

# The Analysis of Female Kickboxers' Achievements and Psychological Resilience Levels

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Received: August 18, 2022 Accepted: September 20, 2022 Published: October 15, 2022

doi:10.5296/jei.v8i3.20194 URL: <https://doi.org/10.5296/jei.v8i3.20194>

## Abstract

The aim of this study is to examine the achievements and psychological resilience levels of women who do kickboxing. Mixed design was preferred in the research. In the quantitative part of the study, data were collected from 288 female athletes between the ages of 18-30 who do kickboxing. Data collection tools used; The data obtained through the questionnaire created on Google forms were transferred to the Microsoft Office Excel program, and the statistic program was used for the analysis of the data and the comparisons between the variables. The personal information form was used to determine the demography of the participants, and the "Adult Resilience Scale" was used for the psychological resilience levels. In the qualitative part of the study, data were collected from the participants by conducting in-depth individual interviews with 10 female athletes who were scaled. According to the research, the psychological resilience level of 275 (95%) female athletes, to whom the scale was applied, was found to be very high or at a high level, 10 (3%) female athletes were at medium level, and 3 (1%) female athletes were at low levels. The qualitative findings of the study were also in line with the quantitative findings, and the participants stated that kickboxing provided positive developments for them, and that these positive developments were not only limited to physical development, but also had significant contributions in psychological, social and cognitive areas.

**Keywords:** Kickboxing, Women, Psychological resilience

## 1. Introduction

Kickboxing is a dynamic, high-intensity combat sport including complex skills from hand and foot techniques. In this sport, athletes are categorized in terms of gender, weight and age groups and tactical excellence is required for achievement. Kickboxing can also be defined as a combat sport in which kicking and punching techniques are used, and athletes hit their opponents' legs, face and body with punches and kicks (knee technique can also be used in the K1 branch) in the competitions (Gencoglu, 2020). When it is defined in more current terms, kickboxing is a modern sport that is formed on the basis of many traditional combat sports and martial arts. Within this definition, it includes 7 different disciplines including 3 ring and 4 tatami disciplines and is performed either in the ring or on the tatami by using various foot, hand, and defense techniques (Wako, 2021).

Some research on kickboxing reveal that muscle strength, aerobic power, anaerobic conditioning, flexibility, speed, and agility are significantly improved by kickboxing (Ouergui et al., 2014). Remarkable physical and mental improvement were observed in the performance of individuals engaged in combat sports (Matsumoto et al., 2009). In one of the studies, students who do yoga were found having a lower physical and mental quality of life when compared to students who do kickboxing (Hylchuk et al., 2017).

Psychological resilience can be counted as a necessary and current issue, and the concept of resilience can be characterized as the capability to overcome and endure problematic and negative events (Ozdemir, 2017). While the subject of psychological resilience is a concept that is recently emphasized, it is the capability of a person to overcome and adapt to difficult situations (Oz & Yılmaz, 2009). There are many definitions regarding the concept of psychological resilience. According to Terzi (2008), it is a person's ability to cope with and overcome obstacles, uncertainty, and similar negative situations. According to Karairmak (2010), it is the ability to have emotional balance in the face of stressful situations. Bonanno (2010) regards it as the concluding situation that permits the individual to carry on having healthy, psychological, and physiological functions right after a potential traumatic event (Kara, 2021).

As for the relationship between psychological resilience and sports, athletes should have the ability to use and optimize various mental abilities to endure the pressures within the sports environment. For this reason, psychological resilience is of great importance. Psychological resilience is a concept that includes expressions such as dealing with difficulties, resisting, and managing the crisis by adapting to the environment in the case of crisis (Galli & Gonzales, 2015; Dincer, 2021). When the literature is revised, a number of studies reveal that sports protect and improve psychological health (Harvey et al., 2018, Gumusdag & Ilhan, 2022), both team and individual sports generally provide a stronger psychological structure for individuals, and these people have a high level of self-confidence and have low stress levels (Salar et al., 2012).

Therefore, the studies on psychological resilience indicate that in today's world where the athletic participation of women in sports is increasing, gender-based inequalities, injuries, sexualizing female athletes in the media and bringing the body factor to the foreground,

psychological resilience proves to be crucial for the tension experienced in sports and non-sports environments, chronic stress, fatigue, and mental distress. When the physical activity is carried on, some positive psychological features are on the rise while the psychological resilience levels of men have been found as higher than women (Yaprak & Amman, 2009; Korkmaz et al., 2019; Bulgu et al., 2007; Amcaoglu et al., 2019; Gencoglu & Namli, 2020; O'Brien et al., 2021; Worsley, 2015).

Within this sense, when it is considered in terms of the participation of individuals, especially women, in sports sport not only has physical benefits, but it also affects the mental health of individuals positively, which is very attractive (Celik & Yenilmez, 2019). Consequently, the current conditions and the women related issues around the world lead to an increase for the interest in combat sports, especially kickboxing.

## **2. Method**

### *2.1 Aim of Study*

The aim of this study is to reveal the achievements and psychological resilience levels of female kickboxers.

### *2.2 Participants of the Study*

Scientific research can be carried out in three patterns as quantitative, qualitative, and mixed methods. The quantitative method, which uses mostly numerical data, used to be preferred in the past; whereas, when we look at the current studies, it is seen that the studies in which the qualitative method is also preferred has become widespread (Alkan et al., 2019). In recent studies, to eliminate the deficiencies of the two designs and to reach a richer data variety, mixed method has been preferred (Besler, 2020). Among the most important features of the mixed method design, there lies the fact that the data obtained using different methods are used to verify each other, and therefore, the validity and reliability of the research results are stronger (Yildirim & Simsek, 2016). For these reasons, mixed method has been preferred in this research in order to ensure more validity and reliability and to provide data diversity. While in-depth individual interview method was preferred in the qualitative part of the research and interview technique was used, in the quantitative part of the study, the general survey model was preferred.

In this study, convenience sampling method was used. The sample group of the study consisted of female athletes between the ages of 18-30 engaged in kickboxing. In the qualitative part of the study, 10 female kickboxers were interviewed. On the other hand, in the quantitative part of the study, 288 female athletes who have been kickboxing for at least 9 months (3 kickboxing generation period) were reached.

### *2.3 Data Collection Tools*

In the qualitative part of the research, in-depth interview technique was preferred as the data collection tool in the research. "Consent Form" was filled, and "Semi-Structured Interview Form" was used. The semi-structured interview form was created by experts and the researcher in accordance with the purpose of the research. In the quantitative part of the

research, the “Personal Information Form” prepared by the researcher was used, and “Adult Resilience Scale” which was adapted into Turkish by Arslan (2015) with the basis of the Child and Adolescent Psychological Resilience scale which was prepared by Liebenberg, Ungar, and LeBlanc (2013) to measure the level of resilience of the individuals participating in the research, were used. The internal consistency of the measure was assessed by using Cronbach’s alpha coefficient. The Cronbach alpha coefficient was 91.

The qualitative part of the research was carried out to increase the validity and reliability of the results, to provide data diversity and to make a more in-depth analysis. For this part of the research, in-depth individual interviews were conducted with 10 female individuals who have been engaged with kickboxing for at least 1 year. The interviews were made in Denizli between the dates 20.04.2022 and 26.04.2022. The research group was made up of volunteers, and the interviews, which were made with a semi-structured interview form consisting of 6 questions in total created by the researcher and four experts, were audio recorded. The data were transferred into to written document form, and the transferred data were processed through content analysis. A word pool was derived from the words found in the content analysis and coded under themes to be interpreted. In order to ensure the validity and reliability, in this part of the research, the researcher made deep observation and the confirmations of the academician and participant were taken.

#### *2.4 Data Analysis*

The sample which consists of 288 participants was analyzed using the Adult Resilience Scale. As for the writing process of the thesis MS Word program was used; Windows MS Excel spreadsheet program was used for the data organization data and table drawing, and Windows SPSS 21 Statistics program was used for the statistical tests. Since the obtained data displayed normal distribution, parametric test assumptions were applied. One-way variance analysis was made for the multiple comparisons.

### 3. Results

Table 1. One-way analysis of variance results of adult resilience scale scores for age variable

	Source of Variance	Sum of Squares	df	Average of Squares	F	p
Peer and Society Relations	Intergroups	42.162	2	21.081	1.237	.292
	In-groups	4856.806	285	17.041		
	Total	4898.969	287			
Awareness of Individual Characteristics and Psychological Strength	Intergroups	104.025	2	52.013	7.571	<b>.001</b>
	In-groups	1957.919	285	6.870		
	Total	2061.944	287			
Adoption of Social Culture Religious Belief and Traditions	Intergroups	298.866	2	149.433	8.208	<b>.000</b>
	In-groups	5188.634	285	18.206		
	Total	5487.500	287			
Family Relations	Intergroups	42.805	2	21.402	1.101	.334
	In-groups	5542.181	285	19.446		
	Total	5584.986	287			
Total Value	Intergroups	1437.160	2	718.580	5.031	<b>.007</b>
	In-groups	40704.170	285	142.822		
	Total	42141.330	287			

In Table 1, a statistically significant difference was found in terms of age variable in the sub-dimensions of awareness of individual characteristics and psychological strength, adoption of the social culture, religious beliefs, and traditions, and also in the total value ( $p < 0.05$ ) for the psychological resilience levels of the athletes participating in the research.

Table 2. One-way analysis of variance results of adult resilience scale scores for kickboxing participation time variable

	Source of Variance	Sum of Squares	df	Average of Squares	F	p
Peer and Society Relations	Intergroups	150.763	3	50.254	3.006	.031
	In-groups	4748.206	284	16.719		
	Total	4898.969	287			
Awareness of Individual Characteristics and Psychological Strength	Intergroups	117.171	3	39.057	5.704	.001
	In-groups	1944.773	284	6.848		
	Total	2061.944	287			
Adoption of Social Culture Religious Belief and Traditions	Intergroups	93.080	3	31.027	1.633	.182
	In-groups	5394.420	284	18.994		
	Total	5487.500	287			
Family Relations	Intergroups	33.017	3	11.006	.563	.640
	In-groups	5551.969	284	19.549		
	Total	5584.986	287			
Total Value	Intergroups	1273.582	3	424.527	2.950	<b>.033</b>
	In-groups	40867.748	284	143.901		
	Total	42141.330	287			

In Table 2, a statistically significant difference was found in terms of kickboxing participation time variable in the sub-dimensions of peer and society relations, the awareness of individual characteristics and psychological strength, and also in the total value ( $p < 0.05$ ) for the psychological resilience levels of the athletes participating in the research.

Tablo 3. One-way analysis of variance results of adult resilience scale scores for level of education variable

	Source of Variance	Sum of Squares	df	Average of Squares	F	P
Peer and Society Relations	Intergroups	146.694	3	48.898	2.922	<b>.034</b>
	In-groups	4752.275	284	16.733		
	Total	4898.969	287			
Awareness of Individual Characteristics and Psychological Strength	Intergroups	101.680	3	33.893	4.910	<b>.002</b>
	In-groups	1960.264	284	6.902		
	Total	2061.944	287			
Adoption of Social Culture Religious Belief and Traditions	Intergroups	129.165	3	43.055	2.282	.079
	In-groups	5358.335	284	18.867		
	Total	5487.500	287			
Family Relations	Intergroups	130.121	3	43.374	2.258	.082
	In-groups	5454.865	284	19.207		
	Total	5584.986	287			
Total Value	Intergroups	1531.702	3	510.567	3.571	<b>.015</b>
	In-groups	40609.628	284	142.992		
	Total	42141.330	287			

In Table 3, a statistically significant difference was found in terms level of education variable in the sub-dimensions of peer and society relations, the awareness of individual characteristics and psychological strength, and also in the total value ( $p < 0.05$ ) for the psychological resilience levels of the athletes participating in the research

### 3.1 Result of Qualitative

In-depth individual interviews were conducted with 10 female kickboxers to collect qualitative data. These interviews lasted an average of 25.4 minutes. Individual interviews were made between the dates of 20.04.2022 and 26.04.2022.

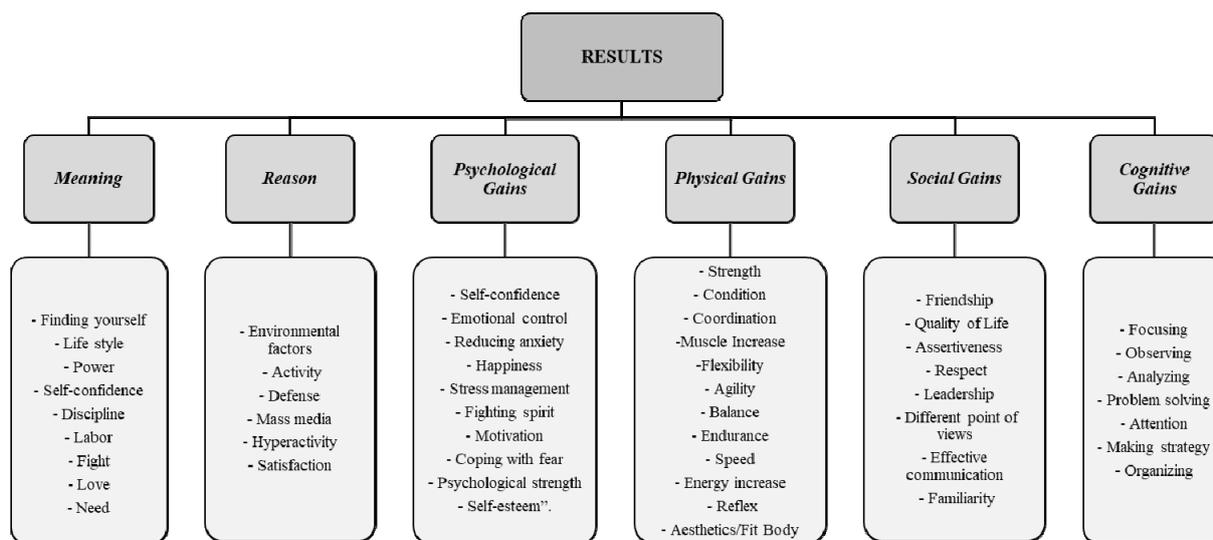


Figure 1. Qualitative findings, themes and codes

6 themes emerged as a result of the analysis of the data collected as a result of individual interviews with 10 female kickboxers participating in the research. These themes are “Meaning”, “Reason”, “Psychological Gains”, “Physical Gains”, “Social Gains”, and “Cognitive Gains”. The meaning theme is about what kickboxing means for the individual. The reason theme is concerned with the motivation of the athlete for doing kickboxing and the reason why she started kickboxing. The psychological gains theme focuses on the psychological contributions of kickboxing to female athletes. On the theme of physical gains, the physical changes followed by kickboxing in female athletes’ bodies have been given. The theme of social gains explains the benefits of kickboxing for female athletes in social life. Under the theme of cognitive gains, there are the opinions of female athletes on the cognitive contributions of kickboxing.

(1) “*Meaning*”

Within this theme, there are such statements as follows: “I find myself in kickboxing”, “kickboxing is my lifestyle”, “kickboxing means strength, self-confidence and happiness for me”, “kickboxing means discipline, continuity and effort for me”, “we learn not to give up, and yes it means struggle”, “for me it is a kind of passion”, “just as eating and drinking is a need, this is also a basic need for me”. To put it in a nutshell, this theme is about what kickboxing means to the female kickboxers, and where they put kickboxing in their inner world. The following example summarizes this theme in general:

*Participant 10*: “Kickboxing has become my lifestyle henceforward. It is one of the things I will never give up, I can say. Just like eating and drinking is a need, this is also a need for me.”

(2) “Reason”

The codes that take place under this theme are “environmental factors”, “activity”, “defense”, “mass media”, “hyperactivity”, “satisfaction”. The athletes participating in the interviews stated that they started kickboxing for such reasons as family demand, doing a different activity, learning to defend themselves, being hyperactive, and as an urge to expend energy. Despite the initial motivation, they were observed to carry on this sport by loading different meanings to kickboxing. Some sample statements on this theme are as follows:

*Participant 1:* “My neighbor’s sons were attending. We went there to watch them once with my sister.

They told us that we could not manage it, we could not fight because we are female. We started and they quit. We managed but they could not.

*Participant 4:* “The reason is the recent events (violence against women) in the country. My family was distressed. In this respect, having a female child becomes scary. Thus, they wanted us to take up martial arts, and me and my sibling did so.”

*Participant 9:* “I was an aggressive person at high school. I initially got the impression that it is a brawler sport, so I took up. I did not use to think that sports could heal a person at the time. Then, I realized that sports healed me.”

*Participant 6:* “I initially watched on television, and I took up at the first grade of high school.

(3) “Psychological Gains”

The codes in this theme are “self-confidence”, “emotional control”, “reducing anxiety”, “happiness”, “stress management”, “fighting spirit”, “motivation”, “coping with fear”, “psychological strength”, “self-esteem”. All the athletes participating in the individual interviews stated that kickboxing had different psychological contributions to them. They claimed that their self-confidence increased, and their anxiety and stress decreased with kickboxing. They also set some examples from their daily lives about these contributions. Some of their statements on the theme of psychological gains are as follows.

*Participant 1:* “I have had social anxiety since I was thirteen years old. I feel that I could cut down on it thanks to kickbox.”

*Participant 10:* “After doing sports (kick boxing), I feel a kind of relief. It both got on my nerves, and I am much calmer now and stronger. I don’t know, I really feel like I am stronger.”

*Participant 4:* “It has more benefits to my daily life than I expect. It increases self-confidence. In terms of self-confidence, it is of great importance, for sure.”

*Participant 8:* “Following kickbox, I experienced a breakthrough. I do not fight outside just as I used to do anymore. I started to get less angry. When I feel furious, I can get rid of it through practice. I calmed down a little, I settled down.”

(4) *“Physical Gains”*

“Strength”, “Condition”, “Coordination”, “Muscle Increase”, “Flexibility”, “Agility”, “Balance”, “Endurance”, “Speed”, “Energy increase”, “Reflex”, “Aesthetics/Fit Body” codes are included under this theme.

Kickboxers participating in the interviews stated that they gained serious physical benefits from kickbox. They claimed that they became stronger with kick boxing, their condition increased, their energy levels increased, and they had a more fit and aesthetic body. Some of the interview samples for this theme are as follows.

*Participant 8:* “Yes, I took up kickbox later on and I lost the weight I put on. I became more resilient, and my condition is much better now.”

*Participant 9:* “Yes, I noticed a tightening change on my body lines. My weight has always been stable. But I used to look like as if I was overweight. When I got on the bascule, in fact my current weight was the same.”

*Participant 2:* “It increased the ratio of my muscles. My body has a tendency for gaining and losing weight easily. At least, it helped me maintain my weight. I was doing something that both made me happy, and I was getting tighter and maintaining my weight. I was getting stronger.”

(5) *“Social Gains”*

The codes that are included within this theme are “Friendship”, “Quality of Life”, “Assertiveness”, “Respect”, “Leadership”, “Different point of views”, “Effective communication”, “Familiarity”.

Kickboxing was depicted as having various social benefits for people by the athletes who participated in the interviews, and they generally focused on the friendship topic. Particularly, the athletes who took part in the competitions stated that they got to know people from different cities and different countries in the championships they went to, and their social circles improved together with kickboxing. In addition, they stated that they make friends with the people they competed with, but the kickboxing matches did not have a negative effect on their friendships. Participants also stated that their prestige in their social circles have also increased in accordance with people’s respect. Some interview texts on the theme of social gains are as follows.

*Participant 4:* “They now see me as the bodyguard of the group. Their claim is that if anything happens, we will call you now. It’s definitely a cool sport. When other people heard that I am a professional kickboxer with a license, their attitudes, and views change. There are people who are also inspired.”

*Participant 5:* “But we do not see each other as enemies. So, our friendship does not deteriorate. In the trainings, whoever trains hard or makes effort gets it, so it is the same.

*Participant 7:* “I started to eat healthier. It made me eat more healthy food. And in this way, I became healthier. Being healthy and doing sports already lead the person to a qualified life.”

*Participant 6:* “When one gets there, everyone wants to get paid for the hard work. For example, in my last match, I was going to play the final match, my opponent was my friend then. We warmed up together, then went to the match. We also hugged right after the match and sat down together again.”

*Participant 9:* “As you win, people get to know you, and the things people talk about me, especially the positive things have big influence.”

#### (6) “Cognitive Gains”

The codes included under this theme are “Focusing”, “Observing”, “Analyzing”, “Problem solving”, “Attention”, “Making strategy”, and “Organizing”.

The female kickboxers who participated in the interviews stated that kickboxing improves their focus. While they were confused about even the simplest combinations when they first started kickboxing, they could keep high combinations in mind as they progressed and continued without confusion. They reported that their ability to observe and analyze improved, as well. Despite the sayings that sport has an adverse effect on academic success, the kickboxers stated that sports affect academic success positively, and their academic success increases with the development of focusing and attention skills. On the theme of cognitive gains, some extracts of interview t are as follows:

*Participant 4:* “I had a very poor attention. I can say that kickbox increased my attention span. I had a focus problem. It may not be too much, but I can feel that it is improving. I strongly believe that it will develop more as I go on.

*Participant 3:* “I experienced this too much especially in my exam year. I was able to focus on what I was doing.”

*Participant 6:* “The thing is, kick boxing is already a mind game and no matter how much technical information you know, I think the one who uses mind wins the match. That is why, I guess my strategy and way of thinking are developing, as well.

*Participant 9:* “I can easily grasp what I can do as I attend a community. When I make an organization, my capability to do it in the best way has increased.”, “Just like our watching carefully for the slightest mistake of the opponent.”, “I mean, when I look at my opponent, I can easily understand what she thinks and wants to do.

#### 4. Conclusion

In this study, the psychological resilience levels of 288 females engaged with kickboxing sport in various cities in Turkey were examined in terms of the significant differences between age, participation time in kickboxing, and education levels. The hypotheses of present study were confirmed as a result of the examinations, and a significant difference was found. The psychological resilience levels of female kickboxers were found to be 95% high and very high. The qualitative findings of the research also support the quantitative findings and in parallel with them. All the participants in the qualitative interviews strongly emphasized that they were psychologically stronger than before. As the literature was revised,

especially in field-specific literature, limited studies on kick boxing could be found, and as well as positive studies on kick boxing, there were also negative studies on the risk of traumatic brain injury. It is well-known fact that possible injuries or unintended negative situations can be observed if a sport is done professionally, which is true not only for kick boxing but also for all the other sports. Within this sense, a study conducted on sports injuries experiences by football players can be given as an example. In the study, injuries in the wrists, ankles, knees, calves, thighs and even the head regions of the athletes were explained, and 3 of the head region injuries examined were in the nose while 3 of them were in the cheekbone, 1 in the jaw and 1 in the skull; 5 broken injuries in total were detected (Ustunel, 2020). On the other hand, in another study investigating the fitness levels of those who did sports for standard healthy life and those who did kickboxing regularly depending on the types of training during 18-week training period, the fitness levels of the participants were found as higher in individuals who did kickboxing as a result of the data collected from the participants (Mutlu, 2018).

In this regard, kick boxing can be accepted as standing out within some other sports in terms of providing physical development as well as psychological contributions to individuals. In the present study, the participants stated in the individual interviews that they got a lot of positive physical contribution with kickboxing. Therefore, the result coincides with the study of Mutlu (2018). As a result of the research, it was determined that male athletes had higher levels of psychological robustness than female athletes. It was also found that the levels of psychological robustness increased as the age of the athlete adolescents increased, and the psychological robustness levels of the athletes engaged in individual sports were higher than those of the athletes engaged in team sports (Gümüşdağ & Aydoğan, 2021).

In a study by Farrokki et al. (2011), the mental resilience of male and female athletes who do contact and non-contact sports at different skill levels was examined, and as a result of the study, the mental resilience of contact sports (kick boxing, wushu, taekwondo) was compared to non-contact sports (badminton, tennis, squash) and the mental resilience of elite athletes was found higher than that of non-elites and novices. In another study by Hylchuk et al. (2017), the effect on the physical and mental health components of the quality of life of the students who did kickboxing and yoga regularly was examined, and the findings of the study revealed that the indicators were much higher for kickboxers. Though the present study did not compare kickboxing with any other sports, the psychological resilience of female kickboxers was generally observed high. In this context, our research coincides with the work of Farokki et al. (2011) and the work of Hylchuk et al. (2017).

According to the findings of the study, in terms of the age variable, a statistically significant difference was found in the psychological resilience levels of the athletes participating in the research in the sub-dimensions of awareness of individual characteristics and psychological strength. The findings revealed that in the psychological resilience levels of the athletes participating in the research, a statistically significant difference was found in terms of age variable in the sub-dimension of adoption of the social culture, religious beliefs, and traditions. A statistically significant difference was found in the total value according to the age variable in the psychological resilience levels of the athletes participating in the research,

as well. When the literature is revised, in a study conducted by Kimter (2020), the tests, which were made to see if there was difference in the psychological resilience of the participants according to age groups, revealed that differences were found in the levels of significance in favor of older individuals. The resilience levels of university students were examined in another study conducted by Aydin and Egemberdieva (2018), and the age variable predicted the psychological resilience scores significantly. According to this study, the age variable was observed to predict the level of psychological resilience positively and significantly. The psychological resilience of university athletes was also examined in Karademir and Aak's (2019) study, and according to the findings of the study, there was a statistically significant difference in the psychological resilience levels of the research group according to the age variable. In the study, it was observed that those in the 22-24 age group had higher levels of psychological resilience when compared to those in the 21 and younger age group. The results of these studies support our study and are similar to the results of the present study.

According to the findings of the study, a statistically significant difference was found in terms of kickboxing participation time variable in the sub-dimensions of the awareness of individual characteristics and psychological strength. In the individual peer and society relations sub-dimension, a statistically significant difference was found in terms of the variable of participation time in kickboxing in the psychological resilience levels of the athletes participating in the research. The findings of the study also reveal a statistically significant difference in the total value of the psychological resilience levels of the athletes participating in the research, in terms of the variable of participation time in kickboxing.

The psychological resilience of the athletes in the athlete training centers was examined in a study conducted by Koklu (2020), and the research findings denoted that there was a significant relationship between the psychological resilience and the years when athletes did sports. In this regard, the research conducted by Koklu (2020) is similar to our current research.

The study findings presented a statistically significant difference in the peer and society relations sub-dimension of the psychological resilience levels of the athletes participating in the research according to the education level variable. According to the findings of the study, a statistically significant difference was found in the psychological resilience levels of the athletes participating in the research, in the awareness of their individual characteristics and in the psychological power sub-dimension according to the education level variable. A statistically significant difference was also found in the total value of the psychological resilience levels of the athletes participating in the research according to the education level variable.

In a study conducted by Bozdag (2020), psychological resilience levels of individuals were examined during the COVID-19 pandemic, the education levels of participants were observed and among the variables examined, the psychological resilience levels of university graduates were found high. The present study and Bozdags study (2020) show similarities in this sense.

The female kickboxers' individual claims revealed that kickboxing made a significant

difference in their lives. They also stated that they felt better psychologically and showed positive development.

Taking the results of this study and the results of similar studies in the literature into account, it is possible to conclude that psychological resilience and psychological strength, physical characteristics, social and cognitive characteristics can be increased and improved with sports. In the present study, the participants' claims in the study show that kick boxing improves these features in a positive way.

The participants' views on kickboxing in this study is that kickboxing should be preferred not only for the purpose of doing sports but also for learning to defend themselves due to the increasing violence against women in our age. All participants agree that kick boxing can be an effective tool in learning self-defense. As a matter of fact, when various news in mass media is considered, kick boxing and similar martial arts appear to be an effective tool in self-defense.

According to the results of the qualitative part of the study, the participants stated that from the moment they took up kickboxing, their skills such as problem solving, focusing, developing strategy, observing, analyzing, and attention improved, and they went through a process that increased their cognitive skills and changed their lives.

One of the most common topics that the participants focused on is the benefit and change that kickboxing enabled them. This change is not only on the physical sense, but kickboxing also has changed the lives of individuals in the psychological, social and cognitive terms.

The findings of the study indicate the psychological resilience levels of the athletes participating as 95% high or very high. This case also confirms the views of female kickboxers on the increase of their psychological strength and resilience in qualitative interviews.

As the literature is examined, although there are various studies that examine female kickboxers, it is clear that there are not enough studies on their psychological resilience. But there are psychological resilience studies on women. Worsley (2005) states that a skill that people enjoy learning and performing helps the person to overcome any difficult situation and sports activities are one of the protective factors (Hall, 2011). Worsley's (2005) study is also in parallel with this study. In the qualitative part of the study, the participants claimed that following their kickbox performances, they felt more comfortable in the face of some situations that were once difficult for them. One of the participants explained that she had to have social anxiety and difficulty in being in crowded environments and talking to people, however, thanks to kickbox, this situation has faded away, and she can talk to people more comfortably. Also, she is more self-confident when entering crowded environments than before. This statement sets an example for Worsley's (2005) claim.

According to the results of the qualitative part of the study, kickboxing has changed and improved the lives of the participants in a positive way, especially for their self-confidence, emotional control, anxiety level, stress management, coping with fear, and self-esteem. Accordingly, kickboxing has made it easier for them to cope with negative and difficult

situations.

Rutter (1990) stated that all kinds of factors, which reduce the effect of risky cases and negative chains of events that a person is exposed to, increase one's self-esteem and control, and make one open to innovations and possibilities, are protective factors (Rutter, 1990; cited in Gokcen, 2015). Within this sense, kickboxing can be considered as a protective factor for female's psychological resilience and can be accepted as a tool that improves psychological resilience.

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