

Analysis of the burnout levels of soccer referees working at amateur and professional leagues of Rio de Janeiro, Brazil

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Abstract:

The soccer refereeing is associated to factors that can lead to the emergence of occupational stress and, therefore, the burnout syndrome. The purpose of the present study was to analyze the components of this syndrome in referees working in amateur and professional leagues. Thirty-six referees belonging to the Rio de Janeiro State Football Federation took part in the study, 19 working at the metropolitan professional league of Rio de Janeiro and 17 at the amateur league of the north central region of Rio de Janeiro state. The Burnout Inventory for Referees (BIR) and a socio-demographic questionnaire were used. The results showed that: 1) professional league referees presented higher refereeing time ($p = 0.004$), while amateur league referees showed higher scores in the sport devaluation dimension ($p = 0.011$); 2) there was a positive, moderate and significant correlation between the refereeing time and the reduced sense of sports accomplishment in the amateur league ($r = 0.50$; $p = 0.041$); 3) a moderate and positive correlation was observed between the refereeing time and the BIR total score in the amateur league ($r = 0.57$; $p = 0.017$). The study concluded that referees working at the amateur soccer league may develop burnout syndrome in higher levels than referees of the professional league.

Key Words: soccer, referees, burnout, psychological stress, football.

Introduction

The burnout consists of a syndrome defined as a prolonged personal response to stressful agents that cause fatigue, emotional exhaustion and loss of mental and physical disposition, which end up causing interpersonal relationship problems, especially in the workplace. In the absence of accurate diagnosis, it can intensify over time and even remain unnoticed for long periods (Schaufeli & Enzmann, 1998).

This syndrome presents three components that are susceptible to association, but which are different: (a) physical and emotional exhaustion, that is, feelings of tension and affective exhaustion; (b) labor devaluation, manifested in the psychic distancing of workmates, the organizational environment and the clients; (c) low professional achievement, understood as low self-esteem and personal perception of incompetence (Maslach, 1998; Maslach & Jackson, 1981; Maslach, Schaufeli & Leiter, 2001).

The presence of the burnout syndrome has been investigated in individuals who work in the sports field, with emphasis on Physical Education teachers, coaches and athletes (Goodger, Gorely, Lavallee, & Harwood, 2007; Pires, Brandão & Silva, 2006; Raedeke, 2004; Vilorio, Paredes & Paredes, 2003). Although providing pleasure, rewards and a sense of challenge, teaching sports activities can also lead to frustration, tense interpersonal relationships, and psychic malaise in cases where both expected learning and sports performance do not manifest themselves satisfactorily. Because of this, these professional categories can also become potentially prone to the acquisition of the burnout syndrome (Pires, Brandão & Machado, 2005).

For similar reasons, individuals exercising sports refereeing may also exhibit signs of burnout at some point in their careers. Arbitrating sports is a task that has technical difficulties of accomplishment, because referees have to apply the rule in brief intervals of time and under the audience of spectators. If these conditions cause them insecurity, the chances of making mistakes increase and, consequently, receive negative criticism (Guillén & Jiménez, 2001; González Oya, 2006). In addition, historically, coaches, athletes, fans and sports officials see the referees as corrupt and prone to acting with dubious intentions (Louvet, Gaudreau, Menaut, Genty & Deneuve, 2009).

The constant internal disputes and the low social valorization of this occupation are factors that additionally contribute so that many referees consider themselves inferior in relation to the professionals of other areas considered with better social status. In the case of sports with great popular preference and constant

coverage of the mass media, such as soccer, the public exposure that the media promotes of the eventual failures of the referees intensifies the feelings of malaise, stress and unfitnes (Weinberg & Richardson, 1990). Another factor to consider is the amount of financial resources invested in certain championships and tournaments. In general, the organizers and sponsors of those who are more financially profitable and competitive tend to be less tolerant with referee errors. This circumstance potentiates the appearance of excessive tension and anxiety in the referees due to the claim for them not to fail (Brandão et al., 2011).

Due to the exposed scenario, it is possible to postulate that soccer referees are potentially susceptible to stress and burnout. The presence of signs and symptoms related to this syndrome presupposes the existence of psychic difficulties, and also emotional and cognitive limitations in the exercise of this function. For this reason, the need to detect such signs and symptoms represents an important measure for the adoption of preventive actions and even therapeutic interventions (Ruotsalainen, Verbeek, Mariné, & Serra, 2015).

Therefore, the aim of the present study was to analyze the components of this syndrome (physical and emotional exhaustion, depersonalization and reduction of the sense of professional achievement) in soccer referees working in amateur and professional league. The hypothesis of the study is that the possibility of acquiring burnout in the professional league is greater than in the amateur league, given the characteristics of refereeing and the socio-cultural popularity of this sport.

Material & methods

Participants

The present study consists of an applied research with descriptive nature, and cross-sectional survey type (Gerhardt & Silveira, 2009). The population consisted of 307 soccer referees, who were properly registered in the Rio de Janeiro State Football Federation (FERJ). The inclusion criteria admitted were individuals duly arbitrating in the year 2017 in the sub-15, sub-17, sub-20 and adult categories. Arbitration assistants and those not accredited to act in 2017 for not having passed the physical fitness tests were excluded.

The final sample consisted of 36 referees, of whom 19 worked in the professional football league of the metropolitan region of Rio de Janeiro, Brazil, and 17 in the interior league of the north-central region of the Rio de Janeiro state, Brazil, with amateur status.

The Research Ethics Committee of the Rio de Janeiro State University (UERJ) approved this study. The research subjects signed an informed consent form according to the Declaration of Helsinki (World Medical Association, 2008).

Procedures

The accomplishment of this study counted on the support of the Arbitration School of the FERJ. The director of the Arbitration School was contacted in June 2017 to arrange a meeting with the referees registered at the institution. At this meeting, which took place in October 2017, the referees who attended were informed about the research objectives, its relevance and the confidentiality of the answers. In this occasion, the volunteers who decided to participate in the research read and signed an informed consent form.

The present study used the instrument Burnout Inventory for Referees (BIR), in the Portuguese language version, originally developed by Weinberg and Richardson (1990), in the Anglo-Saxon semantic context. Brandão, Serpa, Rosado and Weinberg (2014) did the cross-cultural translation and validation of the original English language into Portuguese. The BIR is composed of nine items grouped in a three-dimensional structure that includes the physical and emotional exhaustion of the referee (EX; items 1, 2 and 3); the personal devaluation of the sport in which the referee operates (DES; items 4, 5 and 6), and the reduced sense of sports achievement (RED; items 7, 8 and 9). The respondent evaluates each item according to a Likert scale of 1 to 7 points, where level 1 corresponds to "Not Strong" and level 7 to "Extremely Strong".

A supplementary sociodemographic questionnaire was also used to collect information on age, sex, refereeing time, schooling level and the region where the referee's soccer league is located.

Statistical analysis

The data were treated by the IBM SPSS Statistics 20 and presented as mean and standard deviation. The normality and homogeneity of the data were verified by the Shapiro-Wilk and Levene tests, respectively. The Student's t-test for independent samples was used to compare the investigated variables between the professional and amateur leagues. Pearson's correlation test was used to analyze the associations between the study variables. The study admitted the value of $p < 0.05$ for statistical significance.

Results

The mean age of the referees of the sample was 32.2 ± 5.6 years, and the time of experience in the arbitration corresponded to 7.5 ± 2.1 years. The level of education and the sex of the referees, according to the nature of the acting league (professional or amateur), are shown in table 1. It can be observed that all the referees in the professional league have higher education (100%), while only 41.17% of the amateur league referees are in this situation. The schooling of the other referees of the amateur league is limited to high school (58.83%).

Table 1. Sex and level of education of the referees by acting league (professional and amateur)

	Sex		Educational level	
	M	F	HS	HE
Professional	19	0	0	19
Amateur	13	4	10	7

M: male; F: female; HS: high school; HE: higher education.

Table 2 presents the comparison of burnout syndrome components (EX, DES, and RED) with the age and arbitration time of professional and amateur league referees. The referees of the professional league presented higher refereeing time ($p = 0.004$), while amateur league referees showed higher DES scores ($p = 0.011$).

Table 2. Comparative analysis of the burnout components, age and arbitration time between referees by acting league (professional and amateur)

	Mean (Professional)	Mean (Amateur)	Δ	p-value
Age (years)	32.89±6.06	31.47±7.49	1.42	0.533
Time (years)	10.16±4.57	5.12±5.34	5.04	0.004*
EX	7.11±3.00	6.12±1.93	0.99	0,255
DES	7.11±3.56	9,94±2,66	-2.84	0.011*
RED	3.84±1.30	3.94±1.20	-0.10	0.814
Total score	18.05±6.61	20.00±4.42	-1.95	0.312

* $p < 0.05$; EX: Physical and emotional exhaustion; DES: Sporting devaluation; RED: Reduced sense of sports accomplishment; Δ : average difference.

Table 3 shows the values related to the correlation coefficient (r) between the age and arbitration time of the professional and amateur league referees and the components of the burnout syndrome (EX, DES, and RED). In the amateur league, there was a positive, moderate and significant correlation between the arbitration time and RED. In the other variables, and in the professional league group, there was no significant correlation.

Table 3. Correlation analysis between age and arbitration time of professional and amateur leagues referees and the components of the burnout syndrome

			EX	DES	RED
Professional	Age	r	-0.216	0.052	0.279
		p-value	0.374	0.832	0.247
	Time	r	-0.301	-0.090	0.004
		p-value	0.210	0.714	0.986
Amateur	Age	r	0.406	0.215	0.289
		p-value	0.106	0.407	0.261
	Time	r	0.447	0.397	0.500
		p-value	0.072	0.114	0.041*

* $p < 0.05$; EX: Physical and emotional exhaustion; DES: Sporting devaluation; RED: Reduced sense of sports accomplishment.

Figure 1 presents the correlation levels between arbitration time and the BIR total score by actuation league. In the amateur league, a moderate positive correlation was observed between the refereeing time and the total score, while the professional league showed no significant correlation between these variables.

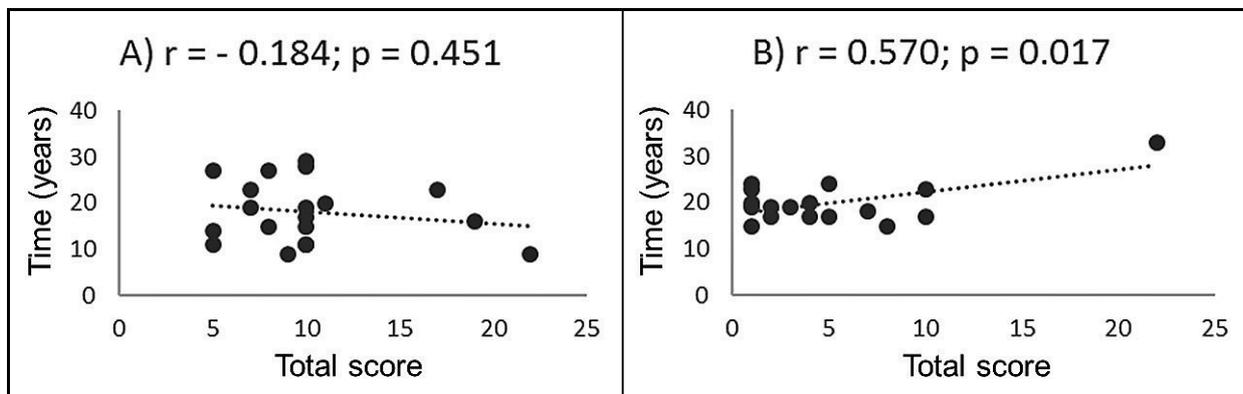


Fig. 1 (A and B). Correlation analysis (r) between arbitration time and the Burnout Inventory for Referees (BIR) total score by league: professional (A) and amateur (B)

Discussion

The present study analyzed the components of the burnout syndrome (emotional exhaustion, sport devaluation, and reduced sense of sport accomplishment) in amateur and professional league referees, assuming that the possibility of burnout is higher in a professional league than in amateur.

It was observed in the current study that the referees of the amateur league showed higher scores on devaluation of the sport when compared to those of the professional league, in addition to presenting a shorter arbitration time. This dimension corresponds to the development of insensitive representations and thoughts in relation to the people with whom the referee works directly (coaches, athletes, managers, other referees), even treating them as objects (Maslach & Leiter, 2008). This dimension appears as the interpersonal component of burnout, which is expressed in acts and words of rejection and aggressiveness (Truchot, 2004).

The loss of sensitivity caused by burnout syndrome is reflected in decreased engagement and empathy. The engagement can be defined as a state of positive mental health and well-being at work, characterized by vigor, dedication and absorption. Considering this definition, burnout and engagement are psychological states that correspond to two distinct types of experience: a negative attitude and a positive attitude toward work, respectively. About the empathy, it means identification with the work tasks and the willingness to perform them. By decreasing sensitivity, burnout causes cognitive and affective distance in the person from involvement with these tasks (Monteiro, Queirós & Marques, 2014).

A study conducted by Karademir (2012) with 272 referees registered in the Turkish Football Federation, found an inverse association ($p = 0.01$) between experience time in arbitration and the exhibition of insensitive behaviors. The author showed that early-career subjects with little occupational experience in arbitration (less than five years) admitted that frequent hostilities of coaches and players contributed to their failure to behave politely and become rude people. On the other hand, they said that fans' swearing did not bother them, usually going unnoticed. Kruger et al. (2012) also reported the brutalization of the conduct in a research with South African referees. For both authors, one of the causes of this type of attitudes derives from the negative way in which the soccer community refers to the role of the referee. Rarely, teams praise technically good arbitrations. However, in the case of defeats, aggressive feedbacks are common and personalized.

The present study also identified a positive correlation between the arbitration time in the amateur league and the RED dimension. No correlation was found in the other variables and in the professional league group. The RED is established when the referee starts to feel that the aspirations of personal success at work are over and professional productivity has decreased, resulting in a negative self-evaluation. As a result, positive expectations about himself are also reduced. In this way, judging himself incapable of fulfilling his function, it appears in the referee a perception of inadequacy to the work (Truchot, 2004).

The triggering of RED involves objective and subjective factors. Objectively, the factors that influence its emergence are the identification of the low possibility of career growth, the insufficient value of paid salaries and the difficulty of maintaining physical fitness levels (Pedrosa & Garcia-Cueto, 2015; Karademir, 2012). Subjectively, the most relevant aspects are the distrust of arbitration management organizations, non-confirmation of expectations of personal success and loss of belief in being part of something grandiose (in this case, soccer as a public sports spectacle) (Alhaliq, Altahayneh & Oudat, 2014). According to the analyzes of Boschilia, Vlastuin and Marchi Jr. (2008), Brazilian soccer amateur leagues differ from professional leagues in terms of access to financial resources, quality of facilities, use of technologies and organizational management.

In general, the amateur leagues are located in the interior regions and peripheries of the great Brazilian cities. In comparison to professional league referees, individuals who work in these amateur leagues tend to be less likely to participate in recycling courses and to join the cadres of the Brazilian Football Confederation. Another variable to consider refers to the values of the pay per game, usually lower in the amateur leagues when compared to the amounts paid in professional leagues (Pedrosa & Garcia-Cueto, 2015). In that sense, arbitration in these leagues may become a discouraging and tiresome task in long-term.

A positive correlation between arbitration time and burnout total score among amateur league referees was observed in the present study. However, this association was not detected in the professional league. This result reiterates the research conducted by Kruger et al. (2012) with South African referees, who exhibited extensions in the degree of perceived stress and levels of burnout with the increase of practice time. On the other hand, the findings of Karademir (2012) and Alhaliq, Altahayneh and Oudat (2014) performed with Turkish and Jordanian referees, respectively, showed reductions in burnout and stress levels as a result of increased occupational experience in the arbitration activities. Therefore, the South African and the amateur league referees of the present study were more likely to be affected by burnout over time than the Jordanian and Turkish referees. Thus, the idea that referees with extensive experience necessarily deal better in cognitive and behavioral terms with adverse circumstances or situations of potential damage should be viewed with caution (Oliveira, Penna & Pires, 2017).

Folkesson et al. (2002) examined the nature of verbal threats and disqualifications directed at 107 soccer referees during matches in which they played. The authors concluded that those individuals with optimistic orientations in their activities of daily living had less loss of confidence to decide and felt less emotionally pressured to not make mistakes when compared to pessimistic companions. High levels of optimism were also observed among the referees identified by Voight (2008). In order to repair mistaken decisions, these referees focused directly on solving the problem through, for example, finding social support or communicating mistakes to peers seeking opinions that would help them not to repeat those mistakes. Wolfson and Neave (2007) have found that referees with optimistic positions interpret their own mistakes in situations of emotional pressure as opportunities for improvement. Additionally, these referees had higher levels of self-responsibility. Therefore, they did not attribute their failures to others and denoted superior self-esteem and resilience to colleagues with a pessimistic bias.

Thus, in the present study, the components of the burnout syndrome concerning brutalization or desensitization of the conduct and low expectation of professional achievement protrude in the referees of the amateur league in relation to those of the professional league, since the amateur league referees presented higher rates of DES and RED. However, there were no significant differences in EX levels. This information justifies the importance of the organs responsible for the management of the arbitration to take measures that may lead the referees to develop the ability to deal with the stressors responsible for their desensitization and inhibition of the expectations of occupational achievement. Individuals in this state can benefit from learning how to manage sources of stress such as cognitive restructuring and reshaping thoughts that weaken them (Ellis, 1982).

Hence, educating the referees about the use of some techniques of training the mental abilities available in the literature of sports psychology constitutes a relevant action for them to increase their decision-making and adversity coping skills. Samulski (2002) emphasizes the importance of them mentally imagining themselves hitting the application of the rule; perform respiratory relaxation to moderate anxiety and practice positive self-management throughout the 24 hours that precedes the game. Weinberg and Richardson (1990) add that, beside these techniques, periodic training in conflict management and assertive communication can enable them to deal better with the discomfort caused by the verbal abuse of athletes and coaches. Rainey (1995) reinforces the need for sports leagues and referee bodies to insist on interventionist measures such as enhancing the personal safety of referees before and after matches. They also strengthen the imposition of severe punitive rules for players, coaches and officials who remain disrespecting the referees.

In the field of formation, Voight (2008) argues that qualification courses should not be restricted to teaching arbitration mechanics and rules, but also offer periodic lectures and motivational programs. Beyond this, the author reports that the establishment of career and salary plans contribute, along with the previous measures, to raise the quality of life of these human resources. Together, all these factors prove to have great value in preventing burnout, since they increase the possibility of satisfaction in the exercise of arbitration.

A limitation of the present study is related to the fact that it has a transversal nature, since this method makes it difficult to observe information about how its dimensions vary temporarily. Another limitation is the profile of the sample, since only referees residing in the state of Rio de Janeiro composed it.

Conclusions

It was concluded that the referees working in the amateur soccer league are not free to be affected by the burnout syndrome. In addition, they can display it in a higher grade than the referees of the professional leagues, although professional leagues supposedly demand a higher level of performance. This suggests that amateur soccer, as well as professional soccer, should also be seen as a source of high contingent of stress for

arbitration. Thus, the hypothesis of the study that the referees of the professional league would present burnout scores higher than those of the amateur was not confirmed. Therefore, future studies should analyze burnout in referees taking into account the appearance, the development of the syndrome and its peak in a longitudinal perspective, that is, in the scope of the successive seasons in which the referees act and also in other regions of other states and countries.

Conflicts of interest

The authors have no conflicts of interest to declare.

References

- Alhaliq, M., Altahayneh, Z., & Oudat, M. (2014). Levels of burnout among sport referees in Jordan. *Journal of Physical Education and Sport*, 14(1), 47-51.
- Bemfica, T., Fagundes, L., Pires, D. e Costa, V. (2013). Efeito da temporada sobre a percepção da síndrome de burnout por atletas de futebol profissional. *Revista Brasileira de Ciência e Movimento*, 21(4), 142-150.
- Boschilia, B., Vlastuin, J., & Marchi Jr., W. (2008). Implicações da espetacularização do esporte na atuação dos árbitros de futebol. *Revista Brasileira de Ciências do Esporte*, 30(1), 57-73.
- Brandão, R., Serpa, S., Krebs, R., Araújo, D., & Machado, A. (2011). El significado de arbitrar: percepción de jueces de fútbol profesional. *Revista de Psicología del Deporte*, 20(2), 275-286.
- Brandão, M., Serpa, S., Rosado, A., & Weinberg, R. (2014). Psychometric properties of the Burnout Inventory for Referees. *Motriz*, 20(4), 374-383.
- Cristopher, L., & Wiggins, M. (2003). Burnout perceptions over time in NCAA division I soccer players. *International Sports Journal*, 7(2), 120-127.
- Dale, J., & Weinberg, R. (1990). Burnout in sport: a review and critique. *Journal of Applied Sport Psychology*, 2(1), 67-83.
- Ellis, A. (1982). Self-direction in sport and life. *Rational Living*, 17, 27-33.
- Folkesson, P., Nyberg, C., Archer, T., & Norlander, T. (2002). Soccer referees' experience of threat and aggression: effects of age, experience, and life orientation on outcome of coping strategy. *Aggressive Behavior*, 28(4), 317-327.
- González-Oya, J. (2006). *Psicología aplicada al árbitro de fútbol: características psicológicas y su entrenamiento*. Sevilla: Wanceulen.
- Goodger, K., Gorely, T., Lavallee, D., & Harwood, C. (2007). Burnout in sports: a systematic review. *The Sport Psychologist*, 21(2), 127-151.
- Guillén, F., & Jiménez, H. (2001). Características deseables en el arbitraje y el juicio deportivo. *Revista de Psicología del Deporte*, 10(1), 23-34.
- Karademir, T. (2012). The factors that influence the burnout conditions of city football referees. *Journal of Physical Education and Sports Management*, 3(2), 27-34.
- Kruger A., Ekmekci, R., Strydom, G., & Ellis, S. (2012). Stressors among African soccer officials: a profile analysis. *South African Journal for Research in Sport, Physical Education and Recreation*, 34(2), 53-62.
- Louvet A., Gaudreau, P., Menaut, A., Genty, J., & Deneuve, P. (2009). Revisiting the changing and stable properties of coping utilization using latent class growth analysis: a longitudinal investigation with soccer referees. *Psychology of Sport and Exercise*, 10(1), 124-135.
- Maslach, C. (1998). A multidimensional theory of burnout. In: C.L. Cooper (Ed.). *Theory of organizational stress*. Oxford, UK: Oxford University Press. pp. 68-85.
- Maslach, C., & Jackson, S. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2, 99-113.
- Maslach, C., & Leiter M. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology*, 93(3), 498-512
- Maslach, C., Schaufeli, W., & Leiter, M. (2001). Job burnout. *Annual Review of Psychology*, 52(1), 397-422.
- Monteiro, B, Queirós, C., & Marques, A. (2014). Empatia e engagement como preditores do burnout em cuidadores formais de idosos. *Psicologia, Saúde & Doenças*, 15(1), 2-12.
- Oliveira, A., Penna, E., & Pires, D. (2017). Síndrome de burnout em árbitros de futebol. *Revista de Psicología del Deporte*, 27(Suppl 1), 31-36.
- Pedrosa, I., & García-Cueto, E. (2015). Aspectos psicológicos em árbitros de elite: ¿afecta el salario a su bienestar emocional? *Revista de Psicología del Deporte*, 24(2), 241-248.
- Pires, D., Brandão, M., & Machado, A. (2005). A síndrome de Burnout no esporte. *Motriz*, 11(3), 147-153.
- Pires, D, Brandão, M., & Silva, C. (2006). Validação do Questionário de Burnout para Atletas. *Revista da Educação Física*, 17(1), 17-36.
- Raedeke, T. (2004). Coach commitment and burnout: a one-year follow-up. *Journal of Applied Sport Psychology*, 16(4), 333-349.
- Ruotsalainen, J.H., Verbeek, J.H., Marine, A., & Serra, C. (2015). Preventing occupational stress in health care workers. *Cochrane Database of Systematic Reviews*, 4, CD002892.

- Samulski, D. (2002). *Psicologia do esporte*. São Paulo: Manole.
- Schaufeli W., & Enzmann, D. (1998). *The burnout companion for research and practice: a critical analysis of theory, assessment, research, and intervention*. London: Taylor & Francis.
- Truchot, D. (2004). *Epuisement professionnel et burnout: concepts, modeles, interventions*. Paris: Dunod.
- Viloria, H., Paredes, M., & Paredes, L. (2003). Burnout em professores de Educación Física. *Revista de Psicología del Deporte*, 12(2), 133-146.
- Voight, M. (2009). Sources of stress and coping strategies of US soccer officials. *Stress and Health*, 25(1), 91-101.
- Weinberg, R.S., & Richardson, P. (1990). *Psychology of officiating*. Champaign, Illinois: Leisure Press.
- Wolfson, S., & Neave, N. (2007). Coping under pressure: cognitive strategies for maintaining confidence among soccer referees. *Journal of Sport Behavior*, 30(2), 232-247.
- World Medical Association (WMA). (2008). *Declaration of Helsinki*. Ethical principles for medical research involving human subjects. 59th WMA General Assembly, Seoul.