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THE RELATIONSHIP BETWEEN LIFELONG LEARNING TENDENCIES AND LIFE QUALITY OF PARENTS THAT GIVE SPECIAL CARE

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Abstract:
The developments in the social, economic, technological, and health areas in society provide developments and changes in the care and welfare of disabled individuals. Studies in this area revealed the importance of learning in the realization of development and change and its effect on quality of life. One of the issues waiting for a solution is to integrate the disabled population with society and continue their lives without being cut off from social life, to be cared for correctly and on time, and to improve their quality of life in this context. For these reasons, it is important to investigate the disability together with the caregivers of the individual. The main purpose of this research is to examine the relationship between lifelong learning tendencies and the life quality of parents who provide special care. In addition, the relationship of these variables with sociodemographic variables such as age, gender, educational status, and disability rate and whether they show statistically significant differences are examined. This research is a quantitative study and the relational screening model is used. The sample group of the study consists of 85 voluntary disabled parents living in Fatsa district. "Personal Information Form", "Lifelong Learning Tendency Scale" and "Quality of Life Scale Turkish Version" are used to obtain the data. In the analysis of the data MS Excel and SPSS 26 package program are used. The normality of the distributions is checked using the Skewness and Kurtosis Analysis and the Shapiro-Wilk test. Pearson correlation analysis, one-way analysis of variance (ANOVA), and independent sample t-test are used for normally distributed data. Spearman-Brown correlation analysis, Mann Whitney - U test, and Kruskal Wallis H tests are used for abnormally distributed data. As a result of the analyzes, it is determined that there is a moderate and positive significant relationship

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between the lifelong learning tendencies of the parents who care for the disabled individuals and their life quality. After the results obtained in the research are discussed in the light of the literature, suggestions are made.

Keywords: lifelong learning, quality of life, disabled person, caring parent

1. Introduction

Developing technology, diversifying demands, emerging diseases, and changing living conditions affect not only a certain age range, gender, or a certain mass but also all individuals and groups. Individuals with a disability, one of the groups that can be considered important, have more difficulty in adapting to conditions, such as changing social life, care conditions, health equipment, economic conditions, etc., than other individuals. This difficulty affects both the disabled and individuals who provide care for them (parents, private caregivers, relatives, staff in nursing institutions, etc.). In addition, developments in the field of medicine have brought about changes and developments in the care and welfare of the disabled. Therefore, caregivers need to adopt re-learning as a principle to adapt to this situation and gain new skills (Fernández-Ávalos *et al.*, 2020; Escuder-Mollon, Esteller, Ochoa, & Bardus, 2014).

Considering that change is unlimited, these learning practices should take place not only in an institution, school, or formal education environment but also while reading the news, traveling, visiting a place, or watching television, that is, at every stage of life and everywhere. This situation is considered lifelong learning. The concept of "lifelong learning", which expresses a constant process, has emerged with the personal development and self-renewal of individuals by gaining some qualifications in a constantly changing, renewing, and developing society. In addition, it includes all learning activities for gaining knowledge and qualifications with different methods and resources from birth to death (Kaya, 2016; Gözübüyük-Tamer, 2013; Gündoğan, 2003). The main purpose of lifelong learning is to facilitate individuals' adaptation to the changing and developing society and to enable them to gain skills to cope with the problems they encounter in this process. Since the family is the group that spends the most time in the same environment with the individual with disabilities, this study was carried out with parents who provided care. Some studies have shown that when caregiver parents develop themselves by receiving various types of education, they increase the quality of both their lives and that of the person with disabilities, thus increasing the quality of care they provide (Dobińska and Okólska, 2021; Yıldız and Cavkaytar, 2020). Quality of life is defined as a versatile and dynamic concept, and it is stated that it affects the individual's performance physically, psychologically, socially, and spiritually. The WHO defines the quality of life as individuals' evaluation of what they adopt, their wishes and expectations, their living standards, and their concerns, with their own culture and value systems (Rezaei *et al.*, 2016; Güleç, Öztürk, Sevil, & Kazandı, 2014).

In a study on the lifelong learning of parents with children with intellectual disabilities, Dobińska and Okólska (2021) stated that when parents learned both formally and informally, the care process gained a professional nature and parents became experts. Genç (2017) stated that families needed to be active participants in the education process as much as the child with a disability and that these families had difficulty accessing education. Yıldız and Cavkaytar (2020) examined the effect of an education program offered to the parents of children with intellectual disabilities on their quality of life. They concluded that families needed support for preparing for the future, coping with future stress, social support, employment, and legal rights, the education provided increased the quality of life of families and therefore the quality of life of individuals with intellectual disabilities in the long run, and that the perceptions of parents participating in the education about the quality of life also increased.

Kayaarsalan (2016) stated that the age of caregivers, their need for someone else's help, education level, relationship with the social environment, and economic status affected their quality of life. Canarslan and Ahmetoğlu (2015) found that fathers evaluated the quality of life more positively than mothers and that families that received social and economic support from outside had higher quality of life than those who did not. Tunç (2011) stated that factors, such as mothers' age, education, economy, employment, presence of another person with a disability in the household, social exclusion, social support, and sparing time for themselves affected their quality of life. Özyurt (2011) stated that the quality of life of mothers who provided care for an individual with a moderate level of intellectual disabilities was lower than those who did not. Vergili, Oktaş, and Okçulu (2015) determined that as the independent skills of a child with disabilities increased, the quality of life of caregivers also increased.

Individuals with disabilities who are dependent on others to receive education, health, care, employment, accessibility, and similar services are at a disadvantage. Although individuals with disabilities gain many independent living skills through special education, parental support is needed for the process to proceed more effectively. For example, when parents identify their own needs and the needs of the individual with disabilities and receive training on independent living skills, such as self-care skills, social skills, first aid skills, and domestic skills, they can help the person with disabilities acquire these skills. This situation reduces the external dependency of the individual with disabilities and has a positive effect on gaining many behaviors by improving them socially and psychologically. In this way, the quality of life of both the person with disabilities and the caregiver is positively affected indirectly (Genç, 2017; Bilsin & Başbakkal, 2014).

Studies on people with disabilities in Turkey have been conducted mostly on care, employment, education methods, statistics, and social support. Although there are many studies on individuals with disabilities, the lack of research on parents who provide care for them has left the family dimension in the background. As much as the difficulty of caregiving in the disability process affects the individual with disabilities, it also affects family members financially and morally. Studies in the field have shown that providing care for a person with disabilities negatively affects the quality of life of parents. The level of anxiety increases due to factors, such as the absence of family support, deterioration of psychological health, and economic and social problems, and this weakens both physical and interpersonal relationships (Fernández-Ávalos *et al.*, 2020). For this reason, it is necessary to reveal how much parents are affected economically, socially, and psychologically during the caregiving process. Thus, identifying the problems from the first source will provide healthier solution proposals. This research is significant in terms of investigating the research problem and revealing results, contributing to the literature, creating a useful source for people responsible for the care of the disabled, showing the variables that affect the care of the person with disabilities, and contributing to the researchers in the field.

2. Aim of the research

The aim of this study is to examine the relationship between lifelong learning tendencies and the quality of life of parents who provide special care. For this purpose, answers to the following questions were sought:

1) Is there a relationship between lifelong learning tendencies and the quality of life of parents who provide special care?
2) Is there a significant relationship between the lifelong learning tendencies of parents who provide special care and their ages?
3) Is there a significant relationship between the lifelong learning tendencies of parents who provide special care and the age of the individual with disabilities they provide care for?
4) Do the lifelong learning tendencies of parents who provide special care differ according to their gender?
5) Do the lifelong learning tendencies of parents who provide special care differ according to the gender of the individual with disabilities they provide care for?
6) Do the lifelong learning tendencies of parents who provide special care differ according to the level of their education?
7) Is there a significant relationship between the lifelong learning tendencies of parents who provide special care and the disability rates of individuals with disabilities?
8) Is there a significant relationship between the quality of life of parents who provide special care and their ages?
9) Is there a significant relationship between the quality of life of parents who give special care and the age of the individual with disabilities they provide care for?
10) Does the quality of life of parents who provide special care differ according to their gender?
11) Does the quality of life of parents who provide special care differ according to the gender of the individual with disabilities they provide care for?

12) Does the quality of life of parents who provide special care differ according to the level of their education?
13) Is there a significant relationship between the quality of life of parents who provide special care and the disability levels of individuals with disabilities?

3. Methods

3.1 Research model

A quantitative research method was used. The study was conducted using a correlational survey model to examine the relationship between lifelong learning tendencies and the quality of life of parents who provided special care. The correlational survey model is used to describe a current or past situation without changing it and to determine the relationship between variables (Karasar, 2013).

3.2 Study group

The population of the research consisted of parents who lived in a city in the north of Turkey and provided care for individuals with disabilities. As a result of an archive search, it was determined that there were 1,004 individuals with disabilities in need of care in this city. The sample group consisted of 85 voluntary parents of individuals with disabilities. The convenience sampling method was used to determine the study group. This method is among the non-probability sampling methods, which allows recruiting subjects who can be easily accessed or are voluntary in cases where sample selection is difficult and which has been frequently used in recent times because it allows cheap and fast data collection (Gürbüz and Şahin, 2018; Karagöz, 2017; Johnson & Christensen, 2014).

3.3 Data collection tool

- Personal Information Form. This form was developed by the researcher to determine various socio-demographic characteristics (gender, education level, disability group, age, disability rate) of the participants in the study group.
- The Lifelong Learning Tendency Scale. This scale was developed by Coşkun (2009) to determine the degree of lifelong learning tendencies. It consists of 27 items. Items 13 to 27 are reverse-scored. Each item is scored on a six-point Likert-type scale with options between "very suitable" and "not suitable". Cronbach's alpha internal consistency coefficient of the scale is .89. Items 1-12 are positive, and 13-27 are negative. In this study, Cronbach alpha internal consistency coefficient was found to be .88.
- The Quality of Life Scale-Turkish Version – QoLS. The validity and reliability study of the Turkish version of this scale, which was developed by Burckhardt, was conducted by Erci (2005). Cronbach's alpha value of this 16-item scale was 0.92, its variance was 59.1%, the validity value was 0.80, and the item-total score correlation was between 0.64 and 0.78. The Turkish version of the scale was found

to be valid and reliable. No special software is needed to calculate the scale score. The total score is calculated by summing up the item scores. Scores range from 16 to 112, and the mean score for healthy populations is stated to be approximately 90 (Erci, 2005). In this study, Cronbach's alpha internal consistency coefficient was found to be .92.

3.4 Data collection and analysis

Since the study population was not easily accessible, we got help from the neighborhood headmen and special education and rehabilitation centers. In this way, the parents of individuals with disabilities were contacted and the scales were filled out. Since some participants had low levels of education or were illiterate and had difficulty understanding the items, the researcher helped them to fill out the questionnaire. As a result of the research, 91 data sets were obtained. The data of six participants were removed from the research set as their questionnaires were filled out incorrectly or incompletely. Eventually, a total of 85 data sets were analyzed. First, the normality test and skewness-kurtosis analysis were applied to the data set to determine which of the parametric or non-parametric tests would be employed. The Shapiro-Wilk test was preferred because the number of data was greater than 29. Analysis findings are shown in Table 1 and Table 2.

Table 1: Normality test

	Shapiro-Wilk		
	Sta.	**df**	**p**
Lifelong learning tendency	,922	85	,000
Quality of Life	,971	85	,052

As seen in Table 1, the p-value of the lifelong learning tendency scale was .000, and it did not have a normal distribution. The p-value of the quality of life scale was .052, and it had a normal distribution.

Table 2: Skewness and Kurtosis analysis

	Skewness coefficient	**Kurtosis coefficient**
Lifelong learning tendency	-1.180	2.575
Quality of Life	-.419	-.376

As seen in Table 2, the skewness and kurtosis values were -1.180 and 2.575 for the lifelong learning tendency data and -0.419 and -0.376 for the quality of life data, respectively. According to Tabachnick and Fidell (2013), skewness and kurtosis values between +1.5 and -1.5 are considered enough to accept that the distribution is normal. According to Fidell (2009), skewness and kurtosis values between +1.96 and 1.96 can also be considered an acceptable range for the normality of distribution. According to the results of the Shapiro-Wilk test and skewness/kurtosis analysis, non-parametric tests were used for the lifelong learning tendency data as they were not normally distributed, and parametric tests were employed for the quality of life data as they were normally distributed. As a result, Spearman-Brown's rank order correlation analysis was used in correlational analyses related to the lifelong learning tendency variable, the Mann-Whitney U test was used for the comparison of two groups, and the Kruskal-Wallis H test was employed for the comparison of more than two groups. Pearson correlation analysis was used in correlational analyses related to the quality of life variable, independent groups t-test was utilized for the comparison of two groups, and one-way analysis of variance (ANOVA) was employed for the comparison of more than two groups.

4. Results

In this part of the research, findings related to the research questions were presented. First, statistical findings of demographic variables were given. Then, the analyses of the lifelong learning tendency variable and demographic variables were reported and this was followed by the presentation of the analyses of the quality of life variable and demographic variables.

The frequency analysis results of the data about the caregiver parents, the sample group, were tabulated and presented in Table 3. During the examination of the scales after data collection, the data of six participants were excluded from the data set as they were incorrect and incomplete. Analyses were carried out with 63 females and 22 males.

Table 3: Sample group (parents)

Gender	**N**	**%**
Female	63	74.1
Male	22	25.9

As seen in Table 3, 74.1% of the parents who participated in the research and provided care for an individual with disabilities were female (63 people) and 25.9% were male (22 people). The reason for the higher number of women was that most of the men had a job, and women had to stay at home and take care of the individuals with disabilities.

Table 4: Education level of the caregivers

Education level	**N**	**%**
Non-literate	11	12.9
Literate	2	2.4
Elementary school	36	42.4
Middle school	9	10.6
High school	17	20.0
University and above	10	11.8

The educational status of caregiver parents was examined in six categories: non-literate, literate, elementary school, middle school, high school, and university and above. As seen in Table 4, the distribution of education levels of the parents was as follows: non-literate, 11 (12.9%); literate, 2 (2.4%); elementary school, 36 (42.4%); middle school, 9 (10.6%); high school, 17 (20%); university and above, 10 (11.8%). The majority of the participants were elementary school graduates with a rate of 42.4%.

Table 5: Age group distributions of the caregivers

Age groups*		**N**	**%**
20-39	(Young adults)	35	41.18
40-59	(Middle-aged adults)	36	42.35
60+	(Older adults)	14	16.47

* Age groups were adapted from Santrock's (2019) Lifespan Development book.

Various classifications are used in the literature on grouping ages. In this research, age groups were adapted from Santrock's (2019) Lifespan Development book: early childhood (2-5 years), middle and late childhood (6-11 years), adolescence (12-19 years), early adulthood (20-39 years), middle adulthood (40-59 years), and late adulthood (60+ years).

According to Table 5, 41.18% of the caregiver parents were early adults (35 people), 42.35% were middle adults (36 people), and 16.47% were late adults (14 people). In this context, it was seen that caregivers were mostly in the young and middle age groups and that the number of caregivers decreased in older adults.

Table 6: Gender distribution of individuals with disabilities

Gender	**N**	**%**
Female	33	38.8
Male	52	61.2

According to Table 6, 38.8% (33) of the individuals with disabilities, who were given care by their parents, were female, and 61.2% (52) were male. According to the National Disability Data System on the population with disabilities in Turkey, the number of males with disabilities is higher than that of females (males 56% vs. females 44%) (EYHGM, 2022). This finding is consistent with the findings of the research.

Table 7: Age group distribution of individuals with disabilities

Age groups*		**N**	**%**
2-5	(early childhood)	5	5,9
6-11	(middle and late childhood)	15	17,6
12-19	(adolescence)	17	20,0
20-39	(early adulthood)	24	28,2
40-59	(middle adulthood)	10	11,8
60+	(late adulthood)	14	16,5

*Age groups were adapted from Santrock's (2019) Lifespan Development book.

As seen in Table 7, the age distribution of the individuals with disabilities was as follows: early childhood (2-5 years) 5.9%, (5 people); middle and late childhood (6-11 years) 17.6%, (15 people); adolescence (12-19 years) 20%, (17 people); early adulthood (20-39 years old) 28.2%, (24 people); middle adulthood (40-59 years) 11.8%, (10 people); late adulthood (60+

years) 16.5%, (14 people). It was found that the majority of individuals with disabilities were in the early adulthood group, and the least number of individuals with disabilities was in the early childhood group.

Table 8: Distribution of disability levels

Disability levels * (%)	**N**	**%**
20-39	4	4.7
40-49	2	2.4
50-59	5	5.9
60-69	7	8.2
70-79	8	9.4
80-89	11	12.9
90+	48	56.5
Total	**85**	**100**

* Disability levels were prepared according to the grouping presented in Appendix 3 of the regulation on the assessment of special needs for children.

Table 8 shows the disability levels of the individuals with disabilities who were provided care for by the participants of the research. The levels were grouped according to the related regulations. As seen in the table, the disability levels and the distribution of the individuals with disabilities were as follows: 4.7% (4 people)in the range of 20-39%; 2.4% (2 people) in the range of 40-49%; 5.9% (5 people) in the range of 50-59%; 8.2% (7 people) in the range of 60-69%; 9.4% (8 people) in the range of 70-79%;12.9% (11 people) in the range of 80-89%; 56.5% (48 people) in the range of 90% and above. The disability level of the majority of the individuals with disabilities included in the research was 90% and above with a rate of 56.5%.

Table 9: Distribution of disability types

Disability types	**N**	**%**
Language and speech	20	15.0
Vision	10	7.5
Intellectual	33	24.8
Mental-emotional	15	11.3
Physical	31	23.3
Hearing	6	4.5
Chronic	13	9.8
Unclassified	5	3.8
Total	**133**	**100**

* *As some of the individuals with disabilities included in the research had more than one disability, the total number of disability types exceeded the number of individuals with disabilities included in the study.*

** *The "Special learning disability" type on the Personal Information Form was included in the "mental-emotional" disability group (See 2.3.2.6 Mental and emotional).*

As seen in Table 9, the disability types and distribution of the individuals with disabilities who were provided care by their parents were as follows: 20 people (15%) with language and speech impairment; 10 people (7.5%) with vision impairment; 33 people (24.8%) with intellectual impairment; 15 people (11.3%) with mental-emotional impairment; 31 people (23.3%) with physical impairment; 6 people (4.5%) with hearing impairment; 13 people (9.8%) with chronic impairment; 5 people (3.8%) with unclassified impairment. The majority of the individuals with disabilities were in the intellectual (24.8%) and physical (23.3%) impairment groups and the least number of individuals with disabilities were in the unclassified (3.8%) and hearing (4.5%) impairment groups. Similarly, the rate of individuals with intellectual and physical disabilities was higher than that of other groups in the data of the National Disability Data System (EYHGM, 2022). Although the total number of individuals with disabilities in the research was 85, the total number in disability types was 133. This was because some of the individuals in the study had more than one disability. For this reason, caregiver parents had marked more than one option in the disability type item.

A correlation analysis was performed on SPSS and presented in a table to examine the relationship between lifelong learning tendencies and the quality of life of parents who provided care for individuals with disabilities.

Table 10: Spearman's rank order correlation coefficient analysis between lifelong learning tendency and quality of life variables

		(1)	**(2)**
(1) Lifelong learning tendency	r	1	.385***
	p		.00
	N	85	85
(2) Quality of life	r	.385***	1
	p	.00	
	N	**85**	**85**

**p <.05, **p <.01, ***p <.001*

Since lifelong learning tendency data did not show a normal distribution as a result of the normality test and skewness and kurtosis analysis, Spearman's rank-order correlation coefficient analysis, which is one of the non-parametric tests, was applied to examine the relationship between the lifelong learning tendencies of caregiver parents and their quality of life. As seen in the table, a moderate and significant positive relationship was found between the participants' lifelong learning tendency and their quality of life scores ($r_{spearman}$= 0.385, p <0.001). According to this result, it can be said that as the lifelong learning tendencies of the caregiver parents increase, their quality of life also increases, and similarly, as the lifelong learning tendency decreases, the quality of life decreases, as well.

Table 11: Spearman-Brown correlation analysis between lifelong learning tendency and parents' age variable

		(1)	**(2)**
(1) Lifelong learning tendency	r	1	.011
	p		.920
	N	85	85
(2) Parents' age	r	.011	1
	p	.920	
	N	**85**	**85**

**p <.05, **p <.01, ***p <.001*

As seen in Table 11, according to the correlation analysis applied to examine the relationship between lifelong learning tendency and caregiver parents' age, no significant relationship was found between the two (p >0.05). In this case, it can be said that the age of the parent does not affect lifelong learning tendencies.

Table 12: Spearman-Brown correlation analysis between lifelong learning tendency and the age of the individuals with disabilities variable

		(1)	**(2)**
(1) Lifelong learning tendency	r	1	.066
	p		.546
	N	85	85
(2) Age of the individual with disabilities	r	.066	1
	p	.546	
	N	**85**	**85**

**p <.05, **p <.01, ***p <.001*

As seen in Table 12, according to the results of the correlation analysis, no significant relationship was found between the lifelong learning tendencies of the caregivers and the ages of the individuals with disabilities who they provided care for (p >0.05). In this case, it can be said that the age of the individual with disabilities, whether old, young, or child, does not affect the learning tendency of parents.

Table 13: Mann-Whitney U test of the lifelong learning tendency of parents according to their gender

Gender	**N**	**Mean rank**	**Total rank**	**U**	**p**
Female	63	39.72	2,502.5	486.5	.038
Male	22	52.39	1,152.5		

As we can see in Table 13, according to the result of the Mann-Whitney U test that was applied to non-normally distributed data, the lifelong learning tendencies of the caregiver parents showed a statistically significant difference according to the female (Mdn=127) and male (Mdn=136) gender variables. The mean rank value indicated that the lifelong learning tendencies of male individuals (52.39) were higher than those of female individuals (39.72) (U=486.5, z=-2.073, p<0.05, r=-0.22).

Table 14: Mann-Whitney U test of the lifelong learning tendency of parents according to the gender of individuals with disabilities

Gender	N	Mean rank	Total rank	U	p
Female	33	41.82	1,380.0	819.0	.725
Male	52	43.75	2,275.0		

According to the result of the Mann-Whitney U test that was applied to non-normally distributed data, the lifelong learning tendencies of the caregiver parents did not yield a statistically significant difference according to the gender of individuals with disabilities who they provided care for (female (Mdn=129) and male (Mdn=130.50)) (U=819.0, z=-.352, p>0.05, r=-0.03). The gender of the individual with disabilities, whether male or female, did not affect the learning tendency of the caregiver parent.

Table 15: Mann-Whitney U test of the lifelong learning tendency of parents according to the gender of individuals with disabilities

Education status	N	$\bar{X}$	SD	Mean rank	Kruskal-Wallis H	
					X^2	p
Non-literate	11	120.91	12.942	28.50	10.829	.055
Literate	2	131.50	6.364	44.50		
Elementary school	36	124.97	20.475	37.99		
Middle school	10	130.80	25.664	49.85		
High school	16	138.13	15.908	55.06		
University and above	10	134.80	12.647	50.55		

The education status of the caregiver parents was evaluated under six categories and the Kruskal-Wallis H test was applied. The result of the analysis indicated that lifelong learning tendencies did not differ according to the education level of caregiver parents (H(5) = 10.829, p>.05).

Table 16: Spearman-Brown correlation analysis of lifelong learning tendency and disability level variable

		(1)	**(2)**
(1) Lifelong learning tendency	r	1	.121
	p		.269
	N	85	85
(2) Disability level	r	.121	1
	p	.269	
	N	**85**	**85**

**p <.05; **p <.01; ***p <.001*

According to the results of the correlation analysis applied to examine the relationship between lifelong learning tendency data and disability levels, no significant relationship was found between the lifelong learning tendencies of caregiver parents and the disability level of the individuals with disabilities who they provided care for (p >0.05)

(Table 16). Therefore, it can be said that the high or low disability level of the individual with disabilities does not affect the learning tendency of parents.

Table 17: Pearson correlation analysis between QoL and parent's age variable

		(1)	**(2)**
(1) Quality of life	r	1	.276*
	p		.011
	N	85	85
(2) Parent's age	r	.276*	1
	p	.011	
	N	**85**	**85**

**p <.05; **p <.01; ***p <.001*

According to the results of the Pearson correlation analysis (Table 17), there was a low-level, significant positive relationship between the quality of life of the caregiver parents and their age (r = .276, p = .011). As the age of the parents increased, their quality of life increased. As their age decreased, their quality of life decreased, as well. Thus, it can be said that older caregivers have a higher quality of life than younger ones.

Table 18: Pearson correlation analysis between QoL
and the age of the individual with disabilities variable

		(1)	**(2)**
(1) Quality of life	r	1	.308**
	p		.004
	N	85	85
(2) Age of the individual with disabilities	r	.308**	1
	p	.004	
	N	**85**	**85**

**p <.05; **p <.01; ***p <.001*

As seen in Table 18, the results of the Pearson correlation analysis indicated a moderate, significant, and positive relationship between the quality of life of caregiver parents and the age of the individuals with disabilities who they provided care for (r = .276, p = .004). According to this result, the quality of life of the person providing care increases as the age of the person with disabilities increases, while the quality of life of the caregiver decreases as the age of the person with disabilities decreases.

Table 19: Independent samples t-test of QoL according to parent's gender variable

Parent's gender	**N**	**$\bar{X}$**	**SD**	**t**	**df**	**p**
Female	63	80.62	15.606	-1.483	83	.142
Male	22	86.18	13.693			

According to the results of the independent samples t-test (Table 19), it was concluded that the quality of life of the caregivers did not differ according to their gender (t(83) = -

1.483; p> .05). Caregivers' gender, whether male or female, did not affect their quality of life.

Table 20: Independent samples t-test of QoL according to the gender of the individuals with disabilities

Gender of the individuals with disabilities	**N**	**$\bar{X}$**	**SD**	**T**	**df**	**p**
Female	33	78.67	13.285	-1.650	83	.103
Male	52	84.21	16.133			

According to the independent samples t-test results (Table 20), it was concluded that the quality of life of the caregiver parents did not differ according to the gender of the individuals with disabilities who they provided care for (t(83) = -1.650; p> .05). The gender of the person with disabilities, whether male or female, did not affect the caregiver's quality of life.

Table 21: One-way analysis of variance (ANOVA) between QoL and the educational status variable

Source	**Total**	**SD**	**Mean**	**F**	**p**
Inter-group	484.373	5	96.875	.402	.846
Intra-group	19058.333	79	241.245		
Total	**19542.706**	**84**			

A one-way analysis of variance (ANOVA) test was applied to examine whether the quality of life of caregiver parents differed according to their educational status. It was concluded that the quality of life of the parents did not show a statistically significant difference according to their educational status (F = .402; p> .05).

Table 22: Pearson correlation analysis between QoL and disability level

		(1)	**(2)**
(1) Quality of life	r	1	-.039
	p		.720
	N	85	85
(2) Disability level	r	-.039	1
	p	.720	
	N	**85**	**85**

**p <.05; **p <.01; ***p <.001*

As seen in Table 22, Pearson correlation analysis was applied because the disability level and quality of life scores were continuous variables. According to the results of the analysis, no significant relationship was found between the quality of life of the caregiver parents and the disability level of the individuals with disabilities who they provided care for (p >0.05). Accordingly, there was no relationship between the high or low disability level of the individual with disabilities and the quality of life of the caregiver.

5. Conclusions and Recommendations

In this study, it was aimed to investigate the relationship between lifelong learning tendencies and the quality of life of parents who provided care for individuals with disabilities. In this context, 85 volunteer parents who provided care for individuals with disabilities were recruited, and study data, obtained by using some scales, were analyzed with appropriate analysis methods. When we look at studies in the field, there was no study that was conducted to investigate these two variables or that included all disability groups. However, there were some studies in which these variables were handled separately. For this reason, the findings were compared with the results of similar studies and evaluated in light of the literature, and some suggestions were made. The study included 85 volunteer parents who took care of at least one person with disabilities.

When the findings of the relationship between the lifelong learning tendencies of the parents who provided care for individuals with disabilities and their quality of life were evaluated, it was found that there was a moderate, positive, and significant relationship between the two variables as a result of the correlation analysis. In this context, there was a relationship between parents' lifelong learning tendencies and their quality of life. We can say that when the lifelong learning tendency scores of the parents increase, the quality of life scores also increase. Similarly, as lifelong learning tendencies decrease, their quality of life decreases, as well. There were some studies in the literature related to the topic of this study. For example, Vergili, Oktaş, and Okçulu (2015) studied individuals with disabilities and their caregivers and found that quality of life increased as learning and acquisition of skills increased. In a study on lifelong learning by families with individuals with disabilities, Genç (2017) found that the education received by families provided benefits both for them and for the person with disabilities but that they had problems with active participation in and access to these education programs. Yıldız and Cavkaytar (2020) conducted a study on how an education program to be given to families with individuals with intellectual disabilities affected their quality of life. As a result of the research, it was seen that education reduced families’ anxiety about the future, they learned about the stress conditions that could be experienced due to providing care, they learned more about the social support and legal rights they needed, and that the newly acquired skills increased their perceptions of the quality of life. It was observed that the quality of life of the person with disabilities increased indirectly with the increase in the quality of life of the family. In their study on lifelong learning, Dobińska and Okólska (2021) found that both formal and informal learning by parents who provided care for a person with disabilities professionalized care. It can be said that the results obtained in this study are consistent with those in the literature and that education allows caregivers to have comprehensive knowledge and gain new skills, and increase their quality of life.

When the distribution of parents by age groups was examined, it was seen that there were 35 parents in the 20-39 age range (early adulthood), 36 parents in the 40-59 age range (middle adulthood), and 14 parents in the ≥60 age range (late adulthood). In this case, it can be said that there were more young and middle-aged parents who provided care for individuals with disabilities and that the number of parents providing care for individuals with disabilities decreased in older ages. Correlation analysis was conducted to examine the relationship between parents' lifelong learning tendencies and quality of life and their age. According to the findings, there was no relationship between parents' lifelong learning tendencies and their age. A low level of positive correlation was found between quality of life and age. There are similar studies in the literature. For example, Kayaarslan (2016) and Tunç (2011) examined the quality of life of people who provided care for people with disabilities in their research and found a relationship between age and quality of life.

The evaluation of the ages of the individuals with disabilities indicated that there were 5 in the 2-5 age range (early childhood), 15 in the 6-11 age range (middle and late childhood), 17 in the 12-19 age range (adolescence), 24 in the 20-39 age range (early adulthood), 10 in the 40-59 age range (middle adulthood), and 14 in the ≥60 age range (late adulthood). The least number of people with disabilities was in the early childhood period. The period with the highest number of individuals with disabilities was early adulthood. The correlation analysis that was conducted to examine the existence of a relationship between the lifelong learning tendencies and quality of life of the parents and the age of the people with disabilities who they provided care for indicated that lifelong learning tendency did not have a relationship with the age of the person given care. It can be said that the age of a person with disabilities, whether young or old, does not affect the learning tendency of the caregiver. When the data on quality of life were examined, a moderate, positive relationship was found. In this context, it can be said that the quality of life of the caregiver increases with the increase in the age of the individual with disabilities but that it decreases with decreasing age. The quality of life of a parent with a child with disabilities is lower than that of a parent with an adult or elderly person with disabilities. The reason for this is that it is difficult to care for a child with disabilities. Of the 85 parents included in the study, 74.1% (63 people) were female and 25.9% (22 people) were male. Considering the observations during the research, the reason for the high number of female individuals was that male individuals generally had a job and therefore female individuals had to provide care for the individual with disabilities at home. Considering the analyses performed on whether learning tendencies and quality of life differed according to the caregiver's gender, it was found that male parents had higher lifelong learning tendencies than female parents. It was observed that there was no difference between the genders in terms of quality of life. In a study with 311 parents on the examination of the quality of life of parents with disabilities, Canarslan and Ahmetoğlu (2015) found that the quality of life of male individuals was higher than that of females. It can be thought that the difference in the findings was due to the different qualities of the sample groups.

When the gender distribution of the individuals with disabilities in the study was examined, it was seen that 33 were female and 52 were male. The rate of male individuals with disabilities (61.2%) was higher than that of female individuals (38.8%). This finding is in parallel with disability statistics in Turkey. According to the National Disability Data, 56% of the individuals with disabilities in Turkey are male and 44% are female. According to the analyses performed to find out whether the learning tendencies and quality of life of the parents differed according to the gender of the person with disabilities who they provided care for, there was no difference. In this case, it can be said that the gender of the person with disabilities does not affect the learning tendency and quality of life of the caregiver.

The educational level of parents who provided care for individuals with disabilities was divided into six groups to see whether the lifelong learning tendencies and quality of life of these parents differed according to their educational level. The six levels were non-literate, literate, elementary school, middle school, high school, and university and above. It was observed that 11 of the 85 parents participating in the study were non-literate, two of them were literate but did not have any graduation, 36 of them had elementary school education, nine had middle school education, 17 had high school education, and 10 had university or above education. When the findings obtained as a result of the analysis were examined, it was seen that the learning tendency and quality of life of the parents did not differ according to their education levels. In this case, it can be said that whether the parent is literate or has education does not affect their learning tendency and quality of life.

The disability levels of the individuals with disabilities who were provided care by the parents participating in the research were also included in the analysis. It was seen that 56.5% of the individuals with disabilities in the study had a disability level of 90% or more, and the least number of individuals with disabilities was in the 40-49% disability level. Considering the results of the analysis, no relationship was found between learning tendencies, quality of life, and disability levels. In this respect, it can be said that whether the person with disabilities has a high or low level of disability does not affect the caregiver's learning tendency and quality of life. This finding shows that if a person has a desire to learn, the condition of the person with disabilities who he/she provides care for, whether it is mild or severe, does not affect it. In other words, if the caregiver parent has a desire to learn, he/she does not make a learning decision according to whether the person with disabilities has a mild or severe level of disability. Similarly, it is seen that providing care for a person with a severe or slight level of disability does not reduce or increase the quality of life of parents.

Considering the importance of education in the care of the disabled based on the results of the research, the preparation of various education programs can benefit families who provide care for individuals with disabilities. These education programs should focus on topics, such as the provision of care, medication, dressing, and bed sores according to the type of disability, ensuring the privacy of the disabled during care, legal rights, disability rights, social support mechanisms, financial support sources, institutional care, coping with stress, and problem-solving skills. The main purpose here should be to equip parents to come to the point where they can find solutions on their own. In addition, parents with a low literacy rate may have difficulty searching and learning about these issues. For this reason, the media (TV, social media, billboards, local municipality announcements, etc.) should be used as an active tool.

In addition to education programs, designing a care handbook, which includes topics, such as self-care, dressing, medication use, privacy to protect the dignity of the disabled, disability rights, the promotion of the institutions that they can receive support from, and the channels that they can receive education and consultancy services from, will create an alternative learning source for parents who have limited access and cannot participate in learning environments.

To determine and meet the need for education based on supply rather than demand, caregivers must be tested when they apply for home care payment to social services. After their shortcomings in terms of providing care for a person with disabilities are determined, the caregiver should be educated by experts (health officer, psychological counselor, psychologist, social worker, etc.). Similar education can also be given to the caregiver who thinks that he or she cannot provide care and wants to place the person with disabilities in a care center. These practices should not only be supported by the state but also be coordinated in cooperation with associations for the disabled and relevant private institutions and organizations. In this way, it is thought that accessibility can be increased. This cooperation can bring a solution for families who cannot reach such services due to transportation or financial problems. It is thought that parents' social life is neglected due to their caring responsibilities. This affects their quality of life. Creating environments where caregivers can socialize and exchange ideas and receive expert support, when necessary, will be of great benefit in this regard.

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Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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