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European Journal of Experimental Biology, 2013, 3(3):583-588

ISSN: 2248 –9215
CODEN (USA): EJEBAU

Gender differences in burnout in individual athletes

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ABSTRACT

Professional sport is characterized by vigorous exercises, constant exposure to media, and fear of dismissal or injury which may lead to stress and chronic fatigue and ultimately burnout in athletes. Meanwhile, identifying gender differences in burnout is important in providing effective psychological services to athletes. Therefore, the present research examines gender differences in burnout in individual athletes. 185 track and field, shooting, wushu, karate, and taekwondo athletes (2.19 ±4.78 years of age; 8.24 ±6.07 years of athletic experience; 96 male and 89 female; 98 national and 87 international) were selected as sample using stratified random sampling. The subjects completed the Athlete Burnout Questionnaire (ABQ). The data were analyzed using MANOVA and one-way ANOVA at the 95% confidence level. Reduced sense of accomplishment was higher than other dimensions of burnout in both men and women. Moreover, burnout in female athletes was significantly higher than male athletes in all its three dimensions, i.e. reduced sense of accomplishment, emotional exhaustion, and devaluation ($p<0.01$). The findings suggest that female athletes are more prone to burnout and its negative consequences than male athletes.

Keywords: Burnout, individual sports, gender

INTRODUCTION

Participation in competitive sports is a major source of pleasure for most athletes [1]. However, great physical and psychological demands of such sports may lead to stress and chronic fatigue in athletes [2 & 3]. In the literature of sport psychology, burnout is defined as a psychological, emotional, and physical withdrawal from activities [4]. Burnout is characterized by physical and emotional fatigue, negative affect, lack of perceived accomplishment, reduced interest in activity, and devaluation [2 & 5]. A burnt-out individual may withdraw from activity for a while, for they cannot find any other way of dealing with the stressful situation [6]. Burnout has been described as depreciation of human soul whereby the person loses their dignity, spirit, and will [7]. It grows as a result of disparity between expectations and results [8]. In addition, the lack of balance between demands and the resources necessary to satisfy them can, in the long-run, lead to stress and subsequently to burnout [9]. The stresses associated with burnout include fear of defeat, frustration, excessive expectations, anxiety, and persistence for achieving ideal performance [10]. It must be noted that burnout occurs not in people with psychological disorders, but ordinary people, and it grows over time and recovery from it becomes more difficult [3 & 7].

Early research on burnout focused on people with different professions [11]. But Pines (1993) expanded the concept of burnout and suggested that there is a risk of burnout in any situation where there is high motivation for achievement [12]. Based on this approach, athletes who are highly motivated for achieving athletic achievement are

very susceptible to burnout [13]. Involvement and commitment of a burnt-out individual gradually diminish, leading to a condition referred to as lack of commitment or absenteeism [8]. Contrary to expectations, burnout is the result of persistence of an individual for achieving success [14], and it appears that people who are ambitious or overcommitted are more susceptible to burnout. However, in sports such predilections are necessary for elite athletes. At elite levels, the enthusiasm for success can lead to maladaptive traits, loss of interest of the athlete, and their withdrawal from sport [15].

Burnout has certain physiological and psychological consequences that lead to high levels of physical and emotional exhaustion in the burnt-out individual. Chronic fatigue is the main component of burnout, characterized by a severe depletion of energy sources [3]. Empirical evidence shows that burnout increases the risk of cardiovascular diseases, damages the body's immune functions, and leads to chronic inflammation [16]. Recent studies on the physiological consequences of burnout suggest that there is a strong correlation between the symptoms of overtraining and the level of burnout in athletes [17]. Moreover, burnout has affective, cognitive, motivational, and behavioral outcomes that lead to depression, helplessness, and loss of zeal, thus increasing the individual's tendency to withdraw from friends and family [8].

The interest in burnout in athletes started in the early 1980s, but initial reports were based on anecdotal evidence or made claims from research in occupational settings [18 & 19]. An important contribution was the research attributed to Smith (1986) who proposed a stress-based model of burnout [2], which later received empirical support [20]. The studies were based on the assumption that burnout in athletes occurs due to increasing training loads and pressure in sports [21]. The main argument is that elite sports have evolved into a never-ending endeavor with a blurring between the season and the off-season [5]. On the other hand, vigorous training is an indispensable part of participation in highly competitive settings, sincetraining is the most important factor in improving performance [22] and the resulting psychological pressure constitutes a fundamental part of athlete's everyday life [23]. In addition, athletes are continuously evaluated during training and competition, which is in itself very stressful, especially if the athlete does not perform as expected [24 & 25]. Moreover, athletes also experience a fear of deselection. They are often afraid of being dropped from the team, and this fear is aggravated with the fear of injuries, leading to a stressful situation that may result in burnout.

An important issue in psychological counseling is gender differences. In sports, gender differences in the levels of burnout have focused on samples of coaches and athletes. Some studies have shown that female coaches experience higher levels of burnout compared to their male counterparts [26, 27, 28, 29, & 30], while some others have suggested the lack of gender differences in burnout levels [31] or even higher levels in male coaches [32]. The majority of studies on burnout in athletes have been carried out using the Athlete Burnout Questionnaire (ABQ). ABQ consists of three subscales, namely reduced sense of accomplishment, physical/emotional exhaustion, and devaluation. Reduced sense of accomplishment is accompanied by feelings of failure and reduced efficacy. Physical/emotional exhaustion refers to such feelings as physical and mental fatigue during athletic performance, and devaluation refers to a decrease in the importance of sport participation [6]. Lai and Wiggins (2003) found that the symptoms of burnout in soccer players significantly increase during the season, but these changes are not a function of gender differences [33]. Moreover, Harris (2005) studied burnout in collegiate swimmers and found no significant difference between men and women in the subscales of ABQ [34]. Similarly, Smith et al. (2010) reported no significant difference in burnout between male and female students who regularly participated in training and competition [35]. However, some studies in US collegiate leagues such as basketball [36] and other sports [37 & 38] show that female experience higher levels of burnout than male athletes. Thus, there is a considerable inconsistency regarding gender differences in burnout among athletes, and the purpose of the present research is to determine the effect of gender on the dimensions of burnout in individual athletes.

MATERIALS AND METHODS

The present research is an applied, causal-comparative study. The population consists of all Iranian athletes who had participated in national tournaments and preparation camps for Guangzhou Asian Games in track and field, shooting, wushu, karate, and taekwondo in 2010. Stratified random sampling was used to select the participants. From the 220 questionnaires distributed among the sample, 185 questionnaires were returned (84.1% return rate). It must be noted that theparticipants (2.19 ± 4.78 years of age; 8.24 ± 6.07 years of athletic experience; 96 male and 89 female; 98 national and 87 international) were fully aware of the purpose and procedure of the research and filled consent forms.

A demographics questionnaire and the Athlete Burnout Questionnaire (ABQ) were used for data collection. ABQ was developed by Raedeke and Smith (2001) [6], consisting of 15 items measuring the dimensions of *reduced sense of accomplishment*, *physical/emotional exhaustion*, and *devaluation*. Responses are rated on a 5-point Likert scale from 1 (totally disagree) to 5 (totally agree). Previous studies have reported good internal consistency (Cronbach's alpha of 0.84 for reduced sense of accomplishment, 0.89 for physical/emotional exhaustion, and 0.89 for devaluation) and test-retest reliability (a test-retest coefficient of 0.86 for reduced sense of accomplishment, 0.92 for physical/emotional exhaustion, and 0.92 for devaluation) [6]. In the present research, after translating ABQ, the face and content validity of the questionnaire was confirmed by academic experts. Moreover, the results of confirmatory factor analysis showed that the factor structure of the questionnaire fits the collected data ($\chi^2 = 1.45; p = 0.392; \mathrm{SRMR} = 0.10; \mathrm{IFI} = 0.98; \mathrm{CFI} = 0.96$). The internal consistency of the subscales was obtained using Cronbach's alpha: 0.921 for reduced sense of accomplishment, 0.887 for physical/emotional exhaustion, and 0.893 for devaluation.

Descriptive statistics were used to classify and summarize the data. Before data analysis, normal distribution of the data and homogeneity of variances of the groups were verified using Kolmogorov-Smirnov test and Levene's test. Confirmatory factor analysis and goodness of fit indices for small samples ($N < 250$)were used to determine the construct validity of the instrument (LISREL 8.32). Further, reliability coefficient (internal consistency) was determined using Cronbach's alpha. The hypotheses were tested using MANOVA and one-way ANOVA at the 95% confidence level in SPSS 15.

RESULTS

Figure 1 illustrates the burnout levels of the participants as broken down by gender.

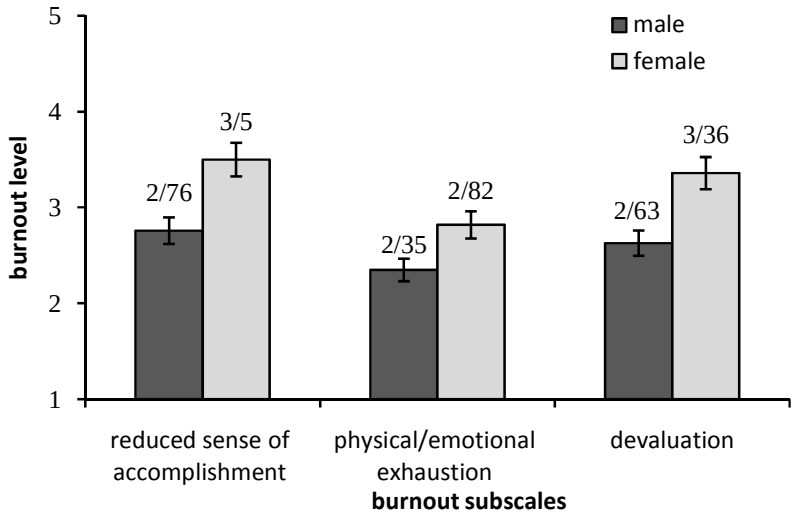

Figure 1 burnout levels of the participants

Table 1 shows the results of MANOVA for examining the effect of gender on burnout levels. The results indicate that the effect of gender is statistically significant (Wilks' $\lambda = 0.798; F(3,179) = 9.276; p = 0.001; \eta^2 = 0.217$).

Table 1 results of MANOVA for examining the effect of gender on burnout levels

Source of change	Wilks' λ	*F*	pdf_1	df_2	*p*	η^2
Gender	0/798	9/276	3	179	0/001***	0/217

$p \leq 0/01$ **
$p \leq 0/001$ ***

Table 2 provides the results of one-way ANOVA as a follow-up test. The data indicates that there are significant differences between male and female athletes in reduced sense of accomplishment ($F(1,181) = 9.983; p = 0.001; \eta^2 = 0.228$), physical/emotional exhaustion ($F(1,181) = 7.884; p = 0.003; \eta^2 = 0.166$), and devaluation

($F(1,181) = 9.055; p = 0.001; \eta^2 = 0.207$). Considering the descriptive statistics (Figure 1), it can be concluded that the level of burnout is higher in female athletes than male athletes in all the three dimensions.

Table 2 results of one-way ANOVA

Source of change	Dependent variable	*F*	*p*	η^2
Gender	*reduced sense of accomplishment*	9/983	0/001***	0/228
	physical/emotional exhaustion	7/884	0/003**	0/166
	devaluation	9/055	0/001***	0/207

$p \leq 0/01$ **
$p \leq 0/001$ ***

DISCUSSION AND CONCLUSION

The purpose of the present research was to determine gender differences in different dimensions of burnout in athletes. First, burnout levels in male and female athletes were measured in terms of reduced sense of accomplishment, physical/emotional exhaustion, and devaluation. The findings showed that in both male and female groups reduced sense of accomplishment is higher than other dimensions of burnout. This finding can be attributed to the decline in physical and mental capacities of the athletes in face of burnout symptoms. That is because participation in vigorous exercises is not only an indispensable part of highly competitive sports, but also a major factor in improvement of athletic performance [22]. Physical and mental inefficiency of athletes in high-intensity exercises may cause the feeling of reduced accomplishment.

Gender comparisons showed that female athletes experiences higher levels of reduced sense of accomplishment, physical/emotional exhaustion, and devaluation than their male counterparts. This evidence suggests that female athletes are more susceptible to burnout than male athletes. Two factors may contribute to these gender differences. First, female athletes may be less capable of coping with physical and mental stresses. It must be noted that in the literature physical [21] and mental [9 & 10] stresses are considered as the main factors in burnout. Second, the fact that female athletes had been less successful in international competitions may have led to the feelings of failure, inefficacy, and reduced accomplishment. The disparity between expectations and outcomes is a major factor in the development of burnout [8].

The present results support the findings of Lee and Cremades (2004), Cremades and Wiggins (2008), and Harris and Smith (2009) in terms of higher levels of burnout in female athletes. However, the results of the present research are inconsistent with the findings Lai and Wiggins (2003), Harris (2005), and Smith et al. (2010). Such inconsistency may be attributed to several factors. First, in some of these studies the samples were from single sports such as soccer [33] and swimming [34]. The literature suggests that the higher exercise loads in individual sports may lead to greater vulnerability of individual athletes to burnout [2]. Moreover, some studies have shown that being part of a team has mediating effects that reduce physical and mental stress in team athletes [39]. Nonetheless, few studies have empirically examined the possible effects of sport type on burnout levels in athletes, and the evidence does not support the provided interpretations. For instance, Gustafsson (2007) found that burnout is more prevalent in team sports than individual sports [35]. Despite insufficient evidence, differences in sports can be a reason for the inconsistency of the results. Therefore, it is recommended that future studies consider the effect of this factor. The second reason is the competitive level of the samples in different studies. Previous studies have been limited to national leagues [33], collegiate tournaments [34], and school competitions, which differ from the present research that studied national and international athletes. Certainly, constant participation in preparation camps and vigorous exercises create higher levels of physical and mental stress compared to lower levels of competition. Also in highly competitive settings, elite athletes are constantly evaluated during training and competition which is very stressful [24 & 25]. Moreover, athletes recruited to national teams are likely to experience high levels of stress due to their fear of injury and dismissal from the team. On the other hand, abnormal perfectionism which often accompanies elite sport may increase the symptoms of burnout [40 & 41]. Expectations of coaches, officials, and others or athletes' excessive persistence for success when the possibility of becoming a champion is slim can lead to abnormal perfectionism that may lead to burnout in these athletes [40 & 41]. Furthermore, research has shown that burnout in athletes increases with their experience of competition at the national level [42]. Nevertheless, evidence suggests that competitive level may a reason for inconsistent results and must be further examined in future studies.

In general, the findings of the present research indicated that female athletes experience higher levels of reduced sense of accomplishment, physical/emotional exhaustion, and devaluation. This suggests that female athletes are more susceptible to burnout, and sport practitioners including technical managers, coaches, psychologists, and athletes must consider these gender differences in their plans and programs.

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