

The Study of Psychological Endurance of the Elite Athletes in Turkey Depending on Their Ages and the League Playing in

Aycen Aybek^{1,*}, Azmi Yetim², Suat Aybek¹

¹Department of Physical Education and Sports Education, Gaziosmanpaşa University, Turkey

²Faculty of Sports Science, Gazi University, Turkey

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Abstract The goal of the present research is to define and analyze the level of the psychological endurance of the professional football players in the first and second league of Turkey in different ages. The research is limited to the athletes in first in second leagues in season 2013-2014 and 2014-2015. The excerpt was chosen randomly, using the method of the random distribution as 105 athletes were chosen from the each league – total 210 athletes. We used the “Scale for psychological endurance” to define the levels for psychological endurance of the athletes. We calculated the average arithmetical value, the standard deviation, the percent ration and the frequency for the descriptive statistics. We have obtained our test results by the use of Mann-Whitney-U test. The package SPSS 18 was used for all the statistical analysis and the level 0.05 was defined for a statistically significant level.

Keywords Psychological Endurance, Football, Sport Psychology, Age of Athletes, League Playing in

1. Introduction

The sport has a significant role for the creation of the image of a certain country or nation, and for the adaptation of the young people in the global society (Allison & Monnington, 2002; Zekioğlu, 2015; Bali, 2015). When the countries and teams, which have reached an upper level in sports branches, studies, which are being carried out in the light of programs prepared more scientifically and by more informed people (Arslan et.al. 2009). In the field of the sport science and the practice, the testing has a significant role and presence in the educational-training and the searching activities in its diversity of specially selected and standardized motor activities (Albay & Yazarer, 2018). Because the high

achievements of the elite athletes are becoming a main goal of many countries, the high technological progresses are helping for the scientific insurance of the sport preparation and presentation. It is well known that the sport science is a multicomponent integrative science and we see applicable value of different scientific regions like physics, cinematic, physiology (Fletcher & Hanton, 2003; 2005; Mellalieu et.al., 2009; Morgan, 2015). For years, the sport science is researching mainly the physical, physiological and technical-tactical qualities and characteristics of the athletes, but the sport psychology is comparatively underestimated. As it is known, the psychological endurance is a meaning which is often used in the researches of the sport psychologists because this quality is considered to be defining for the sport success and some authors define it as the most important factor for the transitions in the life (Yılmaz & Sipahioğlu, 2012; Gucciardi et.al., 2009; Seligman & Csikszentmihalyi, 2000). Also, the psychological endurance can be defined as the ability to withstand stress over prolonged periods of time. An endurance sport is therefore any sport in which there is a prolonged physical stress (Fallowfield & Wilkinson, 1999).

During the last years in Turkey, the problem of the psychological endurance of the athletes becomes more and more actual which is obvious by the increasing number of the researches in this field.

Nowadays the definition of the mental condition of the athletes before, after and during a competition is becoming very important. This is because the physical and tactical preparation for competition is not considered for enough. The achievement of the highest results requires increased motivation for the athletes (İkizler, 1997). It doesn't matter if it's before a hard training or competition, it is one of the most important problems of the team and the managers of the clubs when it comes to the stress control of the players – it is best to understand adequately their mental

condition for a better management (Vallerand, 2007; Zeplin, et.al. 2014; Crust, 2007;2008).

Also, there are significant changes in many kinds of sports about the sport-technical parameters but not about the structure of the personality of the athletes. In psychological aspect, there are significant differences between the athletes of the modernity and the athletes before. (Konter, 2003). Today the concurrent require a high level of professionalism, mostly because of the enormous size of the material profits and losses and this creates a big pressure and stress on the athletes. So there is a need of a very good management of the environment to overcome this pressure and to realize the athletes. The responsibility, which an athlete carries during the international competitions, presenting his club and country, cannot be overcome only by physical and tactical trainings. The psychological endurance is characterized by three dimensions – connection, control and difficulty (Crowley, et.al. , 2003). The connection is the participation of the individual in things in the everyday life, without staying passive to them. It is observed as a feeling for purpose and goals. The control is characterized by the faith and the attitude that the individual can influence on the events and change them without feeling miserable when he meets difficulties. The difficulties are a natural part of the everyday life where the individual is facing an uneasy situation or a menace.

The psychological endurance can decrease the perception towards negative factors, which lead to stress or to increase the ability of the individual to contrast to them. (Maddi, et al., 2006). As known, age and sporting factors are some of the most important factors in determining the psychological endurance of athletes. The goal of the present study is to research and compare the levels of the psychological endurance of the professional football players in first and second league in Turkey by considering the level of influence of the age and the league playing in. We calculated the average arithmetical value, the standard deviation, the percent ration and the frequency for the descriptive statistics. There is test that was used –Mann-Whitney U Test for the statistical treatment. The package SPSS 18 was used for all the statistical analysis and the level 0.05 was defined for a statistically significant level.

2. Method

2.1. Model of the Research

This study aims to research and compare the levels of the psychological endurance of the professional football players in first and second league in Turkey and to establish the level of influence of the age and league playing in.

2.2. Research Group

The object of the present research are 210 football players from first and second league of the Turkish Football Federation, season 2014-2015 and season 2015-2016. The excerpt was chosen randomly, using the method of the random distribution, as we chose 105 athletes of the two leagues, or 210 athletes in total. The number of the football players in the two groups is 800 in total. In this meaning, we esteem that this number is enough for statistics for the research.

2.3. Data Collection Instruments

The research has been done with Mann –Whitney U Test. We used descriptive model to define the levels of the psychological endurance of the athletes. The data, needed for the present research were obtained fully personally from the athletes, participating in the researching group.

2.4. Data Analysis

We used complex methodic to realize the goal and the tasks of the present research. The methodic includes “Scale to measure the psychological endurance of adults” (Friborg, et.al., 2005).

The scale to measure the psychological endurance has been elaborated by Friborg and colleagues (2005) and it is adapted in Turkish by Basım and Çetin. The scale consists 22 statements and it is divided in 6 subcategories:

- Self-perception (6 statements);
- Structural Style (4 statements);
- Perception for the future (4 statements);
- Family adaptation (6 statements);
- Social adequacy (6 statements);
- Social resources (7 statements).

The scale has been validated through evaluation of the personality (Big Five/5PFs), cognitive abilities (Raven's Advanced Matrices, Vocabulary, Number series) and a scale for the social intelligence (TSIS) (Friborg, et.al.2005).

The program package SPSS 18 was used during the statistical processing and analysis of the information. The following statistical methods have been used:

- Variation analysis;
- Comparative analysis (Mann-Whitney-U);
- Regression analysis;
- Correlation analysis.

3. Findings

3.1. Psychological Endurance of the Players, Depending on the League They are Playing in

As we mentioned in the theoretical analysis the

psychological endurance depending on league playing in is defined as one of the important factors for success in the sport, especially in the football. According to the information in the literature, the more qualified players have higher levels of psychological endurance. In this connection, one of the tasks for our research was to search for probable differences between the researched football players from the first and second league in Turkey.

Table 1. Results from Mann Whitney U-Test on the scale for psychological endurance of the players, depending on the league they are playing in

	e	n	for the row	for the row	U	p
Personal Perception	1	105	106,76	11210,00	5380,00	,762
	2	105	104,24	10945,00		
Perception for the future	1	105	116,57	12240,00	4350,00	,008
	2	105	94,43	9915,00		
Structural style	1	105	115,78	12157,00	4433,00	,014
	2	105	95,22	9998,00		
Social adequacy	1	105	119,36	12532,50	4057,50	,001
	2	105	91,64	9622,50		
Family adaptation	1	105	110,76	11630,00	4960,00	,208
	2	105	100,24	10525,00		
Social Resources	1	105	115,58	12135,50	4454,50	,016
	2	105	95,42	10019,50		
In total	1	105	118,76	12470,00	4120,00	,002
	2	105	92,24	9685,00		
<i>p</i> <0.05						

The results from the comparative analysis are presented in Table 1. The data shows that there are significant differences depending on the qualification of the researched players in 4 of the subcategories. As we see in Table 1, they are: *perception of the future* ($u=4350,00$, $p=.008$), *structural style* ($u=4433,00$, $p=.014$), *social adequacy* ($u=4057,00$, $p=.001$) and *social resources* ($u=4454,50$, $p=.016$). This makes us reject the zero hypothesis there isn't any difference in the values of the two group. Regarding the *total result for the psychological endurance* between two groups of researched people – football players from first and second league in Turkey (Table 1), there are also significant differences ($u=4120,00$, $p=.002$).

3.2. Psychological Endurance of the Players, Depending on the Age

As we already mentioned, the data from the literature resources show that there is an existing dynamic in the development of the psychological endurance depending on age of the athletes.

This directed our researcher's interest to the establishment of probable existing differences between the subscales of the psychological endurance and the age of the researched players (Table 2).

The results of the comparative analysis of the data on the factor age shows (Table 2), that there are significant difference regarding the psychological endurance in general ($=13,381$, $p=.004$) of the researched football players. There are established significant differences in the

subscales *personal perception* ($=17,466$, $p=.001$) and *structural style* ($=10,539$, $p=.014$).

Table 2. Results of the comparative analysis of the scale for psychological endurance of the players depending on their age

	Age	N	SD		p
General	18-21	56	92,63	13,381	,004
	22-25	57	98,13		
	26-29	59	104,9		
	Over 30	38	136,63		
Personal Perception	18-21	56	86,63	17,466	,001
	22-25	57	97,11		
	26-29	59	111,14		
	Over 30	38	137,13		
Perception for the future	18-21	56	100,38	3,106	,376
	22-25	57	110,20		
	26-29	59	98,14		
	Over 30	38	117,42		
Structural style	18-21	56	101,38	10,539	,014
	22-25	57	92,84		
	26-29	59	104,06		
	Over 30	38	132,79		
Social adequacy	18-21	56	96,25	11,017	,060
	22-25	57	94,85		
	26-29	59	106,75		
	Over 30	38	133,17		
Family adaptation	18-21	56	99,21	7,407	,060
	22-25	57	100,85		
	26-29	59	100,42		
	Over 30	38	129,64		
Social resources	18-21	56	101,38	7,457	,059
	22-25	57	103,70		
	26-29	59	108,24		
	Over 30	38	125,33		
<i>P</i> <0.05					

Regarding the subscales *perception of the future* ($=3,106$, $p=.376$), *social adequacy* ($=11,017$, $p=.060$), *family adaptation* ($=7,407$, $p=.060$) and *social resources* ($=7,457$, $p=.059$) the established differences don't have the needed statistical credibility despite the strongly expressed tendency of the last three subscales. The test, which is applied is Mann Whitney U-test because the aim is to establish the difference between the separate age groups. On the base of the obtained results, it is established that the personal perception of the players marks a certain dynamic. The average value of this indicator in the age of 18-21 years old is $M=51,37$. As they are growing (22 – 25) the values for the personal perception are significantly increasing - $M. =64,30$. In the age over 30 years old the average value of the researched indicator $M=61,63$. These results are the basis of the statements that as the age over 30 years old increase, the personal perception of the researched football players are increasing and there is a decrease of the average value of the measure indicator.

4. Discussion and Conclusion

As we mentioned in the theoretical analysis the psychological endurance is defined as one of the important factors for success in the sport, especially in the football. According to the information in the literature the more qualified players have higher levels of psychological endurance. In this connection, one of the tasks for our research was to search for probable differences between the researched football players from the first and second league in Turkey.

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As can be seen from Table 2, the age is in significant positive correlation dependency with the professional internship and the number of the participations in professional competitions. This is a somewhat expected result as each year the number of the professional internship of the people is increasing and that also increases the number of the professional competitions. The negative sign in front the value for correlation between the age and the ranking in the league can be explained with the growth in age (respectively the professional internship too) and the ranking in the league is improving (lower value for the indicator means higher ranking).

In this study, we have defined and compared the psychological endurance of the players with respect to the league playing in and age factors. The research can be useful for different samples, limitations and variables in future studies.

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