



ANXIETY AND DEPRESSION INDICATORS IN COLLEGE ATHLETES: PROPORTION COMPARISONS BY SEX AND TYPE OF SPORT

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ABSTRACT:

PURPOSE: To compare by sex and by type of sport the proportion of college athletes that show the probability of Anxiety and Depression Disorders employing a screening psychological instrument.

METHODS: To compare by sex and by type of sport the proportion of college athletes that show the probability of Anxiety and Depression Disorders employing a screening psychological instrument. 237 college athletes from a high performance program were evaluated. They were cataloged into two sports modalities, Individual sports (Athletics, Boxing, Fencing, Aerobic Gymnastics, Weightlifting, Wrestling, Taekwondo, Table Tennis, Archery and Triathlon) and Team sports (Basketball, Baseball, Football, Soccer, Handball, Softball, Beach Volleyball and Indoor Volleyball). The instrument used was the Goldberg Anxiety and Depression Scale (a screening test, to evaluate two subscales of Anxiety and Depression). Subsequently, subjects were categorized with "No anxiety" (score <4), "Probable anxiety" (score ≥4 <7), and "Probable severe anxiety" (score ≥7), and with "No depression" (score <2), "Probable depression" (score ≥2 <6), and "Probable severe depression" (score ≥6). Then frequencies and proportions were counted and compared by sex and by type of sport.

RESULTS: We found most of the total sample showed "Probable depression", and in the area of anxiety, most of them showed "No anxiety". Statistically significant differences were found by sex, where women showed higher proportion of "Probable severe depression" than men (p = 0.01). In the area of anxiety, men showed higher "No anxiety" proportion than women (P = 0.003), and women showed higher proportion of "Probable anxiety" than men (P=0.03). For the comparison between type of sport, no statistically significant differences were found.

CONCLUSIONS: The results showed that women had a higher proportion of probable anxiety and depression compared to men. The type of sport was not a significant factor for differences in the presence of anxiety and depression. However the evaluation was done by a screening instrument, so it is advisable to carry out a thorough to obtain a better diagnosis.

INTRODUCTION

The college athletes usually are exposed to a very demanding daily life, since they must attend sports activities, the university and, in some cases, their work. It is because of this situation and other aspects that some young athletes may develop a psychological disorder¹ such as anxiety or depression. We believe that a quick way to identify potential athletes at risk or with a mental disorder are the scanning instruments with which a filtering can be done to deepen in the necessary cases. We also consider important to analyze the factors that can pose the college athlete at greater or lesser risk, such as sex and type of sport.

METHODS

Subjects

The population consisted of 237 college athletes between the ages of 16 and 27 (76 females and 161 males) from a high performance program of the University of Guadalajara. They were cataloged into two sports modalities: 1.- Individual sports (n 112), integrated by: athletics, boxing, fencing, aerobic gymnastics, weightlifting, wrestling, taekwondo, table tennis, archery, and triathlon; 2.- Team sports (n 125), integrated by: basketball, baseball, football, soccer, handball, softball, beach volleyball, and indoor volleyball.

Instrument

The instrument used was the Goldberg Anxiety and Depression Scale², a screening test, which is made up of two subscales (Anxiety and Depression), each subscales of four initial items and a second group of five items that are answered only if the initial part was answered affirmatively.

Subsequently, subjects were categorized depending on their results as: "Without Anxiety" (score <4), "Probable Anxiety" (score ≥4 <7) and "Probable Severe Anxiety" (score ≥7), and with "No Depression" (score <2), "Probable Depression" (score ≥2 < 6) and "Probable Severe Depression" (score ≥6).

Then the frequencies and proportions were counted and compared by sex and by type of sport employing a two samples Z test. Significant differences were considered with a p value of <0.05.

RESULTS

Most of the total sample obtained "Probable Depression" on the Depression subscale, and "Without Anxiety" in the Anxiety subscale. When compared by sex, women showed a higher proportion of "Probable Severe Depression" than men (p = 0.01) in the Depression subscale. In the Anxiety subscale, men showed a greater proportion of "No Anxiety" than women (p = 0.003). In the same subscale, women showed a greater proportion of "Probable Anxiety" than men (p = 0.03) (Table 1).

In the comparison by type of sport, no significant differences were observed for any subscale (Table 2).

Table 1. Proportion of college athletes with anxiety and depression compared by sex.

Subscale of Depression			
Category	General	Females	Males
No Depression (score <2)	41.4% (n 98)	31.6% (n 24)	46.0% (n 74)
Probable Depression (score ≥2<6)	50.6% (n 120)	54.0% (n 41)	49.1% (n 79)
Probable Severe Depression (score ≥6)	8.0% (n 19)	14.5% (n 11)*	5.0% (n 8)*
Total	100% (n 237)	100% (n 76)	100% (n 161)
Subscale of Anxiety			
Category	General	Females	Males
No Anxiety (score <4)	52.3% (n 124)	38.2% (n 29)*	59.0% (n 95)*
Probable Anxiety (score ≥4<7)	33.8% (n 80)	43.4% (n 33)*	29.2% (n 47)*
Probable Severe Anxiety (score ≥7)	13.9% (n 33)	18.4% (n 14)	11.8% (n 19)
Total	100% (n 237)	100% (n 76)	100% (n 161)

*Significant differences by sex (p<0.05)

Table 2. Proportion of college athletes with anxiety and depression compared by type of sport.

Subscale of Depression			
Category	General	Individual sports	Team sports
No Depression (score <2)	41.4% (n 98)	43.8% (n 49)	39.2% (n 49)
Probable Depression (score ≥2<6)	50.6% (n 120)	50.9% (n 57)	50.4% (n 63)
Probable Severe Depression (score ≥6)	8.0% (n 19)	5.4% (n 6)	10.4% (n 13)
Total	100% (n 237)	100% (n 112)	100% (n 125)
Subscale of Anxiety			
Category	General	Individual sports	Team sports
No Anxiety (score <4)	52.3% (n 124)	56.3% (n 63)	48.8% (n 61)
Probable Anxiety (score ≥4<7)	33.8% (n 80)	30.4% (n 34)	36.8% (n 46)
Probable Severe Anxiety (score ≥7)	13.9% (n 33)	13.4% (n 15)	14.4% (n 18)
Total	100% (n 237)	100% (n 112)	100% (n 125)

No significant differences were observed by type of sport.

CONCLUSIONS

In our sample, the results showed that women had a higher proportion of anxiety and probable depression, compared with men. As other studies have reported, women are usually at greater risk of acquiring this type of disorder^{3,4}, so it would be advisable to pay more attention to the female gender.

The type of sport was not a significant factor for differences in the presence of anxiety and depression. However, the evaluation was performed using a detection instrument, so it is advisable to carry out a thorough evaluation to obtain a better diagnosis.

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