Risk of Burnout Syndrome in College Athletes as A Predictor of Anxiety and Depression

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ACSM's 66th Annual Meeting
May 28-June 1, 2019 • Orlando, Florida USA

ABSTRACT:

PURPOSE: To identify the association between the risk of suffering Burnout syndrome with the presence of anxiety and depression.

METHODS: 403 college athletes from a high-performance program were evaluated. Trained psychologists applied a psychometrical battery conformed by two scales: Goldberg´s Anxiety and Depression scale (two subscales with 9 questions each, that results in "With/Without anxiety" and "With/Without depression") and Sport Burnout Inventory - Reviewed (19 questions and 3 subscales: Emotional Exhaustion, Depersonalization and Reduced Personal Realization; it brings four possible conclusions: "Low Risk", "Moderated Risk", "High Risk" and "With Burnout"). A logistic regression analysis was performed to predict the presence of anxiety or depression depending on the risk of Burnout syndrome existence.

RESULTS: The logistic regression model was statistically significant for some of the classifications in the Burnout inventory. For anxiety, Depersonalization was the only dimension with a significant association. Subjects with "Moderated risk" showed a higher probability of suffering anxiety (p=0.013). On the other hand, all three dimensions were significantly associated with a higher risk of presenting depression problems. Emotional Exhaustion (p=0.009) and Depersonalization (p=0.007) qualified as "Moderated risk" showed high probabilities of depression. Furthermore, Emotional Exhaustion "High risk" rates were also associated with depression scores (p=0.045). Finally, Reduced Personal Realization was associated with presenting this problem when "High risk" was classified (p=0.005).

CONCLUSIONS: Subjects who reported any risk of suffering Burnout syndrome were more prone to presenting depression but no anxiety. Evaluating the risk of suffering Burnout Syndrome in college athletes could be a good way to predict the possibility of having depression problems. Similar studies are suggested to corroborate these results.

INTRODUCTION

Burnout syndrome is a current problem that affects public health in the general population. Athletes are not excluded from this situation. Therefore, it is crucial to investigate the syndrome and its correlation with other public health problems, including characteristics of personality.

As defined by Leiter and Durup (1994), the syndrome of exhaustion and depression has common traits, such as emotional distortion or dysfunctional thoughts; In fact, these concepts may seem very similar. However, there are essential features that differentiate depression and burnout syndrome, such as the individual factors for the former and the social and environmental nature of the latter.

The sports burnout syndrome was defined as a psychological syndrome characterized by emotional and physical exhaustion, an impersonal attitude toward others, decreased athletic accomplishment, and sport self-devaluation (Raedeke & Smith, 2001). In his doctoral thesis, Garces de los Fayos (1998) mentioned that depression and burnout syndrome could be strongly related, what is consistent with Iacovides et al. observations and conclusions (2003).

On the other hand, anxiety is defined by Cox (2007) as an activator, which must be adequately controlled to have the best possible performance in sports. It is well known, however, that poorly attended anxiety can cause an anxiety disorder, which can also adversely affect the athlete's performance. In this regard, Turnispeed (1998) mentioned that the scores of anxiety and burnout syndrome were highly correlated; thus, further analysis of their association is recommended.

Therefore, we decided to identify the association between the risk of suffering Burnout syndrome with the presence of anxiety and depression in college athletes.

METHODS

Subjects: 403 college athletes from a high-performance program were evaluated.

Instrument: Trained psychologists applied a psychometrical battery with two scales: Goldberg´s Anxiety and Depression scale (two subscales with 9 questions each, that results in "With/Without anxiety" and "With/Without depression") and Sport Burnout Inventory - Reviewed (19 questions and 3 subscales: *Emotional Exhaustion*, *Depersonalization,* and *Reduced Personal Realization*; it brings four possible conclusions: "Low Risk", "Moderated Risk", "High Risk" and "With Burnout").

Statistical analysis: A logistic regression analysis was performed to predict the presence of anxiety or depression depending on the risk of Burnout syndrome existence.

RESULTS

The logistic regression model was statistically significant for some of the classifications in the Burnout inventory. For anxiety (Figure 1), *Depersonalization* was the only dimension with a significant association. Subjects with "Moderated risk" showed a higher probability of suffering anxiety (p=0.013). On the other hand, all three dimensions were significantly associated with a higher risk of presenting depression problems (Figure 2); *Emotional Exhaustion* (p=0.009) and *Depersonalization* (p=0.007) qualified as "Moderated risk" showed high probabilities of depression; furthermore, *Emotional Exhaustion* "High risk" rates were also associated with depression scores (p=0.045); finally, *Reduced Personal Realization* was associated with presenting this problem when "High risk" was classified (p=0.005).

	Medium Risk (•)	High Risk (•)	With BO (•)
EE	1.13 (0.71 – 1.80)	1.89 (0.94 – 3.83)	2.27 (0.67 – 7.67)
D	4.43 (1.36 – 14.38)*	-§	-§
RPR	1.49 (0.94 – 2.38)	1.79 (0.87 – 3.69)	1.34 (0.53 – 3.41)

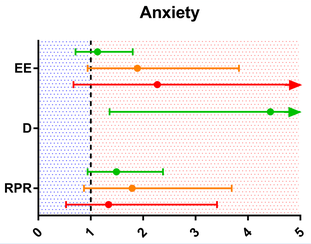

Figure 1. Association between presenting reduced personal realization (RPR), depersonalization (D) or emotional exhaustion (EE) and anxiety in college athletes. Data expressed in odds ratio (95% CI). (BO) Burnout.

* Significant association p<0.05. § Not calculated due to small sample size in this category.

	Medium Risk (•)	High Risk (•)	With BO (•)
EE	1.84 (1.17 – 2.89)†	2.06 (1.02 – 4.17)*	1.97 (0.59 – 6.65)
D	8.11 (1.79 – 36.72)†	-§	-§
RPR	1.11 (0.70 – 1.75)	2.99 (1.40 – 6.43) †	0.96 (0.38 – 2.43)

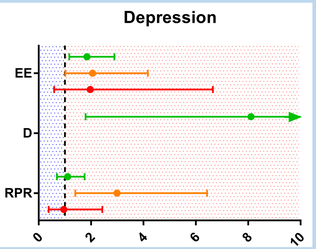

Figure 2. Association between presenting reduced personal realization (RPR), depersonalization (D) or emotional exhaustion (EE) and depression in college athletes. Data expressed in odds ratio (95% CI). (BO) Burnout.

* Significant association p<0.05. † Significant association p<0.001. § Not calculated due to small sample size in this category.

CONCLUSIONS

Subjects who reported a risk of Burnout syndrome were more likely to experience depression than anxiety. This result is not definitive for predicting depression or anxiety through the identification of the burnout syndrome, but it opens the door to continue investigating personality characteristics in athletes, which may allow creating a health profile in this population.

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