125 - STAGES OF STRESS: A STUDY WITH PERFORMANCE ATHLETES IN THE CONTEXT OF PARANÁ SPORTS

ABEL FELIPE FREITAG
IEDA HARUMI HIGARASHI
NANCY SAYURI UCHIDA
RILSON JOSÉ PINHO
LENAMAR FIORESE VIEIRA
State University of Maringá, Maringá – Paraná – Brasil
abel_freitag@hotmail.com

INTRODUCTION

The sport is present in thousands of people lives, which contributes to it is considered the most important social phenomenon of the twentieth century (PUJALS e VIEIRA, 2002). This whole sport evolution with the psychology interest in the sport has provided the development of a new field of research and application of psychology that is the Sport Psychology.

According to Bertuol and Valentini (2006), sport brings many benefits to mankind: personal, physical and especially psychological. This finding has increasingly directed attention to studies focused on the importance of psycho-emotional preparation to achieve success. In this context, the Sport Psychology is defined as an important area of psychology that aims to promote health, communication, interpersonal relations, leadership and improvement of sports performance (JORDÃO, 2006). The Sport Psychology has interest in several themes' segments, among them, concentration, attention, motivation, personality, anxiety, and the topic dealt with in this study: stress. (WEINBERG and GOULD, 2006).

Machado (1997) affirms that competitive sport is an event causing the stress, because the athlete performs his skills at high levels and under circumstances where there is always an opponent trying to make it harder, directly or indirectly, since both pursue or have as goal, the best performance.

Stress is a broad and wide subject, seen in the literature by a variety of concepts. Among them, Moreira and Mello (1992, p. 121) define stress (physical, psychological or social) as a "term that covers a range of reactions and stimulus that cause disturbances in the body balance, often with harmful effects.

According to Costa and Vieira (2002) the reasons why individuals carry out their activities and the way they dedicated, can change according the needs and opportunities. Even the athletes themselves say often, the importance that the "mentality" acts on performance of difficult tasks, such as taking a controversial decision, not to lose control in the game, keep calm and not let be bored (PEREIRA, SANTOS and CILLO, 2007). Thus, this aspect would be a factor in balancing the physicalcapacity, with direct consequences on the athlete's performance. However, it is observed that competition is an inexhaustible source of stress (DANTE DE ROSE, 2004).

Given these considerations, this study aimed to investigate the stress stages of the performance athletes in the context Paraná . Specifically, comparing the stress between the genders and what symptoms of stress prevalent in athletes.

METHODOLOGY

This study consists in a descriptive research, which includes a survey of normative data and related studies (THOMAS e NELSON, 2002).

The locus to carry out the research was the “Jogos Abertos Paraná” (Paraná's open games), held in 2008 in the city of Cascavel, Paraná. This event gathered at that location, the participation of 110 cities, with more than 568 teams and 6,000 athletes. For realization of this study, 238 athletes were evatuated, representing a total of 17 municipalities in different modes, with ages ranging between 16 and 40 years. The sample consisted of 128 female athletes (n = 128) and 110 males (n = 110).

As an instrument for data collection was used the Inventory of Stress Symptoms for Adults (LIPP, 2000), for the identification of characteristic cases of stress. The use of this instrument made it possible to diagnose the stages of stress - alarm, resistance and exhaustion - and the symptoms (physical and psychological) in which the athletes were. This test was applied and interpreted under the supervision of a professional psychologist.

For purposes of data collection the project was submitted to the Permanent Committee of Ethics on Research (COPEP) and it was approved for its realization by the opinion nr. 175/2007. The implementation of the study was carried out with a strict observance of ethical guidelines established by the prevailing ethical norm (Res. 196/96-CNS and complementary).

Data were analyzed using descriptive statistics, with evaluation of data normality using the Shapiro Wilk test, and characterization of categorical data, absolute and relative frequency. To test the association was used Qui Square and Qui Square 2X3 2X2 with Yates correction adopting P <0.05.

RESULTS AND DISCUSSIONS

Figure 1 outlines the stages of stress regarding the gender of athletes in the study. Most evaluated athletes had their level of stress in the resistance stagein other words, the phase in which the body tries to enter or return to balance.

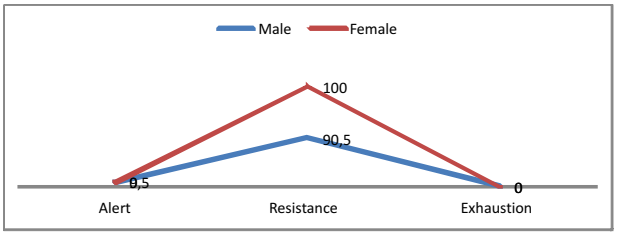


FIGURE 1: Stress stages and gender

The percentage variation between the genders was neither significant, being 90.5% (19 athletes) for males and 100% for females (33 athletes). Only two athletes (9.5%) males showed the stress level in the alert phase (which occurs when the individual comes into contact with the stressor agent and the body has its equilibrium state compromised). It is also needed noting that these results are dependent on the focus of stress, since, when the stressor is external source (not related to sporting activity in question), there may be the loss of individual performance.

Stefanello (2004) says that the recognition of situations that caused stress can negatively affect sports performance or help athletes develop the necessary awareness about their own behavior patterns, allowing the use of confrontational strategies appropriate for facing them. It can be said that many internal factors (personal or individual) and external (situational), were responsible for the competitive stress in JAP'S, being of fundamental importance that the athlete learn to deal effectively with these factors in order to be able to recover and / or keep self-control necessary to operate at the highest level of sports performance.

In this sense, the results of this study appear to corroborate the findings of Pafaro and Martino (2004), which states that stress is directly related to productivity / performance of the athlete and that during this phase, the body will probably adapt their metabolism to support the stimulus for an indefinite time.

Through the evaluation of answers given, most of athletes seem to deal satisfactorily with the stressors, reversing the physiological and psychological alteration, before entering in the exhaustion stage, so not to compromise in an important way their competitive performance.

Figure 2 shows the results relating stress and gender of athletes from Paraná. It was observed that female athletes (25.8%) showed higher levels of stress when compared to male athletes (19.1%).

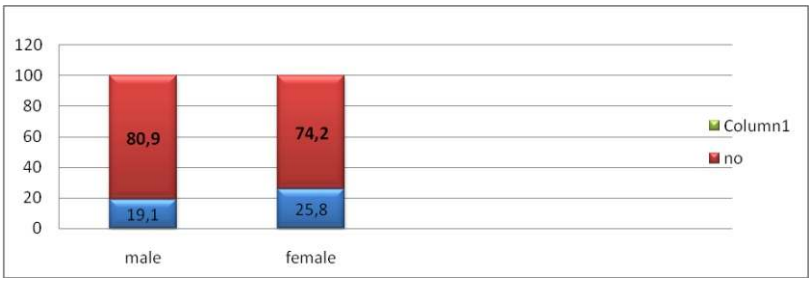


FIGURE 2. Percentage of stress in relation to gender of the athletes.

Despite the small percentage difference between the genders, the application of the test Qui-Square (X^2 Yates = 1.15, P = 0.28) revealed no association between stress and gender. This evaluation shows that both genders suffer c impact of environmental competitive stress, with diverse emotional reactions, physiological readiness to face competition, fighting response (80.9% men and 74.2% women). On the totally opposite of this majority, a lower percentage of people from both genders did not show the same readiness and fighting response (25.8% women and 19.1% of men).

To Gazzani and Heatherton (2005) a stressor is defined in terms of event or environmental stimulus that threatens the body and leads to a management response (coping), which is considered any response given to the body to avoid, escape or minimize an aversive stimulus and may lead the individual to a critical phase / symptom of stress or not. This diversified response depends on the individual perception of threat that each athlete has: some feel threatened and others find the strength to overcome the situation. Certainly, these varied responses are interfered by the meaning that the stressors acquires in terms of evaluations dependent of individual aspects (STRAUB, 2005).

At the table below (1 and 2) the most mentioned symptoms by the athletes were considered:

TABLE 1. Percentage of main psychological stress symptom in performance athletes from Paraná

Symptoms of psychological stress	%
Constantly think of one subject	27,01
Sudden increase in motivation	26,60
Excessive emotional sensitivity	24,18
Excessive tiredness	22,21

Among the psychological symptoms, constantly think of one subject (27.01%) and sudden increase in motivation (26.60%), excessive emotional sensitivity (24.18%) and excessive tiredness (22.21%) are the most mentioned among the athletes. These data are worrying, as they reveal a process of inner struggle of athletes in the pursuit of self-control, able to balance individual expectations and external pressures, at a wisdom and tranquility condition that allows to reach a satisfactory performance in the competition .

TABLE 2. Percentage of the main physical stress symptoms in performance athletes from Paraná

Symptoms of physical stress	%
Muscle Tension	26,68
Constant feeling of physicalwastage	26,36
Cold Hands and Feet	25,75
Change in appetite (last week)	21,21

Regarding the physical symptoms, the most mentioned among the competitors were muscle tension (26.68%), constant feeling of physical wastage(26.36%), cold hands and feet (25.75%), changes appetite in the last week (21.21%).

Considering the found results, there was concern about not potentiate the stressors agents, especially the seek for results that require the participant's biological individuality. De Rose Jr. (1994) criticizes the fact that performance competitions are organized and determined without very clear criteria and established by viewers who ignore the real conditions of participants. Young athletes are very demanded about perfection of movement, moves, however, their body is in a process of change, and their coordination is still not very accurate.

It was found that the symptoms of stress, psychological / physical of highest prevalence among the 8 (eight) most mentioned by athletes, were the psychologicals (61%) rather than physicals (39%). These results are compatible with the

findings of Conti and Junior (2006) and Marques et. al. (2010), which state that most individuals are stressed in the resistance phase of psychological type.

FINAL CONSIDERATIONS

In performance sport there will always be real forms of pressure. But more important than the total elimination of competitive stress (which is almost unlikely), the psychological preparation of athletes should seek to assist the athlete to gain knowledge and physical and mental strategies to enable it to respond adaptively and positively to different situations of pressure, which are inherent to the competitive process.

In relation to stress, it was not found in the present study, a significant association between genders. Both had low levels of prevalence of stress. It shows that sport can be beneficial to people because it was found little stress in athletes in this study. Thus, the sport is probably not the main source of stress for the vast majority of athletes evaluated.

Most athletes were found with stress in the resistance phase, being this phase considered as a compatible level of activation for athletes participating in competitions, and an indication that this competition is not an stressor element for these athletes. The highest prevalence found in athletes was physical stress symptoms, including muscle tension, constant feelings of physical wastage, cold hands and feet and excessive tiredness.

Considering the importance of more complete evaluation processes regarding the conditions for preparing high performance athletes, and their impact on the performance and efficiency, this study provides further evidence of the need to deepen this topic in future investigations. It is suggested that further research be conducted with performance athletes of individual sports.

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Abel Felipe Freitag
abel_freitag@hotmail.com
Rua José Clemente, 836 (apto. 301)
Zona 07, Maringá – PR, 87020-070
(44) 8854-3869

STAGES OF STRESS: A STUDY WITH PERFORMANCE ATHLETES IN THE CONTEXT OF PARANÁ SPORTS

ABSTRACT

The aim of this study was to investigate the stress stages of performance athletes in the context of Paraná sports. Specifically, it was compared the stress between the genders and what symptoms of stress prevalent in athletes. The subjects were 238 athletes, 110 (46%) were male and 128 (54%) female. As an instrument for data collection used the Inventory of Stress Symptoms for Adults (ISSL), aimed at identifying the points of stress. The data collection was individual in JAP'S 2008. Data were analyzed using descriptive statistics, with evaluation of data normality using the Shapiro Wilk test, and characterization of categorical data, absolute and relative frequency. To verify the association was used Qui Square and Qui Square 2X3 2X2 with Yates correction adopting P <0.05. Most evaluated athletes who presented stress were in the phase of resistance (95.25%). The percentage variation between the genders was not significant (p = 0.28). It was found that the symptoms of psychological/ physical stress more prevalent were the psychological (61%) against the physical (39%). Thus, it is possible to conclude that the phases and the stress symptoms is presented as an intervening factor in motor performance of performance athletes.

KEYWORDS: Stress; Sports; Gender.

LES PHASES DE STRESS : UN ÉTUDE AVEC DES ATHLÈTES DE REVENU AU CONTEXTE SPORTIFS AU PARANAÉ PINHO

RÉSUMÉ

L'objectif de cette étude a été d'étudier les phases de stress sur la performance des athlètes de revenu du contexte sportifs au Paraná. Plus précisément, nous avons comparé le stress prévalent dans les athlètes. On a été des sujets, 238 athlètes en étant 110 (46%) des hommes et des 128 (54%) femmes. Comme instrument pour la recherche on a utilisé l'inventaire de Symptômes de Stress pour des Adultes (ISSL), destiné à l'identification dês phases d'estresse, et a été realisée individuellement dans JAP´S de 2008. Les données ont été analysées au moyen de la statistique descriptive, avec évaluation de

la normalité des données en utilisant de Teste de Shapiro Wilk, et pour la caractérisation des données catégoriques, on a evalué des fréquence absolue et relative. Pour vérifier l'association on a utilisé les essais des Qui Carré 2X3 et Qui Carré 2X2 avec la correction du Yates en adoptant P <0,05. Pour la majorité des athlètes qui avaient le stress ont été évalués dans la phase de résistance (95,25%). La variation en pourcentage entre les sexes n'était pas significative (p = 0,28). Aussi, on a constaté que les symptômes de stress psychologique / physique, de plus grande prévalence étaient les psychologiques (61%) au détriment de la physique (39%). Alors, em conclusion, nous avons observés que des phases et symptômes du stress sont présentés comme un facteur intervenant dans la performance motrice de ces athlètes de revenu.

MOTS-CLÉS : Stress, Sport, Type.

FASES DE LO ESTRESSE: UM ESTUDO COM ATLETAS DE RENDIMIENTO DE LO CONTEXTO ESPORTIVO PARANAENSE

El objetivo del estudio fue investigar las fases de lo estresse de los atletas ingresos en lo contexto esportivo paranaense. Específicamente, se comparó lo estresse entre los géneros y cuales los sintomas predominantes en los atletas. Los sujetos fueron 238 atletas, sendo 110 (46%) del género masculino y 128 (54%) femenino. Como instrumento se utilizó lo Inventário de Sintomas de Estresse para Adultos (ISSL), destinado a identificación de las fases de estresse. La recopilación de dados era individual nos JAP'S de 2008. Los dados fueran analisados por intermédio de la estatística descritiva, con avaliación de la normalidade de los dados utilizando lo Teste de Shapiro Wilk, y caracterización de los dados categóricos, frecuéncia absoluta y relativa. Para verificar la associación foi utilizado lo Teste Qui Quadrado 2x3 y Qui Quadrado 2x2 com correción de Yates adotando P<0,05. La maioria de los atletas avaliados que apresentarón estresse estavan em la fase de resistência (95,25%). La variación percentual entre los géneros no se mostro significativa (p=0,28). Contató-se que los sintomas de estresse psicológicos/físicos de mayor importância fueran los psicológicos (61%), em detrimiento de los físicos (39%). Así, concluí-se que las fases y los sintomas de lo estresse se apresentarón como um fator interveniente em lo desempeño motor destes atletas de rendimiento.

PALABRAS CLAVE: Estresse, Esporte, Género.

FASES DO ESTRESSE: UM ESTUDO COM ATLETAS DE RENDIMENTO DO CONTEXTO ESPORTIVO PARANAENSE

RESUMO

O objetivo deste estudo foi de investigar as fases de estresse dos atletas de rendimento do contexto esportivo paranaense. Especificamente, buscou-se comparar o estresse entre os gêneros e quais os sintomas de estresse predominantes nos atletas. Foram sujeitos 238 atletas sendo 110 (46%) do gênero masculino e 128 (54%) feminino. Como instrumento para a coleta de dados utilizou-se o Inventário de Sintomas de Estresse para Adultos (ISSL), destinado à identificação das fases de estresse. A coleta de dados foi individual nos JAP´S de 2008. Os dados foram analisados por meio da estatística descritiva, com avaliação da normalidade dos dados utilizando o Teste de Shapiro Wilk, e caracterização dos dados categóricos, freqüência absoluta e relativa. Para verificar a associação foi utilizado Teste Qui Quadrado 2X3 e Qui Quadrado 2X2 com correção de Yates adotando P<0,05. A maioria dos atletas avaliados que apresentaram estresse estavam na fase de resistência (95.25%). A variação percentual entre os gêneros não se mostrou significativa (p=0,28). Constatou-se que os sintomas de estresse psicológicos/físicos de maior prevalência foram os psicológicos (61%), em detrimento dos físicos (39%). Assim, conclui-se que as fases e os sintomas de estresse se apresentaram como um fator interveniente no desempenho motor destes atletas de rendimento.

PALAVRAS-CHAVE: Estresse, Esporte, Gênero.