



## Paternal versus maternal coping styles with child diagnosis of developmental delay



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### ABSTRACT

Parents of children with disabilities vary in their reaction to their children's diagnosis. The current study focused on fathers in addition to mothers and examined their resolution and coping styles when having children diagnosed with developmental delay (DD). Sixty-five fathers and 71 mothers were interviewed using the reaction to the diagnosis interview (RDI; Pianta & Marvin, 1992a). Results indicated that the majority of parents were unresolved with their child's diagnosis, with no differences found between fathers' and mothers' rates of resolution. Furthermore, both parents of children that were diagnosed at a later age and parents that were less educated tended to be unresolved, as did fathers of a lower socioeconomic status. Older age of both children and mothers was related to maternal lack of resolution. Finally, an in-depth examination revealed significant differences in the manner in which fathers and mothers cope with their children's diagnosis: whereas mothers were more prone to using an emotional coping style, fathers tended to use a cognitive coping style. The clinical implications of paternal versus maternal coping styles are discussed.

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The arrival of a new child into the family is usually received with immense joy and elation. However, when a child is diagnosed as disabled these feelings dissolve, along with the expectations and hopes parents had for a healthy child (Milshstein, Yirmiya, Oppenheim, Koren-Karie & Levy, 2010; Pianta & Marvin, 1992a). The reaction of parents of children with disabilities to their child's diagnosis is a debated issue (Sheeran, Marvin & Pianta, 1997). In the early literature, an emphasis on pathological responses to the diagnosis (Shapiro, 1983) was followed by models depicting the ways parents mourn the loss of the typical child they hoped for. The "stages" theories were highly accepted, proposing that parents generally move through adaptation (e.g., Clubb, 1991; Drotar, Baskiewicz, Irvin, Kennell & Klaus, 1975; Fortier & Wanlass, 1984; Trout, 1990), with the common theme of progression over time towards eventual adjustment (Blacher, 1984).

Over time, early beliefs have progressed from the dogmatic "stages" theories into theories describing a more continuous process of adjustment that parents go through, with occasional regressions at transition periods or, at other times, with skipping stages (Clubb, 1991; Pianta & Marvin, 1992a). An important progress has been the development of the concept of "resolution" with the child's diagnosis. Acceptance and resolution of the diagnosis is the process in which parents build a self-representation, incorporating the pre- and post-diagnostic internal representations of the self and the 'real' child, as opposed to the 'fantasy' child they dreamt of (Milshstein et al., 2010; Pianta & Marvin, 1992a). Marvin and Pianta (1996) defined resolution as the end of active grieving and a refocus on present and future realities. Unresolved parents, on the other hand, display an absence of these processes and a coping style that reflects ongoing consequences of trauma. Additionally, in order to recognize individual differences in coping styles, they developed a reliable, semi-structured interview tool known as

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the reaction to the diagnosis interview (RDI; Pianta & Marvin, 1992a), which consists of three subcategories of a resolved coping style (action, feeling and thinking) and six subcategories of an unresolved coping style (emotionally overwhelmed, angry, neutralizing, depressed, having cognitive distortion and disorganized). Using the RDI, feelings of resolution were found to be indicative of better quality of parenting, secure child-parent attachment (Marvin & Pianta, 1996), more positive familial social life and less negative feelings about parenting and marriage (Milshtein et al., 2010).

Previous research has shown that many families of chronically disabled children succeed in adapting and functioning well (Crnic, Friedrich & Greenberg, 1983; McCubbin & McCubbin, 1993; Tak & McCubbin, 2002). Yet, rates of resolution among mothers of children with various special needs, such as: Cerebral Palsy, Epilepsy, Autism spectrum disorder (ASD), Deafness and Phenylketonuria (PKU), were diverse, and ranged between 36% and 69% (Barnett et al., 2006; Lord, Ungerer & Wastell, 2008; Milshtein et al., 2010; Pianta, Marvin, Britner & Borowitz, 1996; Pipp-Siegel, 2000 in Yoshinaga-Itano, 2002).

This diversity in parental reactions to different diagnoses was also examined in studies that compared the emotional reactions of parents of children with Down syndrome to other disabilities, such as: ASD, intellectual disabilities (ID) etc. They found that even in cases where the severity of the disability was graver in the children with Down syndrome, their parents reported better adjustment and lower levels of stress than the parents of children with other disabilities. These differences in psychological well-being were traced, in part, to variations in the uncertainty attached to the diagnoses. The long history of research on Down syndrome and the certainty surrounding its diagnosis and cause, on top of being apparent immediately at birth, provide parents with a clear and coherent explanation of their child's condition and with a reasonable expectation of what the future holds, and, thus, eases their coping process (Abbeduto, Seltzer, Shattuck, Krauss, Orsmond & Murphy, 2004; Beavers, Hampson, Hulgus, & Beavers, 1986; Fidler, Hodapp, & Dykens, 2002).

In addition to the type of the disability and the age of the child when diagnosed, some other demographic variables were found to be associated with parental coping and adjustment (e.g. Abbeduto et al., 2004; Fox, Platz & Bentley, 1995; Haveman, Berkum, Reijnders & Heller, 1997). Parents with lower educational levels reported a heavier burden and had less personal and financial resources to aid with the physical and emotional demands of care giving (Haveman et al., 1997; Trout, 1990). The same was found to be true for parents of lower socioeconomic status (Fox et al., 1995; Roy & Dyson, 2010; Trout, 1990), however, previous studies using the RDI found no relation between parental education or socioeconomic status and parental resolution (Marvin & Pianta, 1996; Pianta et al., 1996). Earlier research also found higher levels of stress and burden as mothers get older. The same was true as the child's age progresses. Since mothers are the main care givers in the family (Bader & Phillips, 1999; Cabrera, Tamis-LeMonda, Bradley, Hofferth & Lamb, 2000; Lamb & Tamis-LeMonda, 2004), they are responsible for all daily physical care of the disabled children, and are, therefore, very much aware of the gap between these children and their peers and siblings. A gap that widens as the children grow up (Brehaut et al., 2004; Florian & Fidler, 2001; Lin, 2000; Rentinck, Ketelaar, Jongmans & Gorter, 2006; Wanamaker & Glenwick, 1998).

To the best of our knowledge only two studies compared paternal and maternal rates of resolution, as opposed to over a dozen studies that addressed only maternal rates of resolution (e.g. Barnett et al., 2006; Kearney, Britner, Farrell & Robinson, 2011; Orme, 2005; Pianta et al., 1996). These studies revealed that although fathers' rates of resolution with their children's diagnosis (ASD or PKU) were higher than those of mothers, these differences did not reach significance (Lord et al., 2008; Milshtein et al., 2010). Furthermore, Milshtein et al. (2010) found no significant differences between resolved fathers and mothers of children with ASD even within most of the nine subcategories. The only significant difference reported between fathers and mothers was in the unresolved category; where mothers were included in the emotionally overwhelmed group twice as much as fathers, while fathers were classified in the 'neutralizing' subtype, twice as much as mothers.

A possible explanation for this difference may come from studies suggesting that women, compared to men, report in general deeper emotional experiences, more intense expressions, and greater comfort derived from communicating emotions (Grossman & Wood, 1993; Larsen & Diener, 1987; Lutzky & Knight, 1994). This emotional nature of women's reactions is in line with the few findings mentioned above, that depict mothers as fitting into the more emotional subscales of the RDI, whereas fathers are coded as more cognitively driven and emotionally detached (Milshtein et al., 2010).

The current study aimed to display an in-depth investigation of paternal and maternal coping styles when having children with developmental delay (DD). The clinical definition of DD refers to children having IQ scores that are 1.5–2 standard deviations below the mean, as well as impairments in adaptive functioning in at least two of the following skills: expressive language, receptive language, cognitive/visual reception, fine or gross motor, and/or adaptive behavior (Boyd et al., 2010).

The chronic stress involved in parenting a child with DD and other mental disabilities was found to negatively affect the physical and mental health of mothers (Feldman, 2007; Singhi, Goyal, Pershad, Singhi & Walia, 1990). Fathers, however, were found to be less affected by the constant stress of having a child with DD. They displayed lower levels of parental stress, less symptoms of depression and a higher degree of self-assurance than mothers (Bailey, Blasco & Simeonsson, 1992; Goldberg, Marcovitch, MacGregor, Lojkasek, 1986; Gray, 2003). Other studies, examining the effects of having a child with ID on parental stress, claimed that fathers should not be regarded as a replica of mothers. Fathers of children with ID did experience stress and pressure, but displayed a different coping mechanism than mothers (e.g. Cabrera et al., 2000; Lamb & Tamis-LeMonda, 2004). These general differences in coping habits between fathers and mothers lead us to examine a broader perspective of coping styles than that of 'resolved' versus 'unresolved'. Quite a few studies have found that the coping mechanism of parents of children with developmental disabilities is strongly associated with the parents' personality. Sensitive and emotional personality traits were linked to strategies such as: seeking social support and professional advice, whereas calculated/cognitive personality traits relate to coping mechanisms such as: problem solving

and emotional suppression (e.g. Costa, Somerfield & McCrae, 1996; Glidden, Billings & Jobe, 2006). Therefore, as these personality traits are fairly stable throughout life (Costa & McCrae, 1992; Glidden et al., 2006), we expect parents to exhibit a consistent style of coping, regardless of their progress along the resolution process.

## The current study

The current study aims to shed some light on both paternal and maternal resolution styles when having children diagnosed with DD. Three hypotheses are proposed. First, we hypothesized that both fathers and mothers will exhibit a higher frequency of an unresolved resolution style than that of a resolved resolution style.

Second, as this is the first study investigating parental reaction to diagnosis among parents of children having DD, we will explore whether some parental and children's characteristics, such as: child current age and age when diagnosed, parental age and education and family socioeconomic status are related to the parental resolution style.

Finally, we hypothesized that the nature of parental coping styles would be different for fathers and for mothers. Specifically, more mothers than fathers will adopt the *emotional style* of coping, and more fathers will exhibit the *cognitive style* of coping. This pattern of results will be evident both in the positive as well as the negative coping styles.

## 1. Method

### 1.1. Sample

The study's sample included 72 two parents families of 4–7 (Mean age = 5.53, Std = .73) year old children (60% boys). Seventy-one mothers and 65 fathers completed the study interviews. Children's gestational age ranged between 24 and 43 weeks ( $M = 38.41$ ,  $Std = 4.3$ ) and children's birth weights ranged between 600 g and 4500 g ( $M = 2987$ ,  $Std = 833.22$ ).

The majority of the mothers (78%) and fathers (75%) were Israeli born. The mothers' age ranged from 25 to 49 years of age ( $M = 37.51$ ,  $Std = 6.27$ ) and fathers' age ranged from 27 to 57 years ( $M = 40.25$ ,  $Std = 6.47$ ). The number of children in the family ranged between 1 and 12 ( $M = 3.42$ ,  $Std = 2.01$ ). Target children's birth order ranged between 1st and 11th in the family: 19.5% were first born, 29% were second, 21% were third and 13% were forth. About 22% of mothers and 14% of fathers had a high-school diploma, with 14% of mothers and 23% of fathers having a university degree (see Table 1).

### 1.2. Procedure

The study received the Israeli department of education ethic approval, and thus information of all special education schools was provided to the research team. The researchers contacted all special education kindergartens, specializing in children with DD, in the southern region of Israel. In order to protect families' confidentiality, letters detailing the research goals and procedures were sent via the kindergarten teachers to all eligible families. The main objectives of the research and the sampling criteria were communicated to all kindergarten teachers, so that they will be knowledgeable of all research details as they approach the parents and can answer any questions that may arise. Interested parents sent a signed consent form back to the kindergarten and where contacted by phone to arrange a home-visit. All families were visited at home where both parents completed questionnaires and were interviewed. All parents signed informed consent forms.

**Table 1**  
Demographic information.

<i>Child variables</i>		
Age (years)	M (SD)	5.53 (0.73)
Gender		
	Male	45 (62%)
	Female	27 (38%)
Diagnosis age	M (SD)	2.22 (1.56)
<i>Maternal variables</i>		
Age (years)	M (SD)	37.51 (6.27)
Education		
	Less than 8 years of studies	–
	8–12 years of studies	46 (64%)
	High school diploma	15 (22%)
	Academic education	10 (14%)
<i>Paternal variables</i>		
Age (years)	M (SD)	40.25 (6.47)
Education		
	Less than 8 years of studies	4 (6.5%)
	8–12 years of studies	36 (56%)
	High school diploma	10 (14.5%)
	Academic education	15 (23%)

### 1.3. Measures

**Demographic data:** A short demographic questionnaire was filled out regarding background variables concerning the child and the parents. Child variables included: gender, age, age at the time of the diagnosis, birth order. Parents' variables included: age, education, number of children in the family and socioeconomic status. Socioeconomic status was composited by calculating the mean of maternal and paternal education and occupation status (Hollingshead, 1957).

**Parental resolution with child's diagnosis** was assessed using the Reaction to Diagnosis Interview (RDI; Pianta & Marvin, 1992a,b). Each parent was interviewed using a semi-structured interview. All interviews were videotaped. Parents were asked: (1) to recall the period of time they began noticing that something was wrong with their child's development; (2) how did they feel at that time and were there changes to those feelings; (3) to describe the events and emotions surrounding the time they received the diagnosis; (4) how did their feelings change since the time of the diagnosis; (5) to detail whether they have been searching for existential or other reasons for their experiences. Coding of the videotaped interviews was done by two trained coders, using the RDI manual, in a holistic approach for coding (see Pianta & Marvin, 1992a).

A parent was classified as *resolved* when elements of resolution predominated (e.g., a sense of change since diagnosis and assertion of moving on in life, suspending the search for a reason and a realistic representation of a child's abilities). Resolved parents can be sub-classified as feeling, thinking or action oriented.

A classification of *unresolved* was given if elements of lack of resolution were more predominant. Those include cognitive distortions, ongoing search for reasons, focusing on the past, detachment from feelings and an incoherent narrative. Unresolved parents can be categories as: emotionally overwhelmed; angrily preoccupied; neutralizing; depressed/passive; having cognitive distortion and disorganized/confused.

Two trained coders, blind to the group the interview belongs to, rated all interviews, and reliability was reached coding 20% of the sample. Judges had an inter-coder agreement of 100% on the resolved/unresolved classification and 82% on the subcategories. The reliability between judges was kappa = 0.8,  $p \leq 0.001$ , which is considered an outstanding measure of agreement (Landis & Koch, 1977). All disagreements were discussed and resolved by consensus.

Two independent judges divided all subcategories of the RDI into three distinct coping styles: The *emotional style*: including the emotional orientation from the resolution category and emotionally overwhelmed and angry from the unresolved category. The *action style*: including action orientation from the resolution category and depressed/passive from the unresolved category. And the *cognitive style*: including the thinking orientation from the resolved category and neutralizing, disorganized/confused and having cognitive distortion from the unresolved category.

## 2. Results

### 2.1. Analytic process

To assess our first hypothesis, proposing that both fathers and mothers exhibit higher frequency of unresolved than resolved resolution style, proportion of fathers and mothers in both groups (resolved/unresolved) was calculated. Next, independent sample *t*-tests were conducted, in order to assess parental resolution group differences in the demographic variables. Finally, our third hypothesis suggested that more mothers than fathers will adopt the *emotional style* of coping, and more fathers will exhibit the *cognitive style* of coping. As both variables—'coping style' and 'gender'—were categorical variables, a proportion analysis was used to measure differences between fathers and mothers in coping styles. Accordingly, a z-ratio was calculated. This analysis allowed us to test for a statistically significant difference between two proportions drawn from independent samples.

Data analysis: Testing the first hypothesis found that most mothers and fathers were classified as unresolved (59% and 60%, respectively).

In accordance with the second hypothesis, using independent samples *t*-tests (see Table 2), it was found that resolved mothers were, themselves as well as their children, significantly younger than unresolved mothers and their children ( $t(62) = -2.7$ ,  $p \leq 0.01$ ;  $t(68) = -3.94$ ,  $p \leq 0.001$ , respectively). Additionally, resolved fathers were found to have a significantly higher socioeconomic status than unresolved fathers ( $t(63) = -2.01$ ,  $p < 0.05$ ). Furthermore, both unresolved

**Table 2**  
Means (SD) of demographic variables by parent gender and resolution.

	Mothers		Fathers	
	Resolved	Unresolved	Resolved	Unresolved
Child age	5.09 (0.78)	5.78 (0.58)	5.55 (0.8)	5.51 (0.72)
Child's age when diagnosed	1.81 (1.38)	2.50 (1.65)	1.59 (1.3)	2.6 (1.65)
Child birth order	3 (2.43)	2.86 (1.57)	3 (2.06)	2.89 (1.98)
Parent age	34.88 (7.1)	39.03 (5.19)	41.36 (7.22)	39.68 (6.41)
Parent education	4.33 (1.11)	3.88 (1.17)	4.44 (1.47)	3.55 (1.52)
Number of siblings	3.57 (2.46)	3.4 (1.73)	3.42 (2.04)	3.62 (2.14)
Socioeconomic status	0.05 (0.5)	-0.09 (0.46)	0.01 (0.49)	-0.03 (0.45)

**Table 3**  
Distribution of fathers and mothers by coping styles of resolution.

Group	Mothers (N = 71)	Fathers (N = 65)	Z score
Emotional style	31	10	2.17*
Action style	20	16	0.29
Cognitive style	20	39	2.03*

\* $p < .05$ .

fathers and mothers had children diagnosed at a later age than the children of resolved parents ( $t(61) = -2.54, p < 0.01$ ;  $t(62) = -1.81, p < 0.08$ , for fathers and mothers, respectively). Finally, a similar pattern emerged for parental education. Specifically, resolved fathers and mothers had higher levels of education compared to unresolved parents ( $t(62) = 2.31, p < 0.05$ ;  $t(66) = 1.62, p < 0.11$ , for fathers and mothers, respectively).

Finally, in order to test the third hypothesis a z-ratio was calculated. As can be seen in Table 3, it was found that a significantly higher proportion of mothers than fathers adopted an **Emotional coping style** ( $Z(2, 134) = 2.17, p < 0.05$ ). Another significant difference was found among parents that used the **Cognitive coping style**, revealing that there were more fathers than mothers in this group ( $Z(2, 134) = 2.03, p < 0.05$ ). The proportion of fathers and mothers using an **Action coping style** was not significantly different ( $Z(2, 134) = 1.3, ns$ ).

### 3. Discussion

This study aimed to extend current knowledge concerning the differences between the ways fathers and mothers of children with DD adjust to their child's diagnosis. Whilst our initial examination, looking into rates of resolution versus un-resolution, exposed no differences between fathers and mothers, the majority of parents held in an unresolved coping mechanism, a closer investigation unveils that fathers and mothers significantly vary in their coping styles.

In accord with our first hypothesis, it was found that most mothers and fathers of children with DD held a non-resolved approach for their children's diagnosis. This result is consistent with previous research showing that only a minority of mothers (36%) of children with ASD, another disorder that is usually diagnosed after a year or two of the child's life, held a resolved strategy (Milshtein et al., 2010). In addition, our findings support previous studies indicating no significant differences in paternal and maternal overall resolved and unresolved attitudes for their children's diagnosis (Lord et al., 2008; Milshtein et al., 2010).

It does appear that the ability to achieve resolution with the child's diagnosis is relatively low in parents of children with DD, suggesting high levels of distress and a great need for support and guidance through the process of resolution. This may be caused by the mild nature of DD. The diagnosis of DD (as of that of ASD and various forms of intellectual disability) is made on strictly behavioral grounds rather than through a definitive genetic test as in the case of Down syndrome, and is finalized at a later age. This may leave parents wondering whether the diagnosis of DD is accurate or at least "temporary" (Abbeduto et al., 2004; Lord & Rissi, 2000). Moreover, children with DD do not look nor act much differently than children that are typically developed. Therefore, their parents may tend to keep hoping for their child's "healing" from the somewhat slow development for a longer period of time than parents of children with more major disabilities, and thus are not able to adjust to their diagnosis. This explanation is supported by our finding that both fathers and mothers of children that were diagnosed at a later age tend to be unresolved with their child's diagnosis. It seems that, as time goes by, parents develop a more tangible mental picture of their children's character and expectations for their future. The devastation of this picture is, therefore, much more difficult as the child gets older (Abbeduto et al., 2004; Lord & Rissi, 2000).

The examination of some important parental and child's characteristics revealed that, less educated fathers and mothers tended to be unresolved, whereas higher parental education was mostly related to parental positive resolution with their child's diagnosis. This finding is consistent with the results of previous studies investigating parental adjustment in families of children with mental disabilities that pointed to higher levels of parental burden in parents who had lower educational levels (Haveman et al., 1997; Trout, 1990). This is also in line with our finding that fathers of lower socioeconomic status were inclined to be unresolved. In accordance with previous researches, it is evident that the socioeconomic status affects family function and especially influences fathers, suggesting that the predominant paradigm of fatherhood is still the breadwinning role (Cabrera et al., 2000; Roy & Dyson, 2010; Trout, 1990).

Child's age and parental age were related to maternal, but not paternal, resolution. Specifically, mothers of younger children with DD were more likely to be resolved than mothers of older children. A possible explanation is that as mothers are the main caretakers of children in the family (Bader & Phillips, 1999; Cabrera et al., 2000; Lamb & Tamis-LeMonda, 2004), they are more prone to see the gap between their children with DD and their peers and siblings, as their children get older. This gap is becoming further pronounced for mothers who tend to take the main burden of the physical day to day cares of children with DD (Brehaut et al., 2004; Florian & Findler, 2001; Lin, 2000; Rentinck et al., 2006; Wanamaker & Glenwick, 1998). As for maternal age, older mothers were more likely to be unresolved than younger mothers. This is in accordance with previous research that indicated links between maternal age to high levels of anxiety and sense of burden in parenting (Fox et al., 1995; Korenromp, 2006; Sjögren & Uddenberg, 1990).

Finally, a difference in parental coping styles was found. Whereas mothers of children with DD took a more emotional approach when adjusting to the diagnosis of their child's disability, fathers dealt with the situation in a more cognitive manner. This finding is consistent with gender roles theories describing women as more emotionally expressive and conveying more intense feelings, and men as more stoic and logically driven (Grossman & Wood, 1993). Beyond the traditional gender affiliations, the difference between fathers and mothers in resolution styles is also supported by paternal genuine fear of not being able to bond with the child with ID (Kersh, Hedvat, Hauser-Cram & Warfield, 2006; Krauss, 1993), resulting in emotional detachment or neutralizing. As opposed to fathers, mothers of children with ID communicated their feelings more freely than fathers and were more interested in seeking support from educational and clinical professionals (Affleck & Tennen, 1991; Bailey et al., 1992; Glidden et al., 2006; Kersh et al., 2006; Krauss, 1993). Therefore, mothers may be more forthcoming in sharing and elaborating on their emotions about their child's diagnosis.

Our findings draw attention to the fact that there is merit in viewing the resolution process as a continuum array. Thus, parental style of emotional response should be expected to emerge in both positive and negative sub-categories of resolution.

#### 4. Limitations and future directions

Several cautions in interpretation should be noticed. First, a larger sample is necessary in order to further characterize in depth differences between fathers and mothers within the subtypes of resolution and lack of resolution.

Another limitation to this research is its cross-sectional design. A future longitudinal research could investigate the three groups of resolution further, to see whether parents' resolution styles are consistent over time. Also, it could examine whether unresolved parents that journey towards resolution stay within the same group of resolution style. Further research is needed to assess differences between mothers and fathers of children with different developmental disability groups.

Parents assessed as unresolved should be offered counseling aimed at relieving diagnosis related grief and promoting balanced expectations of the child's future (Lord et al., 2008; Ormerod & Huebner, 1988). An important avenue for future research would be the process leading one towards a certain resolution style. This study has begun to map the factors predicting parents' coping styles, but more research is needed to identify risk and resilience factors that influence parents' resolution.

#### 5. Clinical implications

Until today, no study has used the RDI to investigate resolution styles of parents of children with DD, and hardly any study has looked into the differences between paternal and maternal styles of resolution. The importance of these research findings is twofold: first, we found that fathers are not less distressed and unresolved than mothers, and therefore, should also be targeted for the professional supporting circles that surround the family, as mothers are. Second, educational counselors and mental health professionals should be aware of the differences between paternal and maternal coping strategies, to better understand fathers' and mothers' distress and to be able to develop different approaches to support fathers and mothers, and help them progress on their route towards resolution with their child's diagnosis.

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