

## 162 - STUDY OF THE STRESS AND ITS RELATIONSHIP WITH THE SPORTING LESION OF ATHLETES OF BASKETBAL

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### **Introduction**

Physical factors as over training and physical fatigue primary causes of the sporting lesions are considered. Even so psychological and social factors can also contribute to the development of lesions (Kerr & Minden, 1988; Anderson & William, 1989; Blackwell & McCullough, 1990; Hardy et., 1991; Petrie, 1993; Lavallee & Flint, 1996; jobson, 1999).

Anderson & Williams (1988) they proposed a model denominated stress model and sporting lesion, establishing a relationship between psychological variables and the sporting lesion. Through of that model, the authors propose a possible identification of risk factors to the lesion development and they also suggest an intervention in the attempt of minimizing that risk. In the center of the model, he/she meets restored of stress that links mutually with cognitive elements and physiologic. During the sport, the athlete tries different restored cognitive when working with different situations (denominated estresantes potentially), for example: a competition can produce positive sensations of challenge, excitabilities, but they can also produce negative sensations, as anxiety and discomfort. Those negative sensations can determine answers exaggerated physiologic, as alterations endocrinológicas (example: elevation of the hormone adrenocorticotrófico (ACTH), catecolamina levels, glicocorticoides liberation) and alterations in the autonomous Nervous System (Example: activation of the Nice Nervous system). The activation of that system can determine an increase of the breathing, dilation of the pupil, widespread muscular tension and tremor. Following those physiologic reactions, they happen alterations, as the increase of the amusement (Anderson & Williams, 1993).

The physiologic alterations determine larger susceptibilities the lesion by means of three situations: The generalized increase of the muscular tension, reduction of the visual field and I increase of the amusement. The increase of the muscular tension can reduce the flexibility, the muscular coordination and muscular efficiency, predisposing the athlete to a series of lesions as stretching and fractures. The reduction of the visual field cannot allow to the athlete the perception of elements that you/they can help him potentially. The increase of the amusement can remove the focus of the athlete's attention of the task to be accomplished, determining like this not larger risk of the correct execution of the movement and, there is adult lesion risk (Anderson & Williams, 1993).

To classify the situation as a positive challenge (evaluation) or as a menace (negative evaluation), the athlete uses a cognitive evaluation of the situation. This evaluation she bases on the necessary demands to that situation, in the resources that the athlete disposes to work with the situation and also with the current possible consequences of her (Anderson & Williams, 1993)

Three main factors can interfere in the stress answer: personality, history of the stress and superation potential. In the presence of those factors, the evaluation of a situation potentially stresses (distress) it can lose temper, facilitating or not the relationship stress-lesion.

Although the influence of the personality is accepted on the incidence of lesions, the studies related to that factor are still inconsistent and controversial (Anderson & Williams, 1993; Weinberg & Gould, 1999). Blackwell & McCullagh (1990); Petrie 1993); Lavallee & Flint (1996) they show effects significant preditivos of the line of competitive anxiety on the incidence of lesions in the sport, while kerr & Minden (1988) they didn't observe relationship between anxiety line and incidence of lesions.

The superation potential already links with coping strategies or of superation (p. former: ability in he/ she concentrates, to think positive etc). When those strategies are used, the relationship was confirmed in the Blackwell studies & McCullagh (19900 and Petrie (1993).

In a summarized way, the model stress-lesson proposes that, in a situation potentially of the stress an individual with longer level of stress daily, certain personality characteristics and minor superation potential will have larger probability of presenting reduction of the field visual, larger level of amusement and muscular tension, I increase like this the risk of injury.

### **Methodology**

In function of being restored to the objectives of our work, we will apply the following investigation methods:

1- Observation: As scientific method has great importance due to that allows to obtain information of the behavior of our objective of such investigation and like him he/she comes in fact, it is to say, it is a form of obtaining direct and immediate information besides on the phenomenon and object that it is being investigated, it was the first used scientific method, and for a long time it constitutes the basic form of obtaining scientific information.

was also applied the stress Model and sporting lesion (adapted of Anderson & Williams, 1988).

### **Procedures Organization of the work.**

Observation: Different trainings and competitions are observed, we can measure like this it differentiates inn the emotional behavior in both activities. They were registered the amount of passes and positive throws that they are accomplished in the trainings and the competitions, the passes of attendance were only registered.

(I was applied the athletes a questionnaire based on the stress model and sporting lesion of Anderson & Williams, 1988), to obtain the following information;

- "Athletes whit lesion
- "Area of the lesion
- "Occurrence of the lesion
- "Moment of the lesion
- "Sensations
- "Psychological sensation
- "Attitude After the lesion
- "Presence of the Psychological Support accelerated the Rehabilitation
- "Absence of the Support Hindered the rehabilitation.

**Result of the Observation**

It was observed that the 60% of the athletes (seven trainings and seven competitions) they manifest behaviors differentiated in the competition in relation to the trainings.

**Behaviors in the trainings**

"Precision in the pass - 40% positive of the total of pass facts in the trainings.

"Precision in the throw - 60% positive of the total of accomplished throws.

**Behaviors in the competitions**

"Precision in the pass - 40% positive of the total of passes facts in the competitions.

"Precision in the Throw - 30 % positive of the total of accomplished throws.

In the application of the questionnaire the following results were had.

"Athletes whit lesion - 60% of the athletes already suffered lesion

"Area of the Lesion - 40% of the athletes suffer knee lesion

"Occurrence of the lesion - 40% of the athletes whit lesion in competitions

"Sensations - 60 % of the athletes present fear sensations moments before the competition.

"Psychological" sensation - 70% of the athletes feel Sensation of tension excessive.

"Attitude After the lesion - 100% of the athletes maintained the motivation after the lesion.

Psychological "supports after the lesion -60% of the athletes have psychological support after the lesion accelerating the rehabilitation.

**Conclusions**

With base in the results obtained in the present work, we reached the conclusion that the same athletes that suffer of lesions present negative sensations ( fear) moments before beginning the competition, which can determine restored physiologic exaggerated and to decrease the concentration capacity in the accomplishment of the movement.

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**STUDY OF THE STRESS AND ITS RELATIONSHIP WITH THE SPORTING LESION OF ATHLETES OF BASKETBAL****Summary**

The present work was developed seeking to study "The stress and its relationship with the athletes of Basketball "sporting lesion, using the stress model and sporting lesion of Anderson & Williams, 1988. For the development of this investigation we applied to the team of juvenile Basketball of the youth's from Caxias do Sul Clube Recreio, a questionnaire based before on the aspects of the model mentioned, Where for the obtained results I was demonstrated that the largest amount

of lesions in this team is in those athletes that manifest during the competition negative sensations, as anxiety and discomfort. The researched athletes practice this sport more than ten years the. **Introduction:** Physical factors as over training and physical fatigue primary causes of the sporting lesions are considered. Even so psychological and social factors can also contribute to the development of lesions (Kerr & Minden, 1988; Anderson & William, 1989; Blackwell & McCullough, 1990; Hardy et., 1991; Petrie, 1993; Lavallee & Flint, 1996; jobson, 1999). **Methodology:** I was applied the stress Model and sporting lesion (adapted of Anderson & Williams, 1988). **Result of the Observation:** It was observed that the 60% of the athletes (seven trainings and seven competitions) they manifest behaviors differentiated in the competition in relation to the trainings. **Conclusions:** With base in the results obtained in the present work, we reached the conclusion that the same athletes that suffer of lesions present negative sensations ( fear) moments before beginning the competition, which can determine restored physiologic exaggerated and to decrease the concentration capacity in the accomplishment of the movement.

**KEY WORDS:** stress, athletes, lesion, basketball

#### ÉTUDE DU STRESS ET SON RAPPORT AVEC LA LÉSION DE SPORT D'ATHLÈTES DE BASKETBAL

##### Le résumé

Le travail présent a été développé chercher pour étudier « Le stress et son rapport avec l'athletes's de Basket-ball » lésion de sport et utilise le modèle du stress et lésion de sport d'Anderson & Williams, 1988. Pour le développement de cette enquête nous avons appliqué à l'équipe de Basquetball juvénile du youth's de Caxias faites Sul Clube Recreio, un questionnaire a basé auparavant sur les aspects du modèle mentionnés, où pour les résultats obtenus j'ai été démontré que le plus grand montant de lésions dans cette équipe est dans ces athlètes qui manifestent pendant la compétition sensations négatives, comme inquiétude et incommodité. Les athlètes faits des recherches pratiquent Ce sport plus de dix années le. **La présentation:** Les facteurs physiques comme sur former et fatigue physique que les causes fondamentales des lésions de sport sont considérées. Même les facteurs si psychologiques et sociaux peuvent contribuer aussi au développement d'injuries ( Kerr & Minden, 1988, ). **La méthodologie:** J'ai aussi été appliqué le modèle du stress et blessure de sport (a adapté d'Anderson & Williams, 1988). **Résultat de l'observation:** Il a été observé que les 60% des athlètes ( sept formations et sept compétitions) ils manifestent comportements différenciés dans la compétition par rapport aux formations. **Les Conclusions:** Avec base dans les résultats obtenue dans le travail présent, nous avons atteint la conclusion qui les mêmes athlètes qui souffrent de lésions sensations négatives présentes (peur) moments avant de commencer la compétition qui peut déterminer le physiologic restauré exagéré et diminuer la capacité de la concentration dans la réalisation du mouvement.

**LES MOTS DE LA CLEF :** Accentuez, athlètes, lésion

#### ESTUDIO DEL ESTRES Y SU RELACIÓN CON LA LESIÓN DEPORTIVA DE ATLETAS DE BALONCESTO

##### Resumen

El presente trabajo fue realizado con el objetivo de estudiar "El estres y su relación com la lesión deportiva de atletas de baloncesto", utilizando el modelo de estres y lesión deportiva de Anderson & Williams, 1988. Para el desarrollo de esta investigación aplicamos al equipo de Baloncesto juvenil del Clube Recreio de Juventud de Caxias do Sul, um questionário basado en los aspectos del modelo antes mencionado, donde por los resultados obtenidos fue demostrado que la mayor cantidad de lesiones em este equipo está em aquellos atletas que manifiestan durante la competición sensaciones negativas, como ansiedad. Los atletas investigados practican este deporte hace, mas de diez años. **Introducción:**

Factores físicos como sobre-entrenamiento y fatiga física son considerados causas primarias de las lesiones deportivas. Por eso factores psicológicos e sociales también pueden contribuir para el desarrollo de lesiones (Kerr & Minden, 1988; Anderson & William, 1989; Blackwel & Mecullgh, 1990; Hardy et al, 1991; Pitrie, 1993; Lavallee & Flint, 1996; Johson, 1999). **Metodología:** Fue aplicado el Modelo de estress y lesión deportiva (adaptado de Anderson & Williams, 1988). **Resultados de la Observación:** Se observó que el 60% de los atletas (siete entrenamientos y siete competiciones) manifiestan comportamientos diferenciados en la competición en relación a los entrenamientos) **Conclusiones:** Con base em los resultados obtenidos en el presente trabajo, llegamos a la conclusión que los mismos atletas que sufren de lesiones, presentan sensaciones negativas (miedo) momentos antes de comenzar la competición, las cuales pueden determinar respuestas fisiológicas exageradas y disminuir la capacidad de concentración en la realización de los movimientos.

**PALABRAS CLAVES:** Estres, atletas, Lesión Deportiva,

#### ESTUDO DO ESTRESSE E SUA RELAÇÃO COM A LESÃO ESPORTIVA DE ATLETAS DE BASQUETEBOL

##### Resumo

O presente trabalho fui desenvolvido visando estudar "O estresse e sua relação com a lesão esportiva de atletas de Basquetebol", usando o modelo de estresse e lesão esportiva de Anderson & Williams, 1988. Para o desenvolvimento desta investigação aplicamos à equipe de Basquetebol Juvenil do Clube Recreio da juventude de Caxias do Sul, um questionário baseado nos aspectos do modelo antes mencionado, onde pelos resultados obtidos fui demonstrado que a maior quantidade de lesões nesta equipe está naqueles atletas que manifestam durante a competição sensações negativas, como ansiedade e desconforto. Os atletas pesquisados praticam este esporte a mais de dez anos. **Introdução:** Fatores físicos como desbalanceamentos musculares, over training e fadiga física são considerados causas primárias das lesões esportivas. Porém fatores psicológicos e sociais também podem contribuir para o desenvolvimento de lesões (kerr & Minden, 1988; Anderson & William, 1989; Blackwell & Mecullagh, 1990; Hardy et al., 1991; Petrie, 1993; Lavallee & flint, 1996; Johson, 1999). **Metodologia:** Fui aplicado o Modelo de estresse e lesão esportiva (adaptado de Anderson & Williams, 1988). **Resultado da Observação:** Observou-se que o 60% dos atletas (sete treinamentos e sete competições) manifestam comportamentos diferenciados na competição em relação aos treinamentos. **Conclusões:** Com base nos resultados obtidos no presente trabalho, chegamos à conclusão que os mesmos atletas que sofrem de lesões apresentam sensações negativas (medo) momentos antes de começar a competição, as quais podem determinar repostas fisiológicas exageradas e diminuir a capacidade de concentração na realização dos movimento.

**PALAVRAS CHAVES:** Estresse, atleta, lesão.