



RESEARCH ARTICLE

## The Role of Sport in Acceptance of Disability and Resilience

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### Abstract

It is claimed that sport is an influential mechanism that could withstand against a great many negativities with regard to life for disabled people. To this end, the purpose of the current study was to investigate the relationship between the acceptance of disability and resilience levels of athletes and non-athletes. The group of the research was made up of 140 athletes and 165 non-athletes (90 female, 215 male). In this study, which was designed in a descriptive research model, Acceptance Disability Scale (ADS) and Connor-Davidson Resilience Scale (CD-RISC) were used as the data collection tools. It was found that both the acceptance of disability and the resilience levels of athletes were high compared to disabled ones and that there was a significant difference ( $p < 0.01$ ). In addition, it has been understood that the average scores of individuals who are successful in international competitions are higher than those who are successful in national competitions. It was concluded that there is a good level of positive relationship between acceptance of disability and resilience levels. As a result, the sport seemed to affect both acceptance of disability and resilience significantly.

### Keywords

Acceptance of Disability, Resilience, Disability Sport, Physical Disability

## INTRODUCTION

When it is thought that sport is a part of social integration for the disabled, the perceptions of individuals showing different developments with regard to their own self come to the fore and it comprises the basic dynamism of a sort of existence struggle. According to World Health Organization findings, almost 16% of the world population are disabled (WHO, 2023) while it is nearly 13% in Turkey (TSI, 2018). This undeniable part of the community tries to survive under the effect of different inefficacy. Even though individuals live in these troubles, they cannot reach the freedom as much as a healthy individual can in most cases. It would certainly be wrong to say the disabled individuals have

problems arising only from their handicaps. The handicap a person has does not only mean that the person cannot fulfill that task, but it also has an impact on the whole life of the person. The interaction of man who is a social being makes him a part of community. In this sense, every sportive activity is a basic social experience (İlhan & Suveren, 2010). Sport is a social asset that is offered as a public service and encompasses social dynamics (Çolakoğlu & Solmaz, 2017). In addition, sport, which is thought to be presenting social dynamics to individuals as a whole, has the same task for the disabled individuals and has a role of a bridge in the interaction of the disabled individuals with society despite its physical disabilities making him different from healthy individuals.

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In the conceptual framework and basis of sport is competition (Mellalieu, Hanton, & Fletcher, 2006; Mellalieu, Neil, Hanton, & Fletcher, 2009). Competition is to exhibit a struggle, dealing with hardships and determination. In this sense, it is the integrity of sport phenomenon of the mechanism that will provide the disabled sportspersons with enduring the problems they meet, fight against the inabilities raising from his disability and what's more have the will to be able make him different from the healthy individuals by ignoring these negative conditions. However, the perspective of society towards the disabled individuals could spoil this interaction to some extent. Karataş (2002) explains it as follows: "In the basis of the handicap the disabled individual meets lie not the handicap a person has but the preventive attitudes of a community which has an excuse of the difference creating that handicap developed towards the disabled, and the experience of being a disabled is a kind of social pressure". Because of these reasons not only the handicap cases of the disabled but also the psychological cases could also have an effect on their lives.

Resilience is defined as a fact that a human being could adapt to the changes in the process emerging after the interaction of the risk factors with the protective factors when encountered with the hard and negative life experiences (Karairmak, 2007). Depending on this definition, it is likely to say that the disabled have negative life experiences because of their handicaps and that they are psychologically influenced from this case. When the fact that the disabled individuals have to carry on their lives with these negativities throughout their lives is taken into consideration, it is clear that their resilience levels are of great importance in making them endure such a case. Furthermore, the fact that a disabled person accepts his disability and that he knows he has to live with this disability is of great importance in this psychological process. Studies show that the resilience levels of the individuals accepting their disabilities are higher (Attawong & Kovindha, 2005; Casier et al., 2008; McCracken & Zhao-O'Brien, 2010).

Embracing every part of a community, sport could be regarded as a great source of rehabilitation for the disabled. The higher the self-esteem of the disabled athletes is, the better their harmony with their environment and friends is,

and thus their mental health is more balanced and arranged (İlhan, 2010). Depending on this fact, it is believed that the regular sport has an impact on daily life and their communication they make with the community and their psychological cases are more positive compared to sedentary disabled individuals. In addition, there are some environmental factors affecting the spirituals ways of individuals in their lives (Parry, Robinson, Watson, & Nesti, 2007). An individual is under the effect of the dominant qualities of the society he lives in with his psycho-social features (Watson & Nesti, 2005). It shows a really complex structure. It is possible to attribute the good or bad, successful or unsuccessful, happy or unhappy conditions he is in. For that reason, it is of importance to evaluate the features of individuals as a whole.

The fact that physically disabled individuals attain an identity of a sportsman, their being a part of a team, their attaining success in national and international competitions make them closer to the social status of the normally developed individuals (Kırmoğlu, İlhan, & Çağlayan, 2011). Soyer et al. (2013) studied the resilience levels of physically disabled individuals doing sport in terms of some variables and found significant results in their studies. Even though the fact that disabled individuals do the sports their handicaps allows them to do so means that they accept their disability, and accordingly this case leads to curiosity in terms of both sportive success and communication with society.

In the literature regarding the concept of acceptance of disability, only a study by Şen (2016) was found in the Turkish literature. When it comes to the fact that acceptance of disability and resilience concepts are highly connected to each other (Berry, Elliott, & Rivera, 2007; Fujikawa et al., 2013; Grooms & Leahy, 2002), this lack in the literature is striking. In addition, it is of curiosity whether these two concepts of sport are related to each other. For that reason, the current research aims at determining the acceptance of disability and resilience levels of the disabled individuals who are a part of community even the completing part of it in terms of different variables with sport in the first place and investigate the relation between these two features within the content of physically disabled athletes.

## MATERIALS AND METHODS

This study was conducted according to the guidelines laid down in the Declaration of Helsinki and was initiated with the approval of the Gazi University Ethics Committee (77082166-302.08.01). The research was carried out on the basis of voluntary participation, and in this context, data were collected from the participants both face-to-face and electronically.

### Participants

The athletes in the group of the research were made up of 140 physically disabled (45.0% from birth-55.0% after birth) sports individuals, 31 female and 109 male, in the branches of Amputee Football (%30.0), Wheelchair Basketball (%24.3), Sitting Volleyball (%11.4), Badminton (%10.7), Table Tennis (%9.3), Athletics (%7.9) and Swimming (%6.4) which take place among the sports branches of Turkish Sport Federation of the Physically Disabled with the ages varying from 18 to 45 ( $M=27.84$ ) and sports experience varying from 1 to 30 ( $M=10.38$ ). The other group of the research was made up of 165 non-athletes physically disabled in total (30.9% congenital, 69.1% afterwards), 59 female and 106 male with a different physical disability (Cerebral Palsy %28.5, Spinal Cord Injury %23.6, Poliomyelitis %23.0, Stroke %17.0, Spina Bifida %7.9) with an age varying from 18 to 56 ( $M=36.45$ ). The failure rate in the research that was designed to have 90% power was determined as 0.05. It was thought that the sampling number which was calculated with the accompany of means and general standard deviations based on the sampling calculation formula given in the literature (Rosner, 2015) was enough.

### Data Collection

The data collection tool that was prepared so as to obtain the data was made up of three parts. In the first part was personal information, in the second part was Acceptance Disability Scale (ADS) and in the third and final part was Connor-Davidson Resilience Scale (CD-RISC).

### Acceptance of Disability Scale:

ADS, the original form of which was revised by Groomes and Linkowski (2007) and adapted to Turkish by Şen (2016) in order to evaluate the perceptions of the physically disabled individuals towards their disability was used. The original form of the scale was prepared by Linkowski in

1971. The scale, which had 50 items in its original form, was observed that the number of the items was decreased to 32. In the adaptation study by Şen, some items based on a social model were added and the revised form of the scale was used, and it was seen that the number of items decreased to 25 after the validity-reliability study. The scale that was used for the research data was made up of three subscales (*Transformation* ( $\alpha=.76$ ), *Containment* ( $\alpha=.85$ ), *Enlargement* ( $\alpha=.84$ )).

*Transformation*: “It means that an individual with disability does not compare his or her limitations and liabilities with others and accentuates his or her assets and disabilities” (Sample item-*Having my disability, I am unable to do things like people without disabilities do*).

*Containment*: “It means that an individual with disabilities does not expand and intensify his/her disability condition to their other functioning aspects” (Sample item-*My disability prevents me from doing just about everything I really want to do and from becoming the kind of person I want to be*).

*Enlargement*: “It means that individuals turned from values that were lost due to their disabilities to those which are not related with their disabilities” (Sample item-*Though I have a disability, my life is full*) (Linkowski, 1971).

The Cronbach's alpha coefficient of each subscale analyzed within the content of the group were found as .70, .87 and .84 respectively and the coefficient of the total scale was calculated as .91. The items of the scale that was arranged in the four-point Likert scale were graded as (1) Totally Disagree, (2) Partly Agree, (3) Agree and (4) Totally Agree.

### Connor-Davidson Resilience Scale:

In order to determine the resilience levels of the disabled individuals, Connor-Davidson Resilience Scale (CD-RISC) that was developed by Connor and Davidson (2003) and was translated by Kararmak (2010) was used. The Turkish version of the scale has a 3-factor structure consisting of 24 items (Tenacity and personal competence ( $\alpha = .93$ ), Tolerance of negative affect ( $\alpha = .79$ ) and Tendency toward spirituality ( $\alpha = .50$ ). *Tenacity and personal competence*: “It means that the individual can decisively resist negative life experiences” (Sample item-*One can achieve one's goals*)

*Tolerance of negative affect:* “It means that the individual can tolerate these effects in the face of negative life experiences” (Sample item-*Under pressure, focus and think clearly*)

*Tendency toward spirituality:* “It means the individual tends towards the fact that something come from God and are something he knows but we do not know” (Sample item-*Sometimes fate and God can help*) (Kararimak, 2010).

The Cronbach’s alpha coefficients of the subscales after the analysis in line with the data obtained from the group were calculated as .93, .83, .50 respectively and the coefficient of the whole scale was calculated as .94. The scale was arranged in five-point Likert type and the items were graded between Not True at all (1) and Always True (5).

**Data Analysis**

After the data input was completed, the incorrect and missing data were examined and 11 missing data (4 athletes, 7 non-athletes) were determined in the answers given for the whole parts of the two scales by individuals. Upon the literature review, (Carpita & Manisera, 2011; Downey & King, 1998; Duncan, Duncan, & Li, 1998; Little, 1988) it was determined that there were such techniques as assigning a value or leaving it as out of analysis (deleting) for the missing data problem and it was found that when 5% or less of the data is lost incidentally, there will not be very serious problems and any similar method to be used to solve the related problems will give similar results (Rubin, 1976). Taking the number of the group and the lack of the answers given to the items of the scales in these 11 data into consideration, it was decided to exclude this data.

In order to determine the appropriateness of the scales used in the research, confirmatory factor Table 1. Confirmatory factor analysis results

	$\chi^2$	df	p	$\chi^2/df$	RMSEA	RMR	SRMR	GFI	AGFI	NFI	NNFI	CFI	IFI
CD-RISC ADS	632.89	266	.00	2.38	.069	.05	.06	.85	.82	.94	.96	.97	.97
	676.12	238	.00	2.84	.078	.87	.06	.84	.80	.95	.96	.97	.97

Confirmatory factor analysis through the Lisrel 8.8 packet program showed that the RMSEA values for the two scales were .69 (ADS) and .78 (CD-RISC). When we look at the literature, it is seen that a value of .08 is a good fit (Brown, 2015) and a value higher than 10 is a poor

analysis was applied to both scales and structural validity was tested. In this analysis,  $\chi^2/df$  Chi-square/Degree of freedom, Root Mean Square Error of Approximation (RMSEA), Root Mean Square Residual (RMR), Standardized Root Mean Square Residual (SRMR), Goodness of Fit Index Values were assessed by taking into account the adjusted fit goodness index (AGFI), normed fit index (NFI), non-normed fit index (NNFI), comparison fit index (CFI), and Incremental Fit Index (IFI) model fit indices.

In order to investigate the relationship between the two features as well as the descriptive statistical methods in data analysis, Pearson correlation analysis was used and in order to determine the significant differences in terms of variables, independent t-test was used. The independent t-test applied to determine the significant differences between variables was applied separately for the subscales and total scores in order not to have an inflate problem in the p value and all the values were given in just one table instead of making a different table for each analysis. Cohen’s d statistics with regard to the level of being affected by the differences between means of the significant difference obtained as a result of analysis was calculated. If this value is .20, it is regarded as “small”, if it is .50, it is regarded as “medium” and if it is .80, it is thought as “large” (Cohen, 1988). The significance level was taken as 0.05.

**RESULTS**

The findings of the statistical analyses within the content of the acceptance of disability and resilience levels of the athletes and non-athletes were given in Table 1, 2, 3, and 4.

fit (Harrington, 2009; Kline, 2015). After these proposals were made, the compliance goodness indices were examined on two measures and the values were presented as evidence for the suitability of the models (Table 1.)

Table 2. Independent groups t-test results (athletes and non-athletes)

			N	M	ss	df	t	p	Cohen's d
<b>Acceptance of Disability</b>	<b>1</b>	Athletes	140	3.28	.61	303	3.98	<b>.00</b>	.45
		Non-Athletes	165	2.97	.76				
	<b>2</b>	Athletes	140	3.24	.52	303	3.65	<b>.00</b>	.42
		Non-Athletes	165	3.00	.61				
	<b>3</b>	Athletes	140	3.01	.61	303	2.61	<b>.01</b>	.30
		Non-Athletes	165	2.83	.57				
	<b>4</b>	Athletes	140	3.18	.52	303	3.93	<b>.00</b>	.46
		Non-Athletes	165	2.93	.56				
<b>Resilience</b>	<b>1</b>	Athletes	140	3.93	.81	303	2.56	<b>.01</b>	.29
		Non-Athletes	165	3.68	.89				
	<b>2</b>	Athletes	140	3.57	.81	303	3.48	<b>.00</b>	.41
		Non-Athletes	165	3.20	1.00				
	<b>3</b>	Athletes	140	3.49	.81	303	1.87	.06	.22
		Non-Athletes	165	3.29	1.01				
	<b>4</b>	Athletes	140	3.66	.70	303	3.16	<b>.00</b>	.36
		Non-Athletes	165	3.39	.78				

Acceptance of Disability: 1=Containment, 2=Transformation, 3=Enlargement, 4= Total Score; Resilience: 1= Tenacity and personal competence, 2= Tolerance of negative affect, 3= Tendency toward spirituality, 4= Total Score

In Table 2, the significant difference between the acceptance of disability and resilience levels of athletes and non-athletes is clear. When we have a close look at the subscale of “Containment” (t(303)=3.98, p=0.00), “Transformation” (t(303)=3.65, p=0.00), “Enlargement” (t(303)=2.61, p=0,01) in the acceptance of disability and “Total Score” (t(303)=3.93, p=0.00), the significant difference can be seen and when it comes to the mean scores (M=3.28, M=3.24, M=3.01, M=3.18 respectively), it is likely to see that this difference is in favor of athletes. As for resilience data, a significant difference was found at “Tenacity and personal

competence” (t(303)=2.56, p=0.01), “Tolerance of negative affect” (t(303)=3.48, p=0.00), and “Total Score” (t(303)=3.16, p=0.00) while no difference was found at the subscale of “Tendency toward spirituality” (t(303)=1.87, p=0.06). With regard to the mean scores (M=3.68, M=3.57, M=3.66, respectively), it was found that sportsperson individuals differed significantly compared to sedentary individuals at the levels of resilience as in the acceptance of disability, while no difference was found at the subscale of “Tendency toward spirituality”. It can be said that the Cohen's d value calculated from the difference between the averages is generally close to the medium effect.

Table 3. Independent groups t-test results (success at national and international level)

			N	M	ss	df	t	p	Cohen's d
<b>Acceptance of Disability</b>	<b>1</b>	National	77	3.09	.59	138	-4.40	<b>.00</b>	.76
		International	63	3.52	.54				
	<b>2</b>	National	77	3.09	.50	138	-4.00	<b>.00</b>	.67
		International	63	3.42	.48				
	<b>3</b>	National	77	2.81	.57	138	-4.69	<b>.00</b>	.80
		International	63	3.26	.56				
	<b>4</b>	National	77	3.00	.49	138	-4.97	<b>.00</b>	.84
		International	63	3.40	.46				
<b>Resilience</b>	<b>1</b>	National	77	3.74	.83	138	-3.12	<b>.00</b>	.54
		International	63	4.16	.73				
	<b>2</b>	National	77	3.41	.82	138	-2.57	<b>.01</b>	.44
		International	63	3.76	.76				
	<b>3</b>	National	77	3.41	.87	138	-1.35	.18	.22
		International	63	3.59	.73				
	<b>4</b>	National	77	3.52	.75	138	-2.70	<b>.00</b>	.47
		International	63	3.84	.60				

Acceptance of Disability: 1=Containment, 2=Transformation, 3=Enlargement, 4= Total Score; Resilience: 1= Tenacity and personal competence, 2= Tolerance of negative affect, 3= Tendency toward spirituality, 4= Total Score

As given in Table 3 concerning the acceptance of disability and resilience levels based on whether physically disabled athletes had any success at national and international level, statistically significant differences were found in the subscales of the acceptance of disability “Containment” (t(138)= -4.40, p=0.00), “Transformation” (t(138)= -4.00, p=0.00), “Enlargement” (t(138)= -4.69, p=0.00) and in the total score (t(138)= -4.97, p=0.00), and also in the subscale of Tenacity and personal competence” (t(138)= -3.12, p=0.00), “Tolerance of negative affect” (t(138)= -2.75, p=0.01) and in total score (t(138)= -2.70, p=0.00) of resilience scale. While no significant difference was found in the subscale of “Tendency toward spirituality”, it was found that the mean scores of the participants racing at international races and having a success (M=3.59) in this subscale as in other subscales and total scores were higher. When the calculated Cohen's d value for the significant difference between the averages is examined, it can be said that the ADS has a generally large effect. For CD-RISC, a medium effect is remarkable.

Table 4. Correlation analysis results

V	1	2	3	4	5	6	7	8	9	M	SD
1	-									27.75	7.64
2	.531**	-								10.38	6.47
3	.296**	.280**	-							3.28	.61
4	.219**	.232**	.810**	-						3.24	.52
5	.213*	.191*	.694**	.608**	-					3.01	.61
6	.334**	.172*	.610**	.497**	.737**	-				3.93	.81
7	.286**	.161	.576**	.514**	.637**	.796**	-			3.57	.81
8	.063	.077	.308**	.281**	.443**	.569**	.552**	-		3.49	.81
9	.272**	.261**	.933**	.888**	.866**	.693**	.646**	.415**	-	3.18	.52
10	.261**	.157	.598**	.494**	.695**	.905**	.898**	.812**	.671**	3.66	.70

\* p<0.05 \*\* p<0.01 Variables: 1=Age, 2=Sports experience, 3=Containment, 4=Transformation, 5=Enlargement, 6= Tenacity and personal competence, 7= Tolerance of negative affect, 8= Tendency toward spirituality, 9= AD Total, 10=R Total

As shown in Table 4 where the correlation data was given, a significant relationship was found in positive way and low level with all the subscales and total score of the acceptance of disability in terms of age factor. When it comes to the relation of the same factor with resilience data, a low level relation was found with the subscales of “Tenacity and personal competence” and “Tolerance of negative affect” and total score, while no relation was found with “Tendency toward spirituality”. As for the sports experience as a variable, it is likely to say that there is a positive, low level relation with all subscales and total score of the acceptance of disability, there is a positive, low level relation in only “Tenacity and personal competence” between the resilience and sports experience factor. No relation was found between the other subscales and total score of the same factor. With regard to the findings between the two features, a positive medium level was found between the subscales of “Containment”, “Enlargement” and “Transformation” of the acceptance of disability and those of “Tenacity and personal competence” and “Tolerance of negative affect” of the resilience, and a positive low level

relation with the subscale of “Tendency toward spirituality”.

## DISCUSSION

The findings of the current research aiming at determining the acceptance of disability and resilience levels of the physically disabled athletes and non-athletes and explaining the relation between them reveal the existence of the relation between these two features and indicate that there are differences around variables. At the end of the statistical analysis made between athletes and non-athletes, it was determined that athletes both had higher levels in the acceptance of disability and were better in their resilience. Earlier studies support these findings (Ahn, Lee & So, 2021; Benson & Jones, 1992; Henschen, Horvat, & French, 1984; Kırımoğlu, İlhan, Kayıhan, Aksoy, & Yılmaz, 2016; Mira et al., 2023; Patrick, 1986). Campbell and Jones (1994) in their studies investigating the psychological well-being of the wheelchair sport participants and nonparticipants, a significant difference was found between the two groups and the difference was in favor of the athletes. In addition, Shapiro and Martin (2014)

studied the relationship between the sportive personal perceptions of the physically disabled athletes and their social well-being and found a relation between social acceptance and close friendship. In the literature review carried out depending on this result, it was observed that the two-relation feature of the disabled individuals doing sports was positive (Martin, 2006; Seymour, Reid, & Bloom, 2009; Shapiro & Martin, 2010). In addition, it is likely to think that the significant difference in the subscale of the transformation of ADS results from the fact that the athletes are aware of their own limits significantly with an approach over their incompetency rather than competency (DePauw, 1986; DePauw & Doll-Tepper, 2000) compared to the non-athletes. It is also likely to say that the statistical difference between the two groups in the containment subscale can result from the fact that athletes accept their levels of being affected by their disabilities in different ways but they regard it as a factor limiting them individually and socially in their whole lives through various references. Such dynamics which sports presents to individuals in its natural structure as communication, socialization, catching new opportunities, being able to look through a different perspective, problem solving (Cooper, 1990; Dunn, Trivedi, Kampert, Clark, & Chambliss, 2005; Fox, 1999; Goodwin, Thurmeier, & Gustafson, 2004; Laferrier, Teodorski, & Cooper, 2015) and so on, could get athletes to attain valuable gains and could lead to being aware of the values (Zhang, Pease, & Hui, 1996) within their lives as well. However, when a sedentary life style is preferred, it is rather hard to catch these opportunities. For that reason, the reason for the difference in the enlargement subscale indicates it. The significant difference in favour of the athletes in the subscale of tenancy and personal competence was regarded as the fact that sports could form the infrastructure that a athlete could fight against the hardships (Crocker & Bouffard, 1992) the disabled individuals experience. The repertoire of the negative experiences in the past could increase the negative expectations regarding the steps to be taken in the future. However, the athletes experience this feeling in their races many times and they sometimes win and sometimes lose. Coming to the terms when they lose it and congratulating their opponents is actually just like the simulation of life. The fact that sport in this

sense is an effective mechanism teaching the individuals who are in the heart of life to win and lose and providing them with becoming internalized (Sherrill, 1998; Williams & Taylor, 1994) shows the reason for the significant difference in the subscale of tolerance of negative affect. The reason why there is no statistically significant difference between two groups in the subscale of tendency toward spirituality is thought to result from cultural differences. It is believed that the spiritual feelings of the athletes of a country almost all of whose population is Muslim and of the all non-athletes disabled individuals are similar. It is likely to say in the light of these findings that even though the disabled individuals doing sports have some problems compared to healthy individuals, they are able to hold onto the life using their mobility as much as their handicap case allows them to do so and this case makes them different from sedentary individuals, making them both accept their disability and have relatively higher level of resilience.

When the success status of the participants is taken into consideration, it was found that the individuals racing in international competitions and having certain success had higher level of acceptance of disability and resilience compared to those having a success in national level. While some significant differences were found between the two groups in all subscales and total score at the level of acceptance of disability, a significant relation was found with regard to individuals having an international success in “tenacity and personal competence”, “tolerance of negative affect” and in total scores also at the levels of resilience, however, no significant difference was found in the dimension of “tendency toward spirituality” despite high mean scores of the same group.

In their studies carried out into the psychological well-being of the individuals doing and not doing wheelchair sports, Campbell and Jones (1994) divided the athletes into 4 groups as those competing in international, national and local races and the ones doing sports for fun and found that the disabled athletes racing in international competitions had better psychological well-beings compared to other 3 groups and also had higher level of self-esteem. In addition, the case of anxiety in 3 groups was found higher compared to the ones participating in international competitions and a difference was determined between them. In

order that physically disabled athletes can participate into international races just like healthy athletes and be successful, it is necessary that they be prepared both physically and psychologically (Martin, 2005, 2015). Therefore, it is believed that the disabled individuals could be successful by being aware of the fact that their disability is not a handicap for their branch and ignoring or accepting this case and making themselves ready psychologically (Campbell & Jones, 1994). In this sense, when it comes to the fact that the individual has a status with the success to be obtained with the importance and the result of the races they involve, it is likely to say that the significant difference between the individuals racing in national races and those racing in international arena results from it. The difference in favour of international group in subscales of ADS indicates that the awareness of these athletes of their competence, their being aware of the fact that their disability is not a handicap for a success and the positive outcomes of different life dynamics (Campbell & Jones, 1994) accompanied with this success is higher compared to national group. With regard to the level of difficulty of the races in international arena, the effort they make to participate in an activity at this level, the competency and more importantly the idea that they can deal with any kind of troubles they are likely to meet make the individuals competing in this arena different (Campbell & Jones, 2002; Giacobbi et al., 2006; Martin, 2015). It is likely to say that the difference in the two subscales of CD-RISC results from it. Having no difference in the subscale of tendency towards spirituality results also from cultural and religious features. Supported by the literature, these findings show that the disabled accepted their handicap and they differed from a great part of the community thanks to the success they obtained by regarding this case positively after reaching psychological tenancy.

In the correlation table formed as a result of the analyses of the data obtained from the athletes, significant and positive relations were determined in the two features in terms of the variables of age and sports age. While a significant difference at low level was found between the subscales and total score at the level of acceptance of disability of the age variable, a significant relation at low level was found in “tenacity and personal competence”, “tolerance of negative affect” and in total scores at the levels of resilience, however, no

significant difference was found in the dimension of “tendency toward spirituality” between the group. In terms of the sports age, findings showed a significant, positive relation at total score and subscales of the acceptance of disability at low level while a significant and positive relation was found only between “Tenacity and personal competence” subscale and the resilience scale of the same variable. Earlier studies show that there are some results not showing a similarity with the findings of the current research and a negative relation was found between the acceptance of disability and age (Aceron & Savage, 2004; Araten-Bergman, Tal-Katz, & Stein, 2015; Li & Moore, 1998; Şen, 2016). While these results do not support the obtained results, it is striking that there is no significant relationship between the age variable and the acceptance of disability in some research studies (Beder, 2014; Heinemann, Goranson, Ginsburg, & Schnoll, 1989). On the other hand, Aceron and Savage (2004) pointed out the positive and significant relationship between the onset of disability and acceptance of disability in their studies where they studied the onset of disability as a variable. In their study carried out into the relationship between the levels of acceptance of disability between Thai Buddhists and American Christians, Chen et al. (2015) found a negative, significant relation between the ages and the acceptance of disability in Thai Buddhists while a positive relation between the onset of disability with the same feature came to the fore. Upon the investigation of these two different cases, it is likely to say that the duration in disability and age go in parallel and it shows a positive increase in the acceptance of disability level. The high rate in the levels of the acceptance of disability for the young disabled individuals in the literature contradicts with the results of the individuals accepting their disability as the disability time increases. The findings obtained in the current research show that both variables have a positive relation. The above mentioned studies are the ones carried out in the sampling of sedentary physically disabled individuals. As for sports, it is an active mechanism touching on all features of life, having a power being able to cope with psycho-social negativities experienced when truly formalized. It is likely to say that both the acceptance of disability and the resilience levels of the physically disabled athletes have a positive relation with the age. In addition, sportive

experience, vocational experience and an increase in the experiences make a social contribution and it makes the person both accept it and have a psychological comfort. The sportive experiences increasing by age, positive life experiences gained through this success (Campbell & Jones, 1994), being aware of the competencies thanks to it and also the effective mechanism developed through the sport against negativities (Crocker & Bouffard, 1992) make athletes different from other individuals. It was found in the literature that sports experience was not studied for both features and in this sense no data was reached similar to or contradicting with the findings of the current research.

Another finding obtained as a result of correlation showed a strong significant relation between acceptance of disability and resilience levels in the subscales of “enlargement” and “tenacity and personal competence” for the sampling of physically disabled athletes while a medium level significant, positive relation was found in total score. In addition, it was found at the end of the regression analysis that acceptance of disability is a significant predictor of resilience. In their study carried out into the acceptance of disability and resilience levels of the burn patients experiencing a stress disorder after the trauma, Xia et al (2014) found a negative relation between their stress levels and both acceptance of disability levels and and resilience levels of them. Also, while a neative relation between anxiety and acceptance of disability in the literature (McCracken & Zhao-O'Brien, 2010; Şen, 2016), a strong positive relation between the acceptance of disability and resilience was found (Berry et al., 2007; Fujikawa et al., 2013; Martin, 2008; Şen, 2016). It is likely to say that the positive relation between the acceptance of disability and resilience is a finding showing that the disabled individuals having an activity limitation accept their case and learn how to live with it and express that they are able to carry on living thanks to mobility their other organs provide despite some limitations and in this way they have a psychologically strong body. In addition, when we consider that the individual is aware of his competences despite his disability (DePauw, 1986; DePauw & Doll-Tepper, 2000) and this awareness is a factor having a positive effect both individually and socially (Fox, 1999; Taylor, Sallis, & Needle, 1985; Yazıcıoğlu, Pekel, Kemiş & İlhan, 2020),

this result shows that the disabled individual could deal with the negative living conditions and so they can define their physical deficiencies psychologically.

The results of the current research carried out to determine the acceptance of disability and resilience levels of the physically disabled athletes and non-athletes and to investigate the relation between them showed that the two features of the athletes differed compared to non-athletes and the significant relation between them was in favour of athletes. In addition, it was found in line with the data obtained from physically disabled athletes that age, sports experience and success status variables differed in evaluation of the acceptance of disability and resilience levels in the group. The concept of sport making a physical contribution to individual as well cognitive ones does not ignore disabled individuals and involve them in this phenomenon as much as their handicap cases allow them to do so. The results of the research revealed that the benefit of sport on healthy individuals showed the same result on the disabled individuals. The fact that the disabled athletes are in the same position as the non-athletes but that the athletes are better psychologically highlights the contribution of sport. It is believed that studying into the two features in terms of other parametres different from the variables studied in the research would make a contribution to the literature. Besides that, it is recommended to study into the relation between the “acceptance of disability” and different values of the individual that will be assessed with psychometric tests in order to evaluate the personal perspective a disabled individual has even though there are some studies investigating the case of whether the families of the disabled person accept this case or not in Turkey.

#### **Conflict of interest**

The authors do not have a statement of conflict regarding the research.

#### **Ethics Statement**

The study protocol was approved by Gazi University Ethics Committee (77082166-302.08.01).

#### **Author Contributions**

Both authors contributed equally at all stages of the research.

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