Analysis of Psychological Resilience of TFF U16 Development League Soccer Players

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Abstract

The aim of this research is to analyze the psychological resilience levels of football players playing in the U 16 development league within the Turkish football federation. Scanning model was used in the research. The sample of the research consists of 160 active players of eight teams in the men's U16 development league of the Turkish football federation in the 2022-2023 season. As a data collection tool in the research, a personal information form stating the education status of the football players, the year of playing football, working with the same coach and monthly family income, as well as the "Psychological Hardiness Scale" (PHS) developed by Işık S was used to collect quantitative data. The resilience scale consists of three sub-dimensions: dedication, control and challenge. The normality distribution was tested by applying the kurtosis and skewness test to the data. T-test and ANOVA tests of the data were performed and multiple comparisons (Post-HocTukey) and correlation analysis were used. Statistical significance level was determined as 0.05.

As a result of the research, the psychological resilience of the individuals who do sports at the elite level was significantly higher. In the education variable, psychological resilience was found to be positive in those with a high education level. A significant and low level positive relationship was found between the variables of playing football and working with the same coach. It is thought that this study can contribute to the fieldwork aimed at making suggestions to athletes with low resilience and increasing their resilience levels.

Keywords: Elite Athlete; Footballer; Development; Resilience

Abbreviations: PHS: Psychological Hardiness Scale; CMD: Common Mental Disorders; PBL: Psychological Resilience Scale.

Introduction

Football is considered to be a branch of sports played by combining intermittent movements in motion analysis [1,2]. Elite performance in sports requires improved athletic performance, which includes physical and anthropometric characteristics. Managers, coaches and coaches who are in decision-making bodies in sports have to develop and implement certain protocols to improve the performance of athletes and prevent their injuries. Today, football is a sport branch that drags people in many countries of the world. The intense interest in football, which has entered the history of

world sports since the 1800s, is due to the fact that football is easy to understand and playable as a game. Regardless of its spread and speed, football is now the most widespread and most invested sports branch in the world. Such intense attention inevitably has made this sport branch a potential market, even an industry with huge boutiques. This feature of football has caused a continuous development and change within itself. The rules of the game and training techniques are constantly being renewed in a way to increase and protect this interest. Now many branches of science have begun to enter football, and they are trying to contribute to this sport branch in a way that will increase the performance of the football player. Thanks to these studies, football has become a branch that requires more intense physical strength and tactical knowledge and skills. Winning, being a champion, scoring goals, attracting people's attention has gained much more importance now. As a result, the level of struggle to achieve the goal has also increased [3].

In professional football, most of the epidemiological studies have been directed towards the physical health of players, principally towards the occurrence of musculoskeletal injuries and more recently towards the prevention of these injuries. By contrast, scientific information about the mental health of professional footballers remains scarce. This is surprising because players are (cumulatively) exposed during their career to specific and non-specific stressors that might lead to symptoms of common mental disorders (CMD). These symptoms of CMD are likely to influence the performances of players but also their quality of life negatively [4].

Concepts such as sports or athlete are often associated with physical strength. It would not be wrong to say that the muscular and athletic bodies that athletes have caused this idea. But mental strength and skills, as well as physical strength and skills, are an important component of sporting success. Through the developments and scientific researches in sports psychology after the Second World War, mental strength and skills have gained an important place in the training programs of the athletes and started to be an important part of the successes [5].

Performance and sport achievement are affected by usual stressor factors like perpetration a psychological and bodily errors, endurance of pain and ailment, viewing the fraud or rivals achievement, receipting fine from arbiter and punishment from mentor. Inability to effective encountering to sport stress is harmful for performance and personal pleasant. One of the theories in study about the strategies for encounter to stress is the approach of positive psychology which the resilience is one of its concepts. Resilience is the dynamic process of positive adaptiveness with horrible experiences. Resilience is on a continuum with different degrees of resistance versus psychological pathologies. It is concordant with positive development; adaptiveness and reaching the level of equilibrium after developing disorder in precede equilibrium status [6].

Mental training "has been expressed as a precautionary exercise performed at the stage of learning a new movement or developing a previously experienced movement for a specific goal by using the mind without any physical action [7]. Mental training, motivation, concentration, attention, imagination, goal setting, self-confidence, positive thinking, emotion and thought control, etc. to achieve high performance. It is defined as a systematic and programmed process aiming at the acquisition and development of psychological skills [8]. Mental strength, resilience, and strategy are learned through facing challenges, succeeding and failing, and learning to use fear as a motivating force not a debilitating one. It's learned through life experience, athletics, and cultivation of the mind and it's enormous potential. It's not genetic. Mental training gives athletes structure to build these qualities from the ground up so that they are prepared to grow as an athlete and face anything in competition.

Psychological resilience is a personality trait consisting of three dimensions: dedication, control and challenge. He defines dedication as an individual's tendency to deal with various areas of life. A person's dedication to his social environment, work, family environment, interpersonal relationships, beliefs and values occurs in all areas of his life, and this situation enables the individual to create a power source necessary for coping with stressful life situations. Challenge is the belief that change is a natural part of daily life and a stimulus for development rather than a threat to security. The reason why the events in the challenge are perceived as encouraging development is the belief that individuals can rearrange the situations they live in. That's why they give importance to interesting and diverse life experiences [9].

When the studies conducted to measure psychological resilience are examined, the examination of the factors that increase resilience comes to the fore among the subjects that adult-based scales focus on. It is an individual's perception of self and future, social environment adequacy, family support, and individual awareness [10].

Research in sports psychology, individual resistance studies. Although it is beginning to shed light on the nature and process of resistance, nature requires special tests within the sport. Elite team sports level resilience research demonstrates high performance despite the ever-changing stress environment. despite the ever-changing complex

sporting environment, as well as their ability to maintain important information on the ability to maintain high performance can provide.

This study is important in terms of revealing the psychological resilience of U16 elite football players. It is important to find out how much it affects football players and to examine the psychological resilience of different groups. The aim of the study was to reveal the answers given by the players to the questions asked to them and the changes within the groups themselves. Although it is thought that the results of the studies will help in taking precautions in a similar situation that may occur in the future, it may reveal guiding data in the psychological support that will be given to both groups in such cases. In previous studies, it has been revealed that psychological resilience is a factor that affects many events in a person's life, and that it now increases the quality of life of the individual and contributes positively to social and academic resilience. The results of this kind of research on the psychological resilience of football players who play elite sports may lead individuals to change their lifestyles.

Methods

In this section, the method that forms the basis of the study, the way the data were collected, the population and the sample, and the information about the statistical processes that emerged as a result of the study are given.

Model of the Research

In this study, it was aimed to measure the psychological resilience levels of football players playing in the elite level TFF U 16 development league. At the same time, it was aimed to determine whether there is a difference between the psychological resilience of the participants according to their demographic characteristics. In this context, the research is a relational screening model. Relational screening model is a research model that aims to determine the existence or degree of change between two or more variables [11].

Universe and Sample

The research group of this study consisted of elite football players playing in the TFF U 16 league in the 2022-2023 seasons (Table 1).

Education		N	%
		160	**100**
Year of Working with the Same Trainer	1-2 years	120	75
	3 years +	40	25
Education	High School	150	93.75
	Middle School	10	6.25
Income (₺ montly)	0-10.000	30	18.75
	10.001-20.000	50	32
	20.001-30.000	45	35.55
	30.001-40.000	25	15.62
Year of Football	3-5 years	40	25
	5-8 years	90	56.25
	8-11 years	30	18.75

Table 1: Distribution of U-16 Football Players by Demographic Characteristics.

Data Collection Tool

In this study, "Personal Information Form" prepared by the researcher was used as data collection tool, and "Psychological Resilience Scale PBL" was used to measure psychological resilience during the pandemic period [1].

Personal Information Form

In the personal information form created by the researcher, questions were prepared regarding the variables of gender, education status, monthly income, whether they did elite sports, whether they had Covid-19 disease and age.

Resilience Scale

The "Psychological Resilience Scale" developed by Işık S [1] was used to collect quantitative data. The resilience scale consists of three sub-dimensions: dedication, control and challenge. The resilience scale is a 5-point Likert-type scale ranging from "strongly disagree" to "strongly agree". Within the scope of the reliability study of the resilience scale,

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the Cronbach-Alpha Coefficient, which gives the internal consistency of the items forming the scale, was calculated. Accordingly, the internal consistency coefficient for the dedication sub-dimension was .71, the internal consistency coefficient for the control sub-dimension was .53, the internal consistency coefficient for the challenge sub-dimension was .84, and the internal consistency coefficient for the total score was .87. The dedication dimension of the psychological resilience scale, which is a scale that includes individuals to express their own perceptions, consists of 1, 2, 3, 5, 6, 18 and 21 items. The control dimension includes items 4, 10, 11, 12, 15, 19, and 20. The challenge dimension consists of items 7, 8, 9, 13, 14, 16 and 17. Items 2 and 15 of this scale are scored in the opposite direction [1].

Analysis of Data

The data obtained in the research were transferred to the SPSS 26.0 package program. In order to prepare the data and make it suitable for analysis, the kurtosis and skewness coefficients were examined. The fact that the skewness coefficient (+-2) and kurtosis coefficient (+-4) remain in the ranges indicates that the data exhibit a normal distribution. In this study, it was determined that the skewness values of the data obtained regarding the scale were between 0.071/-1.034, and the kurtosis values were between 0. 142 / 3.205. According to these results, it was determined that the data showed normal distribution and parametric tests were used in statistical analysis.

In the analysis of the data obtained as a result of the research, frequency and percentage analysis was used to describe the demographic characteristics of the students, t test and ANOVA test were used to determine the differences between the answers given by the participants to the other questions, whether they did sports at an elite level according to the demographic variables, and multiple comparisons according to the homogeneity of variance. (Post-HocTukey) tests and correlation analysis were used. Statistical significance level was determined as 0.05.

Results

The independent groups t-test findings on how the psychological resilience status of the football players changed are presented in Table 2. In Table 2, it was concluded that the mean scores of psychological resilience in the sub-dimension of dedication to football players were statistically significantly higher. It was concluded that the psychological resilience score averages of the players in the control and challenge sub-dimensions were low, but this difference was not statistically significant.

	N	x̄	Ss.	Sd	t	p
Dedication	160	3,246	,622	1112	-1,979	0,022*
Control	160	3,128	,514	1112	,450	0,377
Challenge	160	3,464	,616	1112	3,613	0,341
Resilience Scale (Total)	160	3,234	,522	1112	,802	0,021*

Table 2: T-Test Results on Psychological Resilience and Sub-Dimensions of U-16 Footballers.

	Financial Status	N	x̄	Ss.	F	p	TUKEY
Dedication	Middle School	25	3,026	,546	6,562	0,000**	2>3,5
	High School	135	2,323	,538			
Control	Middle School	25	2,860	,462	2,440	0,54	-
	High School	135	2,438	,480			
Challenge	Middle School	25	3,462	,528		0,104	-
	High School	135	3,480	,602	1,652		
Resilience Scale (Total)	Middle School	25	2,608	,536		0,66	-
	High School	152	2,614	,542	2,120		

Table 3: One-Way ANOVA Results on Psychological Resilience and Sub-Dimensions of U-16 Footballers According to Educational Status Variable.

One-Way ANOVA test findings regarding how the psychological resilience status of football players change according to their education levels are presented in Table 3. Football players differ in a statistically significant level

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according to their education level in the sub-dimension of dedication. The TUKEY test was used to determine which education levels caused this difference. Accordingly, it was concluded that secondary school students were statistically significantly higher than high school students' mean scores. When the averages of the total psychological resilience scale scores according to the education level were examined, it was concluded that the averages were higher in secondary school students, and there was no statistically significant relationship between education levels.

One-Way ANOVA test findings on how the psychological resilience of football players change according to their income levels are presented in Table 4. It was concluded that there was no statistically significant difference between the income levels of the football players and the psychological resilience sub-dimensions. When the averages of the total psychological resilience scale score are examined according to the income level, it is seen that the averages are highest in the participants with an income level of 20,001-30,000 Ł, followed by the athletes with an income level of 30,001 and above, and the lowest average is the individuals with an income level of 10,001-20,000 Ł. It was concluded that there is no statistically significant relationship between these income levels.

	Financial Status	N	x̄	Ss.	F	p	
Dedication	0-10.000	30	2,809	,460	,826	0,480	
	10.001-20.000	50	2,840	,364			
	20.001-30.000	45	2,879	,428			-
	30.001 +	25	2,865	,532			
Control	0-10.000	30	2,663	,350	2,456	0,62	
	10.001-20.000	50	2,585	,362			
	20.001-30.000	45	2,682	,352			-
	30.001 +	25	2,643	,398			
Challenge	0-10.000	30	3,174	,680	1,260	0,287	
	10.001-20.000	50	3,103	,621			
	20.001-30.000	45	3,171	,511			-
	30.001 +	25	3,201	,519			
Resilience (Total)	0-10.000	30	2,422	,546	,981	0,401	
	10.001-20.000	50	2,626	,499			
	20.001-30.000	45	2,754	,419			-
	30.001 +	25	2,108	,453			

Table 4: One-Way ANOVA Results on Psychological Resilience and Sub-dimensions of U-16 Footballers According to the Variable of their Families' monthly income.

Discussion and Conclusion

In this study, the resilience of U-19 playing elite football was examined and the demographic differences between them were tried to be revealed. The participants were asked about the psychological resilience scale (PBL) and how long they played football at the elite level, their educational status, and their monthly income, and statistical analyzes of the data were made. 160 male football players participated in the study.

The psychological resilience and sub-dimensions of elite football players were discussed in accordance with the purpose, taking into account the personal characteristics of the group. In this study, psychological resilience of individuals who do sports at elite level was found to be statistically significant. The fact that resilience is in favor of elite athletes is also supported by many studies examined in the literature on resilience. In a similar study examining psychological resilience, it was found that people who do sports for 6-10 years are more psychologically resilient than those who do sports for 0-5 years [12]. Considering this result, it can be said that as the duration of doing sports increases, psychological resilience increases at a positive level. In another study, in a study on students in high schools that provide sports education, it is evaluated that as the year of sports increases, their endurance increases at a positive level [13]. The result of a different study, which thinks that all

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kinds of sports contribute to the individual, is in parallel with our result. There are many different studies in the literature that support the current study.

In his study on mental health, such as depression and sleep disorder, which are among the factors affecting psychological resilience, Kendii drew attention to the fact that these risk factors are less common in those who do sports. Sports, which has an undeniable share in the secretion of happiness hormones, has an important share in reducing stress and working the mind. As a result, it can be said that the individuals who do sports at the elite level, regardless of the branch they are in, have a high sense of winning, success and defeat. The development of emotions such as overcoming all kinds of negativities, unexpected situations, and pressure to win the match may have manifested itself during the match or during the preparation for the match. The self-confidence and the ambition of the struggle brought by the sportsmen can also come to the fore in eliminating the problems they encounter in social life.

A statistically significant difference was found between the dedication and PBL total dimensions of male football players investigated in this study, and it was concluded that there was no statistically significant difference in the control and challenge sub-dimensions. Karasar N [11] reached a similar conclusion in their study in which they examined the psychological resilience among university athletes and suggested that male athletes have higher psychological resilience than female athletes. Kumar A [14] stated that the result was in favor of men in his study in which he examined psychological resilience among football players between the ages of 19-24. In another study investigating the relationship between gender and resilience, Bonanno GA, et al. [15] stated that being a male is an advantage in psychological resilience. In this study, there are studies supporting the result in favor of men in the sub-dimension of dedication, but it is worth discussing that the result is in favor of women in the PBL total dimension. The majority of studies suggesting that the results are in favor of women or that there is no significant difference in the literature are also striking. Ilhan A [16] found the result in favor of women in his study examining the psychological resilience among individuals participating in the exercise. interpreted as possible.

In terms of income levels, no statistically significant difference was found among the participants in our study. Bonanno GA, et al. [15] also found that psychological resilience is higher in students with high income levels in their study among university athletes. Examining the studies on resilience, Judkins S, et al. [17], who examined the resilience of home care nurses, state that individuals with low income levels and living under difficult conditions are advantageous in terms of resilience. In another study conducted on 437 nurses, a positive effect of an increase in income on psychological resilience was observed [18]. There are many studies in the literature showing the positive effects of increasing income on psychological resilience. It was concluded that there was a statistically significant difference in the sub-dimension of dedication among the athlete participants according to the education level, while there was no significant difference in the other sub-dimensions. It is observed that individuals with high school and secondary education differ significantly in psychological resilience compared to individuals with lower education levels. They found in their study named personality, intelligence and approaches to learning as predictors of academic performance. ultimately supports us; Individuals who are successful in the academic field are positively affected in the personality of the individual for self-control and discipline [19].

In another study on psychological resilience and education level, which supports the results of this study, it was stated that teachers who received postgraduate education in the sub-dimension of social resources of the person were significantly better at resilience than lower education levels [20]. In another study on teachers, Bozgeyikli H, et al. [21] stated that teachers with undergraduate education are more psychologically resilient than teachers with graduate education. In a study on children and their parents, it was seen that students with parents with high education levels have high psychological resilience [22]. It was observed that the sense of control from the mental toughness sub-dimension increased as the age of the tennis players and the years of playing tennis increased. While the variables of age and years of doing sports are effective on the mental endurance of the athletes; It can be said that gender and the number of training sessions per week are not effective. It can be ensured that the athletes develop their ability to be comfortable and controlled under difficult conditions and in the face of unexpected situations. By investigating the relationship between psychological factors and the level of mental endurance, the mental performance of athletes can be increased [16]. According to the results obtained from our study, it was determined that the psychological resilience levels of the football players were affected by the education level and marital status variables, but not by the gender and place of residence [23].

As a result, it has been determined that there is no relationship between the mental endurance of the athletes in terms of their gender and monthly income levels, the educational status of the athletes, whether they do sports or not. It is understood that the branch and the duration of doing sports as licensed affect mental endurance [24]. It is

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seen that there are studies in the literature that do not find a significant difference, as well as the results of psychological resilience that increase with the increase in education level.

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