

## Analysis on Some Superstitious Behaviors of University Students Engaging in Tennis

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### Abstract

The purpose of this study is to analyze some superstitious behaviors perceived of student athletes in terms of different variables. A total of 83 athletes composed of 41 females and 42 males who engage in tennis voluntarily participated in the research. Average age of the participants is 21.3765 and standard deviation is 1.60339. Superstitious Behavior Inventory developed by H.G. Buhrmann and M.K. Zaugg (1981) and adapted into Turkish by Barut (2008) was used to determine superstitious behaviors of athletes. SPSS 18.0 package program was used for the analysis of data. Percentage, frequency, average, standard deviation values were applied for descriptive information, independent t-test for the comparison of different groups, one-way variance analysis (ANOVA) for the comparison of multiple groups and Tukey HSD post-hoc test for the occurrence of differences. Besides, correlation analysis was applied in order to determine the relation between the variables. The significance level was accepted as  $p < 0.05$  and 0.95 value was specified as confidence interval. Kruskal Wallis test was applied for the non-parametric groups not distributed homogenously. In conclusion, a significance level of  $p > 0.05$  wasn't found between the superstitions and behaviors of university students engaging in tennis in line with the findings obtained. A significant level of  $p > 0.05$  wasn't found between different variables and superstitions of student athletes; however, superstitions and behaviors of male athletes were found to be higher than female athletes.

**Key Words:** Sports, Tennis, Superstition and Behavior

## Tenis Sporü İle Uęraşan Üniversite Öğrencilerinin Bazı Batıl İnanç ve Davranışlarının İncelenmesi

### Özet

Bu çalışmada öğrenci sporcuların algılanan bazı batıl inanç ve davranışlarının çeşitli değişkenler açısından incelenmesi amaçlanmıştır. Araştırmaya tenis branşı ile uğraşan 41 bayan, 42 erkek olmak üzere toplam 83 sporcu gönüllü olarak katılmıştır. Katılımcıların yaş ortalaması 21,3765 olup Standart sapması 1,60339'dur. Sporcuların algılanan batıl İnanç ve davranışların belirlenmesi için H.G. Buhrmann ve M.K. Zaugg (1981) tarafından geliştirilen ve Türkçe uyarlaması Barut (2008) tarafından yapılan Batıl İnanç ve Davranış Envanteri kullanılmıştır. Verilerin analizinde SPSS 18.0 paket programından yararlanılmıştır. Betimleyici bilgiler için yüzde, frekans, ortalama, standart sapma değerleri, farklı grupların karşılaştırılmasında bağımsız t testi, çoklu grupların karşılaştırılmasında ise tek yönlü varyans analizi (ANOVA) ve fark oluşturduğu durumlarda Tukey HSD post-hoc testi uygulanmıştır. Ayrıca değişkenler arasındaki ilişkinin belirlenmesi için korelasyon analizi uygulanmıştır. Anlam düzeyi  $p < 0.05$  ve güven aralığı 0.95 kabul edilmiştir parametrik olmayan yani homojen dağılmayan gruplar için ise Kruskal Wallis testi uygulanmıştır. Sonuç olarak; elde edilen bulgular doğrultusunda tenis sporu ile uğraşan üniversite öğrencilerinin batıl inanç ve davranışları arasında  $p > 0,05$  düzeyinde anlamlı bir farklılığa rastlanmamıştır. Yine sporcu öğrencilerin çeşitli değişkenleri ile batıl inançları ile  $p > 0,05$  düzeyinde anlamlı bir farklılığa rastlanmamıştır ancak erkek sporcuların batıl inanç ve davranış tutumları bayan sporculara göre daha yüksek bulunmuştur.

**Anahtar Kelimeler:** Spor, Tenis, Batıl İnanç ve Davranış,

## 1. Introduction

For ages, people have displayed behaviors that are believed but irrelevant to reality in light of the cultural infrastructures of societies in order to turn the events they cannot control in their lives in their favor. In the Turkish dictionary published by Turkish Language Association in the year 2005, the Word superstitious is defined as inaccurate and not right, unstable, ungrounded and baseless (Işık et al. 2015). While making the definition of the word superstitious, researchers emphasize that this notion can have different meanings for definitions according to the cultures of societies. However, the notion “superstitious” has the same meaning nearly in all societies.

The word superstitious is defined in psychology dictionary as “belief of changing the course of natural events with such supernatural or magical powers as pray, magic, black magic, carrying objects believed to bring luck, having an amulet and necromancy” (Budak, 2005). Superstitious beliefs or behaviors recall generally negative concepts like religious ones or superstitions. Actually, superstitious beliefs and behaviors are the concepts that make the world more livable for us, which we attribute the things not explained with logic to supernatural powers and we put the responsibility on divine control mechanisms a bit. As in reality, the behaviors considered as nonsense and odd by some can be the behaviors specific to athletes in sports. We can see that they occur before or during a sports event we watch on TV or live. For example, we see that some football players take the field before or after everyone. Some of them touch the grass, wear a necklace or carry an object on them. Or we witness that a seeding tennis player in the world rank wants to get the same ball for the set point or match point (Bandura, 1997).

We see some athletes wearing the same clothes in training or game and making the same movements. Such behaviors can vary from foods and clothes to the rituals before and after the game and ceasing to have sexual intercourse. It isn't difficult to list such behaviors. We can name these conditions frequently observed in many athletes particularly in elite athletes as superstitious beliefs or behaviors (Bandura, 1997).

## 2. Superstitious beliefs and behaviors

Increasingly improving speed in scientific development particularly in the 20th century even surprises us regarding the inefficacy of previous information twenty years ago; this rapid scientific development makes the greatest contribution to obtaining adequate information and producing new information in order to ensure that our concepts about the world and universe are healthy and realistic. So we know more than our ancestors and get over our fears (Barut, 2008).

There isn't a generally accepted description of superstitious beliefs and behaviors. Because the notions considered as odd and superstitious by some can be perceived as normal and common by others. Moreover, a thing only believed by few today can be a generally accepted idea in the future. Very few people believed in meteors in the past, but today everybody accepts the meteor theory (Batuhan,1995) or giving a reverse example, believing in alchemy in the USA in the 21st century can be considered as a very irrational belief. As believing in alchemy now contradict with the current physics and chemistry laws. However, this belief was in accordance with the scientific data in the 10th century of Iran, people believed that metals could be transformed into gold or silver. Therefore, whether the things are superstitious beliefs and behaviors can change by time and place. So social, cultural and historical context must be taken into account while making the definition of superstitious beliefs and behaviors (Köse and Ayten, 2009). The first social scientists who addressed superstitious beliefs and behaviors defined the superstition as the tendency of explaining an event having a natural cause with supernatural, mysterious and scientifically denied cause(s) (Rudski, 2003; Barut, 2008). Superstitious behaviors occur generally after a superstitious beliefs or acceptance. For example, an individual knocking on wood makes this movement by thinking that s/he will escape from damage. In other words, superstitious behaviors follow superstitious beliefs. However, this cognitive system doesn't always work in this way. An individual can sometimes exhibit superstitious behaviors unconsciously and routinely without having a certain superstitious thought. When we evaluate superstitious beliefs and behaviors as a whole, we see that they are a mix of emotional, cognitive and behavioral factors (Saenko, 2005).

Emotional dimension contains emotional states and processes experienced in connection with such states as fear, worry, anger, excitement, joy, surprise and curiosity. Cognitive dimension is represented with such processes as perception, thinking, dreaming, memory and attention. Behavioral dimension is related to rituals and symbolic behaviors. When we consider these definitions, we see that superstitious beliefs and behaviors have such attributes as being unfounded and irrational, changing by time and place and providing benefits to individuals. In this framework, we can define superstitious beliefs and behaviors as follows: superstitious beliefs and behaviors are the beliefs and practices not complying with sanity and sense of religion, seeming meaningless, providing psychological benefit to individuals and continuing from generations to generations (Rudski, 2003; Barut, 2008).

### **3. Psycho-Sociological Reasons of Superstitious Beliefs**

There can be many reasons of superstitious beliefs and behaviors such as cultural, economic, sociological, psychological and probably biological. However, we can mainly address psycho-sociological reasons here, as the psychological dimension of superstitious beliefs and behaviors is very important for athletes. Every type of superstitious beliefs can occur for a different reason. Therefore, the way to explain a superstitious belief may not be valid for another. A superstitious belief can have more than one reason. Main reasons in this matter can be listed as follows (Ayten and Köse 2009).

- ✓ Not Knowing the Nature of Objects and Events
- ✓ Desire to Know the Future
- ✓ Fear and Stress
- ✓ Despair
- ✓ Sacralization's Change of Direction
- ✓ Need for Security
- ✓ Succeeding and Self-confidence
- ✓ Feeling of Uncertainty
- ✓ Need for Social Cohesion
- ✓ Attributing the Responsibility to Other Powers
- ✓ Dreams and Imagination (Ayten and Köse 2009).

Such reasons as lack of knowledge, conditioning, fear, despair and the desire to know the future can lie at the bottom of superstitious beliefs. But the main reason for superstitious beliefs to become a habit is that these are believed to provide benefit to individuals. People generally refer to superstitious beliefs in hard times and desperate situations. Normally these superstitious beliefs are only beliefs. Therefore, we can conclude that superstitious behaviors realize as directed to a certain benefit and function (Ayten and Köse 2009).

#### **4. Superstitious Beliefs and Behaviors in Sports**

Superstitious beliefs and behaviors directly affect human life negatively or positively. Superstitious beliefs and behaviors believed and adopted as behavioral pattern by many people have become frequently observed behaviors also in sports. Such that, we can see this belief and behavioral pattern nearly in all athletes particularly doing personal sports.

A tennis player wearing the same bracelet all the time may start to attribute the success to the bracelet or a football player who scores a goal when he cuts the edge of his socks may start to take the field by doing the same thing all the time. Besides, many elite athletes in different branches have their own superstitious behavioral tendencies. For example, jumping on feet for certain times while taking the field, being the last person to take the field or cutting the edge of socks are the superstitions mostly used by football players. For basketball players, sending a kiss to the basket in free throws, touching on feet and shoes are some well-known superstitious behaviors. It is observed in tennis players that they always bounce the ball before serving for a certain times or they take the ball with the same hand (Işık et al. 2015).

Athletes use behavioral and cognitive strategies in order to ensure physical performance (Cohn, 1990). We can indicate imaging, relaxation techniques, focusing strategies and handling strategies as an example. Athletes use these preparation techniques in order to increase their performance and they are different from superstitious beliefs and rituals.

First of all, preparations before the performance are made by an expert (especially sports psychologist) individually or specific to team. Secondly, these preparations before the performance focus on cognitive self-control in case an athlete can affect the personal performance results directly. In contrast, superstitious rituals contain a wide range of behaviors related to the conditions increasing the anxiety levels in athletes and considered to have the possibility to affect measurement of control on fortune (Eklund et al. 1993).

Superstitious rituals are generally used for the existence of physical danger or risky activities with high level of failure. Womack has stated that superstitious behaviors are used by athletes to express the situations related to stress, anxiety and danger and the protected emotional stability in order to show the optimal performance (Womack, 1992; Barut, 2008). Particularly in conditions with high level of stress, athletes refer to superstitious rituals in order to ensure control and stability on results and condition. While the trust perceived increases, sense of control and stability creates calm in athletes and soothes excitement and anxiety (Barut, 2008).

## **5. Examples of superstitious behaviors experienced in sports**

Superstitious beliefs and behaviors frequently observed in all branches of sports have attracted attention of nearly everyone. There are many examples of these behaviors which result in fun images in many national and international organizations.

When we look at the superstitious beliefs and behaviors of some famous and elite athletes, below examples have been given in the column published in Sabah newspaper in 2007;

Serena Williams; ties shoelaces in the same way. She takes a shower in the same cabin and wears the same slipper. She bounces the ball for 5 times before the first service and 2 times before the second service.

Ana Ivanovic; 19-year old Serbian tennis player bounces the ball once before service. She tries not to step on white stripes ever.

Goran Ivanisevic; Previous Wimbledon champion is known to park his car in the same place.

Rafael Nadal; 21-year old tennis player puts two bottles of water in front of the chair he will sit in a way to see the field. He doesn't wear socks longer than 15 cm.

Maria Sharapova; The star of courts famous for her screams takes balls from her right side from ball boys. She never takes the ball with her left hand.

Roberto Carlos; it is stated that Carlos considered as one of the biggest outside left of all times cuts his uniform before taking the field.

Gheorghe Hagi; Rumen star who takes the field by cutting the edge of his socks is stated to tell his friends that he is down on his luck in matches when he doesn't cut his socks.

Superstitious beliefs and behaviors in sports can be described with many examples like those given above; however, such behaviors of more popular athletes come into prominence and there are many individuals and athletes who think that they have the same behaviors and they imitate them

## **6. Situational and Personal Components of Superstitious Beliefs and Behaviors in Sports**

People perform superstitious rituals in uncertain conditions and when the result is not only uncertain but also important. What is the reason for that? What kind of people needs to perform these rituals if there is something to affect this concept in personality? Some people consider their environment as controllable, some of them differ from others by feeling stress or self-confidence before a match. And some others are different by being inclined to superstitious beliefs (Buhrmann, 1981; Barut, 2008).

Athletes sometimes use superstitious rituals in order to decrease tension. These tensions are the specific feelings such as feeling of tiredness they develop themselves before or during the game, thoughts like self-doubt and psychological reactions like shivering. These tension reactions can change by opponents and games. If the gap between two teams is close, uncertainty is an important component. If the one is self-confident and beats the other, uncertainty is too low. If one team is as good as and equal to the other one, uncertainty is high. In other words, close status of the opponent creates uncertainty. In conclusion, psychological tension is high when the uncertainty is high (Kahnemann 1984; Barut, 2008).

We can say the things below about the uncertainty. Superstitious beliefs are affected from result-oriented importance. When results are deemed unimportant, individuals feel less tension and more relaxation and psychological tension becomes low. In contrast, individuals feel more psychological tension such as uneasiness, tiredness, obsessed thoughts about the match and increased blood pressure if the results are important. For example, athletes feel more tension in final games than training games. As a result, tendency for superstitious beliefs is more if the importance of results is from low to high. In brief, individuals with superstitious beliefs think that the results of certain events are partially controllable and partially not according to this uncertainty. Controllable powers are not only the power of individual but also others' controls and sources of power. According to attribution theorists, uncontrollable powers are the concepts such as fortune and luck. The more an individual refers to fortune and luck, the more inclined s/he becomes to developing superstitious beliefs and behaviors. As the individual tries to transform the uncontrollable conditions into the controllable ones via his/her superstitious beliefs (Schippers and Lange 2005).

## **7. Method**

A total of 83 athletes composed of 41 females and 42 males who engage in tennis voluntarily participated in the research. Average age of the participants is 21.3765 and standard deviation is 1.60339. Data analysis was performed by using a statistical program in computer. Percentage, frequency, average, standard deviation values were applied for descriptive information, independent t-test for the comparison of different groups, one-way variance analysis (ANOVA) for the comparison of multiple groups and Tukey HSD post-hoc test for the occurrence of differences. Besides, correlation analysis was applied in order to determine the relation between the variables. The significance level was accepted as  $p < 0.05$  and 0.95 value was specified as confidence interval. Kruskal Wallis test was applied for the non-parametric groups not distributed homogeneously.

### Data Collection Tools:

Superstitious Behavior Inventory developed by H.G. Buhrmann and M.K. Zaugg (1981) and adapted into Turkish by Barut (2008) was used to determine superstitious behaviors of athletes.

## 8. Findings

Variable	Groups	N	M	SS	SD	T	P
Sex	Male	42	1.9640	.65048	81	1.145	.256
	Female	41	1.8167	.51075			
<b>Total</b>		<b>83</b>					

**Table: 1 Comparison of Superstition Attitudes in Sports by the Sex Variable**

According to Table 1, there isn't a significant difference at a level of  $p>0.05$  between the sex variable and superstition attitudes in sports. Average point of male participants' superstitious behaviors and attitudes in sports were found to be higher than the female participants.

**Table: 2 Analysis on Superstition Attitudes in Sports by the University Studied**

		Sum of Squares	SD	Average of Squares	F	P
Superstition	Between Groups	2.596	15	.173	.452	.956
	Within Group	25.636	67	.383		
<b>Total</b>		<b>28.232</b>	<b>82</b>			

According to Table 2, there isn't a significant difference at a level of  $p>0.05$  between the variable of university studied and superstition attitudes in sports.

**Table: 3 Analysis on Superstition Attitudes in Sports by the Department Studied**

Variable	Groups	N	M	SS	SD	T	P
Department	Besyö	42	1.8694	.60622	81	-.528	.599
	Other	41	1.9448	.54455			
<b>Total</b>		<b>83</b>					

According to Table 3, there isn't a significant difference at a level of  $p > 0.05$  between the variable of department studied and superstition attitudes in sports. Average point of the athletes' superstitious behaviors and attitudes in sports who study in school of physical education and sports were found to be higher than those studying in other departments.

**Table: 4 Analysis on Superstition Attitudes in Sports by the Class Variable**

		Sum of Squares	SD	Average of Squares	F	P
Superstition	Between Groups	1.428	79	.476	1.403	.248
	Within Group	26.804	3	.339		
<b>Total</b>		<b>28.232</b>	<b>82</b>			

According to Table 4, there isn't a significant difference at a level of  $p > 0.05$  between the variable of class studied and superstition attitudes in sports.

**Table: 5 Analysis on Superstition Attitudes in Sports by the Answers Given to the Question for Importance of Success in Sports**

		Sum of Squares	SD	Average of Squares	F	P
Superstition	Between Groups	.846	2	.423	1.236	.296
	Within Group	27.386	80	.342		
<b>Total</b>		<b>28.232</b>	<b>82</b>			

According to Table 5, there isn't a significant difference at a level of  $p > 0.05$  between the answers given to the question for importance of success in sports and superstition attitudes in sports.

**Table: 6 Analysis on Participant Athletes' Superstition Attitudes in Sports by Their Age**

		Sum of Squares	SD	Average of Squares	F	P
Superstition	Between Groups	.640	2	.320	.928	.400
	Within Group	27.592	80	.345		
<b>Total</b>		<b>28.232</b>	<b>82</b>			

According to Table 6, there isn't a significant difference at a level of  $p > 0.05$  between the age of participant athletes and superstition attitudes in sports.

**Table: 7 Analysis on Superstition Attitudes in Sports by Participant Athletes' Duration of Doing Sports**

Score	Groups	N			P
Importance of Sports Success	0-5 years	21	36.12	3.214	3
	5-10 years	24	41.96		
	10-15 years	21	43.83		
	15 years and more	7	54.36		
<b>Total</b>		<b>83</b>			

According to Table 7, there isn't a significant difference at a level of  $p > 0.05$  between the participant athletes' duration of doing sports and superstition attitudes in sports. According to data results of the study, we can say that the longer the duration of doing sports is, the more superstitious behaviors in sports increase.

## 9. Discussion and Conclusion

Today's sports have advanced a lot depending on the technological and socio-economic developments and it is performed by many people as a profession. Many institutions, organizations, private companies, federations, clubs, sponsors, trainers, athletes and fans benefit from the opportunities offered by the sports concept and continue with bonds of love. The leading actor of the sports notion is athletes who perform this activity. Everything including the clothes of athletes, their accessories, haircuts and cars directly affects those establishing bonds of love and they try to adapt the daily habits of their favorite athlete for themselves. They try to dress and talk like them. Another dimension of this intense interest for sports is to get away from the stress a bit caused by busy schedule apart from physical activity or exercise.

Participation in sports activities is ranked among the individual stress management methods. Thanks to the sports activities, individuals can develop different perspectives and can be tolerable with the energy of different environments (Korkmaz et al. 2015). In the light of this information, we can say that there are many factors in sports and many social and psychological conditions in terms of athletes, trainers and fans. One of these conditions is superstitious beliefs and behaviors in sports.

It is a fact that many people can do things that are hard to believe for the sake of superstitions. Superstitious beliefs and behaviors of tennis players were tried to be determined in this study performed on these beliefs and behaviors of athletes and data obtained following the analyses conducted were discussed in this part.

When we analyzed the statistical analyses, there wasn't a significant difference at a level of  $p>0.05$  between superstitious beliefs and behaviors of tennis players by the sex variable (Table:1). Işık et al. (2015) couldn't find a significant difference in superstition tendencies of athletes in terms of genders in their study. Our study is in parallel with the study of Işık et al. (2015) in this way. It can be expressed that believing in superstitions isn't related to genders, it depends on the beliefs and behaviors of athletes. Regarding the relation between genders, it was determined that average point of male athletes' superstitious beliefs and behaviors were higher than female athletes. In the study of Tunçel (2013), a significant difference couldn't be found between genders in terms of superstitious beliefs and behaviors. It shows parallelism with our study from this aspect. However, Tunçel (2013) specified that the average point of female participants for superstition attitudes were higher than male

participants. It doesn't show parallelism with our study, accordingly. In the study of Köse and Ayten (2009), they determined that female participants had more superstition attitudes than male participants. It doesn't show parallelism with our study from this aspect.

When the relation between the universities of student athletes was analyzed, a significant difference at a level of  $p>0.05$  wasn't found (Table:2). This can be expressed in a way that the universities of individuals don't play an active role in their beliefs and behaviors. There wasn't a significant difference at a level of  $p>0.05$  (Table:3) between the variable of participants' departments studied and superstition attitudes in sports. However, average point of the athletes' superstitious behaviors and attitudes in sports who study in school of physical education and sports were found to be higher than those studying in other departments. The reason for the higher average point of the participants studying in institutions that give sports education in comparison to those studying in other higher education institutions can be that as the student athletes receiving sports education are more competitors, they are in closer relation with the psychological dimensions of sports. As a result of the comparison made for classrooms where students receive education, it is seen that there isn't a significant difference at a level of  $p>0.05$  for superstition attitudes in sports. When the perception of success in sports being another variable was analyzed, significant differences weren't observed between the participants' perception on the importance of success in sports and superstition attitudes in sports. It is seen that athletes address the importance of success as more winning oriented. Therefore, a significant result couldn't be reached between superstition attitudes and them.

When the superstitious beliefs and behaviors of the participants in sports by the age variable were analyzed, significant differences of  $p>0.05$  (Table:6) weren't found. In the study of Köse and Ayten (2009), they determined that there wasn't a significant difference between superstition attitudes and the age variable. Işık et al. (2015) didn't find any significant differences between the age variable of participants and superstitious beliefs and behaviors in sports. In this regard, these two studies show parallelism with our study. There wasn't a significant difference at a level of  $p>0.05$  (Table:7) between the participant athletes' duration of doing sports and superstition attitudes in sports. According to data results of the study, the longer the duration of doing sports is, the more superstitious behaviors in sports increase. As stated before, the reason is that individuals who participated in active sports events as competitors are in close relation with all psychological and physical factors included in sports notion.

As a result of the study conducted with the purpose of determining the superstitious beliefs and behaviors of student athletes in sports, it has been concluded that superstition attitudes of athletes don't differ significantly by age, sex, perception of importance of success in sports and the classes studied according to data obtained from the research. Another result of our study is that as the student athletes receiving sports education are more competitors, their superstitious beliefs and behaviors in sports are higher. Another interesting result of many other studies is that female participants have more superstitious beliefs and behaviors than male participants. However, it is stated in this study that superstitious behaviors and attitudes of male participants in sports were found to be higher than the female participants according to data in Table 1.

It is known that superstitious beliefs and behaviors being one of the psychological dimensions of sports that is a highly active political power and addresses nearly all parts of the society today have always been and will be involved in sports.

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