



An investigation of the motivation, collaboration and satisfaction levels related to teamwork of Turkish football referees

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Abstract

During the past 10 to 15 years refereeing elite football matches has become much more demanding in terms of the physical and mental preparation referees have to undertake. This is because the game is now faster and the players fitter than ever before. So much so that referees have come to rely more and more on the other officials to ensure correct decisions. Thus, they have become more like a team leader rather than the sole arbiter they were for so long; cooperation is now essential for successful football refereeing. This study examines the attitudes of football referees towards teamwork, their levels of motivation and their job satisfaction according to their level of refereeing, age and experience. 285 referees and assistant referees, all of whom referee in professional leagues, took part in this study. From the results it was concluded that younger referees are likely to adopt a more 'managed', solo approach while older referees are more likely to adopt a more 'collaborative' approach. These findings provide a baseline for developing young referees' perception of and attitude towards teamwork and highlight the need for improvement.

Keywords: Teamwork; Football Referee; Motivation; Job Satisfaction.

Introduction

The referee is the one who is selected by the officials of sport organisations and who referees the game under the rules thereof, records the points, score and punishments (Cengiz and Pular, 2006). Each game is controlled by the referee who has full authority to enforce the rules, albeit in cooperation with the assistant referees and, where applicable, the fourth official also. The referee may only change a decision on the advice of either an assistant referee or the fourth official, provided that he has not restarted play or terminated the match (FIFA, 2013). This fact reinforces the authority of the referee on the pitch; nevertheless, wrong decisions are still possible (Ekblom, 1994).

It was revealed by Helsen and Bultynck (2004) that elite referees in today's football make 3/ 4 decisions per minute. They also showed that 64% of all decisions were made in cooperation with the assistants and 4th official. Furthermore, these same authors offered data suggesting that, since the 1970s, high-intensity has increased by 30% in terms of distance and high-intensity running actions by 50% in elite football. Also, Bradley (2014) revealed that sprinting distance for referees in

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elite football has increased by 35% across this time frame with a concomitant increase in the number of sprints.

While measurements of football pitches have remained the same, the movement and fitness levels of the players has increased greatly since the 1970s. As a consequence, This change in football has affected the styles of referees who are now using different equipment in an effort to reduce the number of mistakes that were being made in during a game. For instance, technological, two-way communication systems were introduced by UEFA in 2009, as were two additional assistant referees. Meanwhile, some Federations started using goal-line technology. It was also shown (Castanga, 2012) that the physiological demands on referees had increased significantly to the point where they are now similar to those reported for midfield players and assistant referees are now showing physiological responses during a game that are equivalent to 70-80% of those of referees.

Football refereeing has become more demanding in terms of physical and mental preparation. Nowadays, elite football referees are considered to be athletes and they have to cope with major challenges in terms of the task. In short, referees had to change their perspective regarding their involvement in football and become much more professional (Antonie, 2014). Furthermore because of increasing demands the attitudes of referees had to change. As recently as the turn of the present century referees were considered the sole arbiter but, in today's football, they have had to become a 'team leader'. Cooperation is now at the centre of football refereeing and 'success', however measured, is possible only with good teamwork (Batta and Zuev, 2011). The necessity of maximum cooperation is emphasized and according to modern football refereeing mentality, team members should be happy with their roles in the team.

Terzioğlu (2010) defined a team as “a group of people that can be formed by two or more who share the duties and which is always cooperating and interacting to achieve a certain aim”. The concepts of 'Team' and 'Teamwork' represent the need for contribution, adaptation and cooperation. Groups can usually be labelled as teams. The reason for this is that it is often assumed that people who are in a group work well together. However, people who work in a group do not necessarily become a team. (Payne, 2000a). The American Olympic basketball (2004) team can be given as an example for the importance of teamwork in sports. Bowers and Bowers (2006) proved by the number of games lost by that team that the individual excellence of the players was no guarantee they would be successful as a team.

A team is not a community of people that is simply connected to a group and works in the same environment. Team members make their decisions and actions in cooperation with other members, and use their knowledge and personal resources to reach a common goal (Park, Henkin, and Egley, 2005). As Terzioğlu (2010) suggested, the need to increase efficiency and the quality of communication to achieve success can be identified as reasons for motivating people towards meaningful teamwork.

There are different views on the advantages and disadvantages of teams. Some say that the most valuable part of a team is the self confidence of it's members and support for each other while others maintain that the most valuable part is the performance. Some claim that teams can only be successful in short term projects while others say that a team may result in lost time and a decrease in the performances of individuals (Larson and LaFasto, 1989). However, teamwork efficiency was proven in even simple tasks such as a 6 minute walking test of 8 male and 8 female subjects. Team spirit improved the performances of male subjects by 12.5% and by 13.7% of female subjects (Grindrod et al, 2006).

Team members should not only work closer but also together for the common good. It means that they should share their knowledge and experiences (Bencsik, 2009). Team members cope more effectively with challenges when their enthusiasm and decisiveness is collective. Sharing experiences

regarding challenges and humour, that come with enthusiasm, can be effective in decreasing the difficulties of challenges (Boerman et al, 2014).

The present investigation was designed to examine the attitudes of high level football referees towards teamwork and their concomitant levels of motivation and job satisfaction. Their attitudes were investigated according to their refereeing levels, ages and experience.

Method

Research Group

In this study the data were collected from 104 High Classified Referees and Assistant Referees and 184 National and Assistant Referees. There are 625 referees in professional leagues in Turkey. 120 out of 625 are high classified referees and assistant referees. Referees, who are in regional and amateur leagues, were not included in this study.

Data Collection Instrument

Team Assessment Scale

This scale was developed by Payne (2000b). The Team Assessment Scale has 13 items which are more 'managed' and 13 other items that are more 'collaborative'. These items were located to the left and right sides of a 7-point Likert scale. Lower scores reveal a more managed approach ('Manager is a leader for most activities', 'Disagreements well-managed') while higher scores show a collaborative team approach. ('Leadership complex and well understood', 'Disagreements openly discussed and dealt with'). The reliability factor was indicated as Alpha= .9072

Motivation and Satisfaction in the Team Scale

Motivation and Satisfaction in the Team Scale was created to evaluate people's motivation and satisfaction in teams. It has 8 items. These items were located to the left and right sides of a 7-point Likert Scale. Lower points show high motivation and satisfaction ("I feel comfortable with other members of the team", "I usually feel part of the team"), while higher points show less motivation and satisfaction ('I feel most comfortable away from the team', 'I sometimes feel loyalties elsewhere than the team') (Merry and Allerhand, 1977). The reliability factor was indicated as Alpha= .8605.

Data Collection Phase

The present researcher received special permission from the Turkish Football Federation and the Referees Committee. All referees and assistant referees who took part in this study were contacted initially by email. The subjects accessed the questionnaire via a link that was sent as an attachment by the researcher. The main difficulty of this study lay in making the initial contact because they are from different parts of Turkey. The researcher called the regional committees by telephone and sent numerous e-mails to all referees in order to be able to reach 285 subjects in two months.

Analyses of the Data

The data were first checked for their normal distribution. It was determined that they were not normally distributed according to Kolmogorov-Smirnov test results. Therefore, a Mann Whitney U test for binary groups and a Kruskal-Wallis test were used for the groups that were more than binary. The Mann Whitney U test was used to determine the different groups after the Kruskal-Wallis test.

Results

Table 1. The Results of a Mann-Whitney U analysis of Team Assessment Scales according to the experience levels of referees.

Experience Level	n	X	Mean Rank	Sum Of Rank	U	P
1-10 Years	100	3.44	122.60	12260	7210	.001
10 Years and more	187	3.85	155.44	29068		

N =287 P* <0.05

Table 1 reveals a statistically significant difference between the scores of referees according to their experience level (U=7210, P<.05). The mean score for referees who had 1-10 years experience was (x=3.44), while that for the group that had 10 years and more experience was (x=3.85). The referees, who have less experience, received lower scores from the Team Assessment Scale.

Table 2. The Results of a Mann-Whitney U analysis of Team Assessment Scales according to level of refereeing.

Referee Level	n	X	Mean Rank	Sum Of Rank	U	p
High Classified	104	3.87	154.77	16096	8500	115
National	188	3.61	138.70	25520		

N =293 p* <0.05

There was no statistically significant difference between the scores of the two groups of referees identified in Table 2 according to their level of refereeing (U=8500, p>.05). While the mean scores of those referees who are 'High classified', was higher than those classified as 'National Referees', no statistically significant difference between them was found.

Table 3. The Results of a Kruskal Wallis analysis of Team Assessment Scales according to the age of Referees.

Age	N	X	Mean Rank	Df	X ²	P*	Difference (Mann Whitney U)
24-30	94	3.39	120.88	2	13.848	0.01	24-30<31-37 and 38-44
31-37	167	3.85	152.08				
38-44	27	4.04	179.87				

p* < .05

A statistically significant difference between the groups of referees according to their age was found (X²=13.848, P<.05). A Mann Whitney U test was used to identify where the significant differences lay and it was found to be those referees who are between 24-30. This group registered significantly lower scores than the other two groups. Thus, it seems reasonable to conclude that young referees are adopting more 'managed' approaches than those in older groups who adopt more 'collaborative' approaches.

Table 4. The Results of a Mann-Whitney U analysis of Motivation and Satisfaction in the Team scale according to the experience of referees.

Age	N	X	Mean Rank	Sum of Rank	U	P
1-10 Years	100	1.70	122.09	12208.5	7158.5	.001
10 Years and more	187	1.93	155.72	29119.5		

N=287 p* <0.05

A statistically significant difference was found between the scores of referees according to their level of experience (U=7158.5, P<.05). The mean score for referees who had 1-10 years was

($\bar{x}=1.70$), whereas for the group with 10 years or more experience, the mean score was ($\bar{x}=1.93$). Thus, for the referees, who have less experience, motivation and satisfaction levels in team work were higher when compared to those for more experienced referees.

Table 5. The Results of a Mann-Whitney U analysis of Motivation and Satisfaction in Team Scales according to the level of refereeing.

Refereeing Level	N	X	Mean Rank	Sum of Rank	U	P
High Classified	104	1.99	166.4	17313.5	7285.5	.001
National	183	1.77	132.0	24302.5		

N=287 P* <0.05

A statistically significant difference was found between the scores of referees according to their level of refereeing (U=7285.5, P<.05). For those referees who are at 'National' level the mean score was ($\bar{x}=1.77$), whereas, for those who are classified as 'High' the mean score was ($\bar{x}=1.99$). Thus, for those referees who are at 'National' level, motivation and satisfaction levels in team work were significantly higher compared to those who are classified as 'High'.

Table 6. The Results of Kruskal Wallis analysis of Motivation and Satisfaction in Team Scales according to the age of referees.

Age	N	X	Mean Rank	DF	X ²	P	Difference
24-30	94	1.68	120.8	2	12.971	0.01	24-30<31-37 and 38-44
31-37	167	1.92	152.9				
38-44	27	2.00	174.9				

N =287 P* <0.05

Table 6 shows a statistically significant difference between the scores of referees according to the ages of referees; (X²=12.971, P<.05). A Mann Whitney U test revealed that referees, who are between 24-30, received higher scores than the other two groups. Thus, it can be concluded that, for the young referees who took part in this survey, motivation and satisfaction levels are higher when compared with the other two, older groups.

Discussion and Conclusion

This project was designed to investigate the attitudes of high level football referees towards teamwork and their concomitant levels of motivation and job satisfaction. Experienced referees' scores regarding attitudes toward teamwork were found to be higher when compared to those of inexperienced referees. Furthermore, referees classed as 'High' recorded higher scores in their attitudes toward teamwork when compared to those classed as 'National' referees. However, no statistically significant difference was found between the two. A Mann Whitney U test was used to determine the differences between groups according to age. Referees who are aged between 24-31 years received lower scores when compared to those who are aged between 31-37 years and those between 38-44 years. It was concluded that younger referees are likely to adopt a more 'managed' approach while older referees are more likely to adopt a more 'collaborative' approach.

However, the results of referees' concomitant levels of motivation and job satisfaction towards teamwork were different. For those referees who had less experience, their levels of motivation and job satisfaction towards teamwork were higher in comparison with experienced referees. Also, for those classified as 'National' referees, their levels of motivation and job satisfaction towards teamwork were found to be higher when compared to those in the 'High' classification. A Mann Whitney U test was used to determine the different group according to age. Referees who are between 24-30 received higher scores compared to the other two age groups. It can be said that

young referees' concomitant levels of motivation and job satisfaction towards teamwork are higher compare to the other groups.

These findings reflect those of Gregorich, Helmreich, et al. (1990) whose study showed that pilots, who had been trained for years to be completely responsible for the flight, might have faced some difficulties in coping with the demands of the modern flight environment simply because aircraft have become much more complex. These new demands were not well received by traditional pilots and a great deal of emphasis was placed on assessing and improving the attitudes of these same pilots toward teamwork. Gregorich et al.(op.cit.) found that aircrew members with more positive attitudes towards teamwork displayed more appropriate teamwork behaviours and were better able to perform in simulated flights that required teamwork to cope with an abnormal event. A similar interpretation of the findings of the present study can be made for football refereeing. Football refereeing has had a structure that supported a very individualistic approach, just like traditional aviation. Just as 'traditional' pilots found it difficult to cope with the demands of the modern flight environment, so football referees faced many difficulties in trying to cope with today's elite football, which is much faster than it was, say, 30 years ago and recorded and broadcast by fifteen or more cameras. Moreover, when modern communication systems were introduced the referee began to receive much more information from his team of officials to help him make his final decisions. As a result, just like the aircrew members with more positive attitudes toward teamwork and were better able to perform in simulated flights, those referees who could adapt to this new system may have more possibility to be successful.

These findings provide a baseline for developing young referees' perception of and attitude towards teamwork and highlight the need for improvement. Young referees' levels of motivation and job satisfaction show their willingness to use teamwork in the field. Their attitudes towards teamwork can be improved by enhancing their knowledge.

REFERENCES

- Antonie, A. (2014). Psychological Aspects and Demands for referees in Romanian Football, Department of Geographical and Historical Studies, University of Eastern Finland, Joensuu, Finland, Abstract Book, *World Conference on Science and Soccer 4.0*, Portland, Oregon, USA.
- Batta, M.&Zuev, S. (2011). Cooperation, *Talents and Mentor Programme*, UEFA.
- Bencsik, A., Noszkay,E. and Marosi Ildiko. (2009). Teamwork In Education. *Problem of Education in the 21st Century*, 10, p. 9-20.
- Boermans, S.M., Kamphuis, W., Delahaj, R., Berg, C. &Euwema, M.C. (2014). Team Spirit Makes the Difference: The Interactive Effects of Team Work Engagement and Organizational Constraints during a Military Operation on Psychological Outcomes afterwards, *Stress and Health*, 30: 386–396 (2014) John Wiley & Sons, Ltd.
- Bradley, Paul (2014). The Evolution of Physical and Technical Performance Parameters in the English Premier League, Abstract Book, *World Conference on Science and Soccer 4.0*, Portland, Oregon, USA, p. 4.
- Castanga, C. (2012). Football officials' performance and training:the evidence, Football Training and Biomechanics Lab, Italian Football Federation (FIGC), Technical Department, Coverciano (Florence), Italy.
- Cengiz R. and Pular A. (2006).Futbol Hakemlerinin şiddet olaylarına bakış açıları üzerine bir araştırma (An Investigation of Football Referees' views on Violence) *Atatürk Üniversitesi Beden Eğitimi ve Spor Bilimleri Dergisi*, Sayı:1.

- Ekblom B. (1994). *Handbook of Sports Science and Football*, Blackwell Scientific Publication, Oxford, p. 100.
- FIFA, (2013). *Laws of the Game 2013/2014*, FIFA, p. 24-25.
- Grindrod, D., Paton, C.D., Knez, W.L., O'Brien, B.J. (2006). Six minute walk distance is greater when performed in a group than alone, *British Journal Sports Medicine*, 2006;40:876-877 doi:10.1136/bjism.2006.027904
- Gregorich, S. E., Helmreich, R. L., et al. (1990). The structure of cockpit management attitudes. *Journal of Applied Psychology*, 75(6), 682-690.
- Helsen, W.F. & Bultynck, J.B. (2004). Physical and perceptual-cognitive demands of top-class refereeing in association football. *Journal of Sport Sciences*, 22, p.179-189.
- Janis A. Cannon-Bowers and Clint Bowers. (2006). Applying work team results to sport teams: Opportunities and cautions, *International Journal of Sport and Exercise Psychology*, 4:4, 447-462, Doi: 10.1080/1612197X.2006.9671807
- Larson, Carl E. and Frank, M. LaFasto. (1989). *Teamwork What Must Go Right/What Can Go Wrong*, Sage Publications, Newbury Park, CA, USA.
- Merry, U & Allerhand, M.E. (1977). *Developing teams and organisations*, Addison Wesley, New York.
- Payne, M. (2000a). *Teamwork in Multiprofessional Care*, Palgrave, China.
- Payne, M. (2000b). *Teamwork In Multiprofessional Care (First Edition)*, Palgrave, New York.
- Park, S., Henkin, A.B. and Egley, R. (2005). Teacher Team Commitment, teamwork and trust: exploring associations. *Journal of Educational Administration*, Vol.43, No:5, p. 462-479.
- Rushmer, R. (1997). What happens to the team during teambuilding? Examining the change process that helps to build a team. *Journal of Management Development*, 16(5):316-327.
- Terzioğlu M. (2010). *Ekip Kaynak Yönetimi - Profesyonel Yöneticilerin Bir Rehber* (Team Source Management - A Guideline for Professional Managers) Cinius Yayınları, İstanbul, 2010.
- UEFA Centre of Refereeing Excellence (2014). *Booklet 2013-2014*, Route De Geneve 46, CH-1260 Nyon 2 Switzerland, p. 19-20.