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QUALITY OF LIFE AND SOCIAL PARTICIPATION IN ELITE ATHLETES WITH PHYSICAL DISABILITIES AND SEDENTARY INDIVIDUALS WITH PHYSICAL DISABILITIES

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Abstract

The aim of the present study is to investigate whether the quality of life and social participation in individuals with physical disabilities differ according to whether they do sports or not. 45 athletes with physical disabilities licensed by the Disabled Sports Club and 30 sedentary individuals (not doing sports) with physical disabilities participated in the study. “Quality of Life Scale Short Form (SF-36)” was used to measure the quality of life of disabled individuals who do and do not do sports, while "Craig Handicap Assessment and Reporting Technique-Short Form (CHART-SF)" and the "Personal Information Form" developed by the researchers were used to assess social participation. For the analysis of the data, descriptive statistics, Mann Whitney U test and Spearman correlation test were applied. As a result of the study, it was found that there was a statistically significant difference between the pain and general health subscales in quality of life in favor of those who do sports, and the mobility subscale in social participation ($p<0.05$). It is seen that doing sports is a factor that positively affects the quality of life and social participation of individuals with physical disabilities. Participation of disabled people in sports activities should be increased.

Anahtar Kelimeler: *Physical disability, Sports, Quality of life, Social participation*

FİZİKSEL ENGELLİ ELİT SPORCULAR İLE SEDANTER FİZİKSEL ENGELLİ BİREYLERDE YAŞAM KALİTESİ VE TOPLUMSAL KATILIM

Öz

Bu çalışmanın amacı, fiziksel engelli bireylerde yaşam kalitesi ve toplumsal katılımın spor yapma ve yapmama durumuna göre farklılaşıp farklılaşmadığını araştırmaktır. Çalışmaya, Engelliler Spor Kulübünün lisanslı 45 fiziksel engelli sporcusu ve 30 sedanter (spor yapmayan) fiziksel engelli birey katılmıştır. Spor yapan ve yapmayan engelli bireylerin yaşam kalitelerini ölçmek amacıyla “Yaşam Kalitesi Ölçeği Kısa Form (SF-36)”, toplumsal katılımını değerlendirmek üzere “Craig Engellilik Değerlendirme Bildirme Tekniği-Kısa Form (CHART-SF)” ve araştırmacılar tarafından geliştirilen “Kişisel Bilgi Formu” kullanılmıştır. Verilerin analizinde betimsel istatistik, Mann Whitney U testi ve Spearman korelasyon testi uygulanmıştır. Araştırmanın sonucunda, spor yapanlar lehine yaşam kalitesi ağrı ve genel sağlık boyutu ile toplumsal katılımda mobilite boyutunun istatistiksel olarak anlamlı bir farklılık gösterdiği bulunmuştur ($p<0.05$). Spor yapmanın, fiziksel engelli bireylerin yaşam kalitesi ve toplumsal katılımını olumlu yönde etkileyen bir unsur olduğu görülmektedir. Engelli bireylerin spor faaliyetlerine katılımı artırılmalıdır.

Keywords: *Fiziksel engelli, Spor, Yaşam kalitesi, Toplumsal katılım*

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1. INTRODUCTION

Sports have an important place in supporting both physical and mental health. It is stated that for all individuals, sports contribute to increasing socialization, gaining self-confidence, and developing skills to cope with stress (Altun, 2010; Akdura, 2007; Durstine et al., 2000; Groff et al., 2009). In the historical process, these positive effects of sports were used first in the treatment of wounded soldiers and then in the treatment of all patients in need. It was understood that participation in sports activities is an element of social and psychological support for disabled individuals (Çevik & Kabasakal, 2013).

Disabled individuals have difficulties in participating in social life due to physical dysfunctions and the limitations created by them. Considering this situation, sports activities gain more importance for the disabled individuals. It is emphasized that sports are an extremely important tool in terms of fulfilling the needs of movement, entertainment and achievement, especially for disabled individuals (Satman, 2011). Sports are also an area that strengthens the sense of belonging of the disabled individuals (Kamberidou et al., 2019; Swartz et al., 2018). While participating in sports activities provides a positive experience for the disabled individuals, it also acts as a catalyst for the reframing of the negative understanding stemming from physical dysfunctions and provides great convenience for the disabled individuals to adapt to social life (Çevik & Kabasakal, 2013; Swartz et al., 2018).

Disabled individuals are exposed to various disadvantages and social exclusion (Erdoğan & Köten 2014; Repke & Ipsen 2020). Disabled individuals cannot participate in social life due to the difficulties they experience in transportation and working life, and the discrimination they face in various areas (Bezyak et al., 2017; Hall, 2005; Vornholt et al., 2013). Under these conditions, sports will facilitate the participation of disabled individuals in social life. Social participation includes a variety of activities that organize one's life, done with family, friends, and groups. Social participation activities are organized behaviors that occur during an individual's interaction with others within a particular social system (American Occupational Therapy Association, 2002).

Sports will increase the quality of life of disabled individuals by ensuring their participation in social life (Kumcağız & Avcı Çayır, 2018). Quality of life was defined by the World Health Organization as the perception of one's own life in a culture and value system according to one's own goals, expectations, standards and interests (WHO, 1993). In a study examining the effects of sports on the quality of life of disabled individuals, it was determined that sports had positive effects on many parameters such as balance control, communication, making friends, getting rid of loneliness tendency, social roles, self-expression, and perspective on school (Ünal & İlhan, 2020).

It is a common view that sports are a social capital creating, sustaining and developing power that also serves the welfare of individuals, social inclusion and integration (Nicholson & Hoye, 2008). Social capital is important for disabled individuals to be included in social life (Dimakos et al., 2016). It is stated that participation in sports activities will improve social capital by

increasing social relations and social participation (Forsell et al., 2022; Wei, 2010). In this context, it is assumed that the sports that individuals with physical disabilities include in their lives will positively affect their quality of life by increasing their participation in social life.

The aim of rehabilitation of individuals with physical disabilities is to gain freedom of movement and to enable them to be independent and productive in daily life. Social integration will increase with the inclusion of sports in the lives of disabled individuals. In the studies, it is understood that the effect of sports is mostly evaluated in terms of self-perception, pain, psychological well-being and leisure experiences in quality of life (Gürkan et al., 2021; Pense et al., 2011; Şentürk, 2017; Üstünkaya, 2005), and it is not taken into consideration together with the participation of disabled individuals in social life. With this study, answers were sought to the questions of whether the quality of life and social participation of individuals with physical disabilities differ according to whether sports activities are done or not and whether there is a relationship between their social participation and quality of life, and in this context, it was aimed to draw attention to the importance and contribution of sports for disabled individuals and to popularize sports activities in the rehabilitation process.

2. METHOD

2.1. Research Model

The survey model was used in the present study to describe whether the quality of life and social participation of individuals with physical disabilities differ according to the status of doing sports. The survey model is a research approach that aims to describe and define a past or present situation as it is (Karasar, 2016).

2.2. Study Group

The population of the study consists of physically disabled elite athletes and sedentary adult individuals residing in Ankara. Easily accessible sampling method, one of the purposeful sampling methods, was used in the selection of the study group. The sample of the study consists of 45 licensed athletes in the Disabled Sports Club and 30 sedentary adults (not doing sports) with physical disabilities. A total of 75 people with physical disabilities were divided into two groups as elite athletes and sedentary individuals with physical disabilities. Of the elite athletes, 12 are licensed athletes in basketball, 10 in football, 11 in archery, 11 in shooting and 1 in equestrianism. Criteria for inclusion in the study; Volunteering, participating in training regularly for at least one year for elite athletes, being between the ages of 18-45, and not having any cognitive/mental problems.

2.3. Data Collection Tools and Data Collection

The "Personal Information Form" prepared by the researchers was used to determine the sociodemographic characteristics, disability status, type of sports, and sports experience of the participants in the study. In order to measure the quality of life, the Quality of Life Scale (SF-36), of which validity study was carried out by Anderson et al. and reliability and validity

study for the Turkish version was carried out by Koçyiğit et al., was used. Cronbach's alpha coefficients of the scale were found to be between 0.7324 and 0.7612. The scale measures the quality of life in eight subscales including physical function, social function, role limitations due to physical functions, role limitations due to emotional problems, mental health, energy/vitality, pain and general health perception. The scale evaluates the positive as well as the negative aspects of the health status. There are 36 questions in the scale and the person evaluates the quality of life by considering the last 4 weeks. In the scoring, 0 indicates the most negative aspects and 100 the most positive aspects (Koçyigit, 1999). The "Craig Handicap Assessment and Reporting Technique-Short Form (CHART SF)" was used to assess the social participation of disabled individuals. The scale, developed by being inspired by the WHO's disability modl in 1980, evaluates the extent to which people can fulfill their social roles, based on measurable criteria rather than subjective interpretation. There are 32 questions in total in the areas of physical independence, cognitive independence, mobility, activity, social adaptation and economic self-sufficiency. Each parameter is scored between 0-100. The maximum score of 100 represents the level of social participation of the person without a disability. The validity and reliability study of the Turkish version of the CHART SF was conducted in patients who had a stroke, and the Cronbach's alpha value was found to be 0.835 (Safer, 2010).

Elite athletes with physical disabilities were reached with the permission of the Disabled Sports Club management, and data collection tools were filled out by face-to-face interviews with the athletes who agreed to participate voluntarily. Sedentary individuals with physical disabilities were reached through snowball sampling and data were collected through face-to-face interviews. Data were collected between April 2023 and May 2023.

2.4. Data Analysis

The data of the study were analyzed using SPSS Statistics 25 software. Descriptive statistics were given as frequency (%) for categorical variables, and mean ± standard deviation and median (minimum-maximum) for continuous variables. In order to test the normal distribution of the data, skewness and kurtosis values were checked, since it was understood that the data were not normally distributed, the Mann Whitney U test was used to compare the quantitative data between two independent groups, and the Spearman Correlation Test was used to see if there was a statistically significant relationship between the two numerical variables. Statistical significance level was accepted as $p<0.05$.

2.5. Ethical Approval

The ethics committee approval dated 02.02.2023 and numbered E-23688910-050.01.04-2300006826 was obtained from the Social and Human Sciences Ethics Committee of Bartın University for the study. Interviews were conducted by obtaining a signed voluntary consent form from all participants.

3. RESULTS

The ages of the participants participating in the study vary between the ages of 19-59, and the mean age of the elite athletes with physical disabilities is 36.33, and the mean age of sedentary individuals is 37.40. Among the participants in both groups, it is seen that the ratio of males is high (77.8% and 90.0%). Among the elite athletes with physical disabilities, the ratio of those married (51.1%) is higher compared to sedentary individuals with physical disabilities (36.7%). Considering the educational levels of the participants, 46.7% of the elite athletes with physical disabilities and 63.3% of the sedentary individuals with physical disabilities are high school graduates. In both groups, the ratio of civil servants (33.3% and 36.7%) and those retired (28.9% and 46.7%) was found to be higher. 13.3% of elite athletes with physical disabilities and 10% of sedentary individuals have a congenital disability. It is understood that most of the participants (64.4% and 53.3%) have been living with disabilities for more than 9 years. Among the causes of disability, spinal cord injury ranked first with 40% in elite athletes and 56.7% in sedentary individuals. 35.5% of the elite athletes with physical disabilities have been doing sports for more than 9 years. Introductory information about the elite athletes with physical disabilities and sedentary individuals with physical disabilities participating in the study are presented in Table 1.

Table 1. Introductory Information on Individuals with Physical Disabilities

Variables	Elite athletes with physical disabilities (N:45)		Sedentary individuals with physical disability (N:30)	
Age (mean±sd)	36.33±10.245		37.40±8.406	
Gender	N	%	N	%
Female	10	22,2	3	10,0
Male	35	77,8	27	90,0
Marital Status	N	%	N	%
Married	23	51,1	11	36,7
Single	21	48,6	18	60,0
Divorced	1	2,2	1	3,3
Educational Level	N	%	N	%
Primary school	1	2.2	1	3.3
Secondary school	6	13,3	3	10,0
High school	21	46,7	19	63,3
University	17	37,8	7	20,3
Occupation	N	%	N	%
Civil Servant	15	33,3	11	36,7
Employee	3	6,7	2	6,7
Retired	13	28,9	14	46,7
Self-Employed	2	4,4	-	-
Student	7	15,6	1	3,3
Unemployed	5	11,1	2	6.7

Period of Disability	N	%	N	%
Congenital	6	13,3	3	10,0
0-2 years	2	4,4	6	20,0
3-5 years	3	6,7	5	16,7
6-8 years	5	11,1	-	-
9 years and above	29	64,4	16	53,3
Cause of Disability	N	%	N	%
Spinal Cord Injury	21	46,7	17	56,7
Amputation	18	40,0	10	33,3
Poliomyelitis	6	13,3	3	10,0
Period of Doing Sports	N	%	N	%
0-2 years	12	26,7	-	-
3-5 years	9	20,0	-	-
6-8 years	8	17,8	-	-
9 years and above	16	35,5	-	-

As shown in Table 2. the mean scores of the elite athletes with physical disabilities from the subscales of the quality of life scale were as follows: physical function (45.22±28.93); physical role power (72.24±30.69); emotional role power (70.51±33.25); pain (68.94±24.65); social function (71.18±23.51); mental health (68.44±16.2); vitality (60.84±20.29); and general health perception (65±19.33), while the mean scores of the sedentary group from the subscales of the quality of life scale were as follows: physical function (41.66±16.69); physical role power (56.01±39.12); emotional role power (58.44±41.16); pain (51.75±30.19); social function (65.46±24.98); mental health (68.88±16.69); vitality (59.81±16.14); and general health perception (54.72± 20.24). According to these results, it was determined that the elite athletes and the sedentary group with disabilities received the lowest scores from the physical function subscale of the SF-36 quality of life in parallel with the disability status. On the other hand, it was determined that elite athletes received the highest scores from the physical role power subscale of the quality of life scale, while the sedentary individuals with physical disabilities received the highest scores from the mental health subscale.

Table 2. Descriptive Analysis of the Quality of Life of Elite Athletes with Physical Disabilities and Sedentary Individuals with Physical Disabilities

		PF	**PRP**	**ERP**	**V**	**MH**	**P**	**SF**	**GHP**
Elite athletes	**Mean**	47,22	72,24	70,51	60,84	68,44	68	71,18	65
	Median	50	75	66	60	68	67,50	75	65
	SD	28,93	30,69	33,25	20,29	16,02	24,65	23,,51	19,33
	Mod	20	100	100	75	64	67,50	100	70
	Min.	0	0	0	0	36	0	12,50	25
	Max.	100	100	100	100	96	100	100	100

Sedentary individuals	**Mean**	41,66	56,01	58,44	59,81	68,88	51,75	65,46	54,72
	Median	35	75	66	60	68	55	75	50
	SD	16,69	39,12	41,16	16,14	16,69	30,19	23,51	20,24
	Mod	20	75	100	50	52	55	75	50
	Min.	0	0	35	35	36	0	12,50	15
	Max.	90	100	90	90	96	100	100	87,50

Abbreviations: PF: Physical Function, PRP: Physical Role Power, ERP: Emotional Role Power, V: Vitality, MH: Mental Health, P: Pain, SF: Social Function, GHP: General Health Perception

The mean scores of the elite athletes with physical disabilities from the subscales of the social participation scale were as follows: economic independence (96.04±13.11), employment status (71.75± 27.45), social participation (93.48±12.70), mobility (90.48±15.06), cognitive independence (90.15±19.99), and physical independence (94.68±9.03), while the mean scores of sedentary individuals with physical disabilities from the subscales of the physical participation scale were as follows: economic independence (68.88± 16.69), employment status (74.39±30.54), social participation (94.55 ±9.63) , mobility (81.33±22.63), cognitive independence (82.40±28.82), physical independence (93.85±9.16). was detected. According to these results, the elite athletes and the sedentary group with disabilities similarly received the highest scores from the economic independence subscale of the CHART-SF scale and the lowest scores from the employment status subscale. A descriptive analysis of the social participation of the elite athletes with physical disabilities and sedentary individuals with physical disabilities is presented in Table 3.

Table 3. Descriptive Analysis of the Social Participation of Elite Athletes with Physical Disabilities and Sedentary Individuals with Physical Disabilities

	State of doing sports	**X**	**U**	**Z**	**P**
Physical Independence	Elite Athletes	38,09	536.000	930	,352
	Sedentary Individuals	33,85			
Cognitive Independence	Elite Athletes	37,83	547,500	869	,385
	Sedentary Individuals	34,28			
Mobility	Elite Athletes	40,40	432,000	2,170	**,030**
	Sedentary Individuals	30,00			
Employment Status	Elite Athletes	35,43	559,500	580	,562
	Sedentary Individuals	38,28			
Social Participation	Elite Athletes	36,43	604,500	042	,467
	Sedentary Individuals	36,61			
Economic Independence	Elite Athletes	37,12	579,500	520	,603
	Sedentary Individuals	35,46			

$p<0.05$

When the mean quality of life scores of individuals with physical disabilities were compared, it was found that there was a statistically significant difference in pain and general health subscales (P<0.05). The findings of Mann Whitney U analysis regarding whether the quality of life of the elite athletes with physical disabilities and sedentary individuals with disabilities differs are presented in Table 4.

Table 4. Mann Whitney U Analysis on Whether the Quality of Life of Elite Athletes with Physical Disabilities and Sedentary Individuals with Disabilities Differs

	State of doing sports	X	U	Z	P
Physical Function	Elite Athletes	37,70	549,000	-420	,675
	Sedentary Individuals	35,17			
Physical Role Power	Elite Athletes	39,62	229,500	-1695	0,90
	Sedentary Individuals	35,17			
Pain	Elite Athletes	41,09	401,000	-2412	**,016**
	Sedentary Individuals	28,85			
Vitality	Elite Athletes	37,24	574,000	-391	,696
	Sedentary Individuals	35,26			
Mental Health	Elite Athletes	36,91	589	-216	,829
	Sedentary Individuals	37,19			
Social Function	Elite Athletes	38,14	533,500	-873	,383
	Sedentary Individuals	33,76			
Emotional Role Power	Elite Athletes	38,59	513,500	-1153	,249
	Sedentary Individuals	33,02			
General Health	Elite Athletes	40,10	445,500	-1890	**,049**
	Sedentary Individuals	30,50			

p<0.05

When the social participation mean scores of the athletes with physical disabilities were compared with the sedentary individuals with disabilities, it was found that there was a statistically significant difference in the mobility subscale (P<0.05), while there was no significant difference in the other subscales. Mann Whitney U analysis on whether the social participation of elite athletes with physical disabilities and sedentary individuals with disabilities differs is presented in Table 5.

Table 5: Mann Whitney U Analysis on Whether the Social Participation of Elite Athletes with Physical Disabilities and Sedentary Individuals with Disabilities Differs

	State of doing sports	X	U	Z	P
Physical Independence	Elite Athletes	38,09	536.000	930	,352
	Sedentary Individuals	33,85			
Cognitive Independence	Elite Athletes	37,83	547,500	869	,385
	Sedentary Individuals	34,28			
Mobility	Elite Athletes	40,40	432,000	2,170	**,030**

	Sedentary Individuals	30,00			
Employment Status	Elite Athletes	35,43	559,500	580	,562
	Sedentary Individuals	38,28			
Social Participation	Elite Athletes	36,43	604,500	042	,467
	Sedentary Individuals	36,61			
Economic Independence	Elite Athletes	37,12	579,500	520	,603
	Sedentary Individuals	35,46			

p<0.05

When Table 6 is examined, it is seen that there is a moderate, positive and significant relationship in some subscales of social participation and quality of life in athletes with physical disabilities. It is understood that the moderate relationship between the subscales of mental health and social function (r=.615, p<0.01), mental health and vitality (r=.678, p<0.01), vitality and physical role power (r=.600, p<0.01), vitality and social function (r=.649, p<0.01), social function and physical role power (r=.585, p<0.01), pain and general health (r=.562, p<0.01) is higher.

Table 6. Spearman Correlation Analysis Between the Subscales of the Quality of Life Scale (SF-36) and the Social Participation Scale (CHART-SF) in Elite Athletes with Physical Disabilities

Variables		**PF**	**PRP**	**ERP**	**SF**	**V**	**MH**	**GH**	**P**	**PI**	**CI**	**M**	**ES**	**SP**	**EI**
PF	**r**	1000													
	p	,000													
PRP	**r**	-,032	1000												
	p	,834	,000												
ERP	**r**	,158	,306*****	1000											
	p	,299	,041	,000											
SF	**r**	,213	,626	**,585****	1000										
	p	,161	,45	,000	,000										
V	**r**	,198	,240	**,600****	**,649****	1000									
	p	,193	,45	,000	,000	,000									
MH	**r**	,088	,142	**,505****	**,615****	**,678****	1000								
	p	,565	,352	,000	,000	,000	,000								
GH	**r**	,206	,163	**,378***	,310*****	**,427****	,351	1000							
	p	,175	,284	,011	.038	,003	,018	,000							
P	**r**	**,419****	,255	**,497****	**,360***	**,513****	,279	**,562****	1000						
	p	,004	,091	,001	,015	,000	,064	,000	,000						
PI	**r**	,201	,106	,138	,279	,162	,130	**,327***	,115	1000					
	p	,185	,487	,366	,064	,289	,394	,029	,450	,000					
CI	**r**	**381****	200	253	271	187	040	237	152	**,386****	1000				
	p	,010	,188	193	,172	,351	,843	,234	,449	,009	000				

M	**r**	,170	,080	,177	,111	,-107	,148	,211	,082	**,392****	,241	1000			
	p	,396	,693	,307	,583	,596	,460	,291	,686	,008	,111	000			
ES	**r**	**,531****	,091	-,073	-,104	,308	-,146	,126	,082	,159	,047	,225	1000		
	p	,004	,651	,717	,607	,118	,466	,530	,686	,297	,761	,137	000		
SP	**r**	,162	,146	**,384****	,273	**,449****	**,354***	,153	**,341***	,150	,149	,014	,079	1000	
	p	,288	,338	,009	,069	,002	,017	,446	,022	,326	,327	,928	,605	000	
EI	**r**	,096	,176	,100	,063	,269	,194	,075	,081	,236	,052	,098	,015	**,358****	1000
	p	,531	,247	,515	,681	,074	,202	,625	,597	,119	,735	,521	,924	,016	000

*p<0.05, **p< 0.01 Abbreviations: FF: Physical function, FRG: Physical role power, ERG: Emotional role power, SF: Social function, GS: General health, MS: Mental health, VT: Vitality, AĞ: Pain, FB: Physical independence, EB: Economic independence, MO: Mobility, KB: Cognitive independence, İD: Employment status, SK: Social participation

When Table 7 is examined, it is seen that there is a moderate, positive and significant relationship between some subscales of social participation and quality of life in sedentary individuals with disabilities. It is understood that the moderate relationship between the subscales of mental health and social function (r=.575, p<0.01), mental health and vitality (r=.652, p<0.01) and social function (r=.636, p<0.01), employment status and mobility (r=.506, p<0.01) is higher.

Table 7. Spearman Correlation Analysis Between the Subscales of the Quality of Life Scale (SF-36) and the Social Participation Scale (CHART-SF) in Sedentary Individuals with Disabilities

Variables		**PF**	**PRP**	**ERP**	**SF**	**VT**	**MH**	**GH**	**P**	**PI**	**CI**	**M**	**ES**	**SP**	**EI**
PF	**r**	1000													
	p	,000													
PRP	**r**	,175	1000												
	p	,382	**,000**												
ERP	**r**	,032	,262	1000											
	p	,876	,187	,000											
SF	**r**	-,141	,158	,151	1000										
	p	,484	,432	,453	,000										
V	**r**	,158	,323	,228	**,636****	1000									
	p	,431	,101	,253	,000	**,000**									
MH	**r**	-,103	,155	,156	**,575****	**,652****	1000								
	p	,608	,441	,438	,002	,000	,000								
GH	**r**	,112	**,495****	**,460***	,139	**,470****	,292	1000							
	p	,577	,009	,016	,490	,013	,139	,000							
P	**r**	,146	**,441***	,149	**,381***	,309	,340	,217	1000						
	p	,466	,021	,460	,050	,117	,083	,276	,000						

PI	**r**	**,505****	,308	,150	-,001	-,101	,108	,057	,258	1000					
	p	,007	,118	,456	,997	,617	,591	,779	,194	,000					
CI	**r**	,218	,245	**,388***	,271	,187	,040	,187	,152	**,431***	1000				
	p	,274	,217	,046	,172	,351	,843	,351	,449	,025	,000				
M	**r**	,170	,080	,177	,111	-,107	,148	,211	,082	,145	,250	1000			
	p	,396	,693	,377	,583	,596	,460	,291	,686	,471	,208	000			
ES	**r**	**,531***	,091	,073	-,104	,308	-,146	,126	,034	,188	-,175	**,506****	1000		
	p	,004	,651	,717	,607	,118	,466	,530	,866	,348	,382	,007	,000		
SP	**r**	-,288	-,289	,179	,282	,240	,280	,153	-,007	,128	**,382***	,026	-,090	1000	
	p	,145	,144	,373	,154	,227	,158	,446	,970	,525	,050	,897	,657	000	
EI	**r**	-,142	-,202	,019	,018	,201	,132	-,079	-,157	,164	,281	-,357	**-,452***	,121	1000
	p	,479	,311	,923	,928	,314	,510	,696	,434	,413	,155	,068	,018	,548	000

*p<0.05, **p< 0.01 Abbreviations: PF: Physical function, PRP: Physical role power, ERP: Emotional role power, SF: Social function, V: Vitality, MH: Mental health GH: General health, P: Pain, PI: Physical independence, CI: Cognitive independence, M: Mobility, ES: Employment Status, SP: Social Participation, EI: Economic independence

4. DISCUSSION AND CONCLUSION

In the study, it was aimed to reveal whether the quality of life and social participation of individuals with physical disabilities differ according to the status of doing sports. In this context, elite athletes with physical disabilities and sedentary individuals (not doing sports) with physical disabilities participated in the study.

In the study, it is seen that the ratio of females is lower among both the elite athletes with physical disabilities and sedentary individuals with physical disabilities. It was shown in many studies that disabled female individuals are more disadvantaged in public and private spheres than males, and that they do not take part in the social sphere sufficiently (Altuntaş Duman & Doğanay, 2017; Egbatan et al, 2019; Karataş & Gökçearslan Çiftci, 2010). The low number of females participating in our study can also be explained by the fact that disabled female individuals are less visible in the social sphere. Anderson et al. (2008) also emphasized that the participation rate of disabled female individuals in sports is low. At the same time, the fact that sports are seen as an area where male hegemony is emphasized and not seen as a priority area for females is another reason for the low number of female athletes (Koca, 2006). It can be thought that the difficulties of being a woman and being disabled in the society affected the participation of female participants in the study. Bayındır & Tuna Uysal (2023) emphasize that gender equality should be supported in sports and more females should be encouraged to do sports in order to ensure the participation of disabled female individuals in social life. In the study, it was determined that the educational level of the participants in both groups was mostly at the high school level, and most of the participants had a regular job and income. In the study of Finch et al. (2001) it was determined that there is a positive relationship between educational level and participation in sports. In another study (Meriç & Turay, 2020), it was found that the increase in the educational level increases the motivation to participate in

sports and the quality of life. Furthermore, it was revealed that single disabled individuals think that they are more exposed to social isolation than married individuals and that marriage reduces the perception of social isolation. In our study, among the elite athletes with physical disabilities, the ratio of those married is higher compared to sedentary individuals with physical disabilities. However, due to the small sample size in our study, it was not possible to evaluate whether there was a difference between the two groups in terms of demographic characteristics.

In the study, when the quality of life scores of individuals with physical disabilities were compared, it was determined that the quality of life of those who did sports was better in pain and general health subscales. It is understood that doing sports has a positive effect on health and increases the quality of life. In the study of Aydoğan and Hadi (2020) which evaluated the effect of doing sports on athletes with physical disabilities, it was understood that the physical problems of the participants decreased after they started sports, that sports provided a healthy lifestyle for the participants and contributed to the recovery process. On the other hand, sports help develop a sense of belonging to a group and develop a more positive perspective on one's health. In a similar study, it was found that the life satisfaction levels of paralympic athletes were higher than those of sedentary individuals with disabilities (Ziolkowski et al., 2016). Considering other studies on quality of life, it is seen that doing sports has positive effects on the quality of life of disabled individuals (Altun, 2010; Devine, 2004; Diaz et al., 2019; Groff et al., 2009; Mockeviciene & Savenkoviene, 2012; Santiago & Coyle 2004, Saltan & Ergun 2017, Yazıcı, 2012; Yazıcıoğlu et al., 2012; Wilhite & Shank, 2009).Participation in sports is effective in enjoying life, feeling good and performing activities of daily living (Groff et al., 2009). Participation in sports also provides social acquisitions by providing different socialization areas. It was shown that especially those who play in team sports have a higher sharing rate (Civan, 2015; Groff et al., 2009). It is understood that sports increase the relationship with teammates, strengthens mutual assistance and thus creates a positive effect on the quality of life. In our study, it was observed that the mean scores of the athletes with physical disabilities in the social function area of the quality of life scale was higher than the sedentary individuals with disabilities, but no statistically significant difference was found. Analysis on a larger sample is needed. The athletes with physical disabilities participating in the study received the lowest scores from the physical function in the quality of life scale. This result is an expected result considering the physical health status of disabled individuals.

It was determined that individuals with physical disabilities show a significant difference in the mobility subscale of the social participation, and the mobility of disabled individuals who do sports is higher. It is understood that sports are effective in increasing mobility in disabled individuals. Kreuter (2000) showed that disabled individuals who had a spinal cord injury and participate in sports activities have a higher participation in social life than those who do not participate in sports. In the studies of Kamberidou et al. (2019), it was determined that the disabled individuals face social exclusion in many areas, positive developments are

experienced in the lives of the disabled individuals with sports, and sports contribute to social integration as well as providing a social identity. In another study, it was determined that although there was no change in the movement systems of the disabled individuals engaged in sports, they had higher energy levels and lower depression levels after two years, and it was stated that sports improved social integration in the disabled individuals (Labronici et al., 2000). In a similar study conducted with the disabled individuals, it was found that the disabled athletes were at a better level in the areas of physical independence, mobility, occupational and social integration compared to other disabled individuals (Hanson et al., 2001). It is understood that with the participation of disabled individuals who do sports in training and competitions, the environment they interact with expands and their participation in social life increases.

In the study, a significant relationship was found in the correlation between quality of life and social participation subscales, between physical independence and general health perception, between social participation and emotional function, mental health, pain and vitality subscales, and between employment status and physical function subscales in licensed athletes with physical disabilities who do sports, while a significant relationship was found between cognitive independence and emotional function, and between physical independence and employment status and physical function in sedentary individuals with disabilities. From these results, it is understood that social participation and quality of life are related to each other. At this point, it is expected from sports to increase the independence of the disabled individual by increasing the physical capacity, and to contribute to the quality of life by increasing interpersonal communication and participation. It is seen that the quality of life of these individuals with limited mobility is positively affected by social participation (McVeigh et al., 2009; Yazıcıoğlu et al., 2012). Regardless of the type of disability, sports are an effective tool in increasing the health, happiness and quality of life of disabled individuals by increasing interpersonal communication and participation (Aslan et al., 2017; Civan, 2015; Kara et al., 2019; Laferrier et al., 2015, Ubeda-Colomer et al., 2018).

It is seen that doing sports is a factor that positively affects the quality of life and social participation of individuals with physical disabilities. It is necessary to emphasize once again the importance of providing sports activities adapted to the disabled individuals as a complement to the rehabilitation process and focusing on abilities rather than obstacles.

In order to increase the participation of disabled individuals in sports activities, the state and non-governmental organizations, especially sports organizations, should increase their support. Carrying out sports activities in associations of which disabled individuals are members will mediate the introduction of disabled individuals to sports. Families should be made aware of the benefits of sports activities for disabled individuals, and efforts should be made to increase social awareness. Furthermore, it will be beneficial for successful disabled athletes to have wider media coverage in terms of these athletes being role models. It is necessary to remove the barriers to the access of disabled individuals to sports facilities, and

to make sports facilities suitable for the use of the disabled individuals. Rehabilitation of disabled individuals with sports should be accepted as a social policy and both legal and practical regulations should be put into practice in this regard.

Limitations of the Study

The small sample size is seen as the most important limitation of this study. It is thought that examining the relationship between different sports branches, period of disability and sociodemographic characteristics, quality of life and social participation in future studies in a larger sample group will make contributions.

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