Burnout and playing position: a study of Brazilian soccer players

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Abstract:

The objective of the present study was to identify and compare benchmarks for burnout in relation to variables such as: professional and amateur players, and game position during the preparation phase. Participated in this study 134 male soccer players: 71 professional players (age=22.77±3.98 years) and 63 amateur players (age=17.18±0.84 years) of three teams of Campeonato Paulista (Series A-1 and A-2) and Copa São Paulo de Futebol Júnior, in São Paulo, Brazil. Athlete Burnout Questionnaire (ABQ) was used to assess burnout syndrome. Professional goalkeepers and forwards players and amateur defenders and presented the highest total average scores for burnout, associated with the physical and emotional exhaustion. When comparing professional and amateur players in relation to the playing position, not showed significant difference with regard to scores of burnout in its three dimensions.

Key words: burnout; soccer; playing position

Introduction

Currently, there is great concern to provide adequate working conditions not only for the sake of productivity but also for the health, quality of life, and future of workers. Thus, occupational stress, which may have negative effects on health, well-being, and job performance, is a recent topic of study (Maslach & Leiter, 2008; Sarafino, 2008; Taylor, 2009).

Maslach and Jackson (1981, p. 99) defined burnout as “a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do human service work”. When people feel burnt out, they believe that they have exhausted their psychological resources and developed cynical and negative attitudes toward others and a negative view of themselves. Therefore, “workers feel unhappy about themselves and dissatisfied with their accomplishments on the job” (Maslach & Jackson, 1981, p. 99). Furthermore, burnout appears to be correlated “...with various self-reported indices of personal distress, including physical exhaustion, insomnia, increased use of alcohol and drugs, and marital and family problems” (Maslach & Jackson, 1981, p. 100).

Burnout characteristics in athletes are similar to those experienced by professionals who work in direct and frequent contact with other people and involve the perception that personal resources are insufficient or inadequate to cope with stress. As a result, people develop negative attitudes, behaviors, and feelings that lead to practical and emotional problems in the workplace. Many authors consider the several reports of elite athletes who abandon their sport at the peak of their careers to be examples of the effects of the excessive stress in sports (Arce, Francisco, Andrade, Arce & Raedeke, 2010; Hill & Appleton, 2011; Ivarsson, 2008; Raedeke, 1997; Lemyre, Roberts & Stray-Gundersen, 2007; Lemyre, Hall & Roberts, 2008).

Burnout in sports is primarily considered to be a response to chronic stress characterized by performance decreases, sport devaluation, and physical and emotional exhaustion. Media reports of the “negative sport experiences of a series of high-profile athletes” (Cresswell & Eklund, 2006a, p. 219) have stimulated research interest in this subject. In turn, these researchers have proposed that the negative experiences of these athletes are similar to the burnout in other professions (Cresswell & Eklund, 2006a; 2006b).

Professional exhaustion in athletes has three key aspects: 1) emotional and physical exhaustion due to the excessive demands imposed by training sessions and competition; 2) a reduced sense of self-realization accompanied by the perception that objectives are unattainable; and 3) devaluation and a lack of interest in the sport (Raedeke, 1997; Lemyre, Hall & Roberts, 2008; Gustafsson, Hassmén, Kentta & Johansson, 2008).

With regard to the three burnout subscales (emotional exhaustion, depersonalization, and dissatisfaction with one's performance), depersonalization appears to be least applicable to athletes due to the contextual differences between sports and the service industry. Given that depersonalization assesses devaluation and indifference toward one's career, it may measure the development of negative attitudes towards sports involvement in athletes (Raedeke, 1997).

Although the relationship between athletes and coaches is important, it does not seem to be the determining factor for burnout. Therefore, sports burnout must be defined in terms of the key element of their jobs: performance (Raedeke, 1997). Professional exhaustion in athletes may be due to training and competition demands as well as associated with the perception of poor performance regarding skills and achievements (Hill & Appleton, 2011; Kimberley, Bartholomew, Ntoumanis, Ryan, Jos, Bosch & Thøgersen-Ntoumani, 2011; Raedeke, 1997). However, social support seems to be an important factor in protecting athletes from burnout (Cresswell, 2009).

In athletic settings, burnout is often associated with stress; however, not all athletes who show signs of stress develop burnout. The lack of perceived control that many athletes feel in their lives and need to practice sports to succeed are possible explanations for burnout in athletes. However, knowledge in this area remains limited.

Based on considerations of stress and burnout in athletes, the objective of this study was to identify and compare the reference values for burnout with regard to career status (professional vs. amateur) and playing position during practice. This subject is relevant for professionals in the sports industry.

Method

Participants

This study included 134 male soccer players: 71 professional players (age=22.77±3.98 years) from three teams competing in the Paulista Championship (Series A-1 and A-2) and 63 amateur players (age=17.18±0.84 years) from three teams competing in the São Paulo Cup of Junior Soccer. The Federação Paulista de Futebol (FPF) organized both tournaments in São Paulo, Brazil.

Procedure

The Research Ethics Committee approved this project (number: 15794613.0.0000.5398). Officials from the soccer clubs also approved this project after receiving detailed information.

The researcher collected data from professionals during practice for the first division Paulista championship (Series A-1 and A-2) and amateurs prior to the São Paulo Cup of Junior Soccer. Athletes asked to participate were informed about the study. Those who agreed to participate signed an informed consent statement prior to participation. Athletes were assessed individually; those who met the participation criteria were interviewed immediately and instructed to complete a questionnaire at the training site either before or after the training session but during the pre-competition stage. A demographic information form collected data using open- and closed-ended questions concerning age, time as a federated athlete (amateur), time as a professional athlete, and playing position.

Instrument

The Portuguese version of the Athlete Burnout Questionnaire (ABQ), validated by Pires, Brandão and Silva (2006), was used to evaluate burnout syndrome. Raedeke and Smith (2001) developed the ABQ to evaluate burnout in athletes. This questionnaire is composed of 15 items and three subscales that evaluate the frequency of feelings related to burnout: physical and emotional exhaustion (*I am exhausted because of the physical and emotional demands of the sport*); reduced sense of accomplishment related to sport (*no matter what I do, I do not perform as I should*); and sport devaluation (*I have negative feelings concerning the sport*). Responses were given using a Likert-type scale in which 1=almost never, 2=seldom, 3=sometimes, 4=frequently, and 5=almost always.

Data Analyses

Descriptive statistics (mean, median, standard deviation, minimum, maximum, and quartiles) were calculated; parametric tests (comparisons of two proportions, independent-samples t-tests, and test of the means) compared the amateur player with professional player categories; and the non-parametric Mann-Whitney U test compared playing positions. In addition to these tests, a two-sample homogeneity of variance test based on the chi-squared distribution was also used. All statistical tests adopted a 0.05 level of significance.

Results

The participants were divided by their preferred positions (i.e., forward, goalkeeper, fullback, midfielder, and defender). This division allowed for the identification and comparison of possible differences in the behavior of athletes with regard to athlete group (i.e., professional vs. amateur) and playing position.

To assess burnout, the ABQ is divided into three subscales: Reduce Sense of Accomplishment (RSA) in Sports, Physical and Emotional Exhaustion (PEE), and Sport Devaluation (SD). Thus, the results are first displayed together and then analyzed separately for each subscale by group and playing position.

Table 1 shows the average participant results obtained for each ABQ subscale. A Student's t-test did not indicate significant between-group mean differences ($P < 0.05$) on any subscale.

Table 1 Mean scores of the three burnout subscales for professional and amateur athletes. The P-values resulted from Student's t-test comparisons.

Variable	Category	n	$\bar{x} \pm s$	Mean	Min	Max	P-value
RSA*	Amateur	63	2.07±0.39	2.00	1.43	2.86	0.801
	Professional	71	2.08±0.50	2.00	1.28	3.36	
PEE*	Amateur	63	1.87±0.44	1.86	1.21	2.93	0.673
	Professional	71	1.91±0.52	1.93	1.00	3.21	
SD*	Amateur	63	1.70±0.53	1.67	1.00	2.83	0.460
	Professional	71	1.77±0.64	1.67	1.00	3.17	

Note: *RSA: reduced sense of accomplishment; PEE: physical and emotional exhaustion; SD: sport devaluation.

The highest subscale results were Reduce Sense of Accomplishment (RSA) scores of 2.08 and 2.07 for professional and amateur players, respectively. The lowest mean values were obtained for the Sport Devaluation (SD) subscale: 1.70 for professionals and 1.77 for amateurs.

Table 2 provides the mean scores and a comparison of the mean test between professional and amateur players for each playing position. There were no significant differences between the athlete groups for any position ($P > 0.05$).

Table 2 Reduced Sense of Accomplishment (RSA) scores of professional and amateur athletes and Mann-Whitney U test results by playing position.

Position*	Category	n	$\bar{x} \pm s$	Median	Min	Max	P-value
Forward	Amateur	10	2.1±0.41	2.04	1.5	2.79	0.5972
	Professional	20	2.26±0.59	2.21	1.29	3.36	
Goalkeeper	Amateur	8	2.03±0.39	1.96	1.57	2.64	0.5095
	Professional	5	2.16±0.36	2.00	1.93	2.64	
Fullback	Amateur	14	1.99±0.43	1.86	1.43	2.86	0.2597
	Professional	11	1.86±0.46	1.79	1.29	3.07	
Midfielder	Amateur	15	2.04±0.40	2.00	1.57	2.71	0.9446
	Professional	19	2.03±0.44	2.07	1.29	3.07	
Defender	Amateur	14	2.17±0.38	2.14	1.57	2.86	0.6028
	Professional	16	2.07±0.47	1.93	1.29	2.86	

Note: * Two amateur players did not declare the position they played; therefore, they were excluded from this analysis.

Table 2 indicates that there was a balanced distribution of mean and median scores when groups were compared regarding each playing position. There was little variation in the scores according to playing position

compared with the frequency with which players experienced RSA feelings in both professional (means from 1.86 to 2.26) and amateur (means from 1.99 to 2.17) athletes.

Table 3 provides the Physical and Emotional Exhaustion (PEE) data. There were no significant between-group differences for any playing position; however, professional goalkeepers ($M=2.09$, $\min=1.79$, and $\max=2.71$) and forwards ($M=2.07$, $\min=2.00$, and $\max=3.21$) and amateur defenders ($M=2.03$, $\min=1.96$, and $\max=2.93$) had higher mean, minimum, and maximum PEE scores compared with other playing positions.

Table 3 Physical and Emotional Exhaustion (PEE) scores of professional and amateur athletes and Mann-Whitney U test results by playing position.

Position	Category	n	$\bar{x} \pm s$	Median	Min	Max	P-value
Forward	Amateur	10	1.96 $\pm$ 0.41	1.89	1.43	2.71	0.9124
	Professional	20	2.07 $\pm$ 0.61	2.00	1.21	3.21	
Goalkeeper	Amateur	8	1.79 $\pm$ 0.42	1.71	1.36	2.43	0.1626
	Professional	5	2.09 $\pm$ 0.36	2.00	1.79	2.71	
Fullback	Amateur	14	1.77 $\pm$ 0.47	1.57	1.21	2.71	0.5266
	Professional	11	1.68 $\pm$ 0.47	1.50	1.21	2.71	
Midfielder	Amateur	15	1.83 $\pm$ 0.45	1.79	1.29	2.57	0.9723
	Professional	19	1.83 $\pm$ 0.50	1.93	1.00	2.93	
Defender	Amateur	14	2.03 $\pm$ 0.43	1.96	1.29	2.93	0.4413
	Professional	16	1.91 $\pm$ 0.44	1.79	1.14	2.79	

There were no significant between-group differences (Table 4) regarding playing position on the Sport Devaluation (SD) subscale. When comparing playing positions and athlete categories, however, professional goalkeepers had higher average SD scores (2.3). The magnitude of the mean, minimum, and maximum SD scores was similar for other playing positions among amateurs (1.54 to 1.88) and professionals (1.55 to 1.89).

Table 4 Sport Devaluation (SD) scores of professional and amateur athletes and Mann-Whitney U test results by playing position.

Position	Category	n	$\bar{x} \pm s$	Median	Min	Max	P-value
Forward	Amateur	10	1.88 $\pm$ 0.52	1.92	1.00	2.67	0.9296
	Professional	20	1.89 $\pm$ 0.67	1.83	1.00	3.00	
Goalkeeper	Amateur	8	1.67 $\pm$ 0.60	1.50	1.00	2.67	0.1217
	Professional	5	2.30 $\pm$ 0.40	2.50	1.67	2.67	
Fullback	Amateur	14	1.54 $\pm$ 0.57	1.17	1.00	2.83	0.8463
	Professional	11	1.55 $\pm$ 0.58	1.50	1.00	3.00	
Midfielder	Amateur	15	1.63 $\pm$ 0.52	1.67	1.00	2.67	0.8889
	Professional	19	1.68 $\pm$ 0.61	1.50	1.00	3.17	
Defender	Amateur	14	1.80 $\pm$ 0.47	1.69	1.00	2.67	0.4041
	Professional	16	1.72 $\pm$ 0.67	1.58	1.00	3.17	

Discussion

Although burnout syndrome may limit an athlete's career, it has not been widely studied in the context of soccer. Research on athlete burnout has investigated variables such as time (i.e., pre-competition, competition, and post-competition stages), injuries, playing position, and professional experience (Cresswell & Eklund, 2004; 2005a; 2005b; 2005c) across several sports (Lonsdale, Hodge & Rose, 2009).

Data obtained in the present study suggest that there is no evidence to indicate that status as either a professional or amateur athlete influences the symptoms related to the three burnout subscales. Amateur athletes' lack of experience and the great expectations that the transition to professionalism may create does not seem to be associated with burnout.

Cresswell and Eklund (2005a; 2005b; 2005c; 2006b) found conflicting results when examining the relationships between the main characteristics of burnout and motivation in rugby athletes. These authors identified higher Sport Devaluation (SD) scores among professional players with more experience in the national league (Cresswell & Eklund, 2005a; 2005b; 2005c). Furthermore, high levels of extrinsic motivation were associated with low levels of Sport Devaluation (SD) (Cresswell & Eklund, 2005a). By observing the changes related to burnout during a competitive season, Cresswell and Eklund (2005a) found that more experienced players were more likely to report higher scores of Physical and Emotional Exhaustion (PEE) and Sport Devaluation (SD). These authors concluded that experienced players are more susceptible to burnout due to the cumulative effects of the demands associated with playing, training, traveling, and the media.

The results of this study revealed higher Reduce Sense of Accomplishment (RSA) scores regardless of athlete experience. In this case, experiencing RSA may reflect the perception of a lack of accomplishment and success in the sport (Cresswell & Eklund, 2005b; 2005c; 2006a; 2006b). The tendency for negative self-evaluations may be associated with feelings of dissatisfaction, including those regarding self-performance.

Lemyre, Hall, and Roberts (2008) also found a (low-to-moderate) negative association between achieving a proposed goal, performance satisfaction, and the three dimensions of burnout. They suggested that the likelihood of burnout increases when athletes realize that they are not meeting their goals and therefore begin to express dissatisfaction with self-performance. Furthermore, Reduce Sense of Accomplishment (RSA) was positively correlated with the fear of failure, doubts about performance, parental criticism regarding task execution, perceived ability, control over a situation, and the search for a higher performance standard.

Previous research on professional Brazilian soccer players has associated athletes' lack of experience with doubts about their own skills to act appropriately in critical situations of a competition (Mahl & Raposo, 2007). Athletes often face adverse conditions in the workplace, such as a lack of organization and support for teams. Regarding the training of elite athletes in Brazil, some variables are frequently associated with the lack of adequate qualifications of directors, including the lack of long-term planning and structure and lack of technical support and sports management (Peres & Lovisolo, 2006; Costa, et al., 2009).

The data from the current study support the quantitative aspects of burnout syndrome. Although the analysis focused on practice and there were no significant differences between the amateur and professional players, some observations can be made. The mean and median values for the three subscales suggest that burnout begins with the development of an Reduce Sense of Accomplishment (RSA) combined with Physical and Emotional Exhaustion (PEE); lastly, a feeling of Sport Devaluation (SD) is established. The observations made in this study are similar to the results found in other studies that have evaluated burnout in professional and amateur athletes of different sports (Cresswell & Eklund, 2004; Hill & Appleton, 2011; Lemyre, Roberts & Stray-Gundersen, 2007; Lemyre, Hall & Roberts, 2008; Cremades & Wiggins, 2008).

Although the three burnout subscales appear to be associated with each other, some authors have argued that they should be considered independent. Burnout is a dynamic process that occurs gradually, and it is possible to identify syndrome-related behavior at different levels (Borges, Argolo, Pereira, Machado & Silva, 2002; Borges, Argolo & Baker, 2006).

Physical and Emotional Exhaustion (PEE) refers to feelings of personal inadequacy and exhaustion due to sports involvement. An Reduce Sense of Accomplishment (RSA) reflects the perceived lack of achievement and skill success involved in sports, whereas Sport Devaluation (SD) represents the devaluation of the perceived benefits obtained through sports involvement (Cresswell & Eklund, 2005b; 2005c; 2006a). Thus, one or more aspects may be more prominent during the different stages of a competitive season.

When studying stress in professional soccer players with regard to playing position, Brandão (2000) found that goalkeepers have a tendency to defuse disturbing situations. This reaction may be not only related to the demands of playing this position but also other factors, such as personality traits. Goalkeepers are usually required to perform demanding tasks and make quick decisions. These requirements demand special psychological characteristics such that, as a way of coping, goalkeepers likely cognitively assess stressful situations as neutral. Conversely, forwards tend to overestimate stressful situations. A possible interpretation for this latter finding is the pressure individuals playing this position feel to score goals in matches.

When characterizing the psychological profiles of Brazilian goalkeepers in relation to other playing positions, Mahl and Raposo (2007) concluded that the former group was more psychologically prepared compared with the latter group in regard to self-confidence, negativism, attention, and competitive attitude.

Cresswell and Eklund (2006b) examined the effect of playing position on the development of burnout in professional rugby players during three different periods: pre-competition, competition, and post-competition. They found that offensive players had higher physical and emotional exhaustion scores compared with defensive players. The greatest differences between defensive and offensive players' feelings of exhaustion were found during the competition stage. Offensive players also had higher Sport Devaluation (SD) scores than defenders (Cresswell & Eklund, 2006b).

Data from the present study did not reveal significant differences between the professional and amateur athletes on the three burnout subscales (RSA, PEE, and SD) with regard to playing position (i.e., forwards, goalkeepers, fullback, midfielder, and defender). However, professional goalkeepers and forwards and amateur defenders had higher physical and emotional exhaustion scores compared with the other athletes.

Workload during the pre-competition stage is believed to be similar for all playing positions. Furthermore, it is likely that the psychological demands associated with the pre-competitive stage are also similar for defenders and forwards (Cresswell & Eklund, 2006b). These feelings of physical and emotional exhaustion are likely due to the higher degrees of responsibility at certain decisive moments that these playing positions have in common.

Professional goalkeepers also have higher SD scores compared with amateur goalkeepers and all other playing positions. Goalkeepers' special qualities and psychological preparation as well as their greater experience may make them more susceptible to physical and psychological pressure compared with the other positions (Brandão 2000; Mahl & Raposo, 2007).

An increase in negative feelings may be associated with the characteristics associated with certain playing positions. Goalkeepers are directly responsible for their team's match results. Small mistakes may lead to defeat, which increases their feelings of responsibility and consequently, the demands they place on themselves during training sessions. Depending on this self-assessment, goalkeepers may develop a lack of interest in their own performance over time as a way to cope with the stress of playing their position.

Conclusions

The elderly people in this study were found sedentary lifestyle, however they have a generally positive attitude towards PE. In addition to valuing the socialisation and excitement generated around PA, they also value the maintenance of general health, which is a major reason for their participation. What seems to hinder people to practice more PA is the physical disability. The frequency of participation seems to influence the attitude towards PE.

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