

Family Functioning and Disability: a Study on Italian Parents of Disabled Children

Calogero Iacolino^a, Monica Pellerone*^a, Ugo Pace^a, Tiziana Ramaci^a & Vittorio Castorina^a

* Corresponding author: Monica Pellerone, monica.pellerone@unikore.it

^a Kore University of Enna, Via Cittadella Universitaria, Enna, Italy

Abstract

<http://dx.doi.org/10.15405/epsbs.2016.05.5>

The family of disabled persons often goes through periods of instability and mismatch; the birth of disabled children may affect communication, problem solving, satisfaction and general family functioning.

The present study aims to explore the perception that both parents of disabled children have of their family functioning, measuring: the dynamics of the familiar functioning; the perception that the parental couple has about parenting and family functioning; the similarities between fathers and mothers in the perception of these dimensions.

The research involved 50 parent couples (age: $M=50.84$; $S.D=7.23$), who have 100 disabled children. They completed: *Family Assessment Device* (Epstein, Baldwin, & Bishop, 1983) to assess specific aspects of family functioning, such as problem solving, communication, roles, affective response and involvement, behavioral control and general functioning; *Family Adaptability and Cohesion Evaluation Scales* (Olson, 2011), to measure family adaptability and cohesion.

The parents of disabled daughters showed significantly higher on following scales: cohesion, communication and satisfaction. In contrast, the parents who have male sons showed high scores in the scale of flexibility. Parents of children with autism reported higher scores than the parents of children with pervasive developmental disorders in the following scales: cohesion, communication and satisfaction.

The results suggest that family functioning when there is a disabled child might be affected by child's gender and disability. Among the research limits there are the lack of a representative sample and the absence of a longitudinal study. In future studies, it is expected an evaluation of triadic family functioning to examine intergenerational differences in perception of family dynamics.

© 2016 Published by Future Academy www.FutureAcademy.org.uk

Keywords: Parents; disability; family functioning; satisfaction.

1. Introduction

Family is an interpersonal system in balance between tendencies to stability and potential changes (Malagoli Togliatti, & Catugno, 1996), that goes through a continuous process of identity construction



defined as "the family life cycle", characterized by developmental tasks that different members are facing, and ending with the end of life (Erikson, 1982; Pellerone, 2013; Pellerone, Passanisi, & Bellomo, 2015); therefore, the notion of "development stage" is no longer applied to individual members, but to the family as a whole, highlighting the interdependence between the individual life cycle and the family life cycle.

The family development model proposed by McGoldrick and Carter (1980) assumes that family passes through a succession of distinct steps or stages that mark its path: the young adult between two families, the young couple, the family with young children, the family with teenagers, the "springboard" family for the children, and the family in old age. Each stage is characterized by specific development tasks, that involve a renovation of the relations in torque level, of the parent-child relationships and of the ones with the family of origin, and whose solution allows the passage to the next stage and the acquisition of a family identity.

Families, therefore, evolve over time according to both the specific trajectories of each single nucleus, and the phases of the life cycle; the individual evolutionary stages are linked to physical, social, emotional-affective changes and critical events that the family could go through. According to Hill (1949) the crisis is the result of multiple factors, namely: the stressful event and the consequent difficulties; the greater or lesser capacity of the family to find resources; the representation the family has about the event and its severity.

The overcoming of a critical event is given by several factors (Craparo, et al., 2014; Zani, 1997), such as: the ability of the family to recognize and organize the available resources; the meaning it confers to the event and to the family history; the way in which the family has dealt with the developmental tasks related to the previous phases; and the relations with the external environment (Magnano, Ramaci, & Platania, 2014; Pace, et al., 2015; Santisi, Magnano, Hichy, et al., 2014).

Therefore, the process of change required by stressful events includes several components, such as: a new awareness by the family members; the attempts to arrive at a shared definition of the event; and the search for structural changes in the family system to solve the problem (Pellerone, & Micciché, 2015).

The more an individual, a couple, a family favor the aspects of emotional closeness and flexibility, the more the event or the stressful situation has the possibility to be overcome, through coping strategies that aim to achieve different goals (Patterson, 2002; Pellerone, 2015): reducing the number of requests; acquiring resources not yet available for the family; reusing the resources already available; learning to draw and to endure the tensions that go with the adaptation phase; and changing the way to see the situation. Analyzing the operation of the family (as it is perceived by members of the system), Olson and his colleagues identified, in 1983, three dimensions, which contribute to the overcoming of a stressful event: *cohesion*, *adaptability* and *communication* (Blandini, Fecarotta, Buscemi, et al., 2015).

Cohesion is the size that indicates the distance or proximity from the psychological, cognitive and affective point of view, and it is pointed out through the emotional connection among the individual members. Adaptability indicates the ability to change the family structure based on events that occur during the life cycle. Communication is a mode that family members use to express their needs and/or feelings. According to the different locations that families can take on within the three dimensions, the

authors identify sixteen types of family functioning that can be summarized in three main models: the balanced family, the intermediate family and the extreme family.

- a) The balanced families are considered the most functional, because they can both maintain an internal cohesion (ensuring a feeling of safety), and allow the differentiation of the various members as unique individuals; they show such a flexibility that allows the different members to adapt themselves and adjust the family structure to changes; furthermore, *communication* appears characterized by self-confidence and confidence in the others.
- b) The intermediate families can be characterized by the combination of reduced flexibility and good cohesion, or vice versa; in the first case, the rigid family appears to be characterized by high levels of emotional closure and inadequate flexibility, rules perceived as inviolable, and limited communication to structural models that make difficult an exchange based on reciprocity. Conversely, the chaotic family is characterized by a too high flexibility, difficulties in organizing themselves adequately when placed in front of negative and para regulatory events (sudden and unexpected), since incapable of establishing rules, roles and functions. In contrast, looking at the size of cohesion, the enmeshed families have poor differentiation among the various members that appear stuck in highly conditioning relations. At the opposite pole, in the disengaged families there are not authentic emotional connections and you may find difficulties in the organization of the structure and in the establishment of firm rules; this nucleus appears to be extremely complex because the families lived do not have a sense of valid belonging.
- c) Finally, the extreme families represent the different types of dysfunctional family, being the most problematic in terms of global functioning. They are the result of the intersection of the extreme models on the pole of cohesion and flexibility: chaotic disengaged, chaotic enmeshed, stiff entangled, stiff disengaged.

1.1. Problem statement

During a family life cycle, the critical events are various and can be caused by a variety of factors: the entrance or leaving of a component in the family, the psychosocial deviances related to the development of the children, or the birth of a handicapped child. In particular, the presence of a child with physical and/or psychological disability causes a block in the family life cycle: this tends to inhibit the conjugal integration between the parents and the general level of the family functioning; the confusion of roles, the feeling of helplessness and dissatisfaction might induce a growing state of malaise which, in some cases, can degenerate into psychopathological forms (Larcan, & Cuzzocrea, 2011; Valtolina, 2000; Vianello, 2002).

Having a child with disabilities has a significant impact on parents, particularly in terms of stress, mental health (DeMeyer, 1979; Olsson, & Hwang, 2001; Yirmiya, Shakes, & Solomonica-Levi, 1998) and family functioning (Hastings, & Brown, 2002).

Literature suggests a mutual relationship between the problematic behavior of the child, the parents' stress and their consequent behavior (Pace, Cacioppo, & Schimmenti, 2012; Pace, & Zappulla, 2011; Schimmenti, et al., 2014); this ratio appears to be mediated by parents' negative emotional reactions to

the problematic behavior of the child, and their psychological resources, such as problem solving (Floyd, Harter, & Costigan, 2004), coping strategies (Opperman, & Alant, 2003; Pellerone, 2013) and resilience (Herring *et al.*, 2006; Van Riper, 2007).

Another dimension that influences the overall functioning of the family is the type of disability that affects one of the members; the international literature shows that higher levels of stress are present in families of children with autism than in those with physical disabilities (Fombonne *et al.*, 2001; Holroyd, & McArthur, 1976; Pellerone, & Bellomo, 2015).

Especially the parents of children with pervasive developmental disorders (PDD) seem to show an impaired level of mental health (Fisman, & Wolf, 1991), greater levels of stress (Dyson, 1997; Wolf, Noh, Fisman, *et al.*, 1989), sense of worthlessness and guilt, intense anger, and even impaired physical functioning, fatigue or exhaustion (Emerson, 2003; Hedov, Anneren, & Wikblad, 2000).

Moreover, comparative studies confirm that parents of children with ASD exhibit higher levels of stress, depression, anxiety and emotional exhaustion than: parents of children with Down syndrome or other types of mental retardation (Holroyd, & McArthur, 1976; Olsson, & Hwang, 2001; Wolf, Noah, Fishman, *et al.*, 1989), parents of children with behavior disorders (Dumas, Wolf, Fishman, *et al.*, 1991), or parents of children with chronic diseases (Bouma, & Schweitzer, 1990).

The presence of a child with disabilities also alters the normal family life cycle, resulting in a minor sense of parental cohesion, less marital satisfaction, and a more general problematic family functioning (Hutton, & Caron, 2005; Montes, & Halterman, 2008).

Compared to family cohesion, it appears to be correlated to the type of disability and to the social competence of children with disabilities; for example, mothers of children with conduct disorders report lower levels of cohesion than mothers of children with behavior disorders.

In reference to the family functioning, instead, recent literature shows that the majority of primary caregivers report high levels of personal and marital stress, little time for family activities, lack of spontaneity in communication and reduced flexibility in the management of professional and daily activities (Bluth, Roberson, Billen, *et al.*, 2013).

Lewandowski and colleagues also demonstrated that the level of family functioning is related to the children's coping strategies and to the negative perception that parents have about the child's illness. In particular, the use of coping strategies appears related to problem solving and communication skills, and to the general family functioning (Lewandowski *et al.*, 2010); in contrast, low levels of negative thoughts seem to correlate with high scores on the communication domains, the emotional involvement, the definition of intra-family roles and the behavioral control (Pellerone, Craparo, & Tornabuoni, 2016).

Therefore, a number of factors appear to influence the overall functioning of a family with a disabled child, including: the type of disability, the amount and nature of disability-related disorders, the structural and psychological characteristics of the family and the related emotional, relational and educational dynamics, the socio - cultural level and the quantity and quality of social supports that the family has. Unfortunately, though, in literature, from time to time, only one or more of these factors were examined, highlighting specific effects that cannot explain the process in its entirety, leaving not clarified many relevant aspects that have not been possible to control, and suggesting, however, always

cautious in the interpretation of the results (Hodapp, Glidden, & Kaiser, 2005; Hodapp, & Urbano, 2007).

Moreover, in the past, most of the studies examined the patterns of reaction to the stress of disabled children's mothers, leaving the perception of the fathers' family functioning on the side (Keller, & Honig, 2004; Ricci, & Hodapp, 2003); only recently the literature has emphasized the differential aspects of the parental couple, and the differences were usually interpreted in relation to the different involvement of fathers and mothers in care activities towards the child (Crowe, VanLeit, & Berghmans, 2000; Pelchat, Lefebvre, & Perreault, 2003).

In particular, this comparison showed differences in the levels of perceived stress and the impairment of health; for example, a Swedish report on parents with Down syndrome children showed that mothers who spent more time taking care of their children with disabilities had lower scores in the perception of well-being than fathers. In addition, a recent study about family, reported that mothers experience more stress and pessimism about the future of the child, and they use antidepressants or other therapies more frequently than fathers. In the same report, mothers of children with intellectual disabilities consider the use of specific coping strategies, such as communication and continuous dialogue with the family, friends, and social-health operators, more effective than fathers do.

The condition of disability of a child requires a family to implement not easy adaptation processes, since most of the parents expresses feelings of fatigue and suffering regarding the path to take to understand the situation and to find adequate family functioning modes.

In certain circumstances, the intervention of parent training appears to be a valid instrument to the support and enhancement of parenting, aimed at restoring a balanced family functioning. It is a program that aims to stimulate changes in the educational function of the family, reducing stress and discomfort that the disability situations present. The application of the parent training also involves the removal, inside the family, of the factors that determine problem behaviors in children with disabilities, since increasing the autonomy of the child in the home area contributes to improve the quality of the family life.

2. Purpose of the study

The present study aims to explore the perception that both parents of disabled children have of their family functioning, measuring: the dynamics of the familiar functioning; the perception that the parental couple has about parenting and family functioning; the similarities between fathers and mothers in the perception of these dimensions.

In agreement with the literature we expected that:

- a) mothers of children with disability report greater distress than fathers (Gray, 1994; Hastings, 2003; Konstantareas, Homatidis, & Plowright, 1992; Milgram, & Atzil, 1998; Wolf, Noh, Fisman, *et al.*, 1989);
- b) parents of older children manifest a higher level of family stress than parents of younger children (Donenberg, & Baker, 1993; Bromley *et al.*, 2004; Lecavalier *et al.*, 2006; Tomanik *et al.*, 2004);
- c) between the predictors of the family functioning there are: the presence of cohesion, adaptability, the small hallway and enmeshment.

3. Research method

3.1. Participants

The research involved 50 parent couples (age: $M=50.84$; $S.D=7.23$), who have 100 disabled children (44 males and 56 females) attending two cooperatives for people with disabilities in the town of Catania and Enna.

The instruments were administered during working hours in the cooperatives, providing, through an information letter, a brief description of the investigation carried out, and specifying the scientific nature and general objectives of the research. Moreover, an informed consent form was signed by the parties before responding to the anonymous questionnaires.

3.2. Instruments

Participants completed an anamnestic questionnaire, the *Family Adaptability and Cohesion Evaluation Scales IV* and the *Family Assessment Device*.

Anamnestic data were collected through the administration of a questionnaire constructed ad hoc and divided into two parts: the first to acquire basic information, age and professions of parents; the second for establishing the type of disability, sex age of child.

Family Adaptability and Cohesion Evaluation Scales IV (FACES IV) is a 20-item self-report instrument that yields two orthogonal dimensions, cohesion and adaptability (Olson, 2011; Visani et al., 2015). The cohesion dimension ranges from extremely low levels of cohesion (disengaged) to extremely high levels (enmeshed). Adaptability ranges from extremely low (rigid) to extremely high (chaotic). Scores near the center represent optimum levels of these dimensions. Family mean and distance from center (DFC) scores were calculated to determine family levels of reported adaptability and cohesion as well as each family's relative position from the center of the circumplex.

Family function was measured with the Family Assessment Device (FAD) by Epstein, Baldwin, and Bishop (1983) in Italian version of Grandi et colleagues (2007). Each item consists of a statement and likert scale with four possible response options (strongly agree, agree, disagree, on strongly disagree). The scale is applicable to both one- and two-parent families. The Family Assessment Device is based on a transactional-functional model described by Epstein and colleagues. It contains scales measuring: problem solving, communication, roles, affective responsiveness, affective involvement, and behavior control. The General Functioning scale contains two items from each of these six domains and is highly correlated with the total score of the Family Assessment Device. The General Functioning scale has demonstrated internal-consistency reliability and construct validity” and may be scored either as a continuous scale ranging from 12 to 48, on as a categorical measure with a score of 27 or greater defined as “dysfunctional.”

4. Data analyses

All analyses were conducted with SPSS software (v 23.0).

In reference to preliminary data the following analyses were performed: descriptive statistics in order to examine variables involved in the perception of their family functioning; Pearson’s correlations were determined to measure the relation between scores of Family Adaptability and Cohesion Evaluation Scales and the Family Assessment Device.

To verify the hypothesis that parents of older children manifest a higher level of family stress than parents of younger children, a Multivariate analysis of variance (MANOVA) is carried out.

To verify the hypothesis that mothers of children with disability report greater distress than fathers, Student’s t test for independent samples was used to compare the mean between groups (mothers versus fathers).

To explore the predictive variables of the family assessment, analyses of hierarchical regression for separate blocks were used: (a) sex and age of parents in the first block; (b) sex, age and type of disability of children in the second block; (c) the level of family cohesion and adaptability in the third block. Each block of independent variables was evaluated in terms of what it added to the explanation of the variability of the dependent variable at the time of its entry, evaluating the weight of all predictors.

5. Findings

5.1 Preliminary analyses

A descriptive statistic is carried out in order to examine variables involved in the perception of their family functioning. Table 1 shows the mean scores and standard deviations obtained from the parents to the administration of the Family Adaptability and Cohesion Evaluation Scales.

Table 1. Means and standard deviation of Faces scales.

Measures	Mother		Father	
	M.	S.D	M.	S.D
Cohesion	3.79	0.64	3.85	0.59
Flexibility	3.94	0.67	4.02	0.46
Disengagement	3.15	0.69	3.18	0.76
Enmeshment	2.98	0.68	3.04	0.66
Rigid	3.29	0.65	3.19	0.63
Chaotic	2.99	0.85	3.13	0.79
Communication Scale	4.03	0.58	3.93	0.57
Satisfaction scale	3.78	0.57	3.69	0.62

Table 2 shows the mean scores and standard deviations obtained from the parents to the administration of the Family Assessment Device.

Table 2. Means and standard deviation of Fad scales.

Measures	Mother		Father	
	M.	S.D	M.	S.D
Problem solving	1.92	0.42	1.95	0.39
Communication	2.06	0.37	2.09	0.35
Roles	2.12	0.45	2.15	0.41
Affective responsiveness	2.19	0.44	2.20	0.38

Affective involvement	2.61	0.66	2.65	0.58
Behavior control	2.33	0.49	2.37	0.48
General functioning	2.15	0.37	2.12	0.32

Pearson's correlation was done to measure the relation between the dimensions of Faces and Fad: in reference to the mothers, the correlation analysis shows that (Tab. 3): the ability of problem solving correlates negatively with the balanced cohesion and flexibility, the enmeshment, the rigid adaptability, the communication and the satisfaction scales; the roles correlate negatively with the disengagement, the enmeshment, the chaotic adaptability, the communication and the satisfaction scales; the affective responsiveness correlates negatively with the rigid adaptability and the satisfaction scale; the affective involvement correlates negatively with the chaotic adaptability; the adaptive behavior control correlates positively with the cohesion, and negatively with the enmeshment, the rigid and chaotic adaptability, the communication and the satisfaction scales; at the last, the general functioning correlates negatively with the cohesion, the enmeshment, the communication and the satisfaction scales.

Table 3. Correlation between Faces and Fad scales in the mothers group

Measures	a.	b.	c.	d.	e.	f.	g.	h.	i.	l.	m.	n.	o.	p.
Cohesion	-													
Flexibility	.492**	-												
Disengagement	.061	-.084	-											
Enmeshment	.692**	.443**	.212	-										
Rigid	.269	.506**	.368**	.506**	-									
Chaotic	.270	-.172	.574**	.550**	.365**	-								
Communic. scale	.547**	.778**	.220	.522**	.680**	.012	-							
Satisfaction scale	.533**	.563**	.325*	.663**	.758**	.337*	.840**	-						
Problem solving	.473**	.557**	.020	.448**	.371**	.012	.593**	.517**	-					
Communication	-.072	-.011	-.048	-.134	-.032	-.053	-.079	-.088	.308*	-				
Roles	-.208	-.105	-.303*	-.316*	-.277	.391**	-.309*	-.351*	-.027	.070	-			
Affect. respons.	-.082	-.094	-.058	-.174	-.286*	-.190	-.263	-.301*	-.058	.250	.670**	-		
Affect. involve.	-.009	.119	-.140	-.109	-.185	-.308*	-.072	-.143	-.334*	.219	.747**	.747**	-	
Behavior control	.384**	-.258	-.257	.454**	.363**	.419**	.423**	.458**	.360*	.404**	.669**	.620**	.597**	-
General function.	-.332*	-.264	-.134	.367**	-.264	-.232	.383**	.418**	.467**	.689**	.571**	.569**	.353*	.710**

Another Pearson's correlation was done to measure the relation between dependent variables: in reference to the fathers, the correlation analysis shows that none of the dimensions of the Faces correlates significantly with the dimensions of the Fad (Table 4).

Table 4. Correlation between Faces and Fad scales in the fathers group

Measures	a.	b.	c.	d.	e.	f.	g.	h.	i.	l.	m.	n.	o.	p.
Cohesion	-													
Flexibility	.251	-												
Disengagement	.295*	.044	-											
Enmeshment	.509**	.351*	.473**	-										
Rigid	.077	.220	.451**	.430**	-									
Chaotic	.411**	-.150	.639**	.441**	.441**	-								

Communic. scale	.332*	.682**	.199	.480**	.386**	-.021	-								
Satisfaction scale	.336*	.569**	.277	.627**	.500**	.104	.873**	-							
Problem solving	.106	-.048	.147	.024	.068	.170	.132	.074	-						
Communication	-.106	-.043	-.250	.027	.018	-.088	.055	.100	.260	-					
Roles	.027	.068	-.145	-.032	-.009	.045	-.052	.050	.083	.344*	-				
Affect. respons.	.126	.066	-.240	.044	-.111	-.048	-.059	-.020	.038	.345*	.693**	-			
Affect. involve.	.124	.199	-.093	.021	-.050	-.082	.063	.083	-.252	.277	.727**	.568**	-		
Behavior control	.090	.139	-.177	.069	-.015	-.025	.019	.005	.414**	.368**	.647**	.444**	.459	-	
General function.															
	.018	.040	-.223	-.060	-.121	-.050	.026	.041	.488**	.659**	.607**	.417**	.426	0	
														1	
														*	
														*	

5.2 Results

In reference to the first research hypothesis, the T-test for independent groups revealed no significant differences between the father and the mother in dimensions of Faces and Fad ($p = n.s.$).

So, the hypothesis that mothers of children with disability report greater distress than fathers is not confirmed.

In reference to the second hypothesis, the Manova emphasizes the influence of independent variables on Faces and Fad scores of mother; in particular the data show:

- the main effect of mother's age on the level of enmeshment ($F=5.25$; $p<0.05$) and affective responsiveness ($F=5.28$; $p<0.05$): in particular mothers with older child got higher scores in the dimensions of enmeshment;
- the main effect of child's gender on the level of enmeshment ($F=7.65$; $p<0.05$): mothers of daughters show greater enmeshment;
- the effect of interaction between mother's age and child's gender on the level of cohesion ($F=9.84$; $p<0.05$) and enmeshment ($F=19.04$; $p<0.01$): in particular, younger mothers of male children manifest more cohesion; older mothers of daughters have greater enmeshment.

The Manova also shows the influence of the type of disability on fad and faces scores of both parents; the data underline the main effect of the cohesion ($F = 2.58$; $p < 0.05$) and the hallway ($F = 2.74$; $p < 0.05$). Tukey's post hoc emphasize that: parents with children with Asperger exhibit lower levels of family cohesion (Table 5); parents of children with pervasive developmental disorder manifest lower levels of disengagement (Table 6).

Table 5. Tukey's post hoc: the level of family cohesion

Type of disability	N	Subset per alpha = .05	
		1	2
Asperger syndrome	2	3.57	
Down syndrome	26	3.59	
Intellectual deficit	44	3.78	
Autism	22	4.04	
Generalized developmental disorder	4	4.07	4.07
Schizophrenia	2		4.57
Sign.		.96	.07

Table 6. Tukey's post hoc: the level of family disengagement

Type of disability	N	Subset per alpha = .05	
		1	2
Generalized developmental disorder	4	3.00	
Intellectual deficit	44	3.02	
Asperger syndrome	2	3.14	
Down syndrome	26	3.15	
Autism	22	3.35	3.36
Schizophrenia	2		4.71
<i>Sign.</i>		.97	.05

To explore the predictive variables of the family assessment, analyses of hierarchical regression for separate blocks were used. The data analysis shows that predictors of the ability of problem solving are (Table 7): child's sex and family flexibility (24.4% of the general variance).

Table 7. Summary of the linear regression analyses predicting problem solving

Model	Variable	R ²	Adjusted R ²	SE	B	T	P
1	Mother/Father			.085	.034	.405	.686
	Mother's age/Father's age	0.056	0.003	.006	-.003	-.456	.650
2	Mother/Father	0.259	0.067	.084	.036	.432	.666
	Mother's age/Father's age			.006	-.003	-.425	.672
	Child's sex			.082	-.202	-2.459	.016
	Child's age			.009	.003	.349	.728
	Type of child's disability			.031	-.010	-.330	.742
3	Mother/Father	0.494	0.244	.082	.032	.391	.697
	Mother's age/Father's age			.006	-.005	-.758	.451
	Child's sex			.080	-.190	-2.363	.020
	Child's age			.009	.008	.920	.360
	Type of child's disability			.033	-.020	-.606	.546
	Balanced cohesion			.093	-.063	-.677	.500
	Balanced flexibility			.107	-.170	-1.582	.117
	Disengagement			.077	.045	.589	.557
	Enmeshment			.090	-.112	-1.242	.218
	Rigid			.090	-.109	-1.209	.230
	Chaotic			.084	.095	1.131	.261
	Communication scale			.120	.121	1.007	.317
	Satisfaction scale			.072	-.110	-1.514	.134

Abbreviation: β = beta standardized coefficients.

Predictive variable of family communication is the level of family disengagement ($\beta=-2.09$), accounting for only 8% of the variance. Predictive variable of the affective responsiveness is the mother's age ($\beta=2.09$), accounting for 16.2% of the variance.

At the last, predictors of control are (Table 8): sex and age of child (21.7% of the general variance). Therefore, appears confirmed the third research hypothesis

Table 8. Summary of the linear regression analyses predicting control

Model	Variable	R ²	Adjusted R ²	SE	B	T	P
1	Mother/Father			.101	.026	.244	.808
	Mother's age/Father's age	0.036	0.001	.007	.020	.191	.849
2	Mother/Father	0.337	0.113	.097	.014	.139	.890
	Mother's age/Father's age			.007	.084	.779	.438
	Child's sex			.095	-.275	-2.796	.006
	Child's age			.011	-.195	-1.872	.064
	Type of child's disability			.036	-.096	-.953	.343
3	Mother/Father	0.465	0.217	.099	.016	.151	.880
	Mother's age/Father's age			.007	.047	.423	.674
	Child's sex			.097	-.287	-2.859	.005
	Child's age			.011	-.179	-1.672	.098
	Type of child's disability			.039	-.075	-.675	.502
	Balanced cohesion			.113	.055	.381	.704
Balanced flexibility	.130	-.027	-.189	.850			

Disengagement	.093	-.010	-.074	.941
Enmeshment	.109	.055	.365	.716
Rigid	.109	-.015	-.103	.918
Chaotic	.102	-.268	-1.548	.125
Communication Scale	.146	-.150	-.864	.390
Satisfaction scale	.088	-.116	-1.074	.286

Abbreviation: β = beta standardized coefficients.

Discussion and conclusion

In this study, through analysis of the perception of the characteristics of the family system of parents with disabled children, it has been possible to verify the existence of similarities and differences in the perception of family ties between fathers and mothers. Specifically, the study explored: the dynamics of family functioning; the perception that the parental couple has their own family functioning; and the similarities between fathers and mothers in the perception of their family functioning and parental.

The analyzes showed that the mothers with high level of satisfaction and communication manifested high perception of general family functioning, ability of problem solving, effective responsiveness, and behavior control. Against, the mothers characterized by enmeshment manifested low level of problem solving, clarity in the definition of roles and general functioning; likewise the mothers with perception of rigid family adaptability seemed to manifest low level of problem solving, affective responsiveness and behavior control.

The mothers with a perception of chaotic family adaptability were characterized by poor definition of roles, reduced involvement and control. At the last, disagreement in the literature, in the mothers with good level of cohesion were present low level of problem solving and general functioning.

The first hypothesis that mothers of children with disability report greater distress than fathers appears not to be confirmed, although it appears interesting how: mothers with older child got higher scores in the dimensions of enmeshment; older mothers of male children are more entangled; younger mothers of daughters show greater flexibility; and older mothers of daughters have greater cohesion. In reference to the fathers' score, the father of a son manifested greater flexibility, the father of a daughter more affective response; and the fathers of grown children seem to experience greater emotional response.

Also the type of disability seems to affect the overall family functioning, in fact: while the parents with children with Asperger syndrome exhibit lower levels of family cohesion, instead the parents of children with pervasive developmental disorder manifested lower levels of disengagement. It has been suggested that the presence of behavior and emotional problems contributes significantly to the stress of parents of children with Asperger syndrome and pervasive developmental disorder.

At the last the third research hypothesis appears confirmed, in fact: sex of child and the family flexibility seem to be predictive variables of the family ability of problem solving; predictive variable of family communication is family disengagement; predictive variable of affective responsiveness is the age of mother; and above all, predictors of behavior control are sex and age of child.

Literature points out how a harmonious family environment, characterized by good functioning, can lead parents to be more sensitive to the children's pain, to develop less depression and greater functional involvement. While these protective effects have been identified, most of the research till

today has focused on the negative outcomes associated with the poor functioning of the family. Future research should explore the functioning of the family as a possible protective factor.

References

- Blandini, M., Fecarotta, P., Buscemi B., Ramaci, T., & Buscemi, A. (2015). Anti stress protocol based on the Psychological Functional Model. *International Journal of Education and Research*, 3 (3), 459-468 [ISSN: 2201-6333 (Print), ISSN: 2201-6740 (Online)].
- Bluth K., Roberson, P.N.E., Billen, R.M., & Sams, J.M. (2013). A Stress Model for Couples Parenting Children with Autism Spectrum Disorders and the Introduction of a Mindfulness Intervention. *Journal of Family Theory & Review* 5 (3), 194-213.
- Bouma, R., Schweitzer, R. (1990). The impact of chronic childhood illness on family stress: a comparison between autism and cystic fibrosis. *J Clin Psychol.* 46(6), 722-30.
- Bromley, J., Hare, D. J., Davison, K. & Emerson, E. (2004). Mothers supporting children with autistic spectrum disorders: social support, mental health status and satisfaction with services. *Autism*, 8, 409-423.
- Craparo, G., Gori, A., Mazzola, E., Petrucelli, I., Pellerone, M. and Rotondo, G. (2014). Posttraumatic stress symptoms, dissociation, and alexithymia in an Italian sample of flood victims. *Neuropsychiatric Disease and Treatment*, 10, 2281-2284. [doi: <http://dx.doi.org/10.2147/NDT.S74317>].
- Crowe, T.K., & VanLeit, B., Berghmans, K.K. (2000). Mothers' perceptions of child care assistance: The impact of a child's disability. *American Journal of Occupational Therapy*, 54 (1), 52-58.
- DeMeyer, M. K. (1979). *Parents and children in autism*. Washington, DC: V. H. Winston.
- Donenberg, G. & Baker, B. L. (1993). The impact of young children with externalizing behaviors on their families. *Journal of Abnormal Child Psychology*, 21, 179-198.
- Dumas, J.E., Wolf, L.C., Fisman, S.N., & Culligan, A. (1991). Parenting stress, child behavior problems, and dysphoria in parents of children with autism, Down syndrome, behavior disorders, and normal development. *Exceptionality*, 2(2), 97-110.
- Dyson, L.L. (1997). Fathers and mothers of school-age children with developmental disabilities: parental stress, family functioning, and social support. *Am J Ment Retard*, 102, 267-279. [doi: 10.1352/0895-8017].
- Emerson, E (2003). Mothers of children and adolescents with intellectual disability: social and economic situation, mental health status, and the self-assessed social and psychological impact of the child's difficulties. *J Intellect Disabil Res*, 47, 385-399. [doi: 10.1046/j.1365-2788.2003.00498.x].
- Epstein, N.B., Baldwin, L.M., & Bishop, D.S. (1983). The Mc Master Family Assessment Devise. *Journal of Marital and Family Therapy*, 9, 171-180.
- Erikson, E. H. (1982). *The life cycle completed: A review*. New York: Norton.
- Fisman, S., & Wolf, L. (1991). The handicapped child: psychological effects of parental, marital, and sibling relationships. *Psychiatr Clin North Am*, 14, 199-217.
- Floyd, F.J., Harter, K.S., & Costigan, C.L. (2004). Family problem-solving with children who have mental retardation. *American Journal on Mental Retardation*, 109 (6), 507-524.
- Fombonne, E., Simmons, H., Ford, T., Meltzer, H., & Goodman, R. (2001). Prevalence of pervasive developmental disorders in the British nationwide survey of child mental health. *J Am Acad Child Adolesc Psychiatry*, 40, 820-827. [doi: 10.1097/00004583-200107000-00017].
- Gray, D. E. (1994). Coping with autism: stresses and strategies. *Sociology of Health & Illness*, 16, 275-300
- Hastings, R.P. (2003). Child behaviour problems and partner mental health as correlates of stress in mothers and fathers of children with autism. *J Intellect Disabil Res*, 47, 231-237. [doi: 10.1046/j.1365-2788.2003.00485.x].
- Hastings, R.P., & Brown, T. (2002). Behavior problems of children with autism, parental self-efficacy, and mental health. *Am J Ment Retard*, 107, 222-232. [doi: 10.1352/0895-8017].
- Hedov, G., Anneren, G., & Wikblad, K. (2000). Self-perceived health in Swedish parents of children with Down's syndrome. *Qual Life Res*, 9, 415-422. [doi: 10.1023/A:1008910527481].
- Herring, S., Gray, K., Taffe, J., Tonge, B., Sweeney, D., Einfeld, S. (2006). Behaviour and emotional problems in toddlers with pervasive developmental disorders and developmental delay: associations with parental mental health and family functioning. *Journal of Intellectual Disability Research*, 50 (12), 874-882. [doi: 10.1111/j.1365-2788.2006.00904.x].
- Hill, R. (1949). *Families Under Stress: Adjustment to the Crises of War Separation and Reunion*. New York: Harper & Row, 46-87.
- Hodapp, R.M., Glidden, L.M., & Kaiser, A.P. (2005). Siblings of persons with disabilities: toward a research agenda. *Mental Retardation*, 43 (5), 334-338.
- Hodapp, R.M., Urbano, R.C. (2007). Adult siblings of individuals with Down syndrome versus with autism: Findings from a large-scale US survey. *Journal of Intellectual Disability Research*, 51 (12), 1018-1029.
- Holroyd, J., & McArthur, D. (1976). Mental retardation and stress on the parents: a contrast between Down's syndrome and childhood autism. *Am J Ment Defic*, 80, 431-436.
- Holroyd, J., McArthur, D. (1976). Mental retardation and stress on the parents: a contrast between Down's syndrome and childhood autism. *Am J Ment Defic*, 80, 431-436.
- Hutton, A. M., & Caron, S. L. (2005). Experiences of families of children with autism in rural New England. *Focus on Autism and Other Developmental Disabilities*, 20, 180-189.
- Keller, D., & Honig, A.S. (2004). Maternal and paternal stress in families with school-aged children with disabilities. *American Journal of Orthopsychiatry*, 74 (3), 337-348.

- Konstantareas, M. M., Homatidis S. & Plowright C. M. S. (1992). Assessing resources and stress in parents of Grandi, S., Fabbri, S., Scortichini, S., & Bolzani, R. (2007). Italian validation of the Family Assessment Devise (FAD). *Rivista di Psichiatria*, 42(2), 114, 122.
- Larcan, R., & Cuzzocrea, F. (2011). Funzionamento della famiglia e sviluppo psicosociale dei fratelli di individui con disabilità intellettive. *Psicologia clinica dello sviluppo*, XV (1), 141-171.
- Lecavalier, L., Leone, S. & Wiltz, J. (2006) The impact of behaviour problems on caregiver stress in young people with autism spectrum disorders. *Journal of Intellectual Disability Research*, 50, 172-183.
- Lewandowski, A.S., Palermo, T.M., Stinson, J., Handley, S., & Chambers, C.T. (2010). Systematic review of family functioning in families of children and adolescents with chronic pain. *The Journal of Pain*, 11(11), 1027–1038. [doi: 10.1016/j.jpain.2010.04.005].
- Magnano, P., Ramaci, T., & Platania, S. (2014). Self-efficacy in learning and scholastic success: implications for vocational guidance. *Procedia Social and Behavioral Sciences*, 116, 1232–1236 [doi:10.1016/j.sbspro.2014.01.374].
- Malagoli Togliatti, M. & Catugno, A. (1996) *Psicodinamica delle relazioni familiari*. Bologna: Il Mulino, 32-56.
- McGoldrick, M., & Carter, E.A. (1980). *The Family Life Cycle: A Framework for Family Therapy*. New York: Gardner Press.
- Milgram N. A. & Atzil M. (1998) Parenting stress in raising autistic children. *Journal of Autism and Developmental Disorders*, 18, 415-424.
- Montes, G., & Halterman, J. S. (2007). Psychological functioning and coping among mothers of children with autism: A population-based study. *Pediatrics*, 119, 1040–1046.
- Olson, D.H. (2011). Faces IV and the circumplex model: validation study. *Journal of Marital and Family Therapy*, 3(1), 64-80.
- Olson, D.H., Russell, C.S., & Sprenkle, D.H. (1983). Circumplex Model of Marital and Family Systems: VI. Theoretical. *Update Family Process*, 22 (1), 69–83.
- Olsson, M.B., & Hwang, C.P. (2001). Depression in mothers and fathers of children with intellectual disability. *J Intellect Disabil Res*, 45, 535–543. [doi: 10.1046/j.1365-2788.2001.00372.x].
- Opperman, S., & Alant, E. (2003). The coping responses of the adolescent siblings of children with severe disabilities. *Disability and Rehabilitation*, 25 (9),441-54.
- Pace, U., Cacioppo, M., & Schimmenti, A. (2012). The moderating role of father’s care on the onset of binge eating symptoms among female late adolescents with insecure attachment. *Child Psychiatry and Human Development*, 43, 282–292.
- Pace, U., Madonia, C., Passanisi, A., Iacolino, C., & Di maggio, R. (2015). Is Sensation Seeking Linked Only to Personality Traits? The Role of Quality of Attachment in the Development of Sensation Seeking among Italian Adolescents: A Longitudinal Perspective. *Mediterranean Journal of Social Sciences*, 6 (2), 260-267. [doi:10.5901/mjss.2015.v6n2s1p260].
- Pace, U., & Zappulla, C. (2011). Problem behaviors in adolescence: the opposite role played by insecure attachment and commitment strength. *Journal of Child and Family Studies*, 20, 854–862.
- Patterson, J.M. (2002). Understanding family resilience. *Journal of Clinical Psychology*, 58 (3), 233–246.
- Pelchat, D., Lefebvre, H., & Perreault, M. (2003). Differences and similarities between mothers’ and fathers’ experiences of parenting a child with a disability. *Journal of Child Health Care*, 7 (4), 231-47.
- Pellerone, M. (2013). Identity status, coping strategy and decision making process in Italian university students. *Procedia Social and Behavioral Sciences*, 106, 1399–1408. [doi: 10.1016/j.sbspro.2013.12.156].
- Pellerone, M. (2013). Time perception in children with developmental dyscalculia. *Procedia Social and Behavioral Sciences*, 103, 1220–1227. [doi: 10.1016/j.sbspro.2013.10.450].
- Pellerone, M. (2015). Influence of identity, congruence of interest and coping strategy on decision making process. *Procedia Social and Behavioral Sciences*, 191, 1344–1348. [doi: 10.1016/j.sbspro.2015.04.465].
- Pellerone, M., & Bellomo, M. (2015). Racial identity and disability. The perception of the “others” in a group of Italian school teachers. *Procedia Social and Behavioral Sciences*, 197, 161–166. [doi: 10.1016/j.sbspro.2015.07.075].
- Pellerone, M., Craparo, G., & Tornabuoni, Y. (2016). Relationship between parenting and cognitive schemas in a group of male adult offenders. *Frontiers in Psychology*, 7, 302. [doi: 10.3389/fpsyg.2016.00302].
- Pellerone, M., & Miccichè, S. (2015). Psychiatric symptoms and psychological distress in patients suffering from advanced cancer and in those considered “cured”. The role of parenting and family relationship. *Psychology Research*, 5(4), 269–277. [doi: 10.17265/2159-5542/2015.04.007].
- Pellerone, M., Passanisi, A., & Bellomo, M.F.P. (2015). Identity development, intelligence structure, and interests: a cross-sectional study in a group of Italian adolescents during the decision-making process. *Journal of Psychology Research and Behavior Management*, 8, 239–249. [doi: <http://dx.doi.org/10.2147/PRBM.S88631>].
- Ricci, L.A., & Hodapp, R.M. (2003). Fathers’ perceptions, stress, and involvement with children with Down syndrome versus with other types of mental retardation. *Journal of Intellectual Disability Research*, 47, 273-284.
- Santisi, G., Magnano, P., Hichy, Z., & Ramaci, T. (2014.) Metacognitive strategies and work motivation in teachers: an empirical study. *Procedia Social and Behavioral Sciences*, 116, 1227 - 1231 [doi:10.1016/j.sbspro.2014.01.373].
- Schimmenti, A., Passanisi, A., Pace, U., Manzella, S., Di Carlo, G., & Caretti, V. (2014) The Relationship Between Attachment and Psychopathy: A Study with a Sample of Violent Offenders. *Current Psychology* DOI: 10.1007/s12144-014-9211-z
- Tomanik, S., Harris, G. E. & Hawkins, J. (2004). The relationship between behaviours exhibited by children with autism and maternal stress. *Journal of Intellectual and Developmental Disability*, 29, 16-26.
- Valtolina, G. (2000). *Famiglia e disabilità*. Milano: Franco Angeli.

- Van Riper, M. (2007). The sibling experience of living with childhood chronic illness and disability. *Journal of Pediatric Nursing*, 22 (2), 116-128.
- Vianello, R. (2002). La famiglia del minore in situazione di handicap. *L'Integrazione Scolastica e Sociale*, 1 (1), 36-46.
- Visani, E., Di Nuovo, S., Lorio, C., Olson D.H. (2015). *Faces IV. Il modello circonflesso di Olson nella clinica e nella ricerca*. Milano: FrancoAngeli.
- Wolf, L.C., Noh, S., Fisman, S.N., & Speechley, M. (1989). Psychological effects of parenting stress on parents of autistic children. *J Autism Dev Disord*, 19, 157-166. [doi: 10.1007/BF02212727].
- Yirmiya, N., Erel, O., Shaked, M., & Solomonica-Levi, D. (1998). Meta-analyses comparing theory of mind abilities of individuals with autism, individuals with mental retardation, and normally developing individuals. *Psychol Bull.* 124(3), 283-307.
- Zani, B. (1997). *Le dimensioni della psicologia sociale*. Roma: NIS.