



Performance Analysis in Sport and Exercise

Ankara University Performance Analysis in Sports
Application and Research Center

Available online 29 June 2023

Comparison of Mental Toughness Levels of Soccer and Rugby Players

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Abstract

The concept of mental toughness, which is defined as the ability of sportsmen to cope with mentally challenging situations better than their competitors, is an important concept for achieving success in sports. Mental toughness can vary according to age, sport year, branch, gender and many other factors. Although the soccer branch is the most popular branch in the world, its starting point comes to the same period with rugby. In recent years, the increasing interest in rugby in our country and the success of Turkish rugby teams in international platforms is also a striking factor. The aim of our research is to compare the mental toughness levels of soccer and rugby sportsmen in Turkey. The research group consist of 119 soccer players and 81 rugby players. To collect data Sport Mental Toughness Questionnaire (SMTQ) was used online. The results have shown that there is significant difference between soccer players and rugby players mental toughness levels.

Keywords: Football, Rugby, Mental Toughness, Soccer

INTRODUCTION

Around the world, there are many soccer and similar team sports. However, these sports may be differed from country to country and culture to culture such as Rugby, American Football Australian Football. When looking at the historical development process of similar team sports, most of these branches are based on soccer (4).

Although soccer has been around since 200–300 B.C., England did not adopt the modern version until the 17th century. While soccer's historical evolution differed from culture to culture, it was played in Britain's villages and cities for socializing and in Rome as gladiator training. (13).

In the beginning, soccer, which was played with a round ball made of leather and some hair pieces, without certain rules, has become an indispensable sports branch for societies. Football, which has been played in different ways in the process, has given rise to branches such as American football and rugby as a result of the fact that every part of the body was free to use before it took on its current rules, and that these rules were not accepted or found less entertaining in various regions with the introduction of written rules. Founded on 26 October 1863 after the meeting held on 26 October 1863, The Football Association ('FA') wrote the first rules of today's football and shaped football (9,17).

In addition to football being the most popular sports branch in our country, rugby is a developing branch that has started to attract attention. The fact that Turkish society has a fighting spirit is reflected in the sports culture and the fact that rugby branch also includes a struggle and is economical in terms of materials and equipment has made it easier for this branch to be accepted in our country. Rugby is in a great development process in Turkey and today it is seen that it is fought in national, local and university leagues (19).

The growth of the sports industry, the professionalization of people for reasons other than socialization, and the potential to profit financially from these areas have all contributed to the sector's transformation. Athletes have started to realize that they need to be mentally prepared for competitions in addition to preparations such as physical preparation, nutrition and individual training in their professionalism processes. This process, which includes different mental training processes from branch to branch, has positive effects on the performance of athletes. Many studies conducted in this field have shown that athletes are affected by different external factors and reflect them to the field unintentionally (2).

Considering the historical process, the starting points of rugby and football branches are similar. Even though these two branches have the same origin, it is known that they require different mental and physical characteristics and skills. However, when football and rugby are compared, it is seen that rugby is harder and involves more physical contact (8).

While many factors determine the performance of athletes in sports competitions, the concept of mental toughness is one of the most important concepts. Sport psychology, which scholars try to define in different ways, is considered as an important factor for coaches and especially athletes to achieve peak performance (6).

Mental toughness can be defined as a developed or natural psychological ability that enables a person to focus, manage stress, maintain performance under pressure, feel safe and maintain these during competition or training (3).

Athletes can improve their mental abilities with correct and regular mental training as well as physical training. In cases where conditional and physical characteristics are equal, the factor that reveals the difference between athletes during the competition is their mental toughness levels (18). In this context, it is thought that rugby players should be mentally as well as physically resilient.

As a result of these factors, the aim of our study is to compare the mental toughness levels of footballers and rugby players. In our research, the following hypotheses were tested.

What are the mental toughness levels of football and rugby players; is there a difference between the branches? In this context, answers to the following problem will be sought;

Is there a significant difference between the level of mental toughness of football and rugby players?

Is there a significant difference between the level of mental toughness of football and rugby players according to the reason for doing sports, age, and sports age?

METHODS

Research Model

In our study in which the mental toughness levels of football and rugby players were compared, the survey model, one of the quantitative research models, was used.

Population and Sample of the Research

The population of our research consists of amateur football players in Denizli, Izmir and Istanbul provinces and rugby players in the 'Turkish Rugby Federation' throughout Turkey. The sample of the research consists of a total of 200 athletes, 119 of whom are football players and 81 of whom are rugby players.

Data Collection and Tool

Personal information form and "Sport Mental Toughness Questionnaire-(SMTQ)" developed by Sheard et al. (2009) and adapted into Turkish by Altıntaş (2015) was used to determine the mental toughness levels of the athletes. The data was collected online.

Personal Information Form

The personal information form was used to determine the demographic information of the participants. In the personal information form, there are questions such as gender, age, education status, branch, year of doing sports and reason for doing sports.

Analysing Data

The data were analyzed in SPSS 25.00 package program. Data was analyzed whether the data showed normal distribution and parametric tests were deemed appropriate. Frequency and mean values were used as the analysis method. Cronbach's Alpha value (0,741). T-test for independent groups and Anova test for multiple comparisons were used.

FINDINGS

Table 1. Distribution of demographic information of participants.

Personal Data	Variable	F	%
Gender	Male	179	89,5
	Woman	21	10,5
Age	18-22	135	67,5
	23-26	41	20,5
	27 and over	24	12,0
Education Status	High School	120	60,0
	Bachelor	75	37,5
	Postgraduate	5	2,5
Branch	Football	119	59,5
	Rugby	81	40,5
Sports Age	1-3 Year	92	46,0
	4-8 Year	59	29,5
	9 and over	49	24,5
Reason for Doing Sports	Hobby	69	34,5
	Health	90	45,0
	Money	41	20,5

According to Table 1, 89.5% of the participants are male and 10.5% are female. Regarding the age variable, 67.5% of the participants are 18-22 years old, 20.5% are 23-26 years old, and 12.0% are 27 and over. Educational status variable, 60.0% of the participants have high school education, 37.5% have undergraduate education and 2.5% have postgraduate education. When the branch variable is analyzed, 59.5% of the participants are interested in football and 40.5% in rugby. When the sport age variable is analyzed, 46.0% of the participants have a sport history of 1-3 years, 29.5% of the participants have a sport history of 4-8 years and 24.5% of the participants have a sport history of 9 or more years. When the reason for doing sports was analyzed, it was seen that 34.5% of the participants do sports as a hobby, 45.0% for health and 20.5% to earn money.

Table 2. T-test analysis results mental toughness levels of soccer and rugby players

Format	Branch	N	X	Sd	T	P
Mental Toughness	Football	119	43,5630	5,8652	2,434	0,016*
	Rugby	81	41,5432	5,60591		

*P<0.05

Table 2 shows that there is a significant difference between the mental toughness levels soccer and rugby players ($p<0.05$). Soccer players have higher mental toughness score than rugby players.

Table 3. Anova test results according to the age of the participants

Format	Age	N	X	Sd	P	Significant Difference
Mental Toughness	18-22 ^a	135	41,8593	5,55859	0,005*	a < c
	23-26 ^b	41	43,8537	6,38968		
	27 Over ^c	24	45,8333	5,15555		

*P<0.05

When Table 3 was analyzed, it was determined that there was a significant difference between the age variable of the participants and their mental toughness levels ($p<0.05$). This difference was found to be between the participants aged 18-22 years and the participants aged over 27 years.

Table 4. Results of Anova According to reason for doing sports

Format	Reason for doing sport	N	X	Sd	P	Significant Difference
Mental Toughness	Hobby ^a	69	40,9420	5,40393	,003*	a<b
	Health ^b	90	43,2333	5,84836		a<c
	Making Money ^c	41	44,7073	5,78033		

*P<0.05

When Table 4 was analyzed, it was found that there was a significant difference between the participants' reason for doing sports and their mental toughness levels ($p<0.05$). This difference was found to be between the participants who do sports for hobby, health and making money.

Table 5. Anova test results according to sports age

Format	Year of Sport	N	X	Sd	P	Significant Difference
Mental Toughness	1-3 Year ^a	92	41,2717	5,59651	,000*	a
	4-8 Year ^b	59	42,5424	5,56876		<c
	9 and Over ^c	49	45,7551	5,54350		c>b

*P<0.05

In Table 5, it was found that there was a significant difference between the participants' sport years and their mental toughness levels ($p<0.05$). This difference was found to be between the participants who have been doing sports for 1-3 years and 9 and over, 9 years and over and 4-8 years.

DISCUSSION

This study was conducted to determine the mental toughness levels of football players and rugby players in Turkey and to examine them according to different variables. Statistically significant differences were found between the results and variables such as age, branch, sport age and reasons for doing sport.

In this study, a statistically significant difference was found when the branches of the participants were taken into consideration. It was seen that the mental toughness total score of the participants interested in football branch was higher than the mental toughness score of the

participants interested in rugby branch. As a result of the research, it was seen that the mental toughness comparison studies of football players and rugby players were limited. However, many studies were found in comparisons in different sports branches and mental toughness may differ according to sports branches (1, 12, 15, 16). When the literature was examined, it was revealed that the mental toughness levels of rugby athletes were higher in countries where rugby was popular (7).

In our study, it was revealed that there were statistically significant differences between the mental toughness levels of our participant athletes when the age variable was examined. This difference was seen between our participants aged 18-22 years and 27 and over. Participants aged 27 and over were found to have the highest total mental toughness score. In the study conducted by Connaughton et al. (2008), it was seen that the mental toughness level increased as the age of the athlete increased. This study supports our research.

When the reason for doing sports was analysed, significant differences were found between the mental toughness levels of our participants. The mental toughness levels of the athletes who do sports for hobby were found to be the lowest. Significant differences emerged between the athletes who participated in sports for hobby purposes and the participants who did sports for health and making money. While the mental toughness levels of the athletes who performed the sport for making money were the highest, a significant difference emerged between the athletes who performed the sport only for hobby purposes. When the literature was examined, significant differences were found between athletes who played sports according to different variables (10). This research supports our study.

When the sport age variable of our participant athletes was analysed, significant differences were found between their mental toughness levels. In our research, the mental toughness levels of our athletes with a sports age of 9 and over years were found to be at the highest level. These findings revealed a significant difference between athletes with a sporting age of 9 and over and participants with a sporting age of 1-3 years and 4-8 years. Although the mental toughness levels of our participant athletes with a sport age of 1-3 years were at the lowest level, a significant difference emerged only between the athlete participants who played sports between 9 and over years. When the literature is analysed, many studies have revealed that the increase in sports age has a positive effect on mental toughness levels (5, 14).

The fact that the soccer players who participated in our study averaged 4 to 8 years of age of sports, whereas the rugby players averaged 1 to 3 years sports age, probably has implications

for the mental toughness levels of the rugby players. It is not surprising that the result would be so. Studies in literature suggest that the level of mental toughness increases with increasing years of sport and age of athletes (11, 12).

CONCLUSION

As a result, there was a statistically significant difference between the branch variable and the mental toughness levels of the athletes participating in our research. In this context, the hypothesis of our research was confirmed. When the literature was analyzed, it was found that the mental toughness levels of rugby players were high in countries where rugby was popular (7). In this study, it can be said that the reason why the mental toughness levels of football players are higher than rugby players is because the rugby branch is new in our country.

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