress as Their Children Become Adolescents: A Validation of the Stress Index for Parents of Adolescents

MELISSA K. WHEATLEY

DIANE E. WILLE*

Indiana University Southeast

This longitudinal assessment of changes in mothers' and fathers' parenting stress from their children's mid-childhood to adolescence provides a unique inspection of the changes in stress experienced by both parents as children mature. Fifty-six mothers and fathers reported on parenting stress levels when their children were eight years of age and again when these children were 14 years of age. The Stress Index for Parents of Adolescents (SIPA, Sheras, Abidin, & Konold, 1998) was found to be a valid upward extension of the Parenting Stress Index (PSI, Abidin, 1983). Results of the current study suggest relative stability of parenting stress as children mature from childhood to adolescence and show few differences in the stress levels experienced by mothers and fathers.

Being a parent is stressful. Many demands are placed on parents today at home, at work, and at children's extra-curricular activities. Family functioning is greatly influenced by parents' ability to meet the many demands placed upon them both inside and outside of their parenting roles (McCubbin and Patterson, 1983). Parenting stress may come directly from issues with the child, such as child characteristics (e.g. distractibility, temperament, demandingness; Abidin, 1983), and physical care requirements; or from the parenting role itself, such as from restrictions caused by the parenting role, the ability of the parents to take care of their own needs, and strains in the marital relationship. Parenting stress issues change with the maturing child. For example, childhood issues focus on direct care demands, whereas adolescence requires accepting increased demands for independence. With adolescents parents must cope with the adolescents' ability to independently make wise life decisions in terms of goals, the people they choose to relate with, how they choose to spend their free time away from them unsupervised, and the ways they interact in the world. Allowing and accepting this independence may cause significant stress for parents of adolescents (Sheras, Abidin, & Konold, 1998).

McCubbin and Patterson's (1983) Double ABCX Theory of Family Stress suggests that it isn't necessarily a single event that causes stress for parents, as much as many demands that pile up and overextend the resources available to the family. An event or pileup of events (Factor A), creates stress for the family to the extent that it exceeds the family's available resources (Factor B) to overcome the stressor and prevent a crisis from occurring. The perception of the ability to use available resources (Factor C), along with the family meaning assigned to the stressor, and behavioral responses to the stressor all combine to determine the outcome (Factor X) of the stressor upon the family. Demand-resource imbalance can result in dysfunctional family responses to stress depending on the nature of

*Faculty mentor

Author Note. Melissa K Wheatley, School of Social Sciences, Indiana University Southeast, 4201 Grant Line Road, New Albany, IN 47150. Email: melissa.wheatley1@gmail.com

Reprint requests should be sent to Diane E. Wille, School of Social Sciences, Indiana University Southeast, 4201 Grant Line Road, New Albany, IN 47150. Email: dwille@ius.edu.

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the situation, family characteristics, and psychological and physical well-being of family members.

Few studies on parenting stress are longitudinal and this is the first study, to date, to evaluate parenting stress from childhood to adolescence using the Parenting Stress Index (PSI, Abidin, 1983) and the Stress Index for Parents of Adolescents (SIPA, Sheras, Abidin, & Konold, 1998). The PSI and the SIPA are assessments used by clinicians and researchers to measure the level of distress experienced by parents. The PSI has proven to be a valid assessment of the parenting stress of parents with children up to 12 years of age (Abidin, 1983); the recently developed SIPA is designed for assessing parenting stress of parents with children 12 years and older (Sheras et al., 1998). The SIPA was created as an upward extension of the PSI and has limited validation research. An advantage in using both the PSI and SIPA to measure longitudinal parenting stress is that these measures provide continuity by assessing similar constructs while also taking into account changing issues of adolescence that other measures do not assess.

Parenting Stress During Childhood and Adolescence

Longitudinal studies of parenting stress across childhood suggest relative stability of parenting stress (Beckman, 1991; Belsky & Hsieh, 1998; Deater-Deckard, 2004; Dyson, 1993). For example, moderate correlations have been found in parenting stress reported when children were 18 months old and again when these children were 72 months old (Beckman, 1991), and for parents with children entering preschool and again when their children entered grade school (Belsky & Hsieh, 1998). This stability has also been found in parents of children with disabilities (Dyson, 1993).

In accordance with the Double ABCX Family Stress Model, parents' sense of their ability to competently handle their life responsibilities (their available resources) may have an influence on the parenting stress experienced (McCubbin & Patterson, 1983). In today's society with more mothers working and fathers taking more responsibility for the care of the children, the amount of the household workload and childcare responsibility shared between members of the family can greatly affect family functioning (Belsky & Hsieh, 1998; Dempsey, 2000). Increased child care demands can increase parenting stress for mothers and decrease family harmony (Keller & Honig, 2004). If parents are not content with the balance of roles and their ability to successfully fulfill their family duties, stress can result (McCubbin & Patterson, 1983). Mothers receiving more emotional and physical help from their spouse in caring for the children report less parenting stress directly related to parental responsibilities (Willinger, Diendorfer-Radner, Willnauer, Jögl, & Hager, 2005).

Research suggests that equality of household duties doesn't affect maternal parenting stress levels as much as division of childcare (Belsky & Hsieh, 1998).

Is parenting stress stable as the child matures or does parenting stress change along with changing parenting issues as children become adolescents? A lack of empirical research on parenting stress experienced by parents of adolescents impedes our knowledge about the process by which parenting stress changes as the child matures into adolescence. A review of the literature on changes in the experiences of parents at different stages of parenthood suggests that parental competency becomes an issue during adolescence due to parents' increased loss of control of their adolescent and allowing their adolescent to become more independent (Pasley & Gecas, 1984; Ballenski-Bracket & Cook, 1982). One would expect a reduction in physical childcare needs during adolescence, but at the same time complex challenges arise in maintaining the proper balance between protecting and encouraging the independence of the adolescent.

Comparison of Parenting Stress of Mothers and Fathers During Childhood and Adolescence

When comparing the parenting stress of mothers and fathers as assessed by the PSI, few overall parenting stress differences have been found (Beckman, 1991; Dyson, 1993; Hadadian, 1994; Keller & Honig, 2004; Putnick et al., 2008), but differences have been found in the domains and subscales. Fathers have been found to experience more stress related to child characteristics such as child temperament, lack of feeling rewarded by interactions with the child (Krauss, 1993; Roach, Orsmond, & Barratt, 1999), and stress related to the attachment relationship with the child (Beckman, 1991; Keller & Honig, 2004; Krauss, 1993). Mothers have been found to experience more stress related to the ability to take care of their own health needs, restrictions imposed by the parenting role, and the spousal relationship (Beckman, 1991; Krauss, 1993).

We found no published longitudinal studies that assessed gender differences in parenting stress using the SIPA. In a cross-sectional study of parenting stress of children between 10 and 17 years of age, Small, Eastman, and Cornelius (1988), found no differences in parental stress between mothers and fathers, but they found that fathers had higher parental stress due to adolescent non-adherence to parental advice and adolescent deviant behaviors. Mothers' parental stress was higher when adolescents desired more autonomy. This is consistent with childhood PSI results that suggest higher stress in fathers due to child characteristics (Beckman, 1991; Keller & Honig, 2004; Krauss, 1993; Roach, Orsmond, & Barratt, 1999) and in mothers

due to their parental role, although the source of this parental role stress appears to change from issues of direct care in childhood, to accepting more autonomy in their adolescent children.

Purpose of Current Study

To date, few studies have been published which have used the SIPA and very little validity information exists. A search of the psychology article databases revealed only 11 articles using the SIPA. Based on previous research, continuity is expected in the parenting stress of parents with children between 8 and 14 years of age. The current findings will help provide evidence of the validity of the SIPA as an upward extension of the PSI and will provide a rare 6-year longitudinal analysis of changes in parenting stress across this transitional time. The experimenters also expected that differences in mothers and fathers responses on the SIPA would reflect those differences previously found on the PSI. Overall level of parenting stress will be similar for mothers and fathers; however, mothers will report greater parental role stress and fathers greater stress due to adolescent characteristics and relationship with adolescents. Consistent with the Double ABCX Theory (McCubbin & Patterson, 1983) it is also expected that parents at both time periods will report more stress when the parents report less equitable childcare.

Method

Participants

Seventy Midwestern families were recruited to participate in a longitudinal study of family relationships through public birth announcements in local newspapers. Letters sent to the families were followed up with a phone call inviting their participation. The families were first visited when the target child was 6 months of age. Fourteen families dropped out of the study for various reasons over the 14-year study duration. The current study is based on 56 families who participated in both the mid-childhood and adolescent sessions. There were no significant differences in the information collected during the early home visits between the families who dropped out and those who remained in the study. Eighty-two percent of the families were intact at each session. In two families parents divorced before the mid-childhood session and remarried by the adolescent session and one father was deceased by the adolescent session.

The average age of the target children (26 girls and 30 boys) was 7.76 years ($SD = .36$ years) at the mid-childhood visit and 14.49 years ($SD = .36$ years) at the adolescent visit. The average age of the mothers was 36 years ($M = 36.41$ years, $SD = 3.29$ years) at the mid-childhood visit and 43 years ($M = 43.13$ years, SD

$= 3.34$ years) at the adolescent visit. The average age of the fathers was 38 years ($M = 38.18$ years, $SD = 3.66$ years) at the mid-childhood visit and 45 years ($M = 44.91$ years, $SD = 3.68$ years) at the adolescent visit. The total number of children in the families, including the target child, ranged from 1 to 5 ($Mode = 2$). Thirty-two percent of the target children were first-born, 9% were only children, and 59% were later born. All participants were European American. Socioeconomic status ranged from low-middle to middle class ($M = 45.94$ $SD = 9.65$) on the Hollingshead 4-factor Index (Hollingshead, 1978).

Materials

Parenting Stress Index. The PSI consists of 120 questions measuring parenting stress in three domains (parent, child, and life stress). Parents respond using 5-point Likert scales ranging from *strongly agree* to *strongly disagree*. The PSI domain and subscale scores were computed using the standard procedure developed by Abidin (1983). The parent and child domain scores were combined to provide a total score for parenting stress. High scores on the child domain suggest high stress due to child characteristics, high scores on the parent domain suggest high stress due to parental functioning, and high scores on the optional Life Stress Domain suggest high stress due to factors outside of the parenting role. The internal consistency of the domains and subscales of the PSI were assessed using coefficient alphas.

Over the last two and a half decades studies have provided evidence for the validity of the PSI (Abidin, 1983) for use by parents of both genders, in a wide variety of parental circumstances and demographic contexts. For example, high levels of stress related to characteristics of the child have been found among parents of children with craniofacial birth defects (Speltz, Armsden, & Clarren, 1990) and mothers of boys diagnosed with pervasive hyperactivity (Beck, Young, & Tarnowski, 1990). Convergent validity for the PSI is supported by a comparison of parents' responses on the PSI and Questionnaire on Resources and Stress (QRS; Friedrich, Greenberg, & Crnic, 1983; Sexton, Burrell, Thompson, & Sharpton, 1992). The correlation between the total stress score from the PSI and the QRS was .63 ($p < .001$) (Sexton et al., 1992).

The Stress Index for Parents of Adolescents. The SIPA (Sheras, Abidin, & Konold, 1998) was developed as an extension of the PSI to reflect the changing developmental issues faced by adolescents and their parents (Sheras et al., 1998) and it is used for parents of both genders in a wide variety of parental circumstances and demographic contexts. The SIPA consists of 112 items measuring 4 domains that were constructed using

methods similar to those used to create the PSI. Many of the items in the Parent Domain were retained from the PSI, because these items are not affected by developmental maturity of the child. Factor analysis resulted in 4 subscales in the Adolescent Domain, 4 subscales in the Parent Domain, and a Life Stress Domain with no subscales (Sheras et al., 1998). Higher order factor analysis also revealed an Adolescent-Parent Relationship Domain.

Parents respond to items on the SIPA using 5-point Likert scales ranging from *strongly disagree* to *strongly agree*. The SIPA domain and subscales scores were computed using the standardized procedure developed by Sheras et al. (1998). The parent, adolescent, and adolescent-parent relationship domain scores were combined to give a total score for parenting stress. High scores on the adolescent domain suggest high stress caused by adolescent characteristics; high scores on the parent domain suggest high stress caused by parental functioning; high scores on the adolescent-parent relationship domain suggest high stress caused by the relationship between parent and adolescent; and high scores on the optional life stress domain suggest high stress due to factors outside of the parenting role.

Procedure

During the mid-childhood home visits parents completed the PSI (Abidin, 1983), and the SIPA (Sheras et al., 1998) was completed during the adolescent visit. During both home visits parents responded to questions about age, number of children in the family, education, occupation, and percentage of child care responsibility provided by both mother and father.

Results

Continuity of Parenting Stress Between Mid-Childhood and Adolescence

The continuity of parenting stress when their children move from mid-childhood to adolescence was assessed using Pearson correlations for the major domains (child-adolescent and parent-parent) and Total Stress only. Due to differences in the number of items in the scales of the PSI and the SIPA, the means for the major domains and total stress were computed and used in this analysis. For both mothers and fathers, there were significant positive correlations between the mid-childhood and adolescence in Child/Adolescent Domains $r(52) = .46, p < .05$; $r(45) = .56, p < .01$ for mothers and fathers respectively, the Parent Domains $r(51) = .59, p < .01$, $r(46) = .52, p < .01$ for mothers and fathers respectively, and Total Stress $r(51) = .40, p < .05$, $r(45) = .58, p < .01$ for mothers and fathers respectively. These moderately high correlations provide evidence of the continuity of parenting stress between childhood

TABLE 1

Internal Consistency Reliability of PSI Domains and Subscales

Scale	Mothers	Fathers
Child Domain	.77	.81
Adaptability	.49	.60
Acceptability	.52	.70
Demandingness	.29	.40
Mood	.56	.68
Distractibility/Hyperactivity	.67	.39
Reinforces Parent	.52	.67
Parent Domain	.84	.89
Depression	.66	.70
Attachment	.47	.60
Role Restriction	.67	.75
Competence	.65	.68
Isolation	.70	.71
Spouse	.59	.65
Health	.62	.57
Total Stress	.86	.91

Note: numbers are coefficient alphas.

TABLE 2

Internal Consistency Reliability of SIPA Domains and Subscales

Scale	Mothers	Fathers
Adolescent Domain	.94	.95
Delinquency	.86	.85
Moodiness/Emotional Lability	.90	.91
Failure to Achieve	.92	.91
Isolation	.88	.87
Parent Domain	.91	.88
Life Restrictions	.88	.87
Relationship with Spouse	.87	.80
Social Isolation	.77	.72
Incompetence	.73	.78
Adolescent-Parent Relationship	.81	.81
Total Stress	.94	.95

Note: numbers are coefficient alphas.

and adolescence and provide support for the validity of the SIPA as an upward extension of the PSI.

The PSI subscale internal consistencies were lower than reported by Abidin (1983) but comparable to recently published subscale internal consistencies (Halme, Tarkka, Nummi, & Astedt-Kurki, 2006); however, the internal consistencies for the domains and total stress were comparable (Table 1). Internal consistency of the domains and subscales of the SIPA was assessed using coefficients alphas (Table 2) and are comparable to the internal consistencies reported by Sheras et al. (1998).

Comparison of Mothers' and Fathers' Parenting Stress

Two by two Analyses of Variance (ANOVA) with gender of parent and gender of child as the independent variables were performed on all PSI and SIPA domains and subscales (Tables 3 and 4 respectively). At 8 years, Attachment stress and Relationship with Spouse stress were significantly different for mothers and fathers. Fathers reported greater stress in their Attachment relationship with their 8-year-olds than mothers, whereas mothers reported greater stress in Relationship with Spouse than fathers. At 14 years, Incompetence dif-

ferentiated mothers and fathers. Mothers reported greater Incompetence than fathers.

Few gender of child effects were found. Parents of 8-year-old sons reported higher stress on Distractibility/Hyperactivity, $F(1, 55) = 5.28, p < .05$, than parents of daughters. When children were 14 years old, parents of sons reported more Isolation, $F(1, 46) = 3.10, p < .05$, and Achievement stress, $F(1, 46) = 6.45, p < .05$, than parents of daughters.

Equitable Childcare Responsibility and Parenting Stress

To assess the influence of equitable childcare responsibility on parenting stress, families were grouped based upon the percentage of childcare responsibility reported by the mothers and fathers. During the interview the parents were asked about the percent of child care responsibility for each of them. The parents agreed on a percentage. Typically this agreement was immediate and no disagreements were noted. The High Equitability Group contained families with equitable childcare responsibility in which parents reported the father provided 50% or more of the childcare responsibility. The Mildly Discrepant Group consisted of families in which the father provided between 31-49%

TABLE 3

Parenting Stress Index and Gender of Parent

Domain/Subscale	F	p	Mothers		Fathers	
			M	SD	M	SD
Child Domain	0.00	.96	1.99	.04	2.00	.03
Distractibility	0.13	.72	2.56	.07	2.43	.07
Adaptability	0.12	.73	2.15	.06	2.17	.05
Reinforces Parent	1.65	.20	1.47	.05	1.57	.06
Demandingness	1.56	.22	1.92	.05	1.84	.04
Mood	0.08	.79	1.89	.07	1.92	.07
Acceptability	0.00	.98	1.64	.05	1.64	.06
Parent Domain	0.83	.37	2.07	.04	2.02	.04
Competence	0.38	.54	1.96	.05	1.91	.05
Isolation	2.22	.14	1.96	.06	2.07	.07
Attachment	4.27	.04	1.61	.05	1.74	.05
Health	2.04	.16	2.19	.08	2.20	.08
Role Restrictions	0.58	.45	2.30	.07	2.23	.08
Depression	0.99	.32	2.08	.06	2.00	.06
Relationship with Spouse	8.83	.00	2.43	.07	2.19	.07
Total Stress	0.31	.58	2.03	.03	2.01	.04

of the childcare responsibility. The Low Equitability Group is defined as those with fathers providing 30% or less of the childcare responsibility.

Two-way ANOVAs with gender of parent and childcare responsibility group as the independent variables and PSI and SIPA domains and subscales as the dependent variables revealed that equitable childcare involvement had different effects on maternal and paternal stress. At 8 years, equitable childcare involvement reduced maternal stress. Mothers in Highly Equitability families reported less Total Stress, $F(2, 59) = 3.24, p < .05$, Parent Domain stress, $F(2, 61) = 4.13, p < .05$, and less Parent Domain subscale stress on Competence, $F(2, 61) = 3.81, p < .05$, Isolation, $F(2, 59) = 28.20, p < .05$, and Relationship with Spouse, $F(2, 59) = 7.62, p < .01$. At 14, equitability of childcare had no effect on maternal stress. Equitable childcare had no effect on paternal stress at 8 years. At 14 years paternal involvement reduced paternal stress. Fathers in High Equitability families reported less Incompetence stress, $F(2, 47) = 3.34, p < .05$.

Discussion

In agreement with previous longitudinal research on parents of children (Beckman, 1991; Dyson, 1993), the results of the current study suggest a strong continuity of parenting stress as children move from childhood to adolescence. The moderately large correlations in parenting stress between 8 and 14 years on the PSI and SIPA provide evidence of the validity of the SIPA as a

true upward extension of the PSI. Family practitioners should feel confident in the validity of the SIPA in assessing parenting stress when the PSI is no longer useful due to the changing issues that arise with child maturation.

The few gender of parent differences that were found, i.e., maternal relationship with spouse stress and paternal attachment stress when child is 8 years old, and maternal incompetence when child is 14 years old, are consistent with previous research (Beckman, 1991; Hadadian, 1994; Keller & Honig, 2004; Krauss, 1993). These differences provide insight into family dynamics and the relative relationships of family members. When children are young, mothers are stressed over their relationships with their spouses while their spouses are stressed over their relationships with the children. As the child matures, mothers are then stressed over their competence as a parent as the adolescent starts to break away from the family.

Parental and societal resistance to role changes within the family may be a problem facing families today. Despite the increased employment of mothers, there remains the persistent view that women are more appropriate primary childcare providers (Hill, Hawkins, Alan, Martinson, & Ferris, 2003). The current findings suggest that maternal stress is lower and there is no difference in paternal stress when there is more equitable childcare responsibility by mid-childhood. Deater-Deckard and Scarr (1996) warn that equal division of parental labor only eases parenting stress to

TABLE 4

Stress Index for Parents of Adolescents and Gender of Parent

Domain/Subscale	F	p	Mothers		Fathers	
			M	SD	M	SD
Adolescent Domain	2.93	.09	2.06	.09	1.96	.08
Mood	3.12	.08	2.59	.13	2.39	.12
Isolation	0.97	.33	1.90	1.00	1.83	.08
Delinquency	0.03	.87	1.38	.07	1.37	.06
Achievement	2.15	.15	2.38	.13	2.25	.11
Parent Domain	3.30	.08	2.22	.07	2.06	.06
Role Restrictions	0.82	.37	2.27	.11	2.17	.09
Relationship with Spouse	0.33	.57	2.13	.11	2.07	.08
Social Isolation	1.43	.24	1.87	.07	1.73	.07
Incompetence	7.65	.01	2.55	.08	2.28	.08
Adolescent-Parent Relationship	1.15	.29	1.87	.06	1.94	.05
Total Stress	1.44	.24	2.05	.05	1.98	.05

the extent that it is consistent with parental attitudes about who should be doing what. Mothers, at times, have difficulty stepping back and allowing fathers to perform childcare activities because fathers tend to do things differently than mothers. Mothers' criticism of fathers' parenting practices can have detrimental effects on their willingness to provide help with the child (Deater-Deckard & Scarr, 1996). For example, McBride and Rane (1998), found fathers to be less involved with, be less responsible for, interact less with, and be less accessible to the child when their spouse was less confident in their abilities.

Fathers who have more childcare involvement report better attachment to their children, the children report more security with the fathers, both parents report more happiness, and the mothers report less stress in their relationship with their spouses (Hill et al., 2003). Grych and Clark (1999) found that greater childcare involvement of fathers of infants reduced their stress, improved their relationships with their spouses, and increased family harmony. While the current findings suggest no increase or reduction of parenting stress or competence for fathers with equitable childcare responsibility of children in mid-childhood, they do indicate that equitable childcare responsibility is related to reduced stress and increased competence with adolescent children. This lack in an increase in competence with more equitable childcare in mid-childhood may depend on the mothers' ability step back and allow the fathers to perform childcare activities even if they do things differently.

In adolescence, when mothers are likely to be less certain about their parenting decisions, indicated by their increased competency stress, fathers may have more liberties in making decisions that result in a reduction of their parenting stress and an increase in their feelings of competency as a parent. Equitable childcare had no effect on maternal stress during adolescence, perhaps because she remains uncertain about the parental decisions being made about increased independence of the adolescent.

Implications for Practitioners

The results of the current study suggest that maternal competency stress increases as children mature from childhood to adolescence. Encouraging fathers to take more responsibility for childcare even in adolescence can help to reduce fathers' parenting stress and increase their parental competency. Parents should be encouraged to attend parenting classes that will provide information about the normal behaviors of children at various stages of development to alleviate unnecessary fear and uncertainty about whether a given

behavior is something normal or a sign of something more serious. This education could increase both parents' competence and should also increase the mother's perception that fathers are competent childcare providers. The competency issue for mothers of adolescents is important to address because mothers who don't feel competent often suffer from impatience and intolerance.

Marital discord due to parenting stress and disagreements about child-care responsibility should receive particular attention by practitioners. Mothers who are experiencing depression and stress due to marital problems are more likely to perceive behavior problems in their children (Webster-Stratton, 1988) and be more punitive (Deater-Deckard, & Scarr, 1996). Stressed parents are also less responsive and have more stress in their parent-adolescent relationships which in turn has a direct negative effect on adolescent outcomes (Rothbaum & Weisz, 1994; Seginer, Vermulst, & Gerris, 2002).

Study Limitations

The sample of the current study consisted of low-middle to middle-class European-American families. We cannot state with certainty that the findings of this study would hold up with populations of different socio-economic status, or different cultures. However, the findings in this study are in line with many previous studies consisting of different populations, and with parents of children of all ages, which suggests that these findings are typical across population variables. The current study contributes to the literature by providing a cohesive longitudinal evaluation of parenting stress using two measures designed to provide a continuous measure of parenting stress but to specifically address unique aspects of parenting stress at two different stages of child development. Future studies might target different populations to investigate the similarities and differences in parenting stress longitudinally and in relation to different socio-economic statuses, cultures, or in families including step-parents.

With more mothers joining the workforce, parents need to learn to balance roles within the family. Mothers need to learn to let go of sole responsibility for childcare. More paternal childcare involvement can decrease the stressors faced by mothers who often still try to maintain their primary caregiver status and improve the father's relationships with both the child and his spouse. The current findings suggest that the key to maintaining family harmony may lie in assisting families with balancing roles to establish an equitable balance of responsibility for the care of the children as well as financially.

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