# 125 - ANXIETY AS INTERVENING ELEMENT IN MOTOR PERFORMANCE OF RHYTHMIC **GYMNASTICS ATHLETES**

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#### Introduction

The studies in the area of Sport Psychology have been increasing progressively. But in spite of that whole growth, it continues to know few about the human behavior in sport situation. In this competitive sport context, the studies requests a detailed, but also restricted analysis of the psychological factors that surrounding the sport, in this specific case the anxiety.

The anxiety according Freitas et al. (1999, p. 30) it is defined as "a generalized state of alert that we reacted to the perception of a menace to ourselves", impeding the subject of possessing its best performance and, like this, harming its work. Even so, it also brings the idea that the anxiety is an essential source for conquests and talents, understanding as "the main

motivation force in the human life" (p.37). Weinberg and Gould (2001, p. 97), the anxiety state refers to the component of the humor, where it is a "temporary it and could (2001, p. 97), the anxiety state refers to the component of the humor, where it is a "temporary emotional state, in constant variation, with apprehension feelings and tension consciously noticed, associated with the activation in the autonomous nervous system, while the anxiety trait is a tendency behavioral of noticing as lowering circumstances that objectively are not dangerous and of answering to them with anxiety state.

Anxiety is highly generating source of stress, could be understood as a feeling of effort of who is trying to conclude a task with great difficulty. Sometimes it is good to feel concerned, before a competition, because when that happens, the body can performance better, because there is an increase in the adrenaline secretion in the blood circulation, that acts on the muscles and capillary vases preparing the body for a competitive situation. However, the anxiety is sometimes so intense that can commit the performance (TAKEI and SHIVOLETTO, 2000).

However, to study the variations of the anxiety levels in athletes of rhythmic gymnastics becomes an important theme, not only to understand the relevance of the understanding in the control of the athletes' anxiety as well as, to observe the influence of the sporting context in the athletes' life.

Methodology This research was characterized as a descriptive study. The sample was composed by ten rhythmic gymnastics athletes, six adults gymnastics and four youth gymnastics. As measurement instruments was used: Martens, (1982) anxiety traits protocol (SCAT), that helps the evaluation of the anxiety levels related with the personality; the anxiety state (CSAI-2) of Martens et al. (1992 apud WEINBERG and GOULD, 1995), that evaluates the athletes pré-competitive anxiety. The data were collected in training practice and competitions during the period of a year of accompaniment when the questionnaires were answered. The data were analyzed through the descriptive statistics, being used of the average, frequency and percentile.

# **Results and discussion**

Trait/state anxiety and age

To proceed will be presented the figure 1, which represents the levels of traits anxiety related age of the athletes' of rhythmic gymnastics.

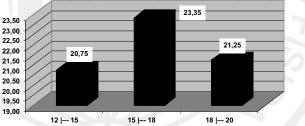


Figure 1 - Relationship between age and the rhythmic gymnastics athletes' anxiety traits.

It was verified in the figure 1, that the largest index of the anxiety traits concentrates on the athletes with intermediary age among 15 to 18 years, which it went very superior when, compared with athletes with ages among 12 to 15 years.

The anxiety levels, according to Cratty (1984), tend to increase at the end of the adolescence, and they decrease about the thirty years. Perhaps it happens because the athletes are in a sensitive and critical phases of human development where need to take several decisions, as a partners, looking for a profession; and it is also in that period that so much the men as the women reach the apex of its physical potential in the sport.

The figure 2 shows a relationship between anxiety state and the athletes' age.

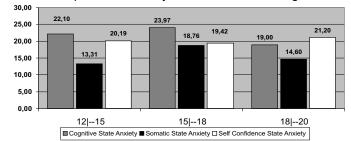


Figure 2 - Comparison of the athletes' ages and the competitive state anxiety.

It was noticed in the figure 2, that the lower rate (19.00) of cognitive state anxiety, it was located in the gymnasts athletes in the 18-20 years age group, and the greatest level (23.97) it was among the athletes with ages between 15 to 18 years. It is possible to believe that the athletes' experience with previous competitions seems to give then a better emotional stability, while in the athletes in transition phase (youth for adult) the doubt regarding a motor performance in the competition always remain.

Considering the somatic state anxiety, the indexes of 13,31 in the ages among 12 to 15 years, and 18.76 in the ages among 15 to 18 years and 14.60 for 18 to 20 years, these data reveal the activation level presented by the athletes is a could be good level for the rhythmic gymnastics athletes, where the data concentration has to be high and the tuning and the harmony of the perfect movements, consequently the activation has to be at medium level

Regarding the self confidence state anxiety was observed that the athletes with the greatest level (21.20) of anxiety they were the older gymnasts or with advanced ages, and the more experts between 18 and 20 years and the lower level (19.42) it was represented by the athletes with ages between 15 to 18 years. On this aspect Viana (2000) define self-esteem as an evaluation that the individual does of his qualities, carried out experiences, virtues or moral value. This means that as larger the athlete's maturity this evaluation is based on larger performance approaches

The athlete that has a higher or lower self-esteem has the capacity to feel competent or not for the accomplishment of any task. However, Viana, (2000, p. 129), it defines self-confidence as "the conviction that the individuals have in his own capacities to be very well succeeded in sports. Considering this, it was possible to say that self-confidence and self-esteem are intimately tied up".

### State anxiety and practice experience

To proceed, will be presented the figure 3 that illustrate the comparison of the cognitive state, somatic state and of self-confidence state anxiety and time of practice or experience in training and competition.

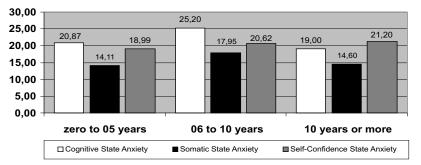


Figure 3 - Relationship among the cognitive, somatic, self-confidence state anxiety and time of practice of the Rhythmic Gymnastics athletes.

In the figure 3, it is observed that the athletes with time of practice between 6 and 10 years were the ones that they obtained the greatest values in the scale of cognitive state anxiety (25.2), while the most experienced athletes, presented an anxiety rate of (19.0), being also lower than the athletes with less than 5 years of practice. That means the athletes with intermediary time of practice were more concerned, apprehensive than the other ones, in other words, the cognitive anxiety is a component of the human thought that says respect to the degree in that the person worries or she has negative thoughts. (WEINBERG and GOULD, 2001).

For Cratty (1984) it is probable that the young athletes that stay in a certain sport can learn how to work better with the situational anxiety while then get older, to the step that the ones that don't get it they could drop out of the sport. The results founded in this study observed that the athletes with more than ten years of practice presented the best anxiety indexes in the three anxiety categories (cognitive, somatic and self-confidence), demonstrating for this a better emotional stability in competition context.

#### Conclusion

The results obtained through the analysis of the anxiety trait revealed that the athletes of 15 to 18 years presented the higher indexes of anxiety, what also happen with the state anxiety in the cognitive and somatic categories.

It was evidenced although the athletes with larger time of practice or experience in rhythmic gymnastic (more than 10 years) were the ones that presented the better indexes of anxiety for this specific sport, demonstrating the experience as soon as is a fundamental element for the control of the anxiety. On the other hand, the athletes with 6 to 10 years of practice were the ones that presented higher anxiety related with motor performance during the competition, and the cognitive state anxiety reached the higher values when compared with the somatic or self-confidence state anxiety.

Concluding, the rhythmic gymnastics athletes need a professional of the sport psychology area who must be a member of the team sport management, to help the emotional control and especially in the control of the anxiety that is an intervening factor evidenced in the revenue athletes' motor performance.

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# ANXIETY AS INTERVENING ELEMENT IN MOTOR PERFORMANCE OF RHYTHMIC GYMNASTICS ATHLETES

#### Abstract

This descriptive study had as general objective analyze the anxiety traits and anxiety state levels in Rhythmic Gymnastics athletes on specific situations of motor performance. Were subject, ten youth and adult athletes of the Maringá Paraná. Specifically, as a specific objective verified the anxiety trait and of anxiety state levels in different situations, observing the practice experience and comparing ages. As measure instrument was used the anxiety trait protocol (SCAT), and the anxiety state protocol (CSAI-2). The data regarding the anxiety traits was collected in training situation and the data about anxiety state during the competition situation. The data were collected in several moments through one year. The descriptive statistics was used for data analysis. The results demonstrated: the athletes related an important anxiety level that increased into competition; so much the level of anxiety trait was higher in the athletes with age between 15 to 18 years; the athletes with larger time of practice experience went the ones that they presented a better emotional stability. In conclusion: the anxiety influenced the rhythmic gymnastics athlete's motor performance, demonstrating to be an intervening factor that should be controlled by professionals of the sport psychology. Key words: Anxiety, Rhythmic Gymnastics, Motor Performance

# L'INQUIETUDE COMME ELEMENT INTERCENANT DANS LE DEVELOPPEMENT MOTEUR DES ATHLETES **DE LA GYMNASTIQUE RHYTHMIQUE**

Résumé

Ce travail descriptif a le but analyser les niveaux de l'inquiétude de trace et d'etat dans les athlètes de la gymnastique rhythmique dans des situations spécifiques du développement moteur. Il a été soumis dix athlètes dans les catégories juvéniles et d'adulte de la ville de Maringá - Paraná, Brésil. Le but spécifique c'était vérifier les niveaux de l'inquiétude de trace et l'inquiétude d'état dans différentes situations, observant la période de la pratique dans la modalité et comparant les âges. L'instrument à mesurer était le protocole de l'inquiétude de trace (SCAT) et le protocole de l'inquiétude d'état (CSAI-2). Le rassemblement de données de l'inquiétude de trace a été fait pendant une formation et l'inquiétude d'état pendant une concurrence. Le rassemblement de données produit en quelques plusieurs moments dans une période d'une année. La statistique descriptive a été employée pour analyser des données. Les résultats ont montré que l'augmentation du niveau de l'inquiétude a été liée à l'importance de la concurrence; le niveau de l'inquiétude de trace et de l'inquiétude d'état était plus haut dans les athlètes avec âges entre 15 et 18 ans; les athlètes avec plus d'expérience de la pratique en matière de sports ont présenté une stabilité plus émotive. On arrive à la conclusion que l'inquiétude influencée dans le développement moteur des athlètes dans la modalité de la gymnastique rhythmique, montrant qui est un facteur d'intervention ce qui doit être commandé par des professionnels de la psychologie des sports.

Mots-cles: Inquiétude, Gymnastique Rhythmique, Développement Moteur.

## LA ANSIEDAD COMO ELEMENTO INTERFERENTE EN EL DESEMPEÑO MOTOR DE LAS ATLETAS DE GIMNÁSTICA **RÍTMICA**

#### RESUMEN

Este trabajo ha consistido en analizar los niveles de ansiedad rasgo y ansiedad estado en las atletas de gimnástica rítmica en las situaciones específicas de desempeño motor. Del estudio participaron diez gimnastas de las categorias juvenil y adulto de la ciudad de Maringá Paraná. De manera específica, se buscó verificar los niveles de ansiedad rasgo y ansiedad estado en los diferentes situaciones, observándose el tiempo de práctica en la modalidad y comparándose las edades de las gimnastas. Como instrumiento de medida se utilizó el Inventario de Ansiedad Rasgo (SCAT), y el Inventario de Ansiedad Estado (CSAI-2). Los datos de ansiedad rasgo fue obtenido en la situación del entrenamiento y la de ansiedad estado durante la etapa de competición y la coleta de datos ocurrió en vários momentos del año. Se utilizó de la estadística descriptiva para el análisis de datos. Los resultados demuestraron que: el aumento del nivel de ansiedad se relacionó con la importancia de la competición; tanto el nivel de ensiedad rasgo como estado presentaron más elevados en las gimnastas con edad entre 15 y 18 aõs; las gimnastas con más tiempo de práctica fueron las que presentaron la mejor estabilidad emocional. Así, se concluye: la ansiedad influye en el desempeño motor de las atletas de gimnastica rítmica y demuestra ser un elemento interferente que debe ser controlado por los professionales de la psicología deportiva.

Palabras-claves: Ansiedad, Gimnástica rítmica, Desempeño motor.

# A ANSIEDADE COMO ELEMENTO INTERVENIENTE NO DESEMPENHO MOTOR DE ATLETAS DE GINÁSTICA RÍTMICA RESUMO

O presente estudo descritivo teve como objetivo geral analisar os níveis de ansiedade traço e níveis de ansiedade estado em atletas de Ginástica Rítmica em situações específicas de desempenho motor. Foram sujeitos, dez atletas das categorias juvenil e adulto da cidade de Maringá Paraná. Especificamente, buscou-se verificar os níveis de ansiedade traço e de ansiedade estado em diferentes situações, observando o tempo de prática na modalidade e comparando as idades. Como instrumento de medida foi utilizado o protocolo de ansiedade traço (SCAT), e o protocolo de ansiedade estado (CSAI-2). A coleta dos dados de ansiedade traço foi realizada em situação de treinamento e a da ansiedade estado durante a situação de competição, a coleta de dados ocorreu durante em vários momentos um ano. A estatística descritiva foi utilizada para análise dos dados. Os resultados demonstraram que: o aumento do nível de ansiedade esteve relacionado com a importância da competição; tanto o nível de ansiedade traço como estado foi maior nas atletas com idade entre 15 e 18 anos; as atletas com maior tempo de prática foram as que apresentaram a melhor estabilidade emocional. Assim conclui-se: a ansiedade exerceu influencia no desempenho motor das atletas da modalidade de ginástica rítmica, demonstrando ser um fator interveniente que deve ser controlado por profissionais da psicologia esportiva.

Palavras Chaves: Ansiedade. Ginástica rítmica. Desempenho motor.