

Accurate Diagnosis of the Syndrome in Children with Autism Spectrum Disorders and Parents' Resilience

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Abstract

Autism is considered to be a much more serious syndrome than other developmental disorders and according to studies it affects the resilience of the parents with an autistic child to a larger degree, comparatively. In this article the results of the investigation between the family resilience of the parents and their child's diagnosis of the syndrome are presented, as it was regarded that, taking into consideration the autism syndrome and Asperger syndrome, the difficulties in a row of levels would be particularly more severe in diagnosed cases of autism. The parents of 312 autistic children in Greece, all of them couples, namely 624 men and women constituted the population sample. It was found that compared to Asperger syndrome at least, in cases of an autistic child's upbringing, the parents' resilience is more fragile, their stress higher and certainly the social support they receive is comparatively reduced.

Keywords: resilience, autism, autistic child, developmental disorders, Asperger, down syndrome

1. Introduction

The accurate diagnosis of autism seems to acquire a special significance as a factor affecting the parents' resilience, namely their positive adaptation within the framework of a big change, such as the awareness that they will bring up an autistic child (Hamilton, 2014). The review of the relatively recent surveys led to the study of the findings concerning the diagnosis, and the conclusion that was drawn was that the diagnosis is discussed either under the spectrum of comparing autism to other developmental disorders, or in relation to the parents' adjustment to the unpleasant news of an autistic child's presence in the house, and also of the role of the health experts, the information sources and the sources of the parents' social support. In the research that was conducted by the writer, the diagnosis was dealt with according to all these parameters, however, in this article, measurable data is given regarding the first parameter, namely that of the comparison of the autism problems to the ones deriving from other developmental disorders. Certainly, the theoretical context that follows presents a more overall picture about the treatment of the diagnosis in various studies in the latest years.

Smith et al. (2014) conducted a study on the assessment of parenting stress and the parents' views who face the difficulties in the language development of children with developmental syndromes, such as Down etc. They also refer to autism comparatively, noting that it is indeed a much more difficult situation compared to other ones. That is to say, it seems to have been recorded that the parents of autistic children face more difficulties than those who raise children with Down syndrome, therefore, they experience higher levels of parenting stress, either their children are older or younger. In the survey the population sample included 111 children of the age of 21 up to 48 months and one parent each time or career of the age of 22 to 57 years old. From the children, 29 children suffered from Down syndrome, whereas 82 from other developmental disorders. The research was quantitative and was conducted via a questionnaire. The aforementioned researchers underline that surveys have shown that the parents of children with autism have demonstrated higher stress levels which is rather related to their child's characteristics and not to the more general dimensions of parenting stress. On other specific points, the survey focuses on Down syndrome, however, its suggestions indicate that the accurate diagnosis -and this concerns of course the cases of autism as well- is a crucial differentiation factor for the parenting stress without ignoring the effect of other factors, such as the demographic ones. Nevertheless, the diagnosis remained a crucial factor even

after the results' correction for variables, such as the age of the father and of the mother and the adaptive behavior.

Ewles, Clifford and Minnes (2014) sought to explore the factors that develop the concept of advocacy in coping with autism. Their research focuses on the mothers, the role of whose is linked, according to the researchers, to the stressful factors, the resources and the parents' assumptions. The results of a population sample of 28 women reveal that an important factor to determine advocacy is the use of dysfunctional care strategies. The mothers' age varied from 30 to 53 years old and 79% of them were married. The rest of them were single, divorced or lived under a legally defined status (common-law). Their children were of the age between 6 to 19 years old. They had been diagnosed with autism, Asperger or permanent developmental disorders, non-defined differently. The initial diagnosis on autism concerned the 28,9% of them. As to advocacy, the researchers mention that its role is linked to the stressful factors, the resources and the parents' assumptions. The advocacy itself is possibly a management strategy. Perhaps the manner for the parents to practice advocacy effectively is also a resilience method of theirs, indeed a productive one. Because the aforementioned researchers note that in order for the parents to be better in this field, they themselves have to be trained to acquire an understanding of the relevant social, economic and political environments, and also to become familiar with the philosophies of the provision of services, legislation and budgetary issues. It is not enough for the parents to advocate, they have to be experts in disabilities, acting as vehicles of strategies and systemic change agents.

Doron and Sharabany (2013) agree that *stress* is a powerful and continuous factor which acts cumulatively and weakens the defence mechanisms that would allow for a more hopeful confrontation when the autistic children were younger. And they observe that the stronger autism symptoms have been connected to higher stress levels, whereas the mothers feel usually better with the positive reactions of their children's functionality. They mention other symptoms, too, such *fear of uncertainty*, due to the possibly long-lasting process for an accurate autism diagnosis. Doron and Sharabany point out that the parents face problems announcing the diagnosis to their wider family and friends, but once they do so, it seems that some regulation of the stress is achieved. Some sense of normality comes from the grandparents who seek after their children's peace of mind and contribute to the practical management of their autistic grandchildren. The nuclear family accepts in certain cases the frequent presence of a relative on a permanent basis who will help together with the siblings of the autistic child. Of course, some imbalances cannot be avoided, which will be dealt with by the parents.

Yarock Rutstein (2014) refers to a previous research focusing on the exploration of the support provided by official services to parents of children with autism, Down syndrome, as well as to neurotypical children. It was found that the mothers of children with autism were those ones having the most difficulties in establishing forms of informal contact based on community, such as the support from religious groups and parent support groups. As it becomes clear, the diagnosis issue is linked to various aspects of coping with autism, either autism is compared to other chronic and serious problems of the children, or it relates to the treatment of the autistic spectrum only.

For instance, Murphy and Tierney (2014) carried out a survey, their population sample consisted of 27 mothers and 11 fathers, in order to explore the needs for information and training they demonstrate after the autism diagnosis of their child. The questions posed concerned the parents' experiences immediately after the diagnosis, to the point where their knowledge and training needs were and had been, their primary information sources, their satisfaction from the quality and quantity of the available information and their own preference for certain information sources. They note certain important data also for the role of the health experts and they find that the way in which the diagnostic process is dealt with by them is directly linked to the difficulties the parents experience. In fact, many parents stated it would be particularly helpful, if the experts informed them on the autism's positive and negative aspects, as well as on the impact it may have not only on the child's growth, but also on the family course. It seems likely that a lot of negative information at this stage would possibly be inappropriate and would add more stress to an already sensitive condition. Likewise, more stress seems to be caused by the parents' contact with more experts and service providers at the same time. Specifically, the lack of agreement between bodies/institutions often leads parents to a personal quest for the specific needs that each service covers. Additionally, the experiences during the diagnosis are of an extreme importance for the future: they can affect the adjustment to autism, the parenting stress, the information and the parents training needs, the quality of their relation to the experts. The diagnostic process is crucial for the views, experiences and enhancement directly and in the long run.

The need for personal information is also examined by Selimoglu et al. (2013) in their research, a research which apart from the internet, as it is the case with other researches, refers to other sources of knowledge about autism that the parents with autistic children look for. This survey aimed at interpreting the attitudes of the parents with autistic children during the stage after the diagnosis. But they also refer to the stage before the diagnosis, and note that then an incomprehensive feeling predominates and a negation for the diagnosis, despite the fact that, regardless of the exact time period during which the parents observe changes in the their child's behavior, already from the first stage of perceiving certain developmental disorders and unexpected behaviors, they seek a diagnostic evaluation from doctors whom they consult together with their autistic children.

The survey by Gena and Balamotis (2013) deals with the autistic child's family and more specifically with his parents. It is about the parents' emotional adaptation to the diagnosis and living together with the autistic child, whereas it points out the factors that enhance this adaptation. The parents are under study and the first stages of their emotional adaptation are described, the adaptation to the burden they receive, and thus the factors that increase it, as well as the counselling and support of the family.

2. Method

2.1 Purpose

This article is part of a wider research which aimed at exploring the way in which the family resilience of parents with a child with autism spectrum disorders interacts with the social context among which the family is placed, as well as with the stress the parents experience during the upbringing of a child with autism spectrum disorders. It was important to investigate how the resilience is affected when the social support the family receives is low and the true stress high, with variables, apart from the level of social support that the parents receive and the stress they suffer from, certain demographic characteristics of the parents and of the child, too, such as the age, sex and the diagnosis of the syndrome the child suffers from. In this article, the results of the investigation of the relation between the parents' family resilience and the diagnosis of the syndrome in their child are presented, as it was considered that, taking into account the autism syndrome and Asperger syndrome, the difficulties in a row of levels would be particularly heavy in diagnosed cases of autism.

2.2 Participants

Table 1. Demographic and other characteristics of the participants in the survey

	n	%
Sex		
Men	312	50,0
Women	312	50,0
Nationality		
Greek	609	97,6
Other	15	2,4
Religion		
Christians	586	93,9
Muslims	38	6,1
Prefecture of		
Kavala	52	8,3
Rodopi	80	12,8
Xanthi	72	11,5
Cyclades	74	11,9
Serres	96	15,4
Drama	120	19,2
Evros	130	20,8
Education		
Primary Education	171	27,4

Secondary School Graduates	80	12,8
Lyceum Graduates	168	26,9
HEI/TEI Graduates	205	32,9
Studies in Psychology or in Special Education	0	0,0
<i>Annual Family Income</i>		
Below 15.000 €	266	42,6
15.000 € - 20.000 €	272	43,6
Over 20.000 €	86	13,8
<i>Family Status</i>		
Single	0	0,0
Married	624	100,0
Widower/Widow	0	0,0
Divorced	0	0,0
<i>Family Relation to the Child</i>		
Biological Father	312	50,0
Biological Mother	312	50,0
Step-father	0	0,0
Step-mother	0	0,0

As shown in Table 1, 624 parents of 312 children with autism spectrum disorders participated in the survey. The sample is uniformly distributed as to the parents' sex with 50.0% men and the same percentage of women. 97,6% of the sample, namely 609 parents, are Greeks, whereas 2,4%, namely 15 participants, are of a different nationality. 586 of the participants are Christians, 93,9% of the sample, whereas the remaining 6,1%, that is to say, 38 parents, are Muslims. As far as their place of residence in the Greek territory is concerned, 52 parents (8,3% of the total number) reside in the prefecture of Kavala, 80 parents (12% of the total number) reside in the prefecture of Rodopi, 72 participants (11,5% of the sample) in the Xanthi prefecture, 74 parents (11,9% of the sample) in the prefecture of Cyclades, 96 parents (15,4% of the total number) in the prefecture of Serres, 120 parents (19,2% of the total) in the prefecture of Drama and 130 parents (20,8% of the sample) in the prefecture of Evros.

The total number of the respondents (100,0% of the sample) are married and they are the biological parents of the child with autism spectrum disorders, 312 (50,0% of the sample) are the biological mothers and 312 (50,0% of the sample) the biological fathers.

The highest level of education for 27,4% of the participants (171 parents) is that of the primary education, 12,8% of the participants (80 parents) have received a low secondary education (*gymnasium*), 26,99% (168 parents) have received a high secondary education (*lyceum*), whereas the rest of the participants, that is to say, 32,9% of the sample (205 parents) have received a post-secondary education, as they are graduates of Higher Educational Institutes (HEI) and Technological Educational Institutes (TEI).

Concerning the annual family income, 42,6% of the sample (266 parents) declared an amount below 15.000€, 43,6% of the total number (272 parents) between 15.000€ and 20.000€ and the remaining 13,8% (86 parents), an income over 20.000€.

The children's characteristics are summarized in Table 1 in this text.

Table 2. Sex of the children with autism spectrum disorders and Asperger syndrome

	n	%
Sex		
Boy	253	81,1
Girl	59	18,9
Diagnosis		
Autism	282	90,4
Asperger	30	9,6
I don't know	0	0

Table 3. Characteristic age values of the children with autism spectrum disorders

	Mean Value*	Standard Deviation	Skewness	Kurtosis
The Age of Children with Autism Spectrum Disorders	12,45	5,33	1,184	1,937

With regard to the child's sex, 81,1% of the respondents, namely 506 in number, are boys' parents and the remaining 118 parents (18,9% of the sample) are girls' parents. The average age of the 312 children whose parents participated in the research is $M = 12,45$ years with standard deviation $SD = 5,3$ years. 90,4% of these children, that is to say, 282 in terms of numbers, have been diagnosed with autism, whereas the remaining 30 children, 9,6% of the total number, have been diagnosed with Asperger syndrome. The children's characteristics are summarized in Tables 2 and 3 in the present text.

2.3 Note

The demographic characteristics of the families with dysfunctional children are factors relating directly to the parents' stress levels (Houser & Seligman, 1991; Keller & Honig, 2004). For this reason the questionnaire that was distributed to the participants contained specific fields the completion of which would provide the necessary demographic information on each family, namely on the sex, nationality, religion, education level, annual family income, current family status, family relation to the autistic child, the child's age and sex, as well as his accurate diagnosis.

2.4 Data Collection

The supplying and collection of the questionnaires were realized by the writer from July 2015 to February 2016. The search for parents with children with autistic spectrum disorders was conducted based on the catalogues of the Center for Differential Diagnosis, Diagnosis and Support (KE.D.D.Y.) in the prefectures of the Greek territory, where an archive is kept on the children that receive a diagnosis. The parents were approached via mail sent to their residence address, to which the research questionnaire was attached, as well as an accompanying form that informed them in detail of the purpose and the aims of the research process. Special emphasis was put on the importance of confidentiality and anonymity of the information, namely that the data of the child and of the parents themselves would remain anonymous, whereas the information will be used exclusively for the needs and the purpose of the present research.

Though the accompanying form the parents were informed that they had to complete the entire questionnaire and the duration of its completion should not exceed 60 minutes. The participants were urged to contact the researcher on his mobile phone for the provision of instructions and clarifications about the correct completion of the questionnaire. Moreover, the importance of the completion by every parent separately was specifically pointed out to the participants, without there being an exchange of views among the couples, so that the achievement of the research's aims be possible.

The collection of the completed questionnaires was realized with their return to the researcher, by mail, from the families that had consented to an analysis of their answers. The return of the questionnaires to the researcher was defined to take place within 30 days after the date of their dispatching to these families.

2.5 Data Analysis

For the investigation of the relations that govern the Social Support, Family Resilience and Parental Stress of parents with children with autism spectrum disorders, the following three data collection tools were used.

Social Support Index: The degree of the social support of parents who have a child with autism spectrum disorders was measured with the widely spread SSI tool (McCubbin, Patterson, & Glynn, 1982) which assesses the family social support as a factor in family resilience (Fischer, Corcoran, & Fischer, 2007). It contained 16 questions the answers to which were given in the 5-point Likert scale (0 up to 4). In every questionnaire statement, the respondents can state the measure of their agreement or disagreement by choosing one of the following answers: “I strongly disagree”, “I agree”, “I am not sure”, “I agree” and “I fully agree”, which are ranked on a scale of 0 to 4. In certain answers the scale was reversed so that a common conceptual content could be achieved. As to the answers’ interpretation for the definition of the Social Support degree, the scores of the individual questions are summed, the highest scores indicating a highest Social Support degree. The span of the SSI scale was from 0 to 6 units. The SSI has a high internal validity index with a = 0,82. The Social Support scale was used as an independent variable.

Family Resilience Assessment Scale: The FRAS scale of Tucker Sixbey (2005) was used to measure Family Resilience, based on the theoretical standard of Walsh (2006) on family resilience. It contained 66 closed-type questions which, as in the SSI case, they were answered in the Likert scale, but in a 4-point one, with values varying from 1 to 4, corresponding to the choices: “I strongly disagree”, “I disagree”, “I agree” and “I fully agree”. The scale was reversed in four of these questions, and again for the acquisition of a common conceptual content. There was also an open-ended question. From these questions 54 were assessed, which were grouped together and formed 6 subscales of family resilience, as Tucker Sixbey (2005) suggests. More specifically, the subscales are as follows: **1) Family Communication and Problem Solving:** here, 27 questions of the data collection tool correspond to it. The result of the subscale is given with Cronbach’s alpha coefficient 0,96, whereas the horizontal sum of the individual questions forms the subscale’s final rating with a span from 27 to 108 units. **2) Utilizing Social and Economic Resources:** It is formed by 8 questions. Its rating is calculated by summing the participants’ answers and it varies from 8 to 32 units. The subscale’s reliability has a Cronbach’s alpha index of 0,85. **3) Maintaining Positive Outlook:** The questions composing the subscale are 6. The internal validity was calculated with the 0,86 Cronbach’s alpha coefficient and in the same way the subscale’s rating is calculated which varies from 6 to 24 units. **4) Family Connectedness:** It is composed of 6 questions, among which the four ones in which the scale was reversed for conceptual reasons are also included. The sum of the score of all the questions that compose it, shapes the subscale’s rating which it can also vary from 6 as minimal value to 24 as maximum value. Its reliability, measured with the Cronbach’s alpha coefficient, was found to be of 0,70. **5) Family Spirituality:** The subscale is composed of 4 questions. From the sum of the answers’ score its rating varies from 4 to 16 units and the measurement of its internal validity gave a Cronbach’s alpha coefficient of 0,88. **6) Ability to Make Meaning of Adversity:** It is formed by 3 questions, its rating is calculated by summing the answers of the respondent parents and it varies from 8 to 32 units. The subscale’s reliability has a Cronbach’s alpha index of 0,74.

Taking into consideration the exception of 12 questions, it must be noted that the rating for the measurement of the total family resilience results from the horizontal sum of the 6 subscales and may vary from 66 to 264 units. Both for the total family resilience assessment scale and its entire individual subscales, higher scores indicate higher levels of family resilience. The reliability and internal validity in total for the tool used were calculated with the Cronbach’s alpha coefficient and was found to be of 0,96. It is noted that the open-ended question was omitted.

Parenting Stress Index—Short Form: The parenting stress degree was measured by using the PSI-SF index (Abidin, 1995), which calculates the stress of the parents with children with autism spectrum disorders, which comes exclusively from their role as parents, without taking into consideration any external stressful factors, apart from the parent-child relation, as well as the child himself. The measurement tool consisted of 36 closed-type questions that were answered based on the 5-point Likert scale (1 to 5 = “I strongly disagree”, “I disagree”, “I am not sure”, “I agree” and “I fully agree”). They were grouped together in three groups equal in number, that shaped the three index subscales as follows: **1) Parental Distress:** It is made of questions 1-12 of the PSI-SF tool. The subscale rating is calculated by summing the answers and it varies from 12 to 60 units, reflecting the stress that is due to factors that concern the parents and which relate to the child’s upbringing. The subscale’s reliability has a Cronbach’s alpha index of 0,85. **2) Parent-Child Dysfunctional Interaction:**

Questions 13 to 24 compose the second subscale of the Parenting Stress Index which represents the disappointment the parents feel regarding their interactions with their child. The sum of the score of all the questions that compose it, shapes its rating which may also vary from the minimum value of 12 units to the maximum value of 60 units. The subscale's reliability measured with the Cronbach's alpha coefficient was found to be of 0,68. **3) Difficulty of Child:** It is formed by the twelve last questions in the questionnaire, 25 to 36. Its rating is calculated by summing the parents' answers, it varies from 12 to 60 units and assesses their perception about the self-regulation of their child's behavior. The subscale's reliability has a Cronbach's alpha index of 0,78.

The rating for the measurement of the total Parenting Stress results from the horizontal sum of the 3 subscales and varies from 66 to 264 units. Both for the scale and its subscales, high scores indicate high stress levels, whereas a low rating indicates low stress levels. According to the PSI-SF self-report index, the values between the 15th and 80th percentage point of distribution are considered to be normal stress levels, whereas for the individuals whose rating varies from values above the 90th percentage point of distribution, it is regarded that they are in the clinical range of high stress levels. The reliability and internal validity in total for the tool used was calculated with the Cronbach's alpha coefficient and was found to be of 0,84.

The **consistency check** was performed via the alpha "coefficient" of Cronbach (Cronbach's α), with the use of which the reliability of the data collection tools and their individual parts is defined. Coefficient values higher than 0,6 are considered satisfactory and they ensure their cohesion and internal validity, functioning as elements of a unified group. For the **description of the quantitative variables** that participated in the statistical analysis, the mean values (Mean), the standard deviations (Standard Deviation = SD), the minimal and maximum values (Min-Max) as well as the third and fourth order moments (Skewness and Kurtosis) of their distributions were used. In the case of the qualitative data, their description was made via the recording of their relevant absolute (n) and percent (%f) frequencies. The **linear correlation check** between the quantitative variables was conducted via the Pearson r correlation coefficient. The r correlation coefficient varies between -1 and 1, whereas the higher it is in absolute value, the higher the correlation between the variables becomes. Even though there are no commonly accepted limits, index values, to an absolute value, lower than 0,3 indicate weak correlations, values between 0,3 and 0,5 indicate medium correlations, whereas values higher than 0,5 mark high and strong correlations. Positive values of the coefficient suggest a positive correlation, whereas negative values, a negative correlation. The statistical significance of the correlations is checked at significance levels $\alpha = 1\%$ and $\alpha = 5\%$. For the **comparison of the quantitative variables** and the drawing of the survey's main conclusions, the Independent Samples t-test and the Paired Samples t-test were used depending on the nature and kind of the variables under examination. Moreover, its generalization for variables with more than two levels, the one-way Analysis of Variance (ANOVA), was used. The further study on the differences in the factors' levels is carried out with the Tukey method for multiple comparisons. The check of the hypothesis on equality of the variances on the factors' levels is performed via the Levene's test, whereas the safeguarding of the basic conditions concerning regularity and independence of the method's errors was checked via the Kolmogorov-Smirnov test and the Runs test, respectively. The aforementioned hypothesis checks are performed at a significance level $\alpha = 5\%$. For the **processing and statistical analysis** of the data the IBM SPSS Statistics 20 data statistic analysis software package was used.

3. Results

The results that follow are derivatives of that part of the statistical processing of the findings of the population sample under investigation, where effort was made to trace possible differentiations in the values of family resilience assessment scales, of the social support and parenting stress scales, as well as of their components, in relation to the accurate diagnosis of the syndrome in their child. In a total number of 506 boys (81,1%) and 118 girls (18,9%), namely 624 children, 564 (90,4%) have been diagnosed with the autism syndrome, whereas the remaining 64 children (9,6%), with Asperger syndrome. Table 2 presents the sex and the children's diagnosis, whereas Table 4 shows the findings resulting from the aforementioned checks for the statistically important differentiations at significance level $\alpha = 5\%$.

Table 4. Comparison of mean values of the scales and subscales as to the diagnosis

Scales & Subscales	Diagnosis	Mean	SD	df	t	p-value
SSI	Autism	41,92	4,833	622	-3,284	0,001*
	Asperger	44,08	5,063			
FRAS totally	Autism	153,24	7,878	622	-6,101	0,000*
	Asperger	159,90	9,468			
FCPS	Autism	78,29	4,430	622	-5,870	0,000*
	Asperger	81,93	5,719			
USER	Autism	22,61	1,545	622	-5,002	0,000*
	Asperger	23,65	1,448			
MPO	Autism	17,28	1,146	73,421	-5,162	0,000*
	Asperger	18,05	1,096			
FC	Autism	14,95	0,738	622	-0,528	0,598
	Asperger	15,00	0,781			
FS	Autism	11,60	1,487	622	-2,906	0,004*
	Asperger	12,18	1,455			
AMMA	Autism	8,52	0,915	622	-4,487	0,000*
	Asperger	9,08	1,078			
PSI-SF totally	Autism	117,34	12,121	61,690	5,858	0,000*
	Asperger	97,25	26,314			
PD	Autism	37,56	4,750	62,270	4,731	0,000*
	Asperger	31,77	9,363			
P-CDI	Autism	41,28	4,290	61,906	6,190	0,00*
	Asperger	34,03	8,965			
DC	Autism	38,53	5,346	62,862	5,557	0,000*
	Asperger	31,45	9,708			

Note. *= p< .05.

Memo

SSI: *Social Support Index*
 FRAS: *Family Resilience Assessment Scale*
 FCPS: *Family Communication and Problem Solving*
 USER: *Utilizing Social and Economic Resources*
 MPO: *Maintaining Positive Outlook*
 FC: *Family Connectedness*
 FS: *Family Spirituality*

AMMA:	<i>Ability to Make Meaning of Adversity</i>
PSI-SF:	<i>Parenting Stress Index – Short Form</i>
PD:	<i>Parental Distress</i>
P-CDI:	<i>Parent-Child Dysfunctional Interaction</i>
DC:	<i>Difficulty of Child</i>

The results above show that statistically there are important differences between the diagnosed syndromes in the children for all three total scales of measurement. As to the total social support index SSI ($t(622) = -3,284, p = 0,001$) the parents of children with Asperger syndrome present a higher average rating $M = 44,08$ in relation to the parents with an autistic child with $M = 41,92$ enjoying higher levels of social support. Likewise, for the total FRAS scale ($t(622) = -6,101, p = 0,000$) the corresponding average ratings vary from $M = 159,90$ to $M = 153,24$, with the parents of children with Asperger syndrome enjoying higher family resilience levels. On the contrary, these parents present lower parenting stress levels in the total scale of PSI-SF ($t(61,690) = 5,858, p = 0,000$) with average rating $M = 97,25$, in contrast to the corresponding one of $M = 117,34$ of the parents with an autistic child.

The same rating as to the two parents' groups corresponding to their child's diagnosis, results both for all the individual parenting stress subscales and for all the components of family resilience, apart from the one which concerns Family Connectedness (FC), for which no important differences have resulted statistically. The average rating in every subscale for the two groups is showed in Table 2 above, in which statistical check results for FC are also included.

4. Discussion

The accurate diagnosis of the syndrome in the wider autism spectrum is a crucial factor in shaping the characteristics under study. Parents the child of whose has been diagnosed with Asperger syndrome experience larger social support, develop higher total resilience and face less stress in total compared to the parents of children with autism. Likewise, the same parents appear to be more able in family communication & problem solving, they utilize better the social and economic resources, they maintain a more positive outlook, they have wider family spirituality and they can make meaning of adversity in relation to the parents with children with autism more easily. Between these parents no differentiation is observed as to their family connectedness. Furthermore, parents with children with Asperger shape lower parental distress levels, lower parent-child dysfunctional interaction and they face the difficulties that their child faces in a better way, compared to the parents of children with autism.

In the specific case, the significance of diagnosis may be examined, both as to its earliness and its seriousness. Certainly the children with Asperger syndrome, or with "functioning autism", are expected to have less difficulties compared to those ones with autism spectrum disorders. Therefore, it is natural for the parents with children that suffer from this syndrome to be overwhelmed with lesser distress and to experience a dysfunctional interaction with their child to a lower degree. Our paper in the theoretical part has not dealt with the said syndrome, nonetheless, it can be said that the findings in the empirical part which concern it are indirectly confirmed by what is written in the theory on the importance of the different degrees of autistic behavior. The seriousness of the symptoms has been reported as being one of the most vital factors causing stress in the family environment, in fact, these act also as causes for physical burden, such as aches on the head and on the back and also myalgiae, whereas they relate to higher fatigue percentages (Van Bourgondien, Dawkins, & Marcus, 2014). Apart from the stress increase, they reduce also the sense of self-effectiveness in the parents and they affect negatively the social connectedness (Batoool & Khurshid, 2015). It must be noted that all researchers do not link the parents' unpleasant feelings to the seriousness of the symptoms. For instance, Yang et al. (2016) find no correlation to the parents' depression. More particularly, though, it seems that, for the stress, the correlation is more direct and researchers are looking for ways to treat the symptoms, even through the problem's acceptance and the development of a true will for the care of the autistic child on the part of his parents (Ewles, Clifford, & Minnes, 2014). Here, it is considered justifiable that the research that was conducted is in line as to its conclusions with those ones of the researches that link the seriousness of the autistic symptoms to the more general function of the family environment.

As to the other parameter, that of the earliness of the diagnosis, the research that was carried out does not concern the effect of temporality of the autism diagnosis, but only its seriousness. Possibly, a more early diagnosis brings the family faced with the problem more early, so as to launch the treatment of the relevant

adversities in a more premature stage, thus succeeding more early the proper psychological adjustments. Hamilton (2014) supports this point, even though she accepts that many factors affect the parents' resilience at the same time. The earliness of the diagnosis has a benefit on many levels, such as the timely start of collecting useful information on the part of the parents (Murphy & Tierney, 2014), however, no more can be said about the specific parameter after the completion of this research, because, let it be repeated at this point, the accurate diagnosis of the autism was dealt with in it with data concerning the seriousness of the symptoms and not the earliness of the knowledge about the child's condition.

5. Methodological Limitations

The geographical distribution of the sample can be regarded as one basic limitation of the research. Despite the fact that as to its size, it is big enough and representative per district, it concerns only seven prefectures in the Greek territory. Consequently, generalizations of the conclusions that are drawn will have to be made with caution, even though it seems that they can be considered as particularly representative. An equally important limitation is that fact that the sample taken is exclusively from parents of a specific family structure. The families chosen are all two-parent families and the parents who participate in the survey have a specific family relation to the child. So, it cannot be assumed that the effects of the family structure and family relation have been adequately explored. Besides, the assessment that was made is based on the self-reports of the parents with a child with autism spectrum disorders, without other reports and information from other important persons of the parents' environment being detected, such as the rest of the families' members and health experts who possibly aid the parents. It must also be added that the survey is synchronic and interrelated, therefore it is not possible to discuss casual links between the factors under study. In addition, in this attempt no other possible parameters and co-morbidities linked to the levels of family resilience were assessed, such as depression, loneliness, the parents' interpersonal relations and social skills. All the aforementioned limitations must be taken into consideration during the study and interpretation of the present research findings.

6. Conclusions

It can be considered that the result between the syndromes which the children who have autism spectrum disorders are diagnosed with is expected, autism is a much more difficult condition as to its management, at least in comparison with Asperger. Because the parents' resilience is more fragile, their stress is higher and certainly the social support they receive is comparatively reduced. The difficulties in treating the syndrome are of course important, and the stress caused by the upbringing and dealing with the autistic child's needs is increased, however, the social support parameter may possibly be improved, namely the social support may be intensified and perhaps then lower stress values and higher resilience values will result for the parents who raise children with the autism syndrome.

References

- Abidin, R. R. (1995). *Parenting Stress Index* (3rd ed.). Odessa, FL: Psychological Assessment Resource.
- Batool, S. S., & Khurshid, S. (2015). Factors associated with Stress among Parents of Children with Autism. *Journal of the College of Physicians and Surgeons Pakistan*, 25(10), 752-756.
- Doron, H., & Sharabany, A. (2013). Marital patterns among parents to autistic children. *Psychology*, 4(4), 443-445. <https://doi.org/10.4236/psych.2013.44063>
- Ewles, G., Clifford, T., & Minnes, P. (2014). Predictors of Advocacy in Parents of Children with Autism Spectrum Disorders. *Journal of Developmental Disabilities*, 20(1), 73-82.
- Fischer, J., Corcoran, K., & Fischer, J. (2007). *Measures for clinical practice and research: A sourcebook*. New York: Oxford University Press.
- Hamilton, N. (2014). *Resilience in Families with Autism Spectrum Disorder*. Kaplan University. Retrieved December 23, 2014, from <http://www.kaplanuniversity.edu/public-service/articles/families-and-autism.aspx>
- Houser, R., & Seligman, M. (1991). A comparison of stress and coping by fathers of adolescents with mental retardation and fathers of adolescents without mental retardation. *Research in Developmental Disabilities*, 12, 251-260. [https://doi.org/10.1016/0891-4222\(91\)90011-G](https://doi.org/10.1016/0891-4222(91)90011-G)
- Keller, D., & Honig, A. S. (2004). Maternal and Paternal Stress in Families with School-Aged Children with Disabilities. *American Journal of Orthopsychiatry*, 74, 337-348. <https://doi.org/10.1037/0002-9432.74.3.337>

- McCubbin, H. I., Patterson, J., & Glynn, T. (1982). Social Support Index (SSI). In H. I. McCubbin, A. I. Thompson, & M. A. McCubbin (Eds.), *Family assessment: Resiliency, coping and adaptation-Inventories for research and practice* (pp. 357-389). Madison, WI: University of Wisconsin System.
- Murphy, T., & Tierney, K. (2014). *Parents of Children with Autistic Spectrum Disorders (ASD): A Survey of Information needs*. Report to the National Council for Special Education Special Education Research Initiative. Retrieved November 30, 2014, from http://ncse.ie/wp-content/uploads/2014/10/Parents_of_children_with_ASD.pdf
- Selimoglu, O. G., Ozdemir, S., Toret, G., & Ozkubat, U. (2013). An Examination of the Views of Parents of Children with Autism About Their Experiences at the Post-Diagnosis Period of Autism. *International Journal of Early Childhood Special Education*, 5(2), 162-167.
- Smith, A. L., Ronski, M., Sevcik, R. A., Adamson, L. B., & Barker, R. M. (2014). Parent Stress and Perceptions of Language Development: Comparing Down Syndrome and Other Developmental Disabilities. *Family Relations*, 63(1), 71-84. <https://doi.org/10.1111/fare.12048>
- Tucker Sixbey, M. (2005). *Development of the Family Resistance Assessment Scale to Identify Family Resilience Constructs*. University of Florida. Retrieved December 3, 2014, from http://etd.fcla.edu/UF/UFE0012882/sixbey_m.pdf
- Van Bourgondien, M. E., Dawkins, T., & Marcus, L. (2014). Families of Adults with Autism Spectrum Disorders. In F. R. Volkmar, B. Reichow, & J. McPartland (Eds.), *Adolescents and Adults with Autism Spectrum Disorders* (pp. 15-40). New York: Springer. https://doi.org/10.1007/978-1-4939-0506-5_2
- Walsh, F. (2006). *Strengthening family resilience* (2nd ed.). New York: Guilford Press.
- Yang, C.-H., Du, Y.-S., Gong, Y., Liu, W.-W., & Kutcher, S. (2016). Depressive symptoms and their correlates in parents of children with autism spectrum disorders. *Int J Clin Exp Med*, 9(2), 5135-5143.
- Yarock Rutstein, S. (2014). *Raising Young Children on the Autism Spectrum: Parental Stress and Received Social Support*. A Dissertation Submitted to the Faculty of the Graduate School of Applied and Professional Psychology of Rutgers, The State University of New Jersey. Retrieved November 16, 2014, from <https://rucore.libraries.rutgers.edu/rutgers-lib/45156/>
- Γενά, Α., & Μπαλαμώτης, Γ. (2013). *Η Οικογένεια του Παιδιού με Αυτισμό. Τόμος Α'. Οι γονείς*. Αθήνα: Gutenberg.

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