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### Research Paper

## Comparison of life satisfaction and hoping in mothers of children with special learning disabilities, autism spectrum disorders and normal



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Life satisfaction, hoping, special learning disabilities, autism spectrum disorder, mothers.

#### ABSTRACT

**Objective:** The aim of this study was to compare the life satisfaction and hoping in mothers of children with special learning disabilities, autism spectrum disorders, and normal.

**Methods:** The present research method was causal-comparative. The statistical population of was mothers of fifth and sixth-grade children in the north of Tehran, whose children, according to expert diagnosis, had a special learning disability and autism spectrum disorder, and mothers were selected from a normal group too. Finally, the sample of 90 people (30 people in each group) was selected by non-probabilistic and purposeful sampling method. The tools used were Snyder's Hoping Scale and Huebner's Life Satisfaction Multidimensional Scale.

**Results:** The results showed that the mean score of hoping in mothers with autistic children was lower than that of mothers with disability and normal children ( $p < 0.01$ ), and the mean life satisfaction score of mothers with normal children was higher than that of mothers with autism children ( $p < 0.01$ ). Also, the mean score of hoping and life satisfaction of mothers with specific learning disability children was more than mothers with autism children ( $p < 0.01$ ).

**Conclusion:** The relatively low level of hoping and life satisfaction in mothers of children with autism spectrum need more attention and arrangements which is very important for their psycho-social empowerment

### 1. Introduction

Improving the quality of life has been proposed as a newer concept of health that is related to psychological, social, functional, and physical dimensions (Naeimi, Saeidi, & Kazemian, 2019) On the other hand, given that the family is a network of communication which parents and children interact in a two-way process. The presence of a child with

behavioral disorders or problems leads to increased tensions in family relationships, and in the family atmosphere is affected and possibly vulnerable (Sadeghi, Rahimipour, & Alimohammadi, 2017).

Exceptional children include a wide range of children in whom individual differences are considered very important and are at least significantly different from their peers in at least one dimension of their development (Ardabili, 2016).

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The presence of an exceptional child in a family often causes irreparable damage to the family (Narimani, Agha Mohammadian, & Rajabi, 2007). Studies show that the adverse effects of having a disabled adults or child cause stress and pressure in family members, especially the mother (Roach & Uorsmand, 1999; quoted by Tajeri, & Bahiraei, 2008), because the mother is the first person to communicate directly with the child (Narimani, Agha Mohammadian, & Rajabi, 2007). The presence of a disabled child threatens the mother's adaptation, physical and mental health and often hurts her (Salovita, Ltalinna, & Leinonen, 2003; Gupta, & Singhl, 2004).

Children with an autism spectrum disorder are diagnosed as exceptional children. The main feature of autism spectrum disorders is a persistent lack of communication and reciprocal social interactions and repetitive and limited behavior patterns, interests, or activities (American Psychiatric Association, 2013). Evidence shows the rapid progression in this spectrum disorder (Christensen & et al., 2016; Idring & et al., 2015; Zahorodny, & et al., 2014). In terms of epidemiology in Iran, accurate statistics have not been officially reported, but current prevalence of this disorder in Iranian 5-year-old children is reported to be 16.6 per ten thousand people (Samadi, Mahmoodizadeh, & McConkey, 2012). Parents of children with autism spectrum disorders face many challenges in their child's developmental and educational process. These parents experience more parenting stress than parents of children with other disabilities (Shirali Nia, Abdollahi Mousavi, Khojasteh Mehr, 2017). Studies also show that parents of children with autism spectrum disorder are more exposed to stress due to having a disabled child than parents of children with other psychological disorders (Montazeri, Gashtasb, Vahdany Nia, 2005; Costanza, Fisher, Bill & Ali., 2010).

Another group of exceptional children is children with special learning disabilities. Unique learning disorders affect the ability to understand, or use written or spoken language, to perform mathematical calculations, coordinate movements, or direct attention. Although learning disabilities occur in very young children, they typically remain unknown until they reach school age. Learning disorders are divided into three main categories: disability in written language, disability in mathematics, and inability to read or read poorly (Afrooz, 2022).

Some research shows that children with learning disabilities have adverse effects on their family life. Research has shown that children with learning disabilities cause a range of adverse effects such as

including family stress, parental differences, negative reactions in family members, problems communicating with school (Dyson, 2010).

A study showed that mothers of children with learning disabilities tolerate stress and have poor general health (Karande, Kulkarni & et al., 2009; Little, 2012) compared parental psychological adjustment of children with learning disabilities and concluded that mothers of these children had higher stress levels related to family problems than their fathers, such as pessimism about their children's future. They take more antidepressants and are more likely to seek treatment.

One of the essential factors to consider in mothers of exceptional children is hope. Hope is the ability to understand creating desirable ways in life and achieving them (Du & Yeung, 2015). Also, hope symbolizes mental health and the ability to believe in feeling better in the future (Khodabakhshi & Rajaei., 2016). Mothers of children with autism have lower hopes than mothers of children with Down syndrome (Ogston, Mackintosh & Myers., 2011). Mothers of children with autism also have poor conditions for other related variables such as well-being or depression (Hampton & et al., 2022; Pohl & et al., 2020). Also, the results of a study (Berjis & et al., 2012) indicated a significant difference between the level of hope and subscales of strategy and motivation of mothers of children with learning disabilities and mothers of children with autism. Autism was lower than the average group of mothers of children with learning disabilities, and the group of mothers of children with learning disabilities had higher moderate hopes.

Another variable discussed in the this research is life satisfaction. Life satisfaction is a judging process in which individuals evaluate their quality of life based on their chosen criteria (Sheikhi & et al., 2011). The education of autistic children can affect the life satisfaction of their mothers (Luthar., 2006). The life satisfaction of mothers of children with autism is much lower than mothers of normal children (Hashemzadeh & Amiri Majd., 2015).

In the field of quality of life and marital satisfaction, research shows that mothers of children with special learning disabilities have a lower quality of life than usual (Khazaei, 2015; Momeni, Ebrahimi & Hosseinian., 2014; Mushtaqi, Afzalzadeh, Hokamzadeh & Matini, 2014; Hagh Ranjbar & et al., 2011). The results of researches by Toro & et al., (1990) Taanila & et al., (1996), Kitzmann (2000); Floyd & Zmich (1991), Shirazi & Keshavarz., (2013), Motamedin & et al., (2008), and Beh Pajooch & Ramezani., (2005) also indicated that parents of children with learning disabilities have lower levels of

marital satisfaction than parents of normal children.

Regarding the importance of family system health, children with psychiatric disorders impose a special psychological-emotional burden on their families, especially their caregivers, who are often their mothers. Therefore addressing the mental health of these families, especially mothers, is very important in individually, family and both individually and even socially dimensions. On the other hand, due to the lack of research comparing the three groups, research in this field is necessary because it seems that in addition to comparing normal and clinical groups, comparing clinical groups with each other (autism and learning disability) and its consequences consist of considerable importance in terms of intervention as well as significant decisions of mental health successors. Finally, in this study, life satisfaction and hoping in mothers of children with special learning disabilities, autism spectrum, and normal have been compared.

## 2. Materials and Methods

The method of this research was descriptive causal-comparative.

**Population, sample, and sampling method:** The study's statistical population was the mothers of fifth and sixth-grade children in the north of Tehran in 2021. Their children were diagnosed a special learning disability or autism spectrum disorders by a child psychologist (based on clinical interview and test). The clinical sample was mothers who were referred to the April 2 Clinic in Tehran. Mothers were also selected from a standard group whose children had not received any clinical diagnosis. A sample of 90 people (30 mothers of children with special learning disabilities, 30 mothers of children with autism spectrum disorders, and 30 mothers of normal children without psychiatric disorders) was selected from the expressed population (based on Delavare, 2021). The sampling method was also improbable and purposeful. But mothers were matched in terms of economic status, age, and education to be reached and eliminated the control variables that are common in the research in a comparative way. All three groups were economically in good condition, in terms of age in the age range of 30 to 40 years, and in terms of education, associate and bachelor. Data were collected in written form and accordance with health protocols. The following tools have been used for this purpose:

**Snyder Hope Scale (SHS):** This scale is a 12-item self-report questionnaire developed by (Snyder & et al., 1991). On this scale, subjects answer questions on

a 4-point Likert scale (completely true (1), true (2), false (3), and completely false (4). Regarding psychometric properties, Cronbach's alpha coefficient was reported 0.86 for real hope, 0.82 for targeted decision dimension, and 0.84 for strategies dimension. Also, the reliability of the retest was 0.82. Other studies have reported good reliability and validity for this scale (Bryant, & Cvengros, 2004; Snyder & Lopez, 2007). In the Iranian sample, (Alaadini, Kajbaf, & Molavi, 2007), also reported the internal consistency of this scale as 0.68 and obtained an excellent simultaneous validity.

**Multidimensional Life Satisfaction Scale (MLSS):** This scale, designed by (Huebner, 2001), also has 40 questions, and each question is based on a 6-point Likert scale: strongly disagree, relatively disagree, slightly disagree, slightly agree, relatively agree, totally agree. This scale assesses life satisfaction regarding family, friends, school, self, and living environment (Huebner, 2001). Of course, in this research, the school dimension has been eliminated. Internal validity for this test is desirable in all groups and areas. The internal stability coefficient in various studies has been obtained from 0.70 to 0.90% (Du, 1996; Huebner & et al., 2007; Huebner & Terry, 1995; Huebner, 2001). In the Iranian sample, Cronbach's alpha coefficient (by internal consistency method) was reported 0.90, and the amplitude for subscales was 0.76 to 0.88. Also, the reliability value for the whole test was 0.78 (Mazaheri & Mohajer Badkoobeh., 2012).

After collection, the data were analyzed by SPSS-25 software and multivariate analysis of variance (MANOVA).

## 3. Results

In this study, the first 30 subjects from each group answered the tests, but due to the incompleteness of some tests, 28 people from each group entered the analysis. The mean age of the subjects was 36.5 in the disability group, 37.5 in the autism group, and 37.5 in the standard group. Also, the level of education of the issues was associate and bachelor. The mean and standard deviation of the subject's performance in the three groups - mothers of children with learning disabilities, autism, and average - in the two components of hope and life satisfaction are presented in Table 1. On the other hand, according to the values obtained in the Mbox test for homogeneity of covariances, Levin test for homogeneity of variance (Assumptions), the conditions for using the MANOVA statistical test were the same. Also, Results

of Multivariate analysis of variance test showed that There was a significant difference between groups in

the two variables of hoping and life satisfaction ( $P < 0.01$ ).

**Table 1. Descriptive statistics**

Groups	Mothers (SLD)	Mothers (ASD)	Mothers (Normal)
Variables	M	M	M
	SD	SD	SD
Hope	75/46	60/93	71/29
Life satisfaction	113/57	88/92	120/21

**Table 2. The Test the difference between groups in the variables**

Source	Variables	Total Squares	df	Mean Squared	F	significance level	Eta <sup>2</sup>
Group	Hope	3136/167	2	1568/083	15/880	0/000	0/282
	Life satisfaction	15215/143	2	7607/571	19/053	0/000	0/320

As shown in table 2, there was a significant difference between the groups in terms of variability of hope ( $P < 0.01$ ) and life satisfaction ( $P < 0.01$ ). On the other hand, the fractional error coefficient (Eta<sup>2</sup>)

shows that 28% of the variance of hope and 32% of the conflict of life satisfaction was due to group membership.

**Table 3. Multiple Bonferroni comparisons**

Variables	Group A	Group B	Mean difference (A-B)	Standard Error	Significant	lowest confidence interval	95% highest
Hope	Disability	Normal	4/18	2/656	0/356	-2/31	10/67
	Disability	Autism	14/54*	2/656	0/000	8/04	21/03
	Normal	Autism	10/36*	2/656	0/001	3/86	16/85
Life satisfaction	Disability	Normal	-6/64	5/340	0/651	-19/70	6/41
	Disability	Autism	24/64*	5/340	0/000	11/59	37/70
	Normal	Autism	31/29*	5/340	0/000	18/23	44/34

Based on the data in table 3, there was no significant difference in the life expectancy variable between mothers of children with learning disabilities and normal (MD= 4 / 18,  $P > 0.05$ ). Still, there was a significant difference between mothers of children with learning disabilities and autism. The life expectancy of mothers with learning disabilities was significantly higher than mothers of children with autism (MD= 54/14,  $P < 0.01$ ). There was also a significant difference between mothers of normal children and autism. The life expectancy of mothers of normal children was significantly higher than that of mothers of autistic children (MD = 36/10,  $P < 0.01$ ). There was no significant difference between disabled and normal mothers (MD = 64.6,  $P > 0.05$ ). Still, there was a significant difference between mothers of children with disabilities and autism and mothers' life satisfaction with disable children was higher than mothers of children with autism (MD = 64.24,  $P < 0.01$ ). There was also a significant difference between mothers of normal and autism children, and the life satisfaction of mothers with normal children is higher than those with autistic children (MD = 29.21,  $P < 0.01$ ).

#### 4. Discussion and Conclusion

This study aimed to compare the life satisfaction and hope in mothers of children with special learning disabilities, autism spectrum, and routine. The results showed that there was no significant difference in the variables of hope and life satisfaction between mothers of children with special learning disabilities and normal (without psychiatric disorders). But there was a significant difference between groups of normal and autism spectrum disorder. They explained that mothers in these two groups have more life expectancy and satisfaction than mothers of children with an autism spectrum disorder. Although no significant differences were found between mothers with learning disabilities and normal research, close studies of quality of life and marital satisfaction variables indicated a significant difference between normal and disabled mothers. They explained that the quality of life and marital satisfaction of disabled mothers is lower than normal ones (Khazaei, 2015; Hagh Ranjbar & et al., 2011; (Kitzmann, 2000); (Floyd & Zmich., 1991). Two similar studies were found on the difference between mothers with autism and normal children in life satisfaction (Luthar, 2006; Hashemzadeh & Amiri Majd., 2015; Hampton & et al., 2022), But no research was found on the difference



between mothers with disabilities and autism children in this variable. On the other hand, the difference between mothers with autism and normal children, disability and even Down syndrome in the variable of hope, the results of other studies are in line with the leading study (Auguston & et al., 2010; Lloyd, & Hastings, 2009; Berjis & et al., 2012).

In explaining the results of this present study can be said that special learning disability disorder is at least much severe and persistent than some child psychiatric disorders such as autism spectrum disorder. The process of recovery and adjustment is achievable in children with special learning disabilities, so the psychological and social consequences of having such children are also relatively small. On the other hand, by predicting the future improvement, adaptation of children with learning disabilities, the abundance of information, specialized channels in this field, and consequently increasing the awareness of this group of families, the negative emotional burden of having such children is significantly reduced. Also mothers have the most involvement with upbringing and management of their children for are adapting to the situation. This disorder's severity and psychosocial consequences are significant and costly for families, for example children with the disease can not recover, even in the best of medical conditions, such as children with learning disabilities. Also, due to problems with the autism spectrum, including repetitive self-stimulating, self-destructive behaviors and lack of communication or limited communication, families experience more stress and consequences, which can decrease the mental health, consequently hope and life satisfaction are affected strongly. On the other hand, others are less likely to reduce their contact with the affected child and their families because of the distance from the mental suffering and the discomfort that may result from the condition of the affected child and their families. Failure to bring about positive interactions will perpetuate and increase these families' psychological and emotional suffering, especially their mothers. It is natural, regarding the role of motherhood, much greater responsibility and communication of the mother, this situation be more colorful for mothers of children with autism spectrum disorders.

Thus, several factors, including A) high severity of autism spectrum disorder and its family consequences, especially for mothers, and low severity of special learning disorder; B) Lack of significant improvement in patients with autism spectrum and significant improvement in patients with learning disabilities over

time and in the context of medical arrangements (Sadock, Sadock & Ruiz., 2015); C), reducing the interactions of families with autism children and not establishing this case in families with special learning disabilities, can maintain life satisfaction and hope in mothers with learning disabilities, but In mothers with autism spectrum disorders, due to the condition of the disorder, more stress can increase their problems and helplessness, as well as the experience of psychological turmoil, especially periodically, for example, when their behaviors are traumatic. Child delivery and reduced interactions can also increase previous stress (Shokri, Khanjani, Hashemi, & Esmailpour., 2017). Therefore, the conditions caused by the disorder can probably lead to marital and communication conflict in this group (Chromizadeh, 2016). It seems that it is so severe that the socio-economic situation is moderate. Ultimately, by triggering a negative cycle, all of these factors deprive of life satisfaction and replace it with helplessness or despair. Therefore, structured planning for this group of exceptional children (autism spectrum) requires special attention. Also, the low severity of some child psychiatric disorders compared to others, such as special learning disorders about the autism spectrum, can be led to intensive and short-term training in coping with the disorder, increasing positive interactions and improved the psychological state of the mothers of this group of children. However, by expanding this training, they can be applied to mothers with exceptionally acute children, such as those with autism spectrum disorders.

#### **Limitations and suggestions**

One of the limitations of this research was its implementation only on mothers. Also, social, economic, and educational status were in only average to high and high levels. Therefore, this study can be performed with a larger sample and different demographic information - such as economic status and lower education. Other family members, such as fathers, brothers, and sisters, can also be compared. From an educational point of view, it is also suggested to hold group and individual counseling sessions by examining and identifying the psychological problems of these families, especially mothers, and taking care of their situation in the form of special education classes. Self-help programs and public information about the need of these families and mothers for a normal social life, to reduce the suffering and discomfort caused by these conditions, and increase positive thoughts and interactions, are serious steps taken by the authorities.

### Appreciation and gratitude

The researchers of this study consider it their duty to have the most appreciation and gratitude for the efforts and cooperation of the April 2 Clinic in Tehran and the mothers of the three leading study groups.

### 5. Ethical Considerations

#### Compliance with ethical guidelines

All ethical principles are considered in this article. The participants were informed about the purpose of the research and its implementation stages. They were also assured about the confidentiality of their information and were free to leave the study whenever they wished, and if desired, the research results would be available to them.

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#### Authors' contributions

All authors have participated in the design, implementation and writing of all sections of the present study.

#### Conflicts of interest

The authors declared no conflict of interest.

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