

## **Determining the Validity and the Reliability of the Mobbing Scale for the Football Referees**

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### **Abstract**

The purpose of this study is to analyse the validity and reliability of the Mobbing Scale for the Football Referees (MSFR), prepared for determining the levels of psychological mobbing behaviours that the active football ranking referees in the Turkish Football Federation are exposed to.

An attempts to develop the scale was made by having prepared a test scale consisting of 45 items of five-point Likert type and then applied to the referees and then a factor analysis method was used which changed the large number of variables by making them a small number of significant and independent from each others factors. According to the data acquired from the factor analysis procedure, the scale showed 21 + 12 items and a structure of three + two components. It was found out that the first 21 items in the scale were formed from three sub-dimensions (attack on the profession of the individual, attack on the sociability of the individual, attack on the personality of the individual), whereas the 12 items were formed from two sub-dimensions (Sports and social environment). The total variance of the scale explained in attack dimensions (21 items) on the individual's profession, sociability, and personality was calculated as 61.32, and its cronbach's alpha internal consistency coefficient was calculated as 0.92. And its factor loadings were observed between 0.50 and 0.86. And the total variance which explains the sub-dimensions of the sports and social the environment (12 items) was calculated as 88.7, and the Cronbach's alpha internal consistency coefficient as 0.97. The factor loadings were found to be between 0.66 and 0.88. When taking into consideration the values obtained from the scale, it can be said that the Mobbing Scale Related to the Football Referees was a valid and a reliable scale.

**Key Words:** Mobbing, Football referees, Scale Development, Validity and Reliability

## 1. Introduction

The mobbing concept, having been investigated with a growing interest around the world by the employees working in the field of organizational psychology, is a phenomenon not much used and not much considered in Turkey. Although not too much known as a concept, it was observed that the mobbing behaviors which are directly or indirectly faced by almost everyone in the business world, may adversely and significantly affect the business success and the productivity (Kök, 2006).

Field (2004) defines the mobbing concept which causes adverse effects as a constant and a brutal attack on the self-confidence and the self-esteem of the mobbing victims. And Einarsen (2000) defines the mobbing as rude behaviors that the employees and the administration mostly accept in a long-term process and the level of which increase in time and this increase of the actions is not noticed by most of the people. And Yüçetürk (2002) defines the mobbing behaviors as frequently applied in the organization hostile acts which continue for a long time. Leymann defines the mobbing concept as a psychological violence or a psycho-terrorism occurring as a result of the hostile and immoral systematical practices of one or more persons upon other person or persons (Zaft et al., 1996). Mobbing is an emotional assault and its purpose is to cause the persons who are unwanted in the organization or wear away at these persons to leave work by applying pressure on them and therefore they do not have the strength to resist (Kirel, 2010).

Intimidation (mobbing) is discussed in the literature with many concepts. In Turkish and the other languages, the certain equivalents preferred for use instead of mobbing are: emotional lynch in the workplace, psychological terror at work, workplace trauma, psychological harassment in the workplace, emotional assault at the workplace, and so on. However, none of these concepts haven't got the scope to meet exactly the concept of mobbing (Çobanoğlu, 2005).

One of the most important reasons underlying these problems that has a widespread influence area and even profoundly affect one's mental health and work efficiency, are the emotional attacks which can be referred to as mobbing acts which no doubt are unnamed kept secret so far, but known to be intensely experienced at the workplace (Uzunçarşılı, 2007). Preventing of this kind of behaviors in organizations depends on rational attitudes and giving importance to human resources. It is stated that the mobbing behaviors are rare in organizations practicing this kind of implementation (Ocak, 2008).

In order that the football referees, making the content of the study, may fulfill their tasks, should both mentally, as well as physically, feel themselves well. Versatile features such as knowledge of the game, communicating and assessment capabilities are needed for the profession of refereeing, which is considered particularly as a risky job (Hançerlioğlu, 1992). In addition to these features, the referee should know which are the mobbing behaviors which may adversely affect the profession of refereeing and how can he cope up with them.

In this context and in this study, it was aimed at preparing a Mobbing Scale related to the Football Referees, and having the idea that the football referees, who affect large masses by their decisions given during the match and who make agenda, may be exposed to mobbing behavior in their environments, and thus we tried to determine the mobbing perception levels of the football referees.

## 2. Method

### Research model

The main purpose of this study is to develop a scale to determine the mobbing acts that the active football referees suffer. In order to be able to put forth the current situation related to whether or the football ranking referees are exposed to such mobbing behaviors and if they are exposed to such behaviors by whom they are exposed to such behaviors, we tried to obtain their opinion by a general screening model. According to Karasar (2003), the studies describing this condition as it exists, are being considered under the scope of a scanning model. Accordingly, it can be said that this study model is based on a scanning model.

### Population and Sampling

The population of study; it consists of total 638 ranked referees with a different ranking standings, actively performing their duties in the professional and the amateur leagues of the Turkish Football Federation (<http://www.tff.org/Default.aspx?pageID=161>, 2012). And its sampling is consisted of total 310 referees of different ranking standings, chosen among the population with random selection and who has been performing their duties in various leagues of the Turkish Football Federation. The surveyed referees were informed about the negative behaviors and in accordance with this information, the answers to the questions were sought in order to ascertain what were the psychological mobbing behaviors which the referees were exposed to and the level of the psychological mobbing and what were the other factors implementing psychological mobbing on the referees, carrying out their duties with the central committee of the referees. The descriptive statistics forming the first part of the scale of the sampling are shown in the following table.

**Table 1.** Demographic Variables of the Participants

<i>Demographic Variables of the Participants</i>		<i>N</i>	<i>%</i>
Gender Status	Male	10	3,2
	Female	300	96,8
	<i>Total</i>	310	100
Marital Status	Single	114	37,1
	Married	195	62,9
	<i>Total</i>	310	100
Age Status	18-22 age	6	1,60
	23-27 age	83	22,2
	28-32 age	137	36,6
	33-37 age	131	35
	38-42 age	17	4,5
	<i>Total</i>	310	100
Educational Status	Secondary Education	8	3,5
	Higher Education	37	12,3
	License	220	70,9
	Post Graduate	45	13,4
	<i>Total</i>	310	100
Time of Refereeing	1-4 years	9	2,9
	5-8 years	61	19,7
	9-12 years	123	39,7
	13-16 years	100	32,3
	17-20 years	17	5,5
	<i>Total</i>	310	100
Referee Ranking	FIFA Referee	1	,3
	Top Ranking Referee	37	11,9
	Top Ranking Asst. Referee	29	9,4
	Ranked Referee	110	35,5
	Ranked Asst. Referee	127	41,0
	Female Ranked Referee	6	1,9
	<i>Total</i>	310	100

It has been ascertained that the surveyed referees in Table 2 consisted of male ( $f = 300$ ) in general and were married ( $f = 195$ ), were between 28-32 years of age ( $f = 36.6$ ), they had a graduate degree ( $f = 70.9$ ), they have been working for 9-12 years ( $f = 123$ ) and were ranked standing assistant referees ( $f = 127$ ). Considering the suggestion (Arli and Nazik, 2001) that the number needed to be achieved in the study, in descriptive studies, in small populations should be 20%, so it can be said that the number in the sampling represented the population.

### **Mobbing Scale Form for the Football Referees**

In the first stage of the scale development process, the relevant area related to the literature of mobbing was scanned and the overview of the mobbing subject and the surveyors' method of approaching the mobbing behaviors have been assessed. Three specialists who surveyed the mobbing subject were consulted while preparing the scale. Besides, persons who carried duties for long years in various ranking as referees have been consulted regarding the prepared questions (the former football referees and the observers, the chairman of the association, the former FIFA referees, the former top ranked and ranked referees), and the scale has been corrected in accordance with their opinion and suggestions. A questionnaire in the Mobbing Scale On Football Referees, consisted of 45 items, has been prepared regarding the mobbing behaviors. These questions have been developed by Einarsen ve Rakness (1997) and questions have been developed by having been adapted to the profession of refereeing from "the negative behaviors scale", translated into Turkish by Cemaloğlu (2007), "Mobbing questionnaire" developed by Cemaloglu ve Ertürk (2007), "scale of emotionally hurtful behaviors in the workplace" by Gökçe (2006), and some questions from the "mobbing scale prepared for teachers" by Tanhan ve Çam'ın (2009). 5-point Likert type rating scale was used to determine the levels of mobbing behaviors in the scale. The rating scale is with options "1-Never", "2-Rare", "3-Occasionally", "4-Most of the time" and "5-Always". The questions in the scale which were unnecessary, confounding the respondents and incoherent have been removed and a validity and reliability study have been carried out in the statistical package program and hence, the scale has taken its final form. This developed scale consisted of three parts. In the first part there were 6 items in order to determine the demographic information of the referees, and in the second part there were 21 items in order to determine the levels of exposure of the referees to the mobbing behaviors. And in the third part there were 12 items in order to determine which are the factors in general which apply psychological mobbing on the referees.

In the validity and the reliability study of the Mobbing Scale of the Football Referees (MSFR), it was ascertained that the 21 items have been formed of three sub-dimensions (attacks on the individual's personality, sociability and profession), and the 12 items have been formed of two sub-dimensions (Sports and social environment).

## **3. Findings and Discussion**

### **Data Collection**

In the process of collecting research data, primarily the scale, made by taking the necessary permissions from the Turkish Football Federation, was subjected to pilot implementation and the questions prepared during the pre-test were applied to 310 people and

the answers were gotten. Considering my suggestion (Gorsuch, 1983; Bryman and Duncan, 1997) that the number of items should be at least five time more to be able to make the procedures such as the factorial analysis, the item analysis of the scale, it can be said that the number of people reached was sufficient.

### Testing the Data for Suitability with the Analysis

Before being able to make the analysis of the basic components on the data obtained from the application made on the sampling of the research of the Mobbing Scale of the Football Referees (MSFR), it was tested whether the data is suitable for the analysis. For this purpose, the Kaiser-Meyer-Olkin (KMO) and Bartlett tests were performed.

**Table 3.** KMO and Bartlett Tests of Article 21 Available in Second Part of MSFR

<i>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</i>		,881
	Approx. Chi-Square	4183,306
<i>Bartlett's Test of Sphericity</i>	Df	210
	Sig.	,000

The KMO value, calculated when the table was examined, was found 0.881 (Bartlett;  $\chi^2=4183.306$ ;  $p<0.00$ ). In the event that KMO value, calculated according to Pallant, is being found 0.60 and above, it becomes possible to realize the analysis procedure of the basic components on the available data set (Kaya, 2005). The calculated KMO value and the Bartlett Chi-Square value, are tests for determining the sufficiency of the sampling size and the normality of the distribution. Thus, the distribution of the data set of the scale scores were found suitable and it was convincing that the data was suitable to the analysis of the basic components.

### Validation Studies of the Mobbing Scale of the Football Referees (MSFR)

#### Content Validity

At this stage was examined whether the MSFR had a content validity. The content validity is related to the measurability of the measurement desire of the scale and can be explained relying on the expert opinion (Balci, 2007). The statements of mobbing behaviors on the football referees listed in the form, which was created for this purpose, the opinions of three field specialists who received a doctoral degree in educational sciences were taken in order to evaluate how sufficient were they in measuring the mobbing behaviors, described in the literature. It has been concluded that MSFR, according to the critiques received, was an information-gathering tool, having the appropriate content for measuring the mobbing behaviors on the football referees.

**Table 4.** Descriptive Findings Related to Studies of Structural Validity of the Second Part (21 items) of MSFR

<i>Components and Items</i>	<i>Item Factor Load Values</i>	<i>Items Total Correlation</i>	<i>Eigenvalue</i>	<i>Explained Variance (%)</i>	<i>Explained Total Variance (%)</i>
<i>1- DIMENSION OF PERSONAL ATTACK</i>					
M 1. My speech is constantly interrupted at the Referees Meeting.	,865	,911			
M 2. Unfounded rumors circulate about me at large.	,795	,813			
M 3. I can't take a task in a match/matches due to practicing a profession outside the refereeing.	,766	,809			
M 4.	,728	,785	8,61	25,66	
M 5.	,727	,753			
M 6. A doubt is casted on my honor and dignity.	,690	,814			
M 7. There is a pressure on me in using/not using my legal rights.	,660	,673			
M 8.	,632	,698			
M 9. Having been constantly given a task in the matches, is being considered as flattery and a favor by some people.	,504	,615			
					61,32
<i>2- DIMENSION OF SOCIAL ATTACK</i>					
M 10.	,828	,826			
M 11. I get verbal threats involving physical violence.	,795	,834			
M 12. I don't want to take a task due to the negative reactions and behaviors and allege an excuse.	,782	,810			
M 13.	,713	,757	2,64	21,07	
M 14.	,701	,740			
M 15. While the rules are applied, there is a discrimination and I'm not judged with the same criteria as the other referees.	,666	,726			
<i>3- DIMENSION OF PROFESSIONAL ATTACK</i>					
M 16.	,777	,799	1,61	14,58	
M 17. The decisions I take are being criticized in the end	,750	,817			

of the match and during the match .

M 18.	,665	,768
M 19 I'm given a task over and over again for matches which require lesser skill, compared to may knowledge and skills I have.	,640	,734
M 20.	,559	,603
M 21. I'm not given any opportunity to show myself in terms of refereeing.	,551	,605

When the table is being examined, it is observed that the total variance of the second part of MSFR is 61.32, and its eigenvalue greater than 1 and has a three-component structure. Besides, it was observed that the variance ratio alone expressed the personal attack component and its eigenvalue was higher than all other components. Based on the findings of the study, it can be said that the scale items exhibit a homogeneous structure. This is because the correlation coefficient calculated between each item and the total score is between 0.60 and 0.90. Besides, the item factor load values of the scale are between 0.50 and 0.86. It can be said that both the items' total correlation values and the item factor load values are in the range of acceptable values. In addition, Cronbach's alpha coefficient of internal consistency was used to determine the level of reliability level of the scale. In this process, both the total alpha coefficient of the scale and the alpha value of sub-components were calculated as well. According to the obtained data, it was observed that the alpha value calculated for the 21 items in the second part of the scale was 0.92; the personal attack component was 0.91, the social attack component was 0.87, and the professional attack component was 0.82. In this context, it can be said that the alpha value of the scale has a high value of reliability coefficient.

In the third part of the scale, the analysis of the data determining by which factors do the football referees face the mobbing behaviors and their levels, have been mentioned below.

**Table 5.** The KMO AND Bartlett TestS of the 12 Items in the Third Part of MSFR

<i>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</i>		,914
	Approx. Chi-Square	6846,634
<i>Bartlett's Test of Sphericity</i>	Df	66
	Sig.	,000

In the table, the calculated KMO value was found 0.914 (Bartlett;  $\chi^2=6846.634$ ;  $p<0.00$ ). The calculated KMO value and Bartlett Chi-square value, are tests for determining the normality of sufficiency and distribution of the sampling size. Thus, the distribution of the data set of the scale scores were found normal and the suitability of the data with the basic component analysis was found convincing.



**Table 6.** The Descriptive Findings Related to the Structure Validity Studies of the Third Part of MSFR (12 Items)

<i>Components and Items</i>	<i>Item Factor Load Values</i>	<i>Items Total Correlation</i>	<i>Eigenvalue</i>	<i>Explained Variance (%)</i>	<i>Explained Total Variance (%)</i>
<b>1- SPORTS GROUP ATTACK DIMENSIONS</b>					
M 1. Fans	,906	,977			
M 2.	,896	,944			
M 3. Club Managers	,885	,975	9,55	45,4	
M 4. Media	,845	,981			
M 5.	,777	,910			
M 6. Management (MHK)	,668	,870			
<b>2- SOCIAL ENVORONMENT ATTACK DIMENSION</b>					<b>88,7</b>
M 7. My colleagues	,887	,955			
M 8.	,886	,972			
M 9. The City notables	,870	,933	1,09	43,2	
M 10.	,803	,922			
M 11. My work environment	,786	,891			
M 12.	,778	,903			

Having examined the table, it is being observed that the total variance of the third part of MSFR is 88.7, its eigenvalue is greater than 1, and it has a two-component structure. Besides, it was observed that the variance ratio expressed by the sports environment component alone and its eigenvalue was higher than the other components. Based on the findings of the study, it can be said that the scale items exhibit a homogeneous structure. This is because the correlation coefficient calculated between each item and the total score is between 0.90 and 0.97. Besides, the item factor load values of the scale are between 0.66 and 0.90. It can be said that both the items' total correlation values and the item factor load values are in the range of acceptable values. In addition, Cronbach's alpha coefficient of internal consistency was used to determine the level of reliability level of the scale. In this process, both the total alpha coefficient of the scale and the alpha value of sub-components were calculated as well. According to the obtained data, it was observed that the alpha value calculated for the 12 items in the third part of the scale was 0.97; the sports environment component was 0.96, the social attack component was 0.97. In this context, it can be said that the alpha value of the scale has a high value of reliability coefficient.

The reliability is a quality of indicating or explaining consistently and accurately what a measurement and a scientific explanation wants to measure or explain (Gokce, 1999). Having

a data collecting tool above the Cronbach's alpha value of 0.70, shows that this scale is reliable (Arseven, 2001). Considering this information and having the MSFR values used in the study above the Cronbach Alpha value of 0.70, shows that the scale is valid and reliable.

#### 4. Conclusion and Recommendations

The scale data collected on 310 surveyed football ranked referees, was examined in terms of determining the properties of validity and reliability of the scale. It was applied to an expert opinion, having the purpose of determining the content validity of the Mobbing Scale For the Football Referees used for data collection and it was observed that it had a content validity. It was observed that the item total correlations was between 0.60 and 0.90 in the second part of MSFR, the item total correlations between the values 0.90 and 0.97 in the third part. Tavşancıl (2006) states that the correlation coefficient between each item and the total points can be deemed sufficient to be 0.25 in  $p < 0.00$  level of significance. Considering this point of view, it can be said that the scale items have a homogeneous structure in terms of mobbing behaviors. Besides, it was ascertained that the total variance of the three components of the second part of the scale was 61.32%, and the total variance of the two components in the third part was 88.7%. The variance ration explained seems to be sufficient for the scales developed in the field of behavioral sciences. According to Büyüköztürk (2007), the situation of having the total variance as 30% or more explained in the scales developed in the field of behavioral sciences, is acceptable for the sufficiency of the scale. In this context, when considered the total variance explained by MSFR as 61.32% and 88.7%, it can be said that this scale explains in a significant proportion the mobbing variable. And in the reliability study of the scale, the internal consistency coefficient of the second part (21 Items) was calculated 0.92, and the third part (12 Items) 0.97. This ratio shows the internal consistency of the scale. When the obtained findings are taken in terms of reliability, it can be said that the Mobbing Scale for Football Referees is short, fit for the purpose, valid and reliable scale. The description of the mobbing behaviors that the football referees are exposed to, can be facilitated to a certain extent by this scale. In addition, beside determining the level of exposure of the football referees to mobbing behaviors, it can be said that a scale for the other branch referees can be developed as well and thus, the studies can be carried out that can minimize the negative pressure, which may be applied on the referees.

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