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## The Examination of Trait Anxiety Level of Referees in Different Branches (The Sample of Mugla)

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### Abstract

The aim of this study to examine the trait anxiety level of referees in different branches in terms of some variables. For the model of the research, the survey model, one of the quantitative research types, was chosen. While the population of the research is composed of referees working in different branches in Mugla Province, the sample is composed of 167 referees who have been chosen by a randomized sampling method and participated in the research voluntarily. The authors designed a personal information form for the demographical information of the participants. The "Trait Anxiety Inventory" developed by Spielberger, Gorsuch and Luschene (1) (1970) and adapted to Turkish by Oner and Le Compte (2) (1983) was used to determine the participants' anxiety levels. The data obtained from the form and scale used were analyzed using the SPSS 17 package program. Frequency, percentage, average, and standard deviation values were used in the analysis of the data. Data normal distributions were analyzed with Skewness-Kurtosis values. Since the data showed normal distribution, t-test and ANOVA test, which are parametric tests, were used, and the significance level was accepted as  $p < 0.05$ . According to the findings of the study, while the anxiety levels of the referees showed significant differences in terms of gender, they did not display a significant difference with the variables of age, education level, refereeing time and refereeing classification. Consequently, the trait anxiety levels of female referees are significantly higher in favor of the trait anxiety levels of male referees. This study revealed that anxiety-reducing training should be focused on reducing the trait anxiety situations that female referees experience more than male referees.

**Keywords:** Referee, Trait anxiety, Gender differences

### 1. Introduction

Many definitions of anxiety are available in the literature. Anxiety, the source of which cannot be clearly defined, can be defined as an uneasy feeling or an unreasonable fear, can also be called "worry" in daily life (3). This situation, known as anxiety, also corresponds to the word distress in Turkish. It is known that all people experience fear and feel anxious at certain times.

For this reason, measuring the anxiety levels of individuals is essential for psychology science and educators. In this century, which is called the "Age of Anxiety," anxiety emerged as a need to be recognized and diagnosed (2). When a person thinks that her/his self-values are threatened or interprets the situation under stress pressure, she/he is anxious, and this type of anxiety is called trait anxiety (4).

Those interested in the science of psychology are also working to produce several solutions for sports and athletes (5). Many psychological facts affect performance in sports, and one of these is the anxiety factor (6). Being physically perfect is no longer considered sufficient to maximize performance in the sports environment (7). Just like the athletes, the referees in the sports environment have a psychological capacity, and this psychological aspect is at least as necessary as the physical features. It is for this reason that referees who experience emotional changes like all other people, even though they are physically ready, do not achieve success. Considering that many referees who are high-level referees have excellent skills in terms of physical, physiological, and psychological capacity, it is necessary to consider the psychological dimension in improving sports performance (8).

When the literature is analyzed, it is emphasized that the anxiety situation, which is handled under a psychological dimension, is at least as necessary as the physical capacity for people in the sports environment. Since the decisions of the referees are known to be very important during a sports competition, research is needed to identify and resolve their anxiety situations. For this reason, in this study, we tried to



analyze this situation by using variables such as gender, age, classification, educational status, and year of refereeing. Many studies have been done in sports environment or outside this field, such as amateur, professional, athlete, and coach (7, 9, 10, 11, 12, 13). These studies have attempted to reveal to what extent anxiety is affected by different factors or the level of anxiety on athletes or non-athletes. The gender variable is also an essential factor in the sports environment, because of the concepts of masculinity and femininity, different sports branches are not considered suitable for men or women (14). Despite this, few studies have included the relationship between anxiety levels and gender of referees. This situation increases the importance of this research. On the other hand, the limited number of studies on the psychological status and trait anxiety of the referees also increases the importance of such research. For this reason, we think that the research will contribute to the literature.

This research aims to examine the level of anxiety of the referees who are active in different branches in terms of various variables. In this study, it was assumed that the participants sincerely answered the scale questions, the research sample represented the population, and the scale used in the research was able to measure the level of anxiety of the referees. Besides, the data obtained from the research findings were limited to the scale used and the referees who actively worked in different branches in Mugla province in 2016-2017 and participated in the research voluntarily.

The hypotheses of this study, which was carried out to examine the level of trait anxiety of the referees in terms of various variables, are as follows:

1. The trait anxiety level differs significantly regarding gender.
2. There are no significant age differences in terms of trait anxiety.
3. The trait anxiety levels do not vary significantly according to educational level.
4. There are no significant refereeing time differences in terms of trait anxiety.
5. The trait anxiety does not significantly vary according to classification.

## 2. Method

### 2.1. Research Model

For the model of the research, the survey model, one of the quantitative research types, was chosen.

### 2.2. Study Group

While the population of the research is composed of referees working in different branches in Mugla Province, the sample is composed of 167 referees who have been chosen by a randomized sampling method and participated in the research voluntarily.

### 2.3. Data Collection Instrument:

The authors designed a personal information form for the demographical information of the participants. The "Trait Anxiety Inventory" developed by Spielberger, Gorsuch, and Luschene (1) (1970) and adapted to Turkish by Öner and Le Compte (2) (1983) was used to determine the participants' anxiety levels. The scale, which was developed by Spielberger, Gorsuch, and Luschene (1) (1970) to determine the level of trait anxiety of individuals and adapted to Turkish by Öner and Le Compte (2) (1983), consists of 20 questions in total. The answers given to the items are 4-point Likert type. It means 1 (Seldom), 2 (Sometimes), 3 (Mostly), 4 (Always). Direct expressions on the scale express negative emotions, and reversed expressions express positive emotions. Reverse coded expressions are articles 1, 2, 5, 8, 10, 11, 15, 16, 19 and 20. The total score value obtained from the scale varies between 20 and 80. According to the created anxiety point averages, between 20 and 35 points correspond to low anxiety levels, 36 to 42 medium anxiety levels, and 42 to 80 high anxiety levels (2). A high score indicates that the level of anxiety is high. Alpha coefficient of the scale is 0.67; the Alpha reliability coefficient was found as 0.70.

### 2.4. Data Analysis:

The data obtained from the form and scale used were analyzed using the SPSS 17 package program. Frequency, percentage, average, and standard deviation values were used in the analysis of the data. Data normal distributions were analyzed with Skewness-Kurtosis values. Since the data showed normal distribution, t-test, and ANOVA test, which are parametric tests, were used, and the significance level was accepted as  $p < 0.05$ .



### 3. Results

The descriptive statistics test, T-test and ANOVA test results in order to determine whether the levels of constant anxiety of the referees differ according to various variables are presented in this part of the research conducted in order to examine the level of anxiety of the referees who are active in different branches in terms of various variables.

*Table 1. The demographic characteristics of the referees*

Variables		n	%
Gender	Female	40	24
	Male	127	76
Age	18 years and under	19	11.4
	Between 19 and 22 years	63	37.7
	Between 23 and 25 years	47	28.1
	Between 26 and 29 years	22	13.2
	30 years and above	16	9.6
Educational Level	High school education	25	15
	Associate education	5	3
	Undergraduate education	125	74.9
	Postgraduate education	12	7.1
Year of refereeing	One year and below	74	44.3
	Between 2 and 3 years	70	41.9
	Between 4 and 5 years	13	7.8
	Six years and over	10	6
Classification	Province	66	39.5
	Candidate	93	55.7
	National	6	3.6
	Observer	2	1.2
<b>Total</b>		<b>167</b>	<b>100</b>

*Table 2. T-Test results of the referees' anxiety levels by gender variable*

Variable	Gender	N	Mean	Sd	Df	t	p
Trait Anxiety	Female	40	49.20	5.24	165	2.268	.025
	Male	127	47.04	5.23095			

( $p < 0.05$ )

When table 2 is examined, it is seen that there is a significant difference between genders in terms of trait anxiety levels of the referees ( $p < 0.05$ ). The trait anxiety levels of female referees were higher than males.

*Table 3. ANOVA Test results according to age variable of trait anxiety levels of referees*

Variable	Age	n	Mean	SD	f	p
Trait Anxiety	18 years and under	19	45.57	4.98	.863	.487
	Between 19 and 22 years	63	47.95	5.17		
	Between 23 and 25 years	47	47.40	5.95		
	Between 26 and 29 years	22	48.00	4.91		
	30 years and above	16	48.25	4.58		

( $p > 0.05$ )

When table 3 is analyzed, it was seen that the level of trait anxiety of the referees did not change according to the age variable ( $p > 0.05$ ). The trait anxiety levels of the referees who are 30 years old and above are higher than the referees in the other age group.

**Table 4.** ANOVA test results according to the education level of the trait anxiety levels of the referees

Variable	Educational Level	n	Mean	SD	f	p
Trait Anxiety	High school education	25	46.68	5.00	1.081	.359
	Associate education	5	44.40	3.97		
	Undergraduate education	125	47.75	5.41		
	Postgraduate education	12	48.75	4.93		

(p&gt;0.05)

When Table 4 is analyzed, it is seen that the level of trait anxiety of the referees does not change according to the educational status variable (p> 0.05). The trait anxiety levels of referees with postgraduate education were higher than referees with other education levels

**Table 5.** ANOVA test results of trait anxiety levels of referees according to the variable of the year of the refereeing

Variable	Year of refereeing	n	Mean	SD	f	p
Trait Anxiety	One year and below	74	47.16	5.44	.297	.828
	Between 2 and 3 years	70	47.97	5.42		
	Between 4 and 5 years	13	47.84	5.04		
	Six years and over	10	47.30	3.94		

(p&gt;0.05)

When Table 5 is analyzed, it is seen that the levels of trait anxiety of the referees do not differ according to the time of the refereeing variable (p> 0.05). The trait anxiety levels of the participants who are refereeing between 2 and 3 years are higher than the other referees.

**Table 6.** ANOVA test results of trait anxiety levels of referees according to the variable of the classification

Variable	Classification	n	Mean	SD	f	p
Trait Anxiety	Province	66	48.53	5.57	1.750	.159
	Candidate	93	46.81	5.12		
	National	6	47.16	3.71		
	Observer	2	51.50	2.12		

(p&gt;0.05)

When Table 6 is analyzed, it is seen that the level of trait anxiety of the referees does not change according to the referee classification variable (p> 0.05). The trait anxiety levels of the participants who were working as observers were higher than the referees working in other classifications.

#### 4. Discussion and Conclusion

This research aims to examine the level of anxiety of the referees who are active in different branches in terms of various variables. In this section, the results obtained from the research findings are given, and the relationship of these results with the related literature is discussed. Suggestions are made for other studies to be conducted.

According to the finding of the test conducted in line with the 1st Hypothesis of the research (The trait anxiety level differs significantly regarding gender), a significant difference between genders in terms of trait anxiety levels of the referees was found (Table 2). This significant difference resulted from the trait anxiety levels of female referees compared to male referees. This result supports our hypothesis. This result is consistent with the results of Arslanoğlu, Tekin, Arslanoğlu, and Özmutlu (8) (2010), Bozkurt (15) (2004), Rosenthal and Schreiner (16) (2000), Saripeke (17) (2010) and Tekin, Mutlu and Bayraktar (18) (2007).

When the literature is analyzed, it is seen that female referees are exposed to verbal violence by players, coaches, and fans and perceive these events as a source of threat (14, 19). Therefore, it can be seen that female referees have higher levels of anxiety than male referees. There are also studies in the literature that are not similar to the findings of our study (20, 21, 22). These contradictory findings may be since these studies were conducted with different sample groups (mostly football) and different variables.

According to the finding of the test conducted in line with the 2nd Hypothesis of the research (There

are no significant age differences in terms of trait anxiety), the level of trait anxiety of the referees did not change according to the age variable (table 3). The trait anxiety levels of the referees who are 30 years old and above are higher than the referees in the other age group. The hypothesis is accepted with this result. When the literature is analyzed, the findings obtained by Arseven and Güven (23) (1992), Civan (24) (2001), Çoban (25) (2004), and Özbekçi (26) (1989) are similar to our research findings. In the literature, the fear that the successes achieved with the increasing age and classification of the referees turn into failure with a single match and a single whistle that the referee plays is seen as an unavoidable situation when combined with the fear of not being able to serve again in the same classification. However, referees, who are at the beginning of their career due to age, act more comfortably as they are not yet aware of their gains or losses (25). For such reasons, it can be seen that the older referees in our research are more anxious than younger referees and the younger referees are less concerned. In the literature, some studies are not similar to the findings of our study and have a significant difference between the age variables regarding trait anxiety (27, 28). These contradictory findings may have resulted from the referees participating in the researches from different branches, different cultures, personal characteristics, and different classifications.

According to the finding of the test conducted in line with the 3rd Hypothesis of the research (The trait anxiety levels do not vary significantly according to educational level), the level of trait anxiety of the referees did not change according to the educational level variable (table 4). The trait anxiety levels of referees with postgraduate education were higher than referees with other education levels. The third hypothesis is accepted. When the literature is analyzed, the findings obtained in the studies of Arslanoğlu, Tekin, Arslanoğlu, and Özmutlu (8) (2010), Çoban (25) (2004), Küçükyılmaz (29) (2019) and Taşgin, Kaplan, Baydil, and Taşgin (30) (2006) are in line with our findings. In the literature, it is mentioned that the fact that most of the people who do the refereeing profession also has a different profession and that this other profession is related to sports is useful in low levels of anxiety of the referees (31). A high level of anxiety of referees with a high level of education may be due to such reasons. There are also studies in the literature that are not in line with our study (27, 28, 32). These opposing findings in the studies may have resulted from the different personal situations of the referees.

According to the finding of the test conducted in line with the 4th Hypothesis of the research (There are no significant refereeing time differences in terms of trait anxiety), the level of trait anxiety of the referees did not change according to the refereeing time variable (table 5). The trait anxiety levels of the participants who are refereeing between 2 and 3 years are higher than the other referees. The fourth hypothesis is accepted. When the literature is examined, the results of Alıncaka, Afyon and Özdayı (33) (2011), Çoban (25) (2004), Kolayış, Taşkiran, Ulusoy, Sertbaş and Gönener (34) (2002), Yalçın, Soyer, Ramazanoğlu and Aksu (28) (2016), and Zorba, Göksel, Pala and Zorba (35) (2016) supported our findings. In the literature, anxiety is stated to be the factor that exists in every person and can be controlled by education (36).

The referees need to be ready psychologically as well as their physical competencies. The reasons such as the referees participating in the research were in a good psychological state or have received different training can be a factor in the anxiety not changing according to the year of refereeing. The work of Bayraktar, Tekin, Eroğlu, and Cicioğlu (27) (2006) contrasts with the research finding. This can be the reason that the referees in the studies may have been influenced by different education, culture, family, income and many other factors.

According to the finding of the test conducted in line with the 5th Hypothesis of the research (The trait anxiety does not significantly vary according to classification), the level of trait anxiety of the referees did not change according to the classification variable (table 6). The trait anxiety levels of the participants who were working as observers were higher than the referees working in other classifications. The fifth hypothesis is accepted. When the literature is analyzed, the results of Arslanoğlu, Tekin, Arslanoğlu and Özmutlu (8) (2010), Zorba, Göksel, Pala and Zorba (35) (2016) supported our findings. It is known in the literature that the young and inexperienced referees are more concerned than experienced referees (38). Although the classifications of the referees participating in the research did not show any significant difference in terms of anxiety, variations between anxiety levels may be due to this reason. Different studies contrast with the research findings (25, 27, 31). This contrast between findings may have resulted from differences such as athletic experiences and career experiences.

The findings of the research indicate that the level of anxiety of the referees who are active in different

branches displayed a significant gender difference. There were no significant differences with the variables of age, level of education, year of refereeing, and refereeing classification.

As a result of the research:

- The trait anxiety levels differ significantly in favor of male referees.
- The trait anxiety levels of referees aged 30 and over are higher than referees in the other age group.
- The trait anxiety levels of the referees with a postgraduate degree are higher than the referees at the other education level.
- The trait anxiety levels of the participants who have been refereeing between 2 and 3 years are higher than other referees.
- The trait anxiety levels of the participants working as observers are higher than the referees working in other classifications.

Based on the results of the research, the following suggestions can be made for future research:

- Based on the 1st Hypothesis of the research, attention can be paid to selecting samples from the same branches and making comparisons accordingly.
- Based on the 2nd and 3rd Hypothesis of the research, it can be noted that the participants are composed of similar personal characteristics.
- Based on the 4th Hypothesis of the research, the use of more variables, and the creation of a hypothesis will clarify the literature. Besides, the anxiety tests used in research can be applied to the same individuals at different times.
- Based on the 5th Hypothesis of the research, athletic experience, achievement, and career level can affect the level of anxiety. Considering such matters is another suggestion of this study.
- Based on the most important result of the research, training should be focused on reducing the trait anxiety conditions that female referees experience more intensely than male referees.

#### Conflict of interest

The authors declare that they have no conflict of interest.

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