



## Spilling over: Partner parenting stress as a predictor of family cohesion in parents of adolescents with developmental disabilities



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### ABSTRACT

Family cohesion relates to positive outcomes for both parents and children. Maintaining cohesion may be especially challenging for families of adolescents with developmental disabilities, yet this has been studied infrequently in this group. We investigated cohesion in these families, particularly with respect to partner stress, using the notion of the 'spillover effect' as a model.

Adolescents with disabilities and their parents participated. Parents reported on teen adaptive and problem behaviours and on marital satisfaction, parenting stress, and family cohesion. The stress of one partner was tested as a predictor of the quality of family cohesion reported by the other.

Adolescent behaviour problems were negative predictors of family cohesion in mothers, and marital satisfaction positively predicted cohesion for both parents. Above other factors, greater partner stress predicted poorer family cohesion for both fathers and mothers. Marital satisfaction acted as a suppressor of this relation. To improve the overall climate of families, care providers should take into consideration individual relationships, including the marital relationship. In addition, the possibility of spillover from one individual to another should be recognized as a factor in family functioning. Family-centred practices are likely to lead to greater feelings of cohesion and overall better individual and family well-being.

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### What this paper adds?

Family cohesion and marital satisfaction are important factors in the lives of family members, but little research has investigated these constructs in relation to families in which an adolescent has a developmental disability. Similarly, the 'spillover effect', or the transfer of emotion or stress from one partner to another, has been studied with respect to families of typically developing children but not with regard to families in which a child or teen has a disability. This study adds to the literature on parental stress, marital satisfaction, and family cohesion and includes the perspective of families of adolescents with disabilities. Finally, it adds the notion of the 'spillover effect' and the importance of the marital relationship to our understandings of the functioning of families of adolescents with developmental disabilities.

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## 1. Introduction

From the perspective of family systems theory (Cox & Paley, 1997; Minuchin, 1985), the functioning of the family contributes uniquely to the children and adults in the family, over and above the effects of individual traits or dyadic interactions. Understanding the well-being of individuals thus necessitates understanding the family as a whole. With this in mind, researchers are increasingly investigating the perspectives of multiple family members and looking to measures of overall family functioning as keys to understanding the lives of children and families.

Awareness of the importance of the functioning of the family as a unit has led to the study of family cohesion, which can be conceptualized as the level of connectedness and emotional support experienced within a family (Olson, 1986). Higher levels of family cohesion have been found to relate to less parental stress as well as to greater adaptive behaviour and social functioning in children. These relations have been reported in families of typically developing children (Brophy-Herb et al., 2013; Farrell & Barnes, 1993; Shigeto, Mangelsdorf, & Brown, 2013) as well as in families in which a child has a disability (Margalit & Kleitman, 2006; Mink, Nihira, & Meyers, 1983; Mitchell & Hauser-Cram, 2009).

Although the bulk of research on family cohesion has focused on young children, some studies have considered this aspect of the family system with respect to older children and adolescents. In families where children are developing typically, higher family cohesion has been shown to predict greater social competence during middle childhood (Leidy, Guerra, & Toro, 2010) and less aggressive behaviour in adolescence (Barber & Buehler, 1996; Farrell & Barnes, 1993; Hamama & Arazi, 2012). Some studies have focused on families of older children with disabilities, and these investigations also indicate the importance of this construct as an indicator of healthy family functioning (McConnell, Savage, Sobsey, & Uditsky, 2015). Few investigations have considered the construct of family cohesion in relation to parenting an adolescent with disabilities. In an early study on this topic, Morrison and Zetlin (1988) reported that parents of adolescents with disabilities reported lower levels of family cohesion than parents of typically developing children, but the authors also found that within families where an adolescent had a disability, higher levels of cohesion were related to more open communication between parents and their adolescent. A more recent study that included adolescents with Fragile X syndrome and their families found that mothers who reported more cohesive family environments also reported experiencing less stress (Johnston et al., 2003).

Maintaining positive family processes such as cohesiveness may be especially challenging for families of children with disabilities, as the child often places demands on the family that are different from or greater than those of typically developing children. Parents of children with disabilities have been reported to experience greater stress than other parents (Baker et al., 2003; Hassall, Rose, & McDonald, 2005; Hodapp, 2002; Johnston et al., 2003; Neece, Green, & Baker, 2012). Such stress has been found to relate empirically to the higher levels of behaviour problems frequently exhibited by children with disabilities rather than to children's levels of intellectual or developmental skills (Baker, Blacher, & Olsson, 2005; Emerson & Einfeld, 2010; Woodman, Mawdsley, & Hauser-Cram, 2015). Higher levels of stress, in turn, have been found to relate to lower levels of cohesion in these families (Johnston et al., 2003; Margalit & Kleitman, 2006; Warfield, Krauss, Hauser-Cram, Upshur, & Shonkoff, 1999).

In relation to the aetiology of a child's disability, Lanfranchi and Vianello (2012) examined whether family cohesion varied for families of children with three specific genetic aetiologies: Down syndrome, Williams syndrome, and Prader-Willi syndrome. They reported no differences in the overall levels of cohesion reported by mothers and fathers of children with these three syndromes. However, in analyses of the relation between family cohesion and aspects of family stress, such as family problems, they found that higher levels of cohesion related to less stress for fathers of children with Down syndrome and for mothers of children with Williams syndrome. These findings suggest that parenting stress and family cohesion are often, but not consistently, negatively related, and that these relations may differ for mothers and fathers.

Many facets of the family contribute to cohesion, characteristics of the child being only one. Several decades ago, Emery, Hetherington, and DiLalla (1984) proposed that the emotional well-being of one partner in a family relationship can affect that of another, a concept they termed the "spillover effect". More generally, spillover is considered to be the transfer of emotion or stress from one person to another (Bolger, DeLongis, Kessler, & Wethington, 1989). The negative emotions of one partner thus have the likelihood of negatively affecting the other partner and their relationship, ultimately leading to problems in the overall functioning of the family (Grych, 2002; Stroud, Durbin, Wilson, & Mendelsohn, 2011). Although many researchers have investigated spillover emotion in families, this construct has rarely been studied in parents of children with disabilities.

Research on families of children with disabilities has shown that the positive quality of the marital relationship predicts lower parenting stress in both mothers and fathers (Benson & Kersh, 2011; Kersh, Hedvat, Hauser-Cram, & Warfield, 2006). Studies also indicate that the well-being of one parent often affects the psychological stress experienced by the other parent (Gerstein, Crnic, Blacher, & Baker, 2009; Hastings et al., 2005), suggesting spillover effects in relation to stress. Although not previously investigated, such spillover effects are likely to affect perceptions of the cohesive functioning of the family system.

Mothers and fathers of children with disabilities often are found to differ from one another in their perceptions of family life. Some studies have found mothers to be more stressed than fathers by having a child with a developmental disability (Dabrowska & Pisula, 2010; Oelofsen & Richardson, 2006; Shin et al., 2006), although others have not

(Hastings, 2003; Krauss, 1993; McCarthy, Cuskelly, van Kraayenoord, & Cohen, 2006). Instead, there may be differences in the predictors of stress for mothers and fathers (Crowley & Taylor, 1994; Hastings, 2003; Lanfranchi & Vianello, 2012). For example, Hastings (2003) reported that although parents of children with autism reported no differences in overall levels of stress, mothers' levels of stress related to children's problem behaviours and to their partner's mental health, whereas "factors other than those studied must account for fathers' feelings of stress" (p. 235). Differences in how cohesion and marital satisfaction operate in mothers and fathers have not been studied widely in families of children with disabilities.

The marital relationship is a critical part of the family emotional environment. It can be viewed as the climate in which interactions occur (Ponnet et al., 2013). A meta-analysis of marital relationships in couples who are raising a child with a disability (Risdal & Singer, 2004) found a small effect size indicating that these couples tend to have lower levels of marital satisfaction than do other couples, but only to a small degree. Nevertheless, parenting stress and marital satisfaction have been found consistently to be linked in studies of parenting children with disabilities (Gerstein et al., 2009; Kersh et al., 2006). In the few studies of within-family differences in marital satisfaction in families with a child with a disability, mother-father differences have not been found (Fisman, Wolf, & Noh, 1989; Kersh et al., 2006). It is possible that a positive marital relationship may assist both mothers and fathers in downgrading their levels of stress which may in turn lead to a more cohesive family environment.

As family cohesion is an important aspect of the lives of parents and children that has not been studied widely in families in which an adolescent has a developmental disability, we investigated this construct and possible factors that influence it. First, we explored differences in overall levels of stress, marital satisfaction, and cohesion between mothers and fathers. Recognizing the possibility of spillover affecting family functioning, we examined the role of marital satisfaction and the stress reported by one partner on the level of family cohesion reported by the other. We additionally investigated how these factors may differ between parents.

Our investigation focused on adolescents with developmental disabilities and their parents when teens were 15 years of age. This investigation was guided by a sequential series of hypotheses. First, we expect behaviours of adolescents with disabilities to predict the quality of family cohesion reported by their parents. In particular, mothers and fathers in families in which adolescents have higher levels of problem behaviours will report lower levels of family cohesion. Second, over and above the effects of adolescent characteristics and family demographics, greater marital satisfaction will predict greater family cohesion reported by both mothers and fathers. Third, consistent with the spillover hypothesis, above other predictors, greater partner stress will predict lower levels of family cohesion.

## 2. Methods

### 2.1. Participants

The adolescents and families represented in this study were enrolled in the Early Intervention Collaborative Study, a longitudinal investigation of 190 children with disabilities and their families (Hauser-Cram, Warfield, Shonkoff, & Krauss, 2001; Shonkoff, Hauser-Cram, Krauss, & Upshur, 1992). These families were recruited when they entered early intervention services in the Northeast region of the United States. The current investigation focused on data collected when the adolescents were 15 years old. As some children in the original study did not continue to exhibit delays, only adolescents with adaptive scores below 75 were included in this investigation. Of these, 51 families completed all measures used in this study and continued to be partnered to the same person as at the beginning of the study. These families do not differ significantly from the larger group of parents who participated at the age 15 data collection point in relation to family income, parental education, or race/ethnicity of children or parents. As the sample was restricted, however, the mean adaptive score as measured by the Vineland Adaptive Standard Score of 37.5 (SD = 16.6) was lower than in the larger sample ( $M = 48.7$ ,  $t(50) < .000$ ) (Sparrow, Balla, & Cicchetti, 1984).

The sample of adolescents with developmental disabilities included 23 adolescents with diagnoses of Down syndrome, 15 with motor impairment, and 13 who had demonstrated developmental delays in two or more areas at time of enrolment in the original study during the infant-toddler years. The sample was predominantly European-American (94%) and 49% of the adolescents were male. Mean family income was 45–50 K USD, representing a mainly middle class sample at the time of data collection in 2005. Approximately 27% of mothers and 90% of fathers were employed full-time.

### 2.2. Procedure

Data were collected through home visits by trained staff members who were blind to the study's hypotheses. Parents completed consent forms, and adolescents completed either assent or consent forms based on level of cognitive skill. During home visits, staff members conducted interviews separately with mothers, fathers, and adolescents, as well as a multidimensional structured assessment with the adolescent. Parents also completed self-administered booklets. Visits ranged from 2 to 3 h in length. This study was approved by the Institutional Review Board of the university in which the study was located.

## 2.3. Measures

### 2.3.1. Family cohesion

The Family Adaptability and Cohesion Scales (FACES) measure (Olson, Portner, & Bell, 1982) was completed independently by mothers and fathers and used to measure family cohesion. This scale includes 16 items such as ‘family members are supportive of each other in times of crisis’ and ‘family members like to spend their free time with each other’ and assesses the extent to which families rely on and support one another. Parents rated their agreement with these on a 5 point Likert scale ranging from *almost never* to *almost always*. Cronbach’s alpha for this sample was .83 for mothers and .81 for fathers.

### 2.3.2. Partner parenting stress

The Parent Domain of the Parenting Stress Index (PSI) (Abidin, 1995) was completed independently by both mothers and fathers. This scale measures stress related to parenting and the sense of emotional equilibrium associated with the parent experience. The Parent Domain of the PSI is a 54-item self-administered Likert scale composed of seven subscales that measure parent attachment, sense of competence, depressive symptomatology, health, social isolation, role restriction, and relations with spouse. Responses range from *strongly disagree* to *strongly agree*, with higher scores indicating greater stress in the parent-child system. Cronbach’s alpha for the Parent Domain of the PSI for this sample was .96 for mothers and .91 for fathers.

### 2.3.3. Marital satisfaction

The Dyadic Adjustment Scale (DAS; Spanier, 1976) was completed independently by mothers and father and was used to assess satisfaction with the marital relationship. The DAS is a 32-item instrument that investigates the quality of the relationship, shared activities, and the extent of agreement between partners on issues such as household tasks, decision making, and recreation. Total score was used for these analyses. Cronbach’s alpha was .97 for mothers and .94 for fathers.

### 2.3.4. Adolescent functioning

Adolescent adaptive skills were measured by the Vineland Adaptive Behavior Score (Sparrow et al., 1984) ( $\alpha = .99$ ). Mothers completed the Vineland via interview by trained field staff during a home visit.

### 2.3.5. Adolescent behaviour

Mothers completed the Child Behavior Checklist (CBCL) (Achenbach, 1991), a 115-item measure that assesses a child’s behavioural problems and social competencies. Items are scored 0 to 2, depending on the degree to which each statement about children’s behaviour characterized the child. The CBCL is comprised of two dimensions of problem behaviours: externalising and internalising. T-scores for total behaviour problems were used in this analysis, and Cronbach’s alpha was .89.

### 2.3.6. Family income

Family income was used as a measure of family socioeconomic status and was reported by mothers. Family income was measured using 10 distinct categories, ranging from less than 5000 to 60,000 USD or above.

## 2.4. Descriptive statistics

We performed correlations (Table 1) and descriptive statistics on all variables of interest (Table 2). Clinical cutoffs for child behaviour problems (i.e., scores above which one recommends referrals) were not used in these analyses but were computed for descriptive purposes.

**Table 1**  
Correlations among outcome and predictor variables ( $n = 51$ ).

Variables	1	2	3	4	5	6	7	8	9
1. Mother cohesion	1								
2. Father cohesion	.697***	1							
3. Mother parenting stress	-.700***	-.488***	1						
4. Father parenting stress	-.498***	-.571***	.420**	1					
5. Mother marital satisfaction	.498***	.448***	-.423**	-.294*	1				
6. Father marital satisfaction	.450***	.543***	-.281*	-.443**	.559***	1			
7. Adolescent behaviour problems	-.460***	-.293*	.611***	.174	-.010	-.074	1		
8. Adolescent adaptive skills	-.008	.148	-.078	-.228	-.026	-.018	-.141	1	
9. Approximate family income	.141	.116	-.139	-.286*	-.061	.132	-.248*	.248*	1

\*\*\* Correlation is significant at the <0.001 level (1-tailed).

\*\* Correlation is significant at the 0.01 level (1-tailed).

\* Correlation is significant at the 0.05 level (1-tailed).

**Table 2**  
Descriptive statistics for outcome and predictor variables for mothers and fathers ( $N = 51$ ).

Variable	Mother		Father		<i>t</i>
	Mean	SD	Mean	SD	
Family cohesion	63.1	7.8	60.7	7.4	3.00**
Marital satisfaction	110.7	22.8	104.6	19.7	2.17*
Partner parenting stress	114.4	28.7	117.9	22.0	-.90
Family income	45–50 K	7 K			
Adolescent adaptive skills	37.5	16.6			
Adolescent behaviour problems	55.4	10.3			

\*  $p < .05$ .

\*\*  $p < .01$ .

## 2.5. Statistical analyses

Preliminary analyses included group comparisons using Analysis of Variance (ANOVA) to determine if outcomes varied by adolescent gender or disability type. As gender, disability type, and their interaction were not found to be significant factors in maternal or paternal reports of family cohesion, marital satisfaction, or parenting stress, these were not included in final analyses. To compare mother and father reports of stress levels, marital satisfaction, and family cohesion, paired *t*-tests were performed (Table 2).

Separate regression analyses were then conducted to predict mother-reported family cohesion from paternal stress levels and father-reported cohesion from maternal stress, controlling for the effects of adolescent functioning and behaviour problems, family income, and marital satisfaction. This order was chosen based on the theoretical model proposed, with child variables entered first followed by family variables. The main variables of interest, marital satisfaction and partner stress, were entered last (Keith, 2015). Results are shown in Table 3.

## 3. Results

### 3.1. Preliminary analyses

The mean total score of behaviour problems on the CBCL for this sample was 55.4 ( $SD = 10.3$ ). A total of 35.3% of adolescents scored at or above the clinical cutoff of 60 (Achenbach, 1991), indicating that this is a sample of adolescents with relatively high levels of behaviour problems. Mothers and fathers were compared on three dimensions: parenting stress, marital satisfaction, and cohesion. Parents reported similar levels of stress to one another ( $t(50) = -.90$ ,  $p = .375$ ,  $\eta^2 = .01$ ). Mothers, however, reported both greater marital satisfaction ( $t(50) = 2.17$ ,  $p = .035$ ,  $\eta^2 = .04$ ) and greater cohesion ( $t(50) = 3.00$ ,  $p = .004$ ,  $\eta^2 = .08$ ) in their families than did fathers.

### 3.2. Family cohesion

In relation to the first hypothesis, maternal report of the cohesiveness of the family was predicted by adolescent behaviour problems ( $\beta = -.47$ ,  $F(1,48) = 13.27$ ,  $p = .001$ ) but not by adolescent level of adaptive skills. Paternal report of family cohesiveness was predicted neither by adolescent behaviour problems nor by adolescent adaptive behaviours. Mothers, but not fathers, reported poorer family cohesion when teens exhibited greater behaviour problems.

**Table 3**  
Hierarchical regression analysis of parent reported family cohesion ( $N = 51$ ).

Predictor	Mother		Father	
	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
1. Adolescent adaptive skills	-.01	.00	.15	.02
2. Adolescent behaviour problems	-.47	.22**	-.28	.08
3. Family income	.05	.00	.02	.00
4. Marital satisfaction	.50	.25***	.53	.28***
5. Partner parenting stress	-.34	.09**	-.32	.06*
Total $R^2$		.56***		.44***

\*  $p < .05$ .

\*\*  $p < .01$ .

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

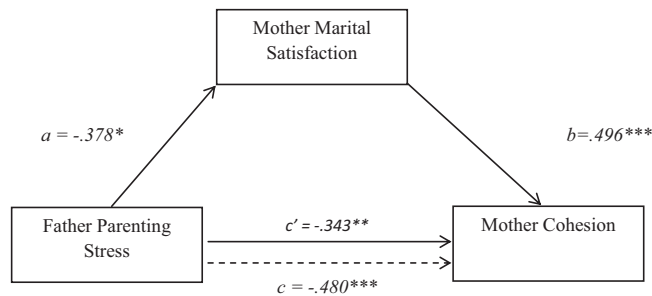


Fig. 1. Mother marital satisfaction mediates the relation between father parenting stress and mother cohesion.

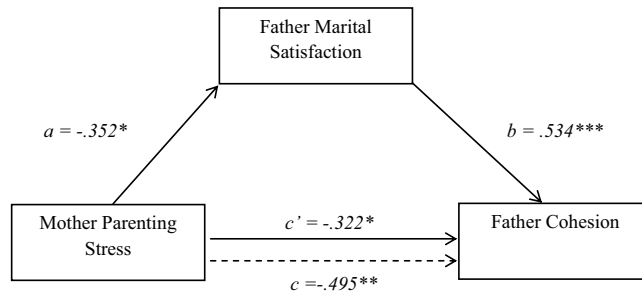


Fig. 2. Father marital satisfaction mediates the relation between mother parenting stress and father cohesion.

In relation to the second hypothesis, greater marital satisfaction predicted higher family cohesion for both mothers ( $\beta = .50$ ,  $F(1,46) = 21.03$ ,  $p < .001$ ) and fathers ( $\beta = .53$ ,  $F(1,46) = 20.58$ ,  $p < .001$ ) beyond adolescent behaviour. The third hypothesis focused on the possible spillover effect of stress from one partner to the other. Results indicated that the spillover of partner stress related to parents' views of family cohesion, as greater levels of partner parenting stress predicted lower levels of both mother- and father-reported cohesion after other variables were included in the models, ( $\beta = -.34$ ,  $F(1,45) = 9.36$ ,  $p = .004$ ) for mothers ( $f^2 = .10$ ) and ( $\beta = -.32$ ,  $F(1,45) = 4.71$ ,  $p = .035$ ) for fathers ( $f^2 = .06$ ). Family income did not predict either maternal or paternal reports of family cohesion.

### 3.3. Moderation by adolescent behaviour problems

Further analyses were conducted to determine if behaviour problems moderated the effects of partner parenting stress on family cohesion. The interaction term was not found to be a significant predictor of family cohesion, indicating that the relation between parenting stress and family cohesion was similar for families in which adolescents had high and low levels of problem behaviours.

### 3.4. Mediation by marital satisfaction

Procedures described by Frazier, Tix, and Barron (2004) were used to test marital satisfaction as a possible mediator of the relation between partner parenting stress and family cohesion. To test for mediation, several steps are suggested. First, a significant relation must be found between the criterion measure, family cohesion, and the predictor variable, partner parenting stress. Second, significant relations must be found between the criterion variable and the mediating variable, marital satisfaction, and between the mediating variable and the predictor variable. Finally, the relation between the predictor and criterion variables must be completely or significantly reduced when the mediating variable is introduced into the regression equations. As all conditions were met to test marital satisfaction as a potential mediator of partner parenting stress and family cohesion, further analyses were conducted. The regression coefficient for partner parenting stress as a predictor for mother family cohesion was reduced from  $\beta = -.480$ ,  $p < .001$  in the penultimate step to  $\beta = -.343$ ,  $p = .004$  in the final model when marital satisfaction was included (Fig. 1). For fathers, this coefficient was reduced from  $\beta = -.495$ ,  $p = .004$  to  $\beta = -.322$ ,  $p = .035$  (Fig. 2). This mediation was further tested using bias-adjusted bootstrapping with 1000 bootstrap re-samples and found to be significant for mothers (95% CI =  $-.1005$ ,  $-.0184$ ) and for fathers (95% CI =  $-.1052$ ,  $-.0076$ ) (Preacher & Hayes, 2008).

## 4. Discussion and conclusions

Family cohesion is a key indicator of family behaviours that relates to positive outcomes in parents and children but has been studied little in families of adolescents with disabilities. Within a sample of families in which an adolescent has a



developmental disability, we investigated three hypotheses in relation to family cohesion. We expected the levels of family cohesion reported by mothers and fathers of adolescents with developmental disabilities to be predicted by characteristics of the adolescent, by the marital relationship, and by the partner's perception of parenting stress.

We found the stress levels of mothers and fathers to be similar to one another. This adds to a somewhat discrepant literature on differences in stress in parents whose children have disabilities. Despite having similar levels of parenting stress, parents differed in their reports of satisfaction with their marital relationship, with mothers reporting greater satisfaction than fathers. This result departs from that reported in studies of typically developing teens and their families (Cui & Donnellan, 2009) and families of younger children with disabilities (Fisman et al., 1989) that found similarities in parental marital satisfaction. Mothers in our study also reported higher levels of family cohesion than fathers, paralleling results of Crowley and Taylor (1994) in families of young children. This conflicts, however, with results reported by Lanfranchi and Vianello (2012), who found similar levels of cohesion in parents of children and teens with disabilities, and with those of De Ross, Marrinan, Schattner, and Gullone (1999) for typically developing teens. These results suggest that future research should be focused on understanding the perspective of both mothers and fathers of adolescents with developmental disabilities in the areas of marital satisfaction and family cohesion.

We hypothesized that adolescent behaviours would relate to parent reports of family cohesion. High levels of behaviour problems were evident in this sample as in other studies of children and adolescents with developmental disabilities (Baker, Blacher, Crnic, & Edelbrock, 2002; Dekker, Koot, van der Ende, & Verhulst, 2002; Dykens, 2000). As suggested by other studies that have investigated parental predictors of dimensions of personal and family functioning, we found both similarities and differences between mothers and fathers in factors relating to family cohesion. For mothers, we found that higher levels of behaviour problems, but not levels of adaptive behaviours, predicted lower levels of family cohesion. For fathers, behaviour problems did not have the same predictive quality. Numerous studies have found that mothers do more of the daily caregiving for their children (e.g. Craig & Sawrikar, 2009; Rowbotham, Carroll, & Cuskelly, 2011), as suggested in our sample by the much greater number of fathers who worked full time compared to mothers. Because mothers may experience the behaviour problems of their adolescents more than fathers, such problem behaviours may provoke feelings in mothers of lower cohesiveness within the family unit.

As family systems theory suggests, both mothers' and fathers' perceptions of having a connected, supportive family were strongly and positively predicted by the quality of the marital relationship. Parents who work well together as a team, agreeing on division of household responsibilities and how to spend time together, and who get along well and confide in one another, are more able to effectively manage and support the entire family as a cohesive unit (Greeff, 2000; Henderson, Sayger, & Horne, 2003). Attention to the marital relationship, then, is likely to result in better overall functioning of the family in ways that can benefit all family members (Ponnet et al., 2013). Although much clinical work has been devoted to ways of improving marital relationships, research on the effectiveness of such work has seldom been directed to families in which a child has a disability (Algood, Harris, & Hong, 2013). The results reported here suggest that more attention needs to be paid to the dyadic relationship of parents who are partnered, as a positive marital relationship partially suppresses the negative relation between partner stress and family cohesion.

A particular aim of our study was to examine whether the stress experienced by one partner crosses over to the other partner's feelings of family cohesion. Using the concept of the spillover effect as a model, we anticipated that one partner's stress would affect the other partner's view of the cohesiveness of the family as a whole. We found support for this hypothesis. In our study, both mothers and fathers whose partners felt more stressed were less likely to report that their families were functioning cohesively, even after accounting for their views of their marital relationship and their child's level of behaviour problems. These findings suggest that parents are attuned not only to the marital relationship but also to the other sources of their partner's stress. For both mothers and fathers, the parenting stress of one parent appears to compromise the other parent's view of the family as a cohesive unit. Concerns about a partner's level of stress may affect family cohesion in many ways. For example, one parent's worry about a partner's level of stress may divert time and attention away from the family unit, resulting in less family cohesion. Additionally, a parent's reaction to a partner's stress may diminish each partner's ability to parent together effectively (Krishnakumar & Buehler, 2000) with overall effects on the cohesiveness of the family.

To better understand the path by which partner stress is related to cohesion, we conducted further analyses. As family cohesion was predicted by both partner stress and marital satisfaction and partner stress predicted family cohesion, we investigated the role of marital satisfaction in the path between stress and cohesion. Our findings suggest that the quality of the marital relationship plays a partial mediating role between partner stress and family cohesion for both parents. The reduction in the relation between partner stress and family cohesion indicates that a more positive marital relationship can alleviate the family tensions created by partner stressors. As has been found for other families (Davies & Cummings, 2006), a supportive marital relationship may serve as a protective factor under conditions of stress for parents of children with disabilities.

Taken as a whole, these findings point to the importance of feelings of family cohesion and suggest how family cohesion might be improved for mothers and fathers of adolescents with disabilities. First, counsellors and other care providers need to explore the stressors and challenges occurring in the lives of families in order to provide support and resources to the family during stressful times. When two parents are part of the family unit, providers need to include the perspectives of both to have the greatest opportunity to improve the family system. Recognition of the potential of spillover effects suggests the importance of considering the view of both parents as they affect each other and as they influence the family system.

Second, providers can improve the climate of the overall family by attending to issues in individual relationships, including that between the parents. Parents who feel satisfied with the relationship with their partners are likely to carry that satisfaction over into their parenting activities (Ponnet et al., 2013) and, ultimately, to the climate of the family overall. Finally, continued effort needs to be made to reduce the behaviour problems of adolescents with disabilities. The high level of behaviour problems in this sample and the negative relation between behaviour problems and mothers' views of the family as cohesive suggest that developing effective interventions regarding externalising and internalising behaviours of adolescents with developmental disabilities should serve as a critical agenda. Child and adolescent behaviour problems can destabilize family functioning, as has been reported in numerous studies of typically developing youth (Morris, Silk, Steinberg, Myers, & Robinson, 2007). Therefore, an important avenue of future research is in determining ways of reducing behaviour problems in children and adolescents with disabilities. In this regard, Robinson and Neece (2015) reported on a promising avenue of intervention research in a study of families in which a child had a disability. They found that when children had high levels of problem functioning and parents had low levels of marital satisfaction, a Mindfulness Intervention (Kabat-Zinn et al., 1992) was associated with decreases in children's behaviour problems. As is the case in early childhood, family-centered practices are also likely to improve the climate of the family (Dunst, Trivette, & Hamby, 2007) as each family member contributes to family cohesion.

## 5. Study limitations and future research

This investigation has a number of limitations. First, the sample is small, limiting the ability to empirically locate modest effects. The sample is also restrictive, especially in terms of ethnicity and average income. Next, as mothers were reporters of children's adaptive and problem behaviours, issues of shared method variance should be considered in interpreting results, as mothers who feel challenged by family issues may report more behaviour problems in their children.

Despite its limitations, important implications can be derived from the study's findings. The importance of factors in the lives of parents and adolescents in the quality of family life is highlighted here. Attending to the lives of each family member and the role of the issues faced by one parent on the feelings of their partner is critical to improving the family environments for parents and for adolescents.

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