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Investigating the Resilience Levels of Parents with Children with Multiple Disabilities Based on Different Variables

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Abstract: This study investigated the resilience levels of parents with children with multiple disabilities by utilizing different variables. The study, conducted with survey model –a qualitative method- included a sample composed of a total of 222 voluntary parents (183 females, 39 males) residing in Bolu, Duzce and Zonguldak in Turkey. Parental Information Form and Family Resilience Scale, consisting of 4 sub dimensions (Challenge, Self Efficacy, Commitment to Life and Control) and a total of 37 items, were used in the framework of the study which included reliability and validity studies of the scale as well. Differences between sub groups were not statistically significant for the following variables: gender of children with multiple disabilities; age of children with multiple disabilities; support received for child care by parents of children with multiple disabilities; age of parents of children with multiple disabilities; psychological support received by parents of children with multiple disabilities; psychological support received by parents of children with multiple disabilities; psychological support received by parents of children with multiple disabilities; psychological support received by parents of children with multiple disabilities; psychological support received by parents of children with multiple disabilities; psychological support received by parents of children with multiple disabilities; psychological support received by parents of children with multiple disabilities; psychological support received by parents of children with multiple disabilities; psychological support parents of children with multiple disabilities; psychological support parents of children with multiple disabilities; psychological support parents

Keywords: Resilience, family resilience, multiple disability, parents, resilience level.

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Introduction

Family is the smallest unit of the society formed by individuals with idiosyncratic manners, beliefs and values who are connected with marriage, blood or children and live together under the same roof, share a common income and interact and communicate with their social roles (Koknel, 1970). Couples opt for children for several reasons. They regard children as a complementary element of their marriage (Gundogdu, 1995). Before having their children, couples have the ideal child image (with healthy and normal developmental patterns). Parents who expect the birth of a child with the same mental and physical developmental patterns with peers lose the concept of ideal child they have been dreaming about and their dreams come to an abrupt end (Caglar, 1979). Akinci and Darica (2000) define disabilities as situations in which it becomes difficult to adapt oneself to the requirements of normal life as a result of continuous loss of function or disabilities in physical, mental, psychological or social characteristics of the individual. According to Turkish Statistical Institute data (2010), 18% of individuals with disabilities have multiple disabilities. Although the education of this group has been neglected in our country (Safak, 2009), studies conducted on individuals with multiple disabilities have increased in number (Eldeniz Cetin, 2013; Sardohan-Yildirim & Akcamete, 2014; Singh, Lancioni, O'Reilly, Molina, Adkins & Oliva, 2003; Spevack, 2006; Safak, 2009; Safak, 2010; Safak, 2012; Safak, Eldeniz-Cetin, & Kot, 2015; Tam, Phillips & Mudford, 2011). While having a disability is a problem in all phases of life, individuals with severe or multiple disabilities face more problems (Cavkaytar & Diken, 2005). While parents who have children with one disability have difficulties dealing with this disability, parents of children with multiple disabilities face more than one disability and experience more difficulties. When they face difficulties in coping with their problems, parents can redress the balance and become more resilient by increasing their efforts and changing the ends and means that they use to meet their needs (Patterson, 2002). The first thing to strengthen the resilience levels of families is to identify the situation. A modern approach to use in this sense is to focus on the positive and strong aspects of individuals rather than focusing on the negative and weak ones (Karairmak & Sivis, 2008). The concept of focusing on the strong aspects

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of individuals is positive psychology. Positive psychology supports the view that individuals should not regard themselves with only negative aspects and be pessimist, determinist, accusatory, dependant, jealous, selfish and judgmental individuals (Aydin, Yilmaz & Altinkurt, 2013) and it focuses on the strong aspects of individuals (resilience, coping, optimism, self efficacy etc.) (Duckworth, Steen & Seligman, 2005; Sheldon & King, 2001). In this context, the concept of resilience becomes significant. Resilience is defined by Earvolino-Ramirez (2007) as "the ability to recover rapidly when an individual experiences negative or troubling events, to recuperate, to bounce back to normal". Identifying the resilience characteristics of parents of children with multiple disabilities and focusing on their positive potentials may significantly contribute to these parents, the family as an institution and society.

Review of the studies that aim to identify the resilience levels of f parents of children with multiple disabilities show that these studies mainly focus on the resilience levels of parents of children with hearing disabilities (Ahlert & Greeff, 2012), parents of children with mental disabilities (Gerstein, Crnic, Blacher & Baker, 2009; Jonker & Greeff, 2009), parents of children with Down Syndrome (Van Riper, Ryff & Priadham, 1992), parents of children with autism spectrum disability (ASD) (Bayat, 2007; Bekhet, Johnson & Zauszniewski, 2012; Cripe, 2013; Greeff & Walt, 2010); Kapp & Brown, 2011;), parents of children with Rett Syndrome (Retzlaff, 2007), parents of children with behavioral problems (Mcconnell, Savage and Breitkreuz, 2014), parents of children with developmental disabilities (Greeff & Nolting, 2013) and parents of children with chronic illnesses (Lee et. al., 2004). Literature review undertaken to review the studies conducted in Turkey and abroad point to the fact that there are no studies on the resilience levels of parents with children with multiple disabilities although several studies have been identified on resilience of children with various types of disabilities and resilience of their parents. Therefore, this study focused on investigating the resilience levels of parents with children with this aim in mind:

1. Do the demographic characteristics of the parents of children with multiple disabilities (gender, age, level of education, income level, receiving support for child care, health problems, receiving psychological support) present significant differences based on the variables listed below?

2- Do the demographic characteristics of the children with multiple disabilities (age, gender, type of disability) present significant differences based on the variables listed below?

Method

Research Model

General survey model was used in this study.

Universe and Sample

The universe for the study is the parents of children with multiple disabilities in Turkey. Sample was selected from this universe with availability sampling method. The sample of the study was composed of a total of 222 voluntary parents (183 females, 39 males) residing in Bolu, Duzce and Zonguldak provinces.

Examination of the demographic characteristics of participating parents in the research group in terms of frequencies and percentage distributions shows that 42 parents (18,9%) were in 21-30 age range, 94 (42,3%) were in 31-40 age range, 60 (27,1%) were in 41-50 age range and 26 (11,7%) were in the age range of 51 and older. 183 of the parents (82,4%) were females and 39 (17,6%) were males. 14 (6,3%) of the parents were illiterate, 103 (46,4%) graduated from primary school, 50 (22,5%) from secondary school, 44 (19,8%) from high school and 11 (5,0%) from college or higher levels. 82 of the parents (36,9%) earned up to 1000 Turkish Liras (TL), 99 (44,6%) earned between 1001-2000 TL, 25 (11,3%) earned between 2001-3000 TL and 16 (7,2%) had an income between 3001-4000 TL. 129 of the parents (58,1%) expressed that they received support in taking care of their children with multiple disabilities while 93 (41,9%) stated that they had no support in taking care of their children with multiple disabilities. 24 of the parents (10,8%) stated that they had serious health problems whereas 198 of the parents (89,2%) had no serious health issues. 10 parents (4,5%) said they received psychological support from an expert while 212 (95,5%) parents did not receive psychological support from an expert.

Examination of the demographic characteristics of the children with multiple disabilities in the research group in terms of frequencies and percentage distributions shows that 51 of these children (23,0%) were 0-6 ages, 81 (36,5%) were 7-12, 52 (23,4%) were 13-18 and 38 (17,1%) were 18 or older. 89 children (40,1%) were females and 133 (59,9%) were males. 136 of the participating children (61,3%) had physical and mental disabilities, 31 (14,0%) had hearing and mental disabilities, 15 (6,8%) had visual and mental disabilities, 18' (8,1%) had physical and hearing disabilities and 22 (9,8%) had physical and speech disabilities.

Data Collection Tools

Parental Information Form developed by the researcher was used to identify the demographic characteristics of parents with children with multiple disabilities. Family Resilience Scale developed by Kaner and Bayrakli (2010) was utilized to determine the resilience levels of participating families.

Parental Information Form: this form was generated by the researcher and includes questions that aim to collect data related to demographic characteristics of parents with children with multiple disabilities (age, gender, level of education, income level, receiving support in the care of the child, health problems, receiving psychological support) and demographic characteristics children with multiple disabilities such as the age, gender and type of disabilities.

Family Resilience Scale: Family Resilience Scale was developed by Kaner and Bayrakli (2010) to identify resilience levels of parents with children with multiple disabilities. Family Resilience Scale is 5-point Likert type scale with 37 items and parents select the best option that defines their situation (describes it very well: 5; does not describe it at all: 1). The scale has four sub scales: Challenge, Self Efficacy, Commitment to Life and Control. High scores obtained in Family Resilience Scale point to high levels of resilience. Results of item correlation conducted on the 37 items of Family Resilience Scale show the following item total correlations: 0.451-0.689 for Challenge; 0.468-0.697 for Self Efficacy, 0.387-0.637 for Commitment to Life and0.339-0.408 for Control. Construct validity for the scale was investigated with the help of exploratory factor analysis followed by confirmatory factor analysis. Goodness-of-fit values obtained as a result of confirmatory factor analysis were found to be chi square 1300.96, sd 620, chi square /sd 2.1, NF1 0.84, NNFI 0.90, cfi 0.91, gfi 0.88, agfi 0.87, rmsea 0.046 and rmr 0.044. Reliability analysis for Family Resilience Scale presented the Cronbach Alpha coefficient for the scale as 0,937. According to this result, the reliability of the scale is good since it is higher than 0,70 (Buyukozturk, 2014).

Data Collection

Required permits were taken from related institutions for the study and the study was conducted on a voluntary basis.

Data Analysis

Prior to the data analysis process, the scores obtained from the participants were subjected to some controls. The statistical test type that would be used for the 10 variables included in the study was decided based on the findings obtained during these controls. The controls used in this process are listed below respectively:

a) Defining the category numbers of the variables,

- b) Controlling and cleaning the missing and extreme values in the data set,
- c) Testing the normality of the total scores obtained form sub scales and the scale
- d) Testing the variance homogeneity for the variables with more than two categories,
- e) Determining the statistical test that would be used

The controls undertaken in this respect showed that only the total scores in Resilience Scale presented normal distribution while scores in the subscales did not display normal distribution. According to these results, Unrelated Samples T-Test - a parametric test- was used for Resilience Scale total scores in the comparisons based on gender of the parent, gender of the child, receiving support in taking care of the child, health problems of the parent and receiving psychological support variables while non-parametric Mann Whitney U test was utilized for sub scale scores.

One way ANOVA – a parametric test- was used for comparing the variables with more than two categories. In addition to normality assumption, equality of variances assumption was also controlled for one way ANOVA. The controls showed that the total scores obtained from Resilience Scale met normality and equality of variances assumption while the scores obtained from sub scales met the equality of variances assumption but not the normality assumption. Based on these results, One way ANOVA – a parametric test- was used for the total scores obtained from Resilience Scale since the age of the parents, age of the children with multiple disabilities, income level, type of disability and level of education for parents met both assumptions. Kruskall Wallis H test –a non-parametric test- was used for the analyses on sub scale scores.

Findings

Findings obtained in the study are presented in two categories as findings related to demographic characteristics of parents with children with multiple disabilities and findings related to demographic characteristics of children with multiple disabilities

Findings Related to Demographic Characteristics of Parents with Children with Multiple Disabilities

This section presents the findings regarding the demographic characteristics of parents of children with multiple disabilities based on the following variables: gender, age, level of education, receiving support in taking care of the child, health problems, receiving psychological support.

Findings for Family Resilience Scale sub scale and total scores based on the gender of parents of children with multiple disabilities

Table 1 presents the findings related to the analyses on the four sub scales of the Resilience Scale based on the gender of parents of children with multiple disabilities.

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	Table 1. Results of analysis for gender of parents of children with multiple disabilities											
Score	Sub	N	$\overline{\mathbf{X}}$	SS	Rank	Sum of	U	Z	р			
Challongo	Female	183	59,044	10,504	103,940	19021	2185	-3,801	,000*			
Chanenge	Man	39	65,461	10,226	146,970	5732						
Self efficacy	Female	183	38,148	3,585	110,420	20207	3371	-0,545	0,586			
	Man	39	38,333	3,327	116,560	4546						
Commitment to	Female	183	30,700	4,560	112,10	20513,50	3459,5	-0,3	0,764			
life	Man	39	30,128	4,646	108,710	4239,50						
SolfControl	Female	183	11,120	2,040	111,730	20446,50	3526,5	-0,117	0,907			
Sell Colluio	Man	39	11,077	1,979	110,420	4306,50						
Docilionao	Female	183	139,010	17,896	220	1,920	0,056					
Resilience	Man	39	145	16,639								

*p<,05

Table 1 displays that statistically significant differences exist only between Challenge sub scale scores in terms of the gender of parents of children with multiple disabilities (U = 2185; p< ,05). Arithmetic mans of male parents (\bar{X} = 65,462) was found to be significantly higher than the arithmetic mans of female parents (\bar{X} = 59,044) in Challenge sub scale. No significant differences were detected for the other subscale scores and Family Resilience Scale total scores.

Findings for Family Resilience Scale sub scale and total scores based on the age of parents of children with multiple disabilities

Table 2 presents the findings related to the analyses on the four sub scales of the Resilience Scale based on the age of parents of children with multiple disabilities.

Tahle 2	Results	fanalysis	for ane	of narents o	f childron	with m	ultinle	disahilities
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Score	Sub	N	X	SS	Rank	Ki square	р
	21-30	42	58,786	10,287	101,33	1,900	,593
Challenge	31-40	94	61,011	9,687	117,40		
Challenge	41-50	60	59,800	11,385	109,69		
	51+	26	60,231	13,429	110,75		
	21-30	42	38,714	3,388	119,13	1,957	,581
C = 16 = 66 == ===	31-40	94	37,989	3,336	110,19		
Self efficacy	41-50	60	37,883	3,469	104,22		
	51+	26	38,692	4,550	120,71		
	21-30	42	31,048	4,685	115,40	,844	,839
	31-40	94	30,436	4,277	107,85		
Commitment to life	41-50	60	30,300	4,655	111,14		
	51+	26	31,154	5,334	119,23		
	21-30	42	11,119	2,051	111,30	,935	,817
Calf a sutural	31-40	94	11,032	1,881	108,32		
Self control	41-50	60	11,100	2,207	112,15		
	51+	26	11,423	2,139	121,83		
Score	Variance	Sum of	S	d	Average of	F	р
	Intergroup	133,296	2	3	44,432	,139	,937
Resilience	Groups Inside	69829,821	22	18	320,320		
	Total	69963,117	22	21			

^{*}p<,05

No statistically significant differences were found in the comparisons for the participant scores obtained from the sub scales and from the scale in general based on the age of parents of children with multiple disabilities.

Findings for Family Resilience Scale sub scale and total scores based on the level of education of parents of children with multiple disabilities

Table 3 presents the findings related to the analyses on the four sub scales of the

Resilience Scale based on the level of education of parents of children with multiple disabilities.

C a a ma	Ch	s joi ievei oj eu	$\overline{\mathbf{v}}$	child of child		W: Company	
Score	Sub group	N	X	55	Rank average	Ki Sguare	р
	Illiterate	14	39,357	4,749	109,500	3,524	,474
	Elementary	103	38,087	3,809	119,592		
Challenge	Secondary School	50	38,160	3,139	106,420		
	High School	44	38,273	2,936	99,932		
	College	11	37,273	3,228	107,636		
	Illiterate	14	39,357	4,749	109,500	3,524	,474
	Elementary	103	38,087	3,809	119,592		
Self efficacy	Secondary School	50	38,160	3,139	106,420		
	High School	44	38,273	2,936	99,932		
	College	11	37,273	3,228	107,636		
	Illiterate	14	32,071	5,771	132,964	2,843	,584
a b b b	Elementary	103	30,359	4,787	109,752		
Lommitment to	Secondary School	50	30,300	4,362	104,750		
me	High School	44	30,795	4,224	112,625		
	College	11	31,545	3,045	126,727		
	Illiterate	14	11,071	2,269	106,870	3,524	,474
	Elementary	103	11,369	2,178	108,400		
Self control	Secondary School	50	10,960	1,906	103,420		
Sell colle of	High School	44	10,750	1,767	135,370		
	College	11	10,909	1,700			
Score	Variance Source	Sum of	Sd		Average of	f	р
	Intergroup	688,335	4		172,084	,539	,707
Resilience	Groups Inside	69274,782	217		319,239		
	Total	69963,117	221,0	00			

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*p<,05

Based on results presented in Table 3, no statistically significant differences were found in the sub groups based on the level of education of parents of children with multiple disabilities.

Findings for Family Resilience Scale sub scale and total scores based on the income level of parents of children with multiple disabilities

Table 4 presents the findings related to the analyses on the four sub scales of the

Resilience Scale based on the income level of parents of children with multiple disabilities.

Table 4. Results o	f analvsi	s for	income levels	(TL)) of	⁻ parents o	f children	with mult	tiple d	isabilitie
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				-	-		
Score	Sub group	Ν	X	Ss	Rank average	Ki Square	р
	1000 (TL)	82	58,659	11,008	102,457	2,170	,438
Challange	1001-2000 (TL)	99	61,051	10,470	117,187		
Chanenge	2001-3000 (TL)	25	60,760	11,377	113,100		
	3001-4000 (TL)	16	61,563	9,695	120,156		
	1000 (TL)	82	38,000	3,890	108,616	,759	,859
Calf office av	1001-2000 (TL)	99	38,192	3,325	111,227		
Self efficacy	2001-3000 (TL)	25	38,320	3,237	114,580		
	3001-4000 (TL)	16	38,813	3,563	123,156		
Commitment to life	1000 (TL)	82	30,500	4,777	110,085	,820	,845
	1001-2000 (TL)	99	30,586	4,233	111,247		
	2001-3000 (TL)	25	30,360	5,057	108,440		
	3001-4000 (TL)	16	31,563	5,033	125,094		

Table 4. Continued							
Score	Sub group	Ν	$\overline{\mathbf{X}}$	Ss	Rank average	Ki Square	р
	1000 (TL)	82	11,329	2,031	117,116	2,897	,408
Calf anytral	1001-2000 (TL)	99	10,879	1,976	103,904		
Self control	2001-3000 (TL)	25	11,040 2,051		114,180		
	3001-4000 (TL)	16	11,563	2,250	125,531		
Score	Variance Source	Sum of	Sd		Average of sguare	f	р
	Intergroup	437,884	3		145,961	,458	,712
Resilience	Groups Inside	69525,233	21	.8	318,923		
	Total	69963,117	22	1			

*p<,05

Based on results presented in Table 4, No statistically significant differences were found in the comparisons for the participant scores obtained from the sub scales and from the scale in general based on the income level of children with multiple disabilities.

Findings for Family Resilience Scale sub scale and total scores based on whether parents of children with multiple disabilities receive support in taking care of their children

Table 5 presents the findings related to the analyses on the four sub scales of the Resilience Scale based on whether parents of children with multiple disabilities receive support in taking care of their children.

Score	Sub group	N	Ī	Ss	Rank average	Sum of	U	Z	р
Challange	Yes	93	60,215	11,205	113,460	10551,5	5816,5	-,386	,700
Chanenge	No	129	60,140	10,393	110,090	14201,5			
Solf office or	Yes	93	37,957	3,442	110,78	10302,5	5931,5	-,143	,887
Sell ellicacy	No	129	38,341	3,604	112,02	14450,5			
	Yes	93	30,462	4,724	111,20	10342,0	5971,0	-,058	,953
Communent to me	No	129	30,698	4,471	111,71	14411,0			
Solf control	Yes	93	10,882	1,944	104,80	9746,50	5375,5	-1,338	,181
Sell coller of	No	129	11,279	2,073	116,33	15006,5			
	Sub group	Ν	$\overline{\mathbf{X}}$	Ss	Sd	Т	р		
Resilience	Female	183	140,457	17,877	220	0,388	0,698		
	Man	39	139,516	17,757					

Table 5. Analysis of the variance of parental support for the care of a child with multiple disabilities.

*p<,05

Table 5 shows no statistically significant differences between sub groups for Resilience Scale total scores and scores obtained from the four sub scales when family sub groups were compared based on whether parents of children with multiple disabilities receive support in taking care of their children or not.

Findings for Family Resilience Scale sub scale and total scores based on parental health issues

Table 6 presents the findings related to the analyses on the four sub scales of the Resilience Scale based on parental health issues and problems.

Table 6. Results of analysis for health problems of parents of children with multiple disabilities

Score	Sub	Ν	$\overline{\mathbf{X}}$	Ss	Rank average	Sum of order	Ŭ	Z	р
Challongo	Yes	24	58,833	10,137	100,71	2417	2117	-0,872	0,383
Chanenge	No	198	60,333	10,797	112,81	22336			
Solf office av	Yes	24	38,25	3,733	112,06	2689,5	2362,5	-0,046	0,964
Sell enicacy	No	198	38,172	3,519	111,43	22063,5			
Commitment	Yes	24	29,792	4,054	97,06	2329,5	2029,5	-1,17	0,242
to life	No	198	30,697	4,628	113,25	22423,5			
Colf control	Yes	24	11,417	1,998	122,44	2938,5	2113,5	-0,896	0,37
Sell control	No	198	11,075	2,03	110,17	21814,5			
	Sub	Ν	X	Ss	Sd	Т	р		
Resilience	Yes	183	140,278	17,833	220	0,516	0,607		
	No	39	138,292	17,731					

*p<,05

Table 6 shows no statistically significant differences between sub groups for Resilience Scale total scores and scores obtained from the four sub scales when family sub groups were compared based on whether parents of children with multiple disabilities had health problems or not.

Findings for Family Resilience Scale sub scale and total scores based on whether parents of children with multiple disabilities receive psychological support

Table 7 presents the findings related to the analyses on the four sub scales of the Resilience Scale based on whether parents of children with multiple disabilities receive psychological support.

Score	Sub	Ν	$\overline{\mathbf{X}}$	Ss	Rank average	Sum of	U	Z	р		
Challongo	Yes	10	60,236	10,851	100,850	1008,5	953,50	-,537	,591		
Chanenge	No	212	58,800	7,554	112,00	23744,5					
Solf office av	Yes	10	38,160	3,513	119,950	1199,5	975,50	-,428	,669		
Self efficacy	No	212	38,600	4,142	111,100	23553,5					
Commitment to	Yes	10	30,575	4,555	116,150	1161,5	1013,50	-,235	,814		
life	No	212	31,100	5,109	111,280	23591,5					
Solf control	Yes	10	11,123	2,001	100,200	1002,0	947,00	-,557	,564		
Sell control	No	212	10,900	2,601	112,030	23751,0					
	Sub group	Ν	\overline{X}	Ss	Sd	Т	р				
Resilience	Yes	183	140,094	17,900	220	0,120	0,904				
	No	39	139,400	16,174							

Table 7. Results of analysis for receiving psychological support in taking care of children with multiple disabilities

*p<,05

Table 7 shows no statistically significant differences between sub groups for Resilience Scale total scores and scores obtained from the four sub scales when family sub groups were compared based on whether parents of children with multiple disabilities receive psychological support or not.

Findings Related to Demographic Characteristics of Children with Multiple Disabilities

This section presents the findings related to the demographic characteristics of children (age, gender, type of disability) with multiple disabilities.

Findings for Family Resilience Scale sub scale and total scores based on the age of children with multiple disabilities

Table 8 presents the findings related to the analyses on the four sub scales of the Resilience Scale based on the age of children with multiple disabilities.

Table 8. Results of analysis for age of children with multiple disabilities

Score	Sub group	N	X	Ss	Rank average	Ki Sguare	e p
	0-6	51	62,275	10,502	125,81	4,441	0,218
Challenge	7.Ara	81	60,321	9,342	111,97		
Challenge	13-18	52	59,423	11,674	106,19		
	18+	38	58,052	12,196	98,55		
	0-6	51	38,059	3,484	112,16	0,744	0,863
Solf office ou	7.Ara	81	38,432	3,041	115,64		
Self efficacy	13-18	52	38,135	3,92	108,4		
	18+	38	38,868	4,094	98,55		
	0-6	51	30,431	3,895	106,13	0,622	0,891
Commitment to life	7.Ara	81	30,889	4,367	115,07		
Committent to me	13-18	52	30,481	5,338	111,93		
	18+	38	30,368	4,84	110,51		
	0-6	51	10,98	1,913	106,87	6,706	0,082
Self control	7.Ara	81	11,049	2,162	108,4		
	13-18	52	10,788	1,872	103,42		
	18+	38	11,868	1,961	135,37		
Score	Variance	Sum of squares			Sd	Average	F p
	Intergroup	393,652			3	131,217	0,411 0,745
Resilience	Groups Inside	69569,465	218		319,126		
	Total	69963,117			221		

*p<,05

Results of analyses presented in Table 8 show no statistically significant differences between sub groups for Resilience Scale total scores and scores obtained from the four sub scales based on the age of children with multiple disabilities.

2.2. Findings for Family Resilience Scale sub scale and total scores based on the gender of children with multiple disabilities

Table 9 presents the findings related to the analyses on the four sub scales of the Resilience Scale based on the gender of children with multiple disabilities.

Score	Sub	Ν	$\overline{\mathbf{X}}$	Ss	Rank averag	ge Sum	U	Z	р
Challange	Woman	89	60,056	10,01	108,02	9614	5609	-0,66	0,509
Chanenge	Man	133	60,248	11,2	113,83	15139			
Colfofficory	Woman	89	38,415	3,4	112,06	9973,5	5868,5	-0,107	0,915
sen enicacy	Man	133	38,09	3,632	111,12	14779,5			
Commitment	Woman	89	30,742	4,329	111,31	9907	5902	-0,035	0,972
to life	Man	133	30,504	4,738	111,62	14846			
Solf control	Woman	89	11	2,089	108,35	9643	5638	-0,606	0,544
Sell control	Man	133	11,188	1,985	113,61	15110			
	Sub group	Ν	\overline{X}	Ss		Sd	Т		р
Deciliance	Woman	183	140,112	16,292		220	0,034	0	,973
Resilience	Man	39	140,03	18,79					
* 05									

Table 9. Results of analysis for gender of children with multiple disabilities

*p<,05

Results of analyses presented in Table 9 show no statistically significant differences between sub groups for Resilience Scale total scores and scores obtained from the four sub scales based on the gender of children with multiple disabilities.

2.3. Findings for Family Resilience Scale sub scale and total scores based on the type of disability for children with multiple disabilities

Table 10 presents the findings related to the analyses on the four sub scales of the Resilience Scale based on the type of disability for children with multiple disabilities.

Table 10. Results of analysis for type of disabilities for children with multiple disabilities

Score	Sub group	N	x	Ss	Rank average	Ki Sguare	р
Challenge	Physical and mental	136	61,331	10,577	118,640	11,154	,025*
	Hearing and Mental	31	57,258	10,276	91,097		
	Vision and Mental	15	53,933	10,620	79,200		
	Physical and hearing	18	63,111	12,911	132,583		
	Physical and Speech	22	58,955	8,381	100,886		
Self efficacy	Physical and mental	136	38,221	3,581	111,750	5,027	,285
	Hearing and Mental	31	37,194	2,810	93,403		
	Vision and Mental	15	38,200	3,489	118,033		
	Physical and hearing	18	39,333	4,000	134,750		
	Physical and Speech	22	38,364	3,749	111,977		
Commitment to life	Physical and mental	136	30,574	4,625	111,107	5,184	,269
	Hearing and Mental	31	29,645	3,878	93,629		
	Vision and Mental	15	29,933	5,688	110,733		
	Physical and hearing	18	32,222	5,071	134,250		
	Physical and Speech	22	31,227	3,753	121,023		
Self control	Physical and mental	136	11,140	2,048	112,548	2,521	,641
	Hearing and Mental	31	10,774	1,499	102,065		
	Vision and Mental	15	11,000	2,171	109,500		
	Physical and hearing	18	11,833	2,550	129,917		
	Physical and Speech	22	10,909	1,974	104,614		
Score	Variance Source	Sum of	Sd		Average of	f	р
		squares			sguare	1	
Resilience	Intergroup	2520,275	4		630,069	2,027	,092
	Groups Inside	67442,842	217		310,797		
	Total	69963,117	221				

*p<,05

Results of analyses for type of disability presented in Table 10 show statistically significant differences only for Challenge sub scale when sun scale and total scale scores obtained from sub groups were compared. No statistical differences were detected between the scores obtained from the other sub scales and the total scale. Mann Whitney U test was conducted to identify which sub groups generated the difference for challenge sub scale. Results of Mann Whitney U test are presented in Table 11.

Score	Sub group	Ν	Rank average	Sum of order	U	Z	р
Challenge	Physical and mental	136	87,83	11944,5	1587,5	-2,144	,032*
	Hearing and Mental	31	112,81	22336,0			
	Physical and mental	136	78,70	10703,5	652,5	-2,288	,022*
	Vision and Mental	15	51,50	772,5			
	Vision and Mental	15	12,77	191,5	71,5	-2,298	,022*
	Physical and hearing	18	20,53	369,50			

*p<,05

Table 11 shows statistically significant differences in challenge sub scale between these sub groups: physical and mental disabilities/hearing and mental disabilities, physical and mental disabilities/visual and mental disabilities, visual and mental disabilities /physical and hearing disabilities.

Discussion

This study, conducted with the aim of identifying the resilience levels of parents with children with multiple disabilities by utilizing different variables, found that the demographic characteristics of parents of children with multiple disabilities (gender, age, level of education, income level, receiving support in taking care of the child, health problems, receiving psychological support) and variables related to the demographic characteristics of the children with multiple disabilities (gender, age, type of disability) had no impact on the general resilience levels of parents of children with multiple disabilities. However, significant differences were detected in this study on the challenge sub scale of Family Resilience Scale based on the gender of parent and the type of disability.

The study concluded that gender of the parent has no impact on the general resilience levels of parents of children with multiple disabilities. Plump's (2011) study which investigated the level of resilience for the parents of autistic children based on different variables found that gender of parents did not create differences in the general resilience levels of parents. Plump's findings support the findings of the current study. Another study by Kaner, Bayrakli and Guzeller (2011) that utilized the Family Resilience Scale developed by Kaner and Bayrakli (2010) which was used in this study to collect data examined whether the resilience perception of parents changed based on whether the children had mental disabilities and based on gender and age of parents. Results showed no statistical differences in total Family Resilience Scale based on gender of parents. Findings of Kaner, Bayrakli and Guzeller's (2011) study support the findings of the current study. Another study that supports the finding of the current study related to analysis based on gender of parents is the study conducted by

Sojo and Guarino (2011). On the other hand, contrary to the findings of this study related to gender; Boyraz and Sayger (2011) and Lee, Chen and Tran (2008) found in their studies that males are more resilient compared to females in terms of general resilience levels. Using a different scale in the current study, cultural differences and different education levels of participants may have caused differences in research findings.

In this study, significant differences were found between the gender of parents with children with multiple disabilities and the challenge sub scale of the Family Resilience Scale. This difference implies that fathers are more resilient compared to mothers. Meral (2006) stated that fathers of children with multiple disabilities have concerns about financial issues and their anxiety increases as their children grow up. Fathers of children with multiple disabilities may display more characteristics related to resilience since they experience anxiety in financial matters. Fathers who provide for their families may think that they need to earn more in order to meet the needs of their children with multiple disabilities related to care and different areas (medicine, education, materials etc.). Hence, the fathers may be more invested in material challenges.

Current study found no significant differences in terms of the gender of parents of children with multiple disabilities in general resilience levels and the three sub scales of Family Resilience Scale (Self Efficacy, Commitment to Life and Control). The study by Kaner, Bayrakli and Guzeller (2011) reported that compared to fathers, mothers have more characteristics related to resilience in the Self Efficacy sub scale of Family Resilience Scale. The fact that no similar finding was obtained in the current study may be related to the regional differences of the sample (cultural upbringing) and differences in parents' level of education.

Current study found no significant differences in terms of the age of parents of children with multiple disabilities in general resilience levels and sub scales of Family Resilience Scale. Kaner, Bayrakli and Guzeller's (2011) study reported

that Self Efficacy and Commitment to Life –sub scales of resilience- decreased with age. The findings of Kaner, Bayrakli and Guzeller (2011) do not support the findings of the current study. The difference may be related to the different characteristics of the sample groups used in both studies.

Current study found no significant differences in terms of level of education of parents of children with multiple disabilities in general resilience levels and sub scales of Family Resilience Scale. As a parallel with this study, studies conducted by Kaner, Bayrakli and Guzeller (2011) and Tasdemir (2013) also reported no significant differences between parents' level of education and general resilience levels. Whether they are illiterate or highly educated, individuals may or may not cope with rather stressful situations. The education individuals receive may not affect their personal characteristics. It can be argued that resilience is a personal characteristic but may be increased as a result of various factors (social support etc.). There may be some situations that individuals have difficulty to deal with regardless of their level of education. For instance, parents who are university graduates may deeply experience pain upon learning that their children have multiple disabilities and may not be able to cope with this situation. On the other hand, illiterate parents may also experience deep pain about the same situation and may not cope with it either. In this sense, it can be argued that parents' level of education has no impact on general resilience levels of parents and the sub scales of Family Resilience Scale.

Tasdemir's (2013) study which investigated the resilience levels of mothers of children with visual disabilities found that mothers' resilience levels increased along with the increase in their income levels and that increase in income levels created a significant increase in challenge sub scale of Resilience Scale. In their study on the parents of autistic children, Greeff and Van Der Walt (2010) reported that high socio-economic status has positive impact on the resilience factor. In their study, Mcconnell, Savage and Breitkreuz (2014) reported that improving financial problems positively affected parental behaviors and their moods. Mullins (1987) found that having a positive and supportive family, social and professional support environment empowered families and made them more resilient even though these families with children with mental disabilities who experienced learning difficulties experienced negative conditions such as low income levels or poverty. This study found no significant differences between income levels of parents of children with multiple disabilities and general resilience levels and sub scales of Family Resilience Scale. Difference in the findings obtained in the current study and the literature may have been the result of different measurement tools. It can also be argued that value judgments and resilience levels of parents who contributed to data were not affected by income levels, in other words; income level was not a determinant factor on resilience levels of parents with children with multiple disabilities.

No significant differences were found between parents' general resilience levels and the four subscales of Family Resilience Scale in terms of the following variables: receiving support in taking care of the child, parental health problems, receiving psychological support and the age of children with multiple disabilities. Personal factors in the sample group may have contributed to this finding.

The study concluded that gender of children with multiple disabilities had no impact on parents' general resilience levels and the four subscales of Family Resilience Scale. Tasdemir's (2013) study found that the gender of children with visual disabilities did not affect mothers' general resilience levels however mothers with daughters had more resilience in challenge-commitment to life sub scales. Regardless of gender, children with multiple disabilities have similar needs. Gender does not dictate strength in character of independence. Needs and independent mobility of a female with hearing and speech disabilities and a male with physical and visual disabilities may be quite different from one another. In this sense, as found in this study, it can be argued that gender of children with multiple disabilities have no impact on parents' general resilience levels and the four subscales of Family Resilience Scale.

Current study determined significant differences in the Challenge sub scale of Family Resilience Scale in terms of type of disability. Findings show that parents of children with hearing and mental disabilities have more resilience compared to parents of children with physical and mental disabilities in the Challenge sub scale of Family Resilience Scale. This finding may be related to the fact that the children with hearing and mental disabilities may be physically independent like children with normal developmental patterns therefore children with hearing and mental disabilities are not physically dependent on parents. Hence, these children do not create extra care burden for their families and that may generate more resilience for parents in Challenge sub scale. Another finding of the study shows that compared to parent of children with visual and mental disabilities; parents of children with physical and mental disabilities are more resilient in Challenge sub scale of Family Resilience Scale. We know that human beings acquire a high proportion of information related to the world via their sense of sight. Loss of this sense and existence of mental disability in addition to this loss increase the care burden for the families and compared to parents of children with physical and mental disabilities, these parents become less resilient. It was also found that parents of children with physical and mental disabilities are more resilient in the Challenge sub scale of Family Resilience Scale compared to parent of children with visual and mental disabilities. Physical disabilities can be immediately observed by the environment but visual disabilities are not immediately observed and a high ratio of information about the world is obtained via sense of sight compared to sense of hearing. Having children with mental disabilities in addition to loss of sight increases care burden for families and therefore, compared to parents with children with visual and mental disabilities, parents with children with physical and hearing disabilities are more resilient the Challenge sub scale of Family Resilience Scale.

During one-on-one interviews conducted by the researcher with parents, parents commented on some of the scale questions (Item 6: "I like trying new things", Item 11: I am generally confident that I can carry out my plans when I make them", Item 36: "I do not waste my time") saying they experienced stress since they were not able to participate in social activities, could not make time for themselves and were deprived of many human needs as a result of spending all day with child care. Stress is a factor that can affect parents' resilience levels and it can be argued that opening free day care facilities where parents of children with multiple disabilities can leave their children by the hour to give them some time to spare will help reduce stress levels of these parents and therefore increase their resilience.

Result and Suggestions

Results show that 42 participating parents (18,9%) were in 21-30 age range, 94 (42,3%) were in 31-40 age range, 60 (27,1%) were in 41-50 age range and 26 (11,7%) were in the age range of 51 and older. 183 of the parents (82,4%) were females and 39 (17,6%) were males. 14 (6,3%) of the parents were illiterate, 103 (46,4%) graduated from primary school, 50 (22,5%) from secondary school, 44 (19,8%) from high school and 11 (5,0%) from college or higher levels. 82 of the parents (36,9%) earned up to 1000 TL, 99 (44,6%) earned between 1001-2000 TL, 25 (11,3%) earned between 2001-3000 TL and 16 (7,2%) had an income between 3001-4000 TL. 129 of the parents (58,1%) expressed that they received support in taking care of their children with multiple disabilities while 93 (41,9%) stated that they had no support in taking care of their children with multiple disabilities. 24 of the parents (10,8%) stated that they had serious health problems whereas 198 of the parents (89,2%) had no serious health issues. 10 parents (4,5%) said they received psychological support from an expert while 212 (95,5%) parents did not receive psychological support from an expert while 212 (95,5%) parents did not receive psychological support from an expert while 212 (95,5%) parents did not receive psychological support from an expert state or older. 89 children (40,1%) were females and 133 (59,9%) were males. 136 of the participating children (61,3%) had physical and mental disabilities, 31 (14,0%) had hearing and mental disabilities, 15 (6,8%) had visual and mental disabilities, 18 (8,1%) had physical and hearing disabilities and 22 (9,8%) had physical and speech disabilities.

It was concluded that differences in sub group were not significant (p>0.05) for the following variables: gender and age of children with multiple disabilities, receiving support in taking care of the child with multiple disabilities, parental health status, receiving psychological support in taking care of the child with multiple disabilities, age, income level and level of education of parents of children with multiple disabilities.

However, significant differences were observed in Challenge sub scale in terms of gender of parents and type of disability. In the light of these findings, following suggestions are provided:

Studies to compare the resilience levels of parents of children with different type of disabilities can be conducted.

Family Resilience Scale used in this study was conducted on parents. Another study that compares the resilience levels of mothers and fathers can be designed with the scale used in this study.

Study sample was selected from various provinces in the Black Sea region. Studies to investigate whether cultural differences affect parents' resilience can be designed.

Studies can be undertaken to compare parental burnout and resilience levels for parents of children with multiple disabilities.

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