

**84 - LEVELS OF ANXIETY: A STUDY WITH ATHLETES OF INCOME IN THE SPORTS CONTEXT OF PARANÁ**

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**INTRODUCTION**

Sport Psychology is a subject of study, that has increasing importance in the field of psychological and sports nowadays. Areas as physical education, psychology and even the Laboratories of Physiology have been interested by the research and the production of knowledge about this subject (COSTA and SAMULSKI, 2005; WEINBERG and GOULD, 2006; HOSHINO, SONOO and VIEIRA, 2007).

Recently, high performance sports has shown that the fitness factor is not the only factor that matter for those who want to be champion, because the games are being won with the power of mind (FEIJÓ, 1998). Sport Psychology is an important area of psychology that aims to promote health, communication, interpersonal relations, leadership and improvement of sports performance (JORDAN, 2006).

Competition in sport is a very complex process because it has a structure of rewards (medals, trophies, money, reputation), so it is argued that the notion of a successful athlete or a team automatically cause the failure of others. The vast majority of athletes suffer fear, depression, and anxiety at a direct comparison (WEINBERG and GOULD, 2006).

The psychological level can alter the yield and, according to the personality of the athlete, improve or decrease performance (Costa & Vieira, 2003). According to Weinberg and Gould (2006), the athlete's behavior depends on personal factors (characteristics that lead to behave consistently) and situational (which encourage the behavior according to the situation and the environment).

Anxiety is seen as one of the main variables that affect the performance of athletes (FIGUEIREDO, 2000), and it may appear at different times as before, during and after competition. To Pujals and Vieira (2002) such situations are considered stressful periods, and it is always because the athletes fear something that is going to happens in the future, something that is to come, as the result of a game or a competition.

To Spielberger (1972), anxiety is a complex psychological state or condition of the human body, consisting of phenomenological and physiological properties that differ from emotional states such as stress, threat and fear, because such events are presented as possible causes of the state anxiety.

Of all the knowledge produced about the Applied Psychology of Sport, little was seen in the context of Parana sports on the levels of anxiety, which is a key factor that affects the performance of practitioners of sport especially athletes performance.

Faced with the foregoing, this study aimed to investigate the anxiety levels of athletes in revenue sports context Paraná. Specifically, we compared anxiety levels between genders of athletes.

**METHODOLOGY**

This study consists of a descriptive study, which includes a survey of normative data and related studies (Thomas and Nelson, 2002).

Has participated in the final of the Open Games of Paraná (2008), that happened in Cascavel, 110 municipalities, with 568 teams and over 6000 athletes. In this study, the total of 238 athletes was represented a total of 17 municipalities in different sports, with ages ranging between 15 and 20 years. The study group consisted of female athletes (n = 128), male (n = 110), team sports (n = 211, in the ways: basketball, soccer, volleyball, beach volleyball, soccer and handball) and individual (n = 27, in athletics).

We used the SCAT (Test of Competitive Trait Anxiety), developed by Martens (1990), and validated to Portuguese by Freitas (1991), to assess the anxiety level of competitive athletes. The SCAT assesses the anxiety trait, contains 15 questions and their answers have a Lickert scale of: (1) unlikely, (2) sometimes and (3) frequently. Since some questions (6:11) has no effect on the score reversed, ie if a marked shall be counted as 3, the number 2 and number 3 to 2 to 1. There are also issues placebos (1, 4, 7, 10 and 13), scores are not considered. From these data points must be classified as: 10-12, low; 13-16, average - low, 17-23 medium, 24-27, medium - high and above 28 as high trait anxiety.

For purposes of data collection, this project was submitted to the Standing Committee of Ethics Research (COPEP) in the normative nº 175/2007, which is part of the research project registered at the State University of Maringa titled "Study of Psychophysiological Aspects Affecting Motor Performance in Practice of Exercise and Sport." Still, it was given to athletes and guardians, terms of consent.

Data collection was performed in the second half of 2008, in the place where the JAP'S has occurred, and lodges, sports stadiums, courts and athletics tracks.

Data were analyzed using descriptive statistics, where they made an assessment of data normality using the Shapiro Wilk, characterizing categorical data, absolute and relative frequency. To test the association was used Chi Square 2X3 and Chi Square 2X2 for trends and prevalence ratio with Poisson regression, considering  $p < 0.05$ .

**RESULTS AND DISCUSSION**

Anxiety is a complex psychological state or condition of the human body, consisting of phenomenological and physiological properties that differ from emotional states such as stress, threat and fear, such events are presented as possible causes of the state of anxiety (Spielberger, 1972). In this sense, in Table 1 shows the levels of anxiety, considering the gender of athletes in Parana.

TABLE 1. Association between anxiety levels and the gender of athletes in Paraná.

Gender	f	Anxiety		
		Low%	Medium%	High%
male	110	35,5(39)	59,1(65)	5,5(6)
female	128	15,6(20)	57,0(73)	27,3(35)

( $X^2 = 24,7$ ;  $P = 0,0001$ )

Analyzing the data in Table 1 shows that there was prevalence of anxiety in athletes' average rating (59.1% male - 65 athletes and 57% female - 73 athletes). For men, these results are followed by low anxiety (35.5%, 39 athletes) and later considered high anxiety (5.5%, 6 athletes). As for the female athletes the prevalence of anxiety is followed by high (27.3%, 35 athletes) and later by the low (15.6%, 20 athletes).

There is still using the chi-square that was no association between anxiety level and gender, with significance set at  $P < 0.05$ . Featuring even more evident for anxiety average (17 to 23 points). The analysis of Poisson regression with robust adjustment identifies that women have a prevalence 5.15 times greater than men to present high levels of anxiety.

These results show that for every athlete there is an optimal level of arousal. For the collective sports most athletes showed medium level of anxiety. According to Cratty (2003) this should be the ideal level for team sports that require concentration, physical strength and timing of movements. Thus, the data show that anxiety is an important factor in the lives of athletes.

Brandão (2000) also emphasizes that anxiety is an emotional reaction resulting from a cognitive interpretation, which can be negatively or positively related to a specific situation which causes stress. This reaction can then facilitate or hinder a particular performance.

For Martens (1990) and Gonçalves and Belo (2007) women have higher levels of anxiety than men, saying that this may occur because of culture and their place in society. The data in this study (Table 1) show that diversity (27.3% of women with high levels of anxiety and 5.5% of men with high levels of anxiety).

The Chi-squared test showed no association between anxiety and the sport athletes in Paraná ( $P = 0.72$ ). Demonstrating that every athlete seems to indicate their level of anxiety diversified finding its optimal level of activation. The present study is in line with previous studies such as Becker Jr. (2000) and Zeng (2003), which verify that, often, the presence of teammates diminishes individual responsibility for the competition results, explaining the greater increase in anxiety of the athletes in individual sports and lower rates of anxiety in team sports.

On the other hand, can contribute if the study of Rubio (1999), which states that an important question that arises today is if the performance of a sports team is so effective as its membership, including collective talent there, skills and individual capabilities. Thus, the interactions become more complex when the number of group members increases, representing a major difficulty for the coach which works with sports teams.

### FINAL CONSIDERATIONS

With the "jump" that gave the sport evolution in the twentieth century, and especially with the concern of coaches, teachers, athletes, media, athletic trainers, among others, the investigation of the sporting context and contribution to the development and efficiency of the athlete in competition, by the psychology of sport, is growing every day.

This study, as a contribution in the field of Sport Psychology, had achieved their goals by identifying that there was an association between gender and anxiety levels. Females have a 5.15 times greater prevalence of presenting high levels of anxiety. However, we found no significant difference in anxiety between the individual and team sports.

The study highlights the importance of the intervention of sports psychologists mainly related anxiety in this genre do not interfere with the performance of athletes. It is suggested that further research be conducted with athletes from individual sports performance, especially addressing the issue of anxiety and their levels at higher levels of performance demands.

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#### LEVELS OF ANXIETY: A STUDY WITH ATHLETES OF INCOME IN THE SPORTS CONTEXT OF PARANÁ

##### ABSTRACT

The aim of this study was to investigate the anxiety levels of athletes in revenue sports context Paraná. Specifically, we compared anxiety levels between genders of athletes. The subjects were 238 athletes and 110 (46%) were male and 128 (54%) female. The tools that have been used were: identification form, questionnaire competitive state anxiety (SCAT). The data collection was individual in JAP'S 2008. The association was analyzed with chi-square for trends and prevalence ratio with Poisson regression, considering  $p < 0.05$ . There is a significant difference between the values at the high level of anxiety (5.5% males and 28.1% female). The Chi-squared test shows that there is an association between gender and anxiety levels ( $P = 0.0001$ ). The analysis of Poisson regression with robust adjustment identifies that women have prevalence 5.15 times greater than men to present high levels of anxiety. However, we found no significant difference in anxiety between team sports and individual ( $P = 0.72$ ). Thus, we conclude that levels of anxiety are presented as an intervening factor in motor performance of these athletes of income.

**KEYWORDS:** Anxiety, Sports, Gender.

#### NIVEAUX D'ANXIÉTÉ : UNE ÉTUDE AVEC DES ATHLÈTES À HAUTE PERFORMANCE DANS LE CONTEXTE SPORTIF EN PARANÁ

##### RÉSUMÉ

L'objectif de cette étude a été d'étudier le niveau d'anxiété des athlètes à haute performance dans le contexte sportif en Paraná. Plus précisément, on a comparé les niveaux d'anxiété entre les sexes d'athlètes. Les sujets étaient 238 athlètes et 110 (46%) étaient de sexe masculin et 128 (54%) des femmes. Comme méthodologie on a utilisé: le formulaire d'identification, un questionnaire concurrentiel de l'état d'anxiété (SCAT). Les informations ont été rassemblées à la collecte des données a été individuellement dans des JAP'S 2008. L'association a été analysée par le teste du chi carré pour les tendances et les taux de prévalence par la régression de Poisson, avec signification de  $p < 0,05$ . Une différence significative a été observée entre les valeurs au niveau d'anxiété élevée (5,5% d'hommes et 28,1% de femmes). Par le test du qui-carré on a démontré une association entre les sexes et les niveaux de l'anxiété ( $p = 0,0001$ ). L'analyse par la régression de Poisson avec ajustement robuste a identifié que les femmes ont une prévalence 5,15 fois plus élevée que les hommes de présenter des niveaux élevés d'anxiété. Cependant, il n'y a pas observé aucune différence significative dans les niveaux d'anxiété entre les sports individuels et d'équipe ( $P = 0,72$ ). On a pu conclure que les niveaux d'anxiété sont présentés comme un facteur intervenant dans la performance motrice des athlètes à haute performance.

**MOTS-CLÉS:** Anxiété, Sports, de la parité du sex.

#### NIVELES DE ANSIEDAD: UN ESTUDO CON ATLETAS DE RENDIMIENTO DE LO CONTEXTO ESPORTIVO PARANAENSE

##### RESUMEN

El objetivo del estudio fue investigar los niveles de ansiedad de los atletas ingresos en lo contexto deportivo paranaense. Específicamente, se comparó los niveles de ansiedad entre los géneros de los atletas. Los sujetos fueron 238 atletas, sendo 110 (46%) del género masculino y 128 (54%) femenino. Como instrumento se utilizó: fichamiento de identificación, cuestionario ansiedad estado competitiva (SCAT). La recopilación de datos era individual nos JAP'S de 2008. La asociación fue verificada mediante el Teste Qui-Quadrado para tendencias y la razón de prevalencia con la Regresión de Poisson, adoptando  $p < 0.05$ . Notas que tiene diferencia significativa entre los valores en el nivel de ansiedad alta (5,5% de hombres y 28,1% de mujeres). El Teste Qui-Quadrado muestra que existe una asociación entre el género y niveles de ansiedad ( $P=0.0001$ ). La analise de la Regresión de Poisson con nombramientos robusto identifica que las mujeres tienen una prevalencia de 5.15 veces mayores que los hombres de hacer altos niveles de ansiedad. Sin embargo, no se observó una diferencia significativa de ansiedad entre las modalidades deportivas colectivas y individuales ( $P=0.72$ ). Por lo tanto, conclui-se que los niveles de ansiedad se apresenta como un factor implicado en el desempeño motriz destes atletas de rendimiento.

**PALABRAS CLAVE:** Ansiedad, Deportes, Género.

#### NÍVEIS DE ANSIEDADE: UM ESTUDO COM ATLETAS DE RENDIMENTO DO CONTEXTO ESPORTIVO PARANAENSE

##### RESUMO

O objetivo deste estudo foi de investigar os níveis de ansiedade dos atletas de rendimento do contexto sportivo paranaense. Especificamente, buscou-se comparar os níveis de ansiedade entre os géneros dos atletas. Foram sujeitos 238 atletas sendo 110 (46%) do gênero masculino e 128 (54%) feminino. Como instrumento utilizou-se: ficha de identificação, questionário ansiedade estado competitivo (SCAT). A coleta de dados foi individual nos JAP'S de 2008. A associação foi verificada através do Teste Qui-Quadrado para Tendências e a razão de prevalência com a Regressão de Poisson, adotando  $p < 0,05$ . Verifica-se que houve diferença significativa entre os valores no nível de ansiedade alta (5,5% do gênero masculino e 28,1% feminino). O Teste Qui-Quadrado mostra que há associação entre gênero e níveis de ansiedade ( $P=0,0001$ ). A análise da Regressão de Poisson com ajuste robusto identifica que mulheres tem uma prevalência de 5,15 vezes maior que os homens de apresentarem níveis altos de ansiedade. Porém, não foi constatada diferença significativa da ansiedade entre as modalidades esportivas coletivas e individuais ( $P=0,72$ ). Assim, conclui-se que os níveis de ansiedade se apresentaram como um fator interveniente no desempenho motor destes atletas de rendimento.

**PALAVRAS-CHAVE:** Ansiedade, Esporte, Género.