# Family Functioning, Parenting, and Couple Satisfaction in Families of Children with a Disability\*

Francesca Cuzzocrea, Rosalba Larcan, Roberto Baiocco $^{\dagger}$ , and Sebastiano Costa $^{\ddagger}$ 

This study investigated the concept of family resilience in relation to parenting styles comparing four factors that enable parents to cope with a special-needs child: family functioning, couple satisfaction, parental stress and parenting style. Four aspects (Focus of Attention, Experiential Modality, Regulation and Energy) of parent-child interactions were analyzed. The aim of research was to explore differences between parents of a child with an intellectual disability and those with a nondisabled child. The participants were 32 couples with disabled children and 32 couples with nondisabled children. The results showed that parenting stress influences parenting style differently in the two types of families. Parenting style is differently influenced by family functioning and couple satisfaction. Many interesting differences between parents were found.

**Keywords:** family functioning, parenting style, parenting stress, couple satisfaction, disability.

The studies on the emotions and stresses associated with rearing a child with disabilities support the proposition that the parent's assumptive world,

<sup>\*</sup> Received: 21/08/2011 – Revision: 02/01/2012 – Accepted: 10/02/2012 Self-declaration of compliance with ethical standards: 02/01/2012

<sup>&</sup>lt;sup>†</sup> University of Messina, Dipartimento di Scienze Pedagogiche e Psicologiche, via Concezione, 6/8 – Messina. Tel/fax: 090-344831. E-mail: fcuzzocrea@unime.it, larcan@unime.it, scosta@unime.it.

<sup>&</sup>lt;sup>‡</sup> Sapienza University of Rome, Dipartimento di Psicologia dei Processi di Sviluppo e Socializzazione, via dei Marsi, 78 – Roma. Tel/fax:06-49917851. E-mail: roberto.baiocco@uniroma1.it.

directly or indirectly, influences parental well-being, family integrity, parentchild interactions, and, ultimately, child behavior and development (Hassall, Rose, & McDonald, 2005).

Literature has shown that the complex problems associated with disabled children often affect family functioning and parent stress. The presence of a child with disability necessitates important changes in a family's life (Cuzzocrea & Larcan, 2005; Larcan, Cuzzocrea, Oliva, 2008; Larcan & Cuzzocrea, 2011) and significantly changes a family's social life, so parents must make changes, often characterized by frustration and dissatisfaction (Heiman, 2002). Parents of children with disabilities experience higher levels of parenting stress and parental depression than parents of typically developing children (Valentine et al., 1998; Roach et al., 1999; Boyd, 2002). This could negatively impact family functioning and parent-child outcomes (O'Connor, 2002; Llewellyn, McConnell, Thompson, & Whybrow, 2005; Baiocco, Laghi, Imbellone, & D'Alessio, 2009) and suggest specific parent trainings (Larcan, Oliva, Sorrenti, 2008; Cuzzocrea, Larcan, Oliva, 2008).

The conceptual framework for this study is based on two theoretical models: (1) the Resiliency Model of Family Stress, Adjustment, and Adaptation, by McCubbin and McCubbin (1993), which focuses on family types, strengths, and capabilities to explain why some families are better able to adjust to changes (McCubbin, Thompson, McCubbin, 1996; Walsh, 1996); and (2) the Global Focus Model, which describes parent-child interaction as a reciprocal, dynamic helix of learning and development, concentrating on three central tenets – Attention, Experiential Modality, and Regulation (Westh, 2003; 2006).

According to Lee et al. (2004), the concept of family resilience can be viewed in terms of individual vulnerability of family members (Woodgate, 1999) or the family as a unit (Patterson, 1995; Walsh, 1996; 2008). In fact, flexibility, coping ability, positive outlook, sense of control, and adaptability are common attributes in both individual and family resilience (Lee et al., 2004; Doucette & Pinelli, 2004). However, internal family strength usually refers only to the psychological well-being of family members, mutual understanding among family members, respect, communication, cohesion, and adaptability (Lee et al., 2004). Couple functioning is also important. Family resilience must be analyzed from a family system, considering the couple system as well as how the single parent interacts with the child. After decades of focus on mothers as the critical actors in families, researchers have begun a much more intensive study of fathers and their relationships with their children and spouses (Bailey, Blasco, & Simeonsson, 1992). Quinn (1999) reviewed research on father involvement and found that fathers' behavior can encourage the mother and serve as a mentoring parental role.

This study investigated the concept of family resilience in relation to parenting styles to compare four factors that enable parents to cope with a special-needs child: (1) general functioning of the family, (2) couple satisfaction, (3) parental stress, and (4) parenting style. In accordance with these models, we analyzed parent-child interactions looking at four general aspects (Focus of Attention, Experiential Modality, Regulation, and Energy) of the interactions between parents and their children in families with a special-needs child. We describe parenting variables in the context of dyadic relationships and embedded in the global functioning of the family environment. In particular, we analyzed the reciprocal influences among the global functioning of the family system, parent dyadic system, parenting style, and parenting stress in families with a child with a disability. All these family factors are embedded within the context of the family, and different levels of conflict and cohesion, adaptability, organization, and quality of parenting can explain in part why same families have different levels of resilience in the presence of a child with a disability.

# *Objectives and research hypotheses*

The aim of this research was to explore these relationships to gain a fuller understanding of the parent-child interaction processes. We experimented whether the presence of a child with a disability influences global family functioning, partners' perceptions of the marital relationship, parent stress levels, and parenting style. We verified if there were same differences between–fathers and mothers of a child with an intellectual disability and those with a child with a typical development. Another objective was to analyze how much the same aspects of family context influence parenting style. In particular, we verified whether family functioning, couple adjustment, and parenting stress influence parenting style differently in families with a disabled and nondisabled child.

## Method

# **Participants**

The research was carried out on Italian families with children between 5 and 9 year old (M = 6.9; SD = 1.2). Half of these families had a child with an intellectual disability (Down syndrome (44 %), West syndrome (6%), Angelman syndrome (6%), Autism (44%), and the other half were families with nondisabled children. The participants were 64 couples (32 fathers and 32 mothers) 30-40 years old (M = 44.55; DS = 9.01). We recruited these families by contacting rehabilitation centers and matching them to control parents by age at marriage, child age, and socio-cultural level (half parents have graduated from high school and the others awarded a degree). All disabled children had been involved in a rehabilitation program for at least 5 years. All

participants were volunteers that had benefit from individual feedback.

#### Measures and Procedure

Participants were asked to fill out the Italian version of four questionnaires, individually presented. The order was balanced within couples and within groups.

Family functioning. Family Adaptability and Cohesion Evaluation Scale (FACES III) by Olson, Portner, and Lavee (1985), with Italian standardization by Galimberti (1990) discriminates between different patterns of family functioning. It consists of 40 statements that invite family members to comment on relationships and attitudes in family life. FACES III assesses two major dimensions on the circumplex model: adaptation and cohesion of the family. The essence of *cohesion* is sought through questions such as "family members know each other's close friends" and "our family does things together." Adaptability is explored through questions such as "family members say what they want." The questions offer both positive and negative aspects of family life: "It is easier to discuss problems with people outside the family than with other family members"; "Family members discuss problems and feel good about the solutions." A second scale measures the family member's ideal situation (e.g., family members ask each other for help; there is an obvious leader in the family). Each statement offers a 5-point response ranging from "almost never," scoring 1, to "almost always," scoring 5. The real cohesion scale reliability in this study was α =.82 (parents of disabled child: fathers  $\alpha$  =.80 and mothers  $\alpha$  =.84, while parents of no disabled child: fathers  $\alpha = .82$  and mothers  $\alpha = .82$ ). The *ideal* cohesion scale reliability in this study was  $\alpha$ =.91 (parents of disabled child: fathers  $\alpha = .94$  and mothers  $\alpha = .89$ , while parents of no disabled child: fathers  $\alpha$  =.86 and mothers  $\alpha$  =.90). The real adaptability scale reliability in this study was  $\alpha = .72$  (parents of disabled child: fathers  $\alpha = .72$  and mothers  $\alpha$ =.75, while parents of no disabled child: fathers  $\alpha$  =.70 and mothers  $\alpha$  =.74).

The *ideal adaptability scale* reliability in this study was  $\alpha = .76$  (parents of disabled child: fathers  $\alpha = .73$  and mothers  $\alpha = .77$ , while parents of no disabled child: fathers  $\alpha = .71$  and mothers  $\alpha = .79$ ).

Partners' perceptions of the marital relationship. The Dyadic Adjustment Scale (DAS) (Spanier, 1976; Italian standardization by Gentili et al., 2002) is a self-report measure of relationship adjustment by determining the degree of satisfaction couples experience. DAS is a 32-item rating instrument that may be completed by either one or both partners in a relationship. Respondents are asked to rate each of the items on a likert-type scale, choosing the most suitable response options. DAS includes the following four subscales: (1) Dyadic Consensus (agreement between partners on matters important to the relationship: religion, recreation, friends, household tasks, and time spent

together); (2) *Dyadic Satisfaction* (measures the amount of tension in the relationship and the satisfaction with the present state of the relationship and commitment); (3) *Affectional Expression* (measures an individual's satisfaction in the expression of affection and sex in the relationship); and (4) *Dyadic Cohesion* (assesses the common interests and activities shared by the couple). The DAS reliability in this study was  $\alpha = .83$  (parents of disabled child: fathers  $\alpha = .85$  and mothers  $\alpha = .80$ , while parents of no disabled child: fathers  $\alpha = .84$  and mothers  $\alpha = .86$ ).

Parenting stress. The Parenting Stress Index, Short Form (PSI-SF) (Abidin, 1995; Italian standardization by Guarino et al., 2007) is a 36-item measure of the relative magnitude of stress in parent-child relations. The PSI yields a total stress score from three scales: parental distress, parent-child dysfunctional interaction, and difficult child. Items are scored using the following 5-point scale: (1) SA (Strongly Agree), (2) A (Agree), (3) NS (Not Sure), (4) D (Disagree), and (5) SD (Strongly Disagree). The PSI reliability in this study was  $\alpha$  =.92 (parents of disabled child: fathers  $\alpha$  =.91 and mothers  $\alpha$  =.94, while parents of no disabled child: fathers  $\alpha$  =.90 and mothers  $\alpha$  =.87).

Parenting style. The Parents Preference Test (PPT; Westh, 2003; Italian standardization by Baiocco et al., 2008) is a picture-based, multiple-choice test with 24 images representing everyday family activities parents can identify with positively. Each item consists of five pictures: a presentation picture and four selection pictures, illustrating four different possible courses of development of the theme of the presentation picture. The PPT measures four general aspects of the interactions between parents and their children: Focus of Attention (min: 1; max: 8), Experiential Modality (min: 1; max: 8), Regulation (min: 1; max: 8) and Energy (min: 1; max: 15). The four PPT dimensions are combined into what is now known as the Three Sets of Dynamic Quadrants. The Quadrants are formed by projecting the Energy (Active versus Passive) dimension onto the dimensions of Attention, Experiential Modality, and Regulation, thus providing each of them with an aspect revealing the underlying dynamics of each.

Active Energy means that the parent is mostly the monitor; i.e. the parent is playing the initiating and active part in her/his interactions with the child. Passive Energy means that the parent is mostly playing the expectant part, leaving the initiative to the child; (2) Paedoptic Attention means that the parent's attention is mostly focused on the child during interactions (as opposed to autoptic attention, when the parent's attention is mostly focused on the children); (3) Rational Experiential Modality means that during interactions with the child, the parent is primarily logical, analytical, and rational in his/her way of perceiving and understanding the child and the parent-child interactions. Emotional Experiential Modality involves the parent as primarily emotional in his/her way of perceiving and understanding the child and the parent-child interactions; (4) Preceptual Regulation Style

means that during interactions with the child, the parent is regulating the child's behavior primarily on the basis of an a priori set of rules and regulations governing what to do, how and when to do it, and what is right or wrong, good or bad. Instead, *contextual style* means that the parent is regulating the child's behavior primarily on the basis of the functional options seemingly present in the situation as well as in the child. The PPT reliability in this study was  $\alpha$  =.75 (parents of disabled child: fathers  $\alpha$  =.71 and mothers  $\alpha$  =.74, while parents of no disabled child: fathers  $\alpha$  =.72 and mothers  $\alpha$  =.73).

# Data Analysis

The Statistical Package for the Social Science (SPSS) was used to conduct bivariate and multivariate analyses relating to independent variables. Group differences were analyzed using a multivariate of variance (MANOVA) and *t*-test. Multiple regression analysis determined the extent of the relationship between potential outcome variables (family functioning, couples satisfaction, and parent stress) and relevant dependent variables (parenting styles). In this research, the relatively small number of cases and the difficulty to have a strong theoretical prediction recommend us to use the simultaneous method. All dates were transformed in sin<sup>-1</sup> (Freeman & Tukey, 1950) to normalize the distribution.

# **Results**

# Family Functioning Differences Between Groups

We compared parents' perception (mother versus father) of family functioning in different contexts (with *versus* without a disabled child). Table 1 reports the descriptive statistics for cohesion and adaptability reported by fathers and mothers of a child with or without a disability.

Table 1. Descriptive Statistics (mean and standard deviation) mothers and fathers family functioning evaluations (FACE III)

Families	Parents	Real cohesion		Ide cohe	eal esion	Real adaptability		Ideal adaptability	
		M	SD	M	SD	$M^{1}$	$\overrightarrow{SD}$	$M^{'}$	SD
with	Mothers	.520	.053	.536	.057	.450	.037	.477	.042
disabled	Fathers	.524	.054	.535	.059	.431	.039	.482	.051
child	Total	.522	.053	.536	.057	.440	.038	.480	.046
with	Mothers	.554	.029	.535	.090	.428	.050	.440	.056
nondisabled child	Fathers	.520	.056	.505	.078	.407	.049	.440	.061
	Total	.537	.047	.520	.084	.417	.050	.440	.058

We calculated a MANOVA 2 (parents of child with disability *versus* parents of a child without a disability) x 2 (mothers *versus* fathers) x 4 (FACE III scales) with the last factor within the subjects.

There were no statistical differences between families [F(1, 60) = 2.53; p = .12] and parents [F(1, 60) = 1.50; p = .23]. Analyzing the dates of families with a nondisabled child with *t*-test for equality of means, mothers had better real cohesion than fathers [t(30) = 2.13; p < .04]. There were no statistical differences in all different aspects of family functioning between parents of a disabled child.

Comparing groups, the presence of a special-needs child is associated with a worse evaluation of real cohesion by mothers [t(30) = 2.24; p < .03], even if mothers of a disabled child evaluated better than a nondisabled child's mothers ideal adaptability [t(30) = -2.07; p < .05]. Fathers of a child with normal development had more difficulty positively evaluating ideal adaptability than fathers of disabled child [t(30) = 2.17; p < .04]. However, during testing within subject effects, there were significant differences when comparing the four scales [F(3, 180) = 78.44; p < .0001]. These differences are related to the different family contexts [F(3, 180) = 4.07; p < .001]. In fact, a paired samples test showed (Table 2) no significant differences in comparing real and ideal cohesion in all groups. Fathers of both groups showed a better ideal adaptability that real adaptability. All families had better cohesion than adaptability. Real and ideal evaluations and both fathers and mothers belonging to families of disabled and nondisabled children confirmed this finding.

Table 2 Paired samples test within cohesion and adaptability (real and ideal) evaluated by mothers and fathers belonging to the different groups

Families	Parents		Cohesion Real vs. Ideal	Adaptability Real vs. Ideal	Real Cohesion vs. Adaptability	Ideal Cohesion vs. adaptability
with	Mothers	t	-1.30	-1.91	5.34	6.69
disabled child (df = 15)	Momers	Sig.	.21	.08	.00	.00
	Fathers	t	63	-3.81	7.15	5.23
		Sig.	.54	.00	.00	.00
with	Mothers	t	.77	60	9.87	6.34
nondisabled child (df = 15)	Motners	Sig.	.46	.56	.00	.00
	Fathers	t	.98	-2.84	9.33	7.07
		Sig.	.34	.01	.00	.00

Differences in Marital Relationship Perception

To analyze differences among families, Table 3 synthesizes the means

and standard deviations of the four aspects of couples adjustment (Con-sensus, Satisfaction, Cohesion, and Affectional Expression) obtained by mothers and fathers belonging to families of both disabled and nondisabled children.

Table 3 Descriptive Statistics (mean and standard deviation) mothers and fathers scoring on Dyadic adjustment Scale (DAS)

Families	Parents	Dyadic Consensus		Dyadic Satisfaction		Dyadic Cohesion		Affectional Expression		TOTAL DAS	
		M	SD	M	SD	M	SD	M	SD	M	SD
with	Mothers	.959	.185	.949	.081	.935	.097	.965	.267	.963	.106
disabled	Father	.984	.204	.949	.082	.955	.104	.965	.275	.975	.116
child	Total	.972	.192	.949	.080	.945	.099	.965	.267	.969	.109
with	Mothers	1.046	.153	.991	.093	.989	.091	1.063	.224	1.031	.107
nondisabled	Father	1.045	.192	1.018	.094	.975	.112	1.212	.224	1.046	.111
child	Total	1.045	.171	1.004	.093	.982	.100	1.138	.233	1.038	.108

The MANOVA 2 (parents of disabled child *versus* parents of nondisabled child) x 2 (mothers *versus* fathers) x 4 (DAS scales) with the last factor within the subjects showed significant differences among all variables. We observed differences between families [F(1, 60) = 8.47; p < .005]. The independent samples test between groups showed that fathers of disabled children have worse dyadic satisfaction [t(30) = 2.2; p < .03] and more difficulty in the Affectional expression scale [t(30) = 2.79; p < .009] compared with the control group. There were no statistical differences between mothers. There were significant differences in couples adjustment (consensus *versus* satisfaction *versus* cohesion *versus* Affectional expression) [F(3, 180) = 4.89; p < .003], strictly linked to the specific family context [F(3, 180) = 2.99; p < .03].

Even if mothers' and fathers' dyadic adjustment evaluations were not different, fathers of nondisabled children considered the couple's affective expression more positively compared to dyadic consensus [t(15) = -2.91; p < .01]. They evaluated the Affectional expression better than dyadic satisfaction [t(15) = -4.03; p < .001] and dyadic cohesion [t(15) = -4.15; p < .001]. The paired samples tests showed no other differences with parents of both types of families.

# Parenting Stress differences between groups

Table 4 synthesizes the means and standard deviations of the three scales of parent stress (parental distress, parent-child interaction, and stress related to child difficulty) of mothers and fathers of both disabled and nondisabled children. Comparing families' results, the statistic elaboration showed significant differences among all the variables. Differences in the parenting stress

perceptions [F(1, 60) = 19.33; p < .0001] as interaction between groups and PSI scales [F(2, 120) = 5.49; p < .005] were found. The interaction between all PSI scales (parental distress *versus* parent-child interactions *versus* difficult child) was significant [F(2, 120) = 53.11; p < .0001].

Table 4 Descriptive Statistics (mean and standard deviation) mothers and fathers scoring on parent stress (PSI-sf)

Families	Parents	Parental distress		Parent-child interaction		Difficult child		TOTAL PSI	
		M	SD	M	SD	M	SD	M	SD
with disabled	Mothers	.655	.129	.561	.169	.636	.150	.636	.150
	Fathers	.728	.160	.591	.181	.695	.127	.695	.127
child	Total	.691	.148	.576	.173	.665	.140	.665	.140
with	Mothers	.583	.206	.328	.153	.500	.142	.500	.142
nondisabled child	Fathers	.605	.165	.406	.171	.521	.154	.521	.154
	Total	.594	.184	.367	.165	.510	.146	.510	.146

After analyzing separately the dates of the two groups with a t-test for equality of means, there were no statistical differences between mothers and fathers. In comparing groups, the independent samples test showed signify-cant differences. In particular, mothers and fathers of disabled children had a higher level of stress in all scales, with the only exception being mothers' parental distress [t(30) = 1.18; p = .25] (Table 5).

Table 5 Independent samples test between mothers and fathers belonging to families with a disabled child and those with a nondisabled child

Parents		Parental distress	Parent-child interaction	Difficult child
	t	1.180	4.099	2.629
Mothers	df	30	30	30
	Sig.	.247	.000	.013
	t	2.124	2.970	3.485
Fathers	df	30	30	30
	Sig.	.042	.006	.002

Mothers of a child with a disability had higher levels of stress in their parental role than parent-child interaction stress [t(15) = 2.39; p < .03] and they were more stressed by children's difficulties than by interaction with them [t(15) = 4.33; p < .001]. Fathers of disabled children had higher stress in their parental role than parent-child interactions [t(15) = 2.09; p < .05]. They

were more stressed by the children's characteristics than by interactions with them [t(15) = 3.6; p < .003]. Both fathers [t(15) = .8; p = .42] and mothers [t(15) = .71; p = .49] of disabled children considered their parental role and children's difficulties equally stressful.

Similar results were found in the control group: Mothers are more stressed by their parental role than by interaction with their children [t(15) = 5.55; p < .0001] and by children's characteristics [t(15) = 3.12; p < .007]. The same results were found for fathers. They are more worried by their parental role [t(15) = 7.76; p < .0001] and by children's difficulties [t(15) = 5.24; p < .0001] than by the interaction with them. Both fathers [t(15) = 7.53; p < .0001] and mothers [t(15) = 7.47; p < .0001] are more stressed by children's difficulties than by interaction.

# Parenting Style differences between families

To analyze differences in parenting style among families, we used the Parents Preference Test (Westh, 2003). Table 6 reports the descriptive statistics for fathers' and mothers' parenting styles. Untransformed media are represented in parentheses.

Table 6. Descriptive Statistics (mean and standard deviation) mothers and fathers scoring on Parents Preference Test (PPT)

Fami-	Parents	Active Energy		Paedoptic Attention		Rational Experiential Modality		Preceptual Regulation	
		M	SD	M	SD	M	SD	M	SD
with	Mothers	.946 (7.39)	.135	.851 (4.58)	.145	.546 (1.94)	.224	.904 (5.05)	.151
disabled	Fathers	.858 (6.37)	.113	.743 (3.62)	.271	.672 (2.99)	.222	.980 (5.7)	.188
child	Total	.902 (6.88)	.130	.797 (4.1)	.221	.609 (2.46)	.229	.942 (5.38)	.172
with	Mothers	.930 (7.2)	.204	.870 (4.75)	.223	.682 (3.08)	.144	1055 (6.29)	.136
non disabled	Fathers	.895 (6.8)	.122	.861 (4.67)	.197	.685 (3.11)	.139	.949 (5.44)	.231
child	Total	.913 (7.01)	.166	.865 (4.71)	.207	.683 (3.09)	.140	1002 (5.88)	.194

The presence of a disabled child influenced the parenting style. To verify statistical differences, a MANOVA 2 (parents with disabled child *versus* parents with nondisabled child) x 2 (mothers *versus* fathers) x 4 (PPT scales) with the last factor within the subjects was calculated.

The analysis shows significant differences among two groups [F(1, 60) = 6.74; p < .01] and within the four aspects of parenting [F(3, 180) = 35.26; p]

< .0001]. There was no significant difference between mothers and fathers [F(1,60) = 0.73; p = .39]. In families with disabled children, mothers seemed to be more active than fathers [t(30) = 2.01; p < .05].

Figure 1 show which the parenting styles were more frequently used by the four groups of parents and show the minimum and maximum score that can be obtained in each quadrant in according to the global focus model (Westh, 2003; 2006). More specifically, each line represents the main characteristics of the interactions between parents and their children. It is possible to observe the tendency to use passive or active energy, the focus of parental attention (autoptic vs. paedoptic), the experimental modality of parental style (emotional vs. rational) and the parents tendency to active a contextual or preceptual regulation.

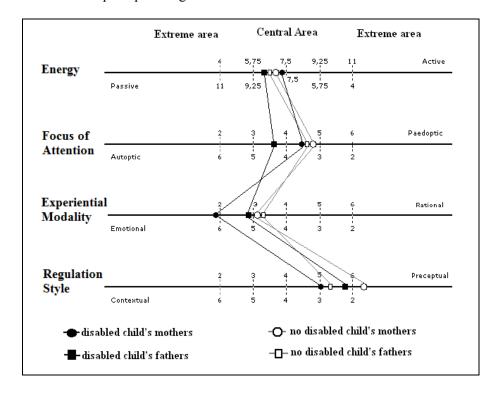


Figure 1. Graphic representation of parents' styles using the global focus model (Westh, 2003; 2006).

Compared to the control group, mothers of disabled children, during interactions, were less logical, analytical, and rational than those of nondisabled children [t(30) = 2.04; p < .05]. And they regulated the child's behavior based on an a priori set of rules and regulations less than did mothers of children without a disability [t(30) = 2.97; p < .006]. There were no statistical differences between fathers.

Figure 2 shows that mothers of a disabled child initiated and were active in interactions with their children (active energy). Mothers in the control group tended to regulate the child's behavior primarily on the basis of an a priori set of rules and regulations (preceptual regulation) rather than by another modality. Fathers of both groups prevalently used a preceptual regulation.

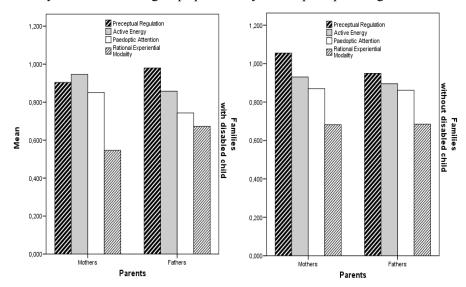


Figure 2. Graphic representation of parents' styles.

A paired samples test, synthesized in Table 7, confirmed that in all groups, mothers and fathers were not logical, analytical, and rational in their way of perceiving and understanding the child's needs.

Table 7. Paired samples test within Parents Preference Test Scales (PPT)

			Energy	Energy	Energy	Attention	Attention	Modality
Families	Parents		VS.	VS.	VS.	VS.	VS.	VS.
			Regulation	Attention	Modality	Regulation	Modality	Regulation
		t	2.421	720	-3.734	2.453	-2.721	6.290
	Mothers	df	15	15	15	15	15	15
with disabled		Sig.	.029	.483	.002	.027	.016	.000
child	Fathers	t	.782	585	-4.265	1.265	-2.766	3.547
		df	15	15	15	15	15	15
		Sig.	.446	.567	.001	.225	.014	.003
		t	963	-2.069	-5.195	.895	-4.681	5.146
	Mothers	df	15	15	15	15	15	15
with nondisab		Sig.	.351	.056	.000	.385	.000	.000
led child		t	2.111	-1.576	-2.597	2.794	740	6.383
	Fathers	df	15	15	15	15	15	15
		Sig.	.052	.136	.020	.014	.471	.000

In families with a disabled child, mothers initiated and were active in interactions with the child (active energy) more than they used preceptual regulation and rational modality. However, they tended to regulate the child's behavior on the basis of rules (preceptual regulation) rather than by attending to the child (paedoptic attention) and rather than using rational experiential modality. They preferred to focus on the child's needs than to be rational and analytical.

In families with a disabled child, fathers regulated the child's behavior primarily on the basis of the apparent functional options present in the situation (preceptual regulation) rather than based on rationality (rational experiential modality). They used a rational experiential modality less frequently than active energy and preceptual regulation. The parenting styles of those with nondisabled children were similar. Both fathers and mothers preferred to regulate the child's behavior primarily on the basis of rules (preceptual regulation) instead of an analytical and logical modality.

# Regression Analysis

Regression analysis determined the extent of the relationship between the same variables (family functioning, couples satisfaction, and parent stress) and the relevant dependent variable (parenting styles). The more relevant relationships between family functioning, couples satisfaction, parent stress, and parenting styles (dependent variable) are represented in Figure 3 (parents of both disabled and nondisabled children).

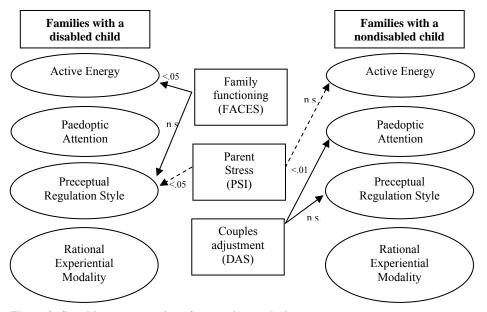


Figure 3. Graphic representation of regression analysis.

With a nondisabled child, the family functioning did not influence the parenting styles in all aspects. It is more probable that couples' satisfaction [t = 2.01; p < .05;  $\beta = .40$ ] influences the type of parental attention [F(4,27)=3.84; p < .01;  $R^2=.36$ ]. Even if couples adjustment seems irrelevant on parenting regulation [F(4, 27) = 1.34; p = .28;  $R^2 = .16$ ], the grade of satisfaction represents a relevant variable [t = 2.01; p < .05;  $\beta = .46$ ]. Different correlations were found in families with a disabled child when couples adjustment does not influence parenting style.

Family functioning is relevant to parenting energy  $[F(4, 27) = 2.97; p < .04; R^2 = .31]$ . In particular, the ideal cohesion positively correlates to active energy  $[t = 2.99; p < .006; \beta = .77]$ , and ideal adaptability negatively correlates to active energy  $[t = -3.34; p < .002; \beta = .84]$ . Even if family functioning seems irrelevant to parenting regulation  $[F(4, 27) = 2.11; p = .11; R^2 = .24]$ . Real cohesion positively correlates to preceptual regulation  $[t = 2.04; p < .05; \beta = .40]$  whereas real adaptability negatively correlates to this aspect of parenting  $[t = -2.5; p < .02; \beta = .47]$ .

Regression analysis determined the relationship between parent stress and parenting styles, revealing the same differences between groups. In families with nondisabled children, even if parent stress correlated insignificantly to energy  $[F(3, 27) = 2.2; p = .11; R^2 = .19]$ . The increase of stress caused by interactions with children related negatively to active energy used by parents  $[t = -1.97; p < .05; \beta=-.82]$ . In families of disabled children, parenting stress significantly correlated to regulation  $[F(3, 27) = 3.05; p < .04; R^2 = .25]$ . The increase of stress caused by parenting rule negatively related to preceptual regulation  $[t = -2.55; p < .01; \beta=-.78]$ .

#### **Discussion and Conclusion**

In this study, the conceptual attributes of family resilience were represented by four dimensions evaluated by parents: (1) families' general functioning; (2) couples' adjustment; (3) responsiveness to stress; and (4) parenting style preference.

The first hypothesis of this research was to verify whether the presence of a child with a disability influences (1) functioning of the family, (2) couple satisfaction, (3) parental stress, and (4) parenting. The second hypothesis verified whether and how these all aspects influence parenting style. According to Bower and Hayes (1998), our results suggest that families with a typically developing child and families with a child with an intellectual disability are characterized more by similarities than by differences. In fact, families with a disabled child have the same difficulties as families with a nondisabled child. All families showed more cohesion than adaptability; real and ideal evaluations by both fathers and mothers in both family types did not differ. But family functioning influenced parenting styles differently.

Although in families of nondisabled children there was no significant relationship between family functioning and parenting style, parents of disabled children positively evaluated the functioning of their family and showed a better capacity to monitor children's needs. They tended to initiate and to play an active part in interactions with the child.

In accordance with our hypothesis, it is important to analyze the couples adjustment. The families of disabled children showed more difficulties in guaranteeing adequate couple functioning. There were differences between fathers' and mothers' evaluations. Fathers of disabled children showed worse dyadic satisfaction and more difficulty in the affectional expression compared to fathers of nondisabled children. There were no statistical differences between mothers. Even in this case, the couple's adjustment had varying relevance to parenting style of the two types of parents. Parents of nondisabled children considered couple functioning positively and were more able to pay attention to the child during interactions and to use clear rules to regulate behavior.

On the other hand, in families of disabled children, the couple's functioning did not strictly relate to parenting style preference. According to the literature, families of a disabled child showed higher stress levels than families with nondisabled children. In particular, both mothers and fathers of a disabled child had higher levels of stress in all scales. Parenting stress influenced parenting style differently in the two types of families. For parents of a disabled child, the increase of parenting stress makes behavior regulation more difficult, whereas the parents' ability to respond to the needs of a child is influenced by higher stress levels only in families of developmentally normal children.

In general, seem that parents of disabled children tend to be less active, more emotionally involved during the interaction with their children, and more direct in using rules to govern child behavior. Parents of nondisabled children seem to be more rational, and even if they tend to use rules to regulate child behavior, they give their children more autonomy.

According to the resiliency model of family stress, adjustment, and adaptation by McCubbin and McCubbin (1993), our results stemmed from the observation of the family from different points of view. To analyze the family only on global functioning, it is not enough to assess relevant differences in a specific family context. Our results confirmed that it is important to consider couple functioning and parent-child interaction too.

As the global focus model suggests, parent-child interaction is a reciprocal and dynamic learning and development process (Westh, 2003; 2006). Our results found that parenting style preference is not only defined by parental stress but influenced by family functioning and couple satisfaction. According with Heiman (2002), the findings of this study demonstrate that it would be advantageous to enhance coping strategies that may contribute to parents' competencies, particularly in relation to the future

welfare of their children. The findings from our investigation underline the opportunity to evaluate as parenting style of each parent is affected by the couple relationship and by the coping strategies used. In add, the results offer some potentially useful implications for family intervention projects. On the basis of information obtained from this complex assessment, the intervention could be directed toward the resolution of any difficulties in family functioning and in particularly in families with disabled children.

One limit of this study is its small sample size; further research is needed to replicate its findings with larger samples. Further, the generalizability of the scale is restricted to families with children 5–9 years old. Future studies should use a longitudinal design to better understand the relationship between parents and children with a disability, family functioning, and couple satisfaction. Another interesting aspect to investigate is the relevance of siblings of children with disabilities in modifying developmental tasks of the family over time.

#### References

- Abidin, R. R. (1995). *PSI-Parent Stress Index*. Odessa, FL: Psychological Assessment Resources Inc.
- Bailey, D. B., Blasco, P. M., & Simeonsson, R. J. (1992). Needs expressed by mothers and fathers of young children with disabilities. *American Journal on Mental Retardation*, 97(1), 1-10.
- Baiocco, R., Westh, F., Laghi, F., Hansen, C. R., Ferrer, C. A., D'Alessio, M. (2008). Psychometric properties and construct validity of the Parents Preference Test (PPT<sup>TM</sup>) in the Italian context. *International Journal of Psychology*, *43*(3-4), 442.
- Baiocco, R., D'Alessio, M., Laghi, F. (2011). La valutazione del parenting. Il Parents Preference Test (PPT). Manuale d'uso [The assessment of parenting. The Parents Preference Test (PPT). User Manual]. Organizzazioni Speciali, Firenze.
- Baiocco, R., Laghi, F., Imbellone, A., D'Alessio, M. (2009). Parenting, funzionamento di coppia e comportamento internalizzante del bambino [Parenting, couple functioning, and the child's internalizing behavior]. *Psichiatria dell'Infanzia e dell'Adolescenza*, 76, 648-663.
- Boyd, B. A. (2002). Examining the relationship between stress and lack of social support in mothers of children with autism. *Focus on Autism and Other Developmental Disabilities*, 17, 208-215.
- Bower, A. M., & Hayes, A. (1998). Mothering in families with and without a child with disability. *International Journal of Disability and Developmental Education.*, 45, 313-322.
- Doucette, J., & Pinelli, J. (2004). The effects of family resources, coping, and strains on family adjustment 18 to 24 months after the NICU experience. *Advances in Neonatal Care*, 4(2), 92-104.
- Cuzzocrea, F., & Larcan, R. (2005). Parent training for families with mentally retarded children, *Journal of Applied Radical Behavior Analysis (JARBA)*, 1, 21-31.

- Cuzzocrea, F., Larcan, R., & Oliva, P. (2008). Parent training for families with mental retarded children. *International Journal of Psychology*, 43(3/4), 309.
- Freeman, M. F., & Tukey, J. W. (1950). Transformations Related to the Angular and the Square Root. *Annals of Mathematical Statistics*, *21*, 607-611.
- Galimberti, C. (1990). Faces III. Uno strumento per la ricerca e l'osservazione clinica [Faces III. A tool for research and clinical observation]. Milano: Vita e Pensiero.
- Gentili, P., Contreras, L., Cassaniti, M., D'Arista, F. (2002). La Dyadic Adjustment Scale. Una misura dell'adattamento di coppia [Dyadic Adjustment Scale. A measure of couple adaptation]. *Minerva Psichiatrica*, 43, 107–116.
- Guarino, A., Di Blasio, P., D'Alessio, M., Camisasca, E., Serantoni, G. (2007). PSI-Parenting Stress Index Forma breve Per l'identificazione precoce di sistemi relazionali genitore-bambino stressanti [PSI-Parenting Stress Index Short Form For early detection of parent-child relational systems stressful]. Firenze: Giunti OS.
- Hassall, R., Rose, J., & McDonald, J. (2005). Parenting stress in mothers of children with an intellectual disability: The effects of parental cognitions in relation to child characteristics and family support. *Journal of Intellectual Disability Research*, 49, 405-418.
- Heiman, T. (2002). Parents of children with disabilities: Resilience, coping, and future expectations. *Journal of Developmental and Physical Disabilities*, 14(2), 149-171.
- Larcan, R., & Cuzzocrea, F., (2011). Funzionamento della famiglia e sviluppo psicosociale dei fratelli di individui con disabilità intellettive [Family functioning and psychosocial development of siblings of individuals with intellectual disabilities]. *Psicologia Clinica dello Sviluppo*, 15(1), 123-153.
- Larcan, R., Cuzzocrea, F., Oliva, P. (2008). Family stress, parenting skills and sociocognitive competences of retarded children siblings. *International Journal of Psychology*, 43(3/4), 462.
- Larcan, R., Oliva, P., Sorrenti, L. (2008). *Interventi psicologici sulla famiglia* [Psychological interventions on family]. Padova: Piccin Nuova Libraria.
- Lee, I., Lee, E. O., Kim, H. S., Park, Y. S., Song, M. & Park, Y. H. (2004). Concept development of family resilience: A study of Korean families with a chronically ill child. *Journal of Clinical Nursing*, *13*, 636-645.
- Llewellyn, G., McConnell, D., Thompson, K., & Whybrow, S. (2005). Out-of-home placement of school age children with disabilities. *Journal of Applied Research in Intellectual Disability*, *18*, 1-16.
- McCubbin, H., & McCubbin, M. (1993). Families coping with illness: The resiliency model of family stress, adjustment, and adaptation. In C. Danielson, B. Hamel-Bissell, & P. Winstead-Fry P. (Eds). Families, health, & illness. Perspectives on coping and intervention (pp. 21-64). St. Louis, MO: Mosby-Year Book Inc.
- McCubbin, H., Thompson, A., McCubbin, M. (1996) Family assessment: Resiliency, coping, and adaptation. Inventories for research and practice. Madison, WS: The University of Wisconsin System.
- O'Connor, T. G. (2002). The 'effects' of parenting reconsidered: Findings, challenges and applications. *Journal of Child Psychology and Psychiatry*, 43, 555-572.
- Olson, D. H., Portner, J., Lavee, Y. (1985). FACES III Family Social Science, University of Minnesota, 290 McNeal Hall, St Paul, MN.
- Patterson, J. M., (1995). Promoting resilience in families experiencing stress. *Pediatric Clinics of North America*, 42, 47-63.

- Quinn, P. (1999). Supporting and encouraging father involvement in families of children who have a disability. *Child and Adolescent Social Work Journal*, 16, 439-454.
- Roach, M. A., Ormond, G. I., & Barratt, M. S. (1999). Mothers and fathers of children with Down syndrome: Parental stress and involvement in children. *American Journal of Mental Retardation*, 104, 422-436.
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, 38, 15-28.
- Valentine, D. P., McDermott, S., & Anderson, D. (1998). Mothers of adults with mental retardation: Is race a factor in perceptions of burdens and gratification? *Family in Sociality*, 79, 577-584.
- Walsh, F. (1996). The concept of family resilience: Crisis and challenge. The concept of family resilience: Crisis and challenge. *Family Process*, *35*, 261-281.
- Walsh, F. (2008). *La resilienza familiare [Family resilience]*. Milano: Raffaello Cortina.
- Westh, F. (2003). *Parents Preference Test PPT*. Copenhagen: Westh Development & Psykologisk Forlag.
- Westh, F. (2006). Fokusmodellen. In F. Westh (Ed.), *I dialog med familien* (pp. 163-175). Copenhagen: Dansk Psykologisk Forlag.
- Woodgate, R. L. (1999). Conceptual understanding of resilience in the adolescent with cancer: Part I. *Journal of Pediatric Oncology Nursing*, *16*, 35-43.