42 - SYMPTOMS OF PRE-COMPETITIVE STRESS IN JUDO ATHLETES OF SUB-15 CLASS PARTICIPANTS IN THE RIO CUP INTERNATIONAL JUDO

THIAGO DE SOUSA ROSA;
LUIS FEITOSA;
ANDRÉ LUÍS PADRENOSSO;
RICARDO RUFFONI
Universidade Federal Rural do Rio de Janeiro – UFRRJ, RJ, Brasil
Rio de Janeiro/RJ - Brasil
thiago.rosaef@gmail.com

doi:10.16887/86.a1.42

INTRODUCTION

We live in the information age, which monitor the speed of events has become a challenge. The collection of information about the area, plus the ills of life in large urban centers, leads to situations that often define as stress. However, "the social representation of stress does not always correspond to reality" (LIPP, 1999).

The term stress was first applied to health by physiologist and Hungarian researcher Hans Selye, who in 1936 in Canada defined it as "a pathogenic strain state of the organism" (LIPP, 1999; Margis et al. 2003; LIMA , 2005).

Margis et al. (2003) defines stress as the situation caused by the "perception of stimuli that cause emotional excitement and, to disturb homeostasis, trigger a process of adaptation." Lipp (1996) further states that this phenomenon occurs before a fearful situation, excitement, anger, confusion or even extreme happiness caused by psychophysiological changes according to Silva and ENUMO (2014) generate physical, psychological, mental and hormonal reactions.

This process sets up a "major response of the body to maintain life" (BERTO; Ruffoni; Dutra, 2011), but at high levels can lead to serious health problems (LIPP, 1999). For athletes the stress is a key element in the quest for better performance and should be controlled within appropriate levels, as the Yerkes-Dodson Law (LIMA, 2005).

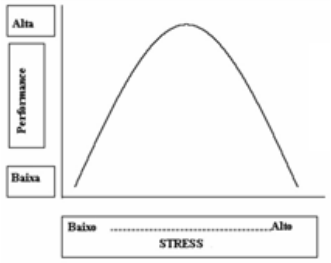

Figure 1. Summary of the Yerkes-Dodson Law (LIMA, 2005)

The triggering situations of stress can be different, among which are the "dependent stressful life events," characterized as the generating process of stress subjected to the individual action, ie dependent on interactional relationships thereof, where the behavior an actor in the process (Margis et al., 2003).

We can classify the stress on three levels according to their degree of intensity and duration (Shonkoff, 2012):

1. Stress Positive - when the reaction is short and light effects. It can be identified by small increases in heart rate and related hormone concentrations.

2. Tolerable stress - when the reactions are still short, but more intense. Compromise the individual's reasoning and can be minimized by coping strategies.

3. Toxic Stress - when the reactions are long and severe, impairing thinking and leading to permanent physical and cognitive problems.

Toxic stress in childhood or adolescence requires a lot of attention, being proven its negative impact on learning, behavior and physical and mental well-being (Shonkoff, 2012).

The competition is inherent in the human being and is present in all social fields. The sports competition is a comparative selection and performance evaluation process, which in athletes generates affective and somatic complex situations and inherent characteristics of sport and competitive event (FABIANI, 2009).

According to De Rose (2002) competition "is the time in which the athlete can demonstrate your skills and abilities as well as its shortcomings and compare your performance with some standard", configuring itself as the pinnacle of sporting expression and as a social phenomenon and cultural rooted in daily life. However, research has shown that for some sporting competition athletes may pose a strong threat to their physical well-being, psychological and social (Stefanello, 2007).

OBJECTIVE

Identify key symptoms of Stress Pre-competitive Children and Youth which have affected the athletes participating in the class sub-15 of the Rio Cup International Judo of 2014.

MATERIALS AND METHODS

It was used to study the descriptive method Survey. This is the collection of information directly from people about their ideas, feelings, health plans, beliefs and social, educational and financial background, using a predefined instrument in order to obtain quantitative descriptions of a given population (FREITAS, 2000).

Adopted as collected through the List Symptom Stress Pre-Competitive infant juvenile (LSSPCI), a validated instrument, created from the List Symptoms Stress Pre-competitive and adapted to children and young athletes (from age 10) competing in official events is municipal, regional, state, national and international (DE ROSE, 1998).

This instrument consists of 31 symptoms of stress, where the subject has to indicate, on a scale 1-5 (one to five), the frequency with which particular symptom happens in the moments before the competition, counting from 24 hours before event. The questionnaire can be administered to athletes aged 10 to 14 years, and perhaps athletes from older age groups, including adults, since the language is properly suited to them (DE ROSE, 1998).

The survey was conducted on 6 and 7 (six and seven) September 2014 at the Rio Cup International Judo competition

that is part of the official calendar of FJERJ (Judo Federation of the State of Rio de Janeiro) and that just happens to every two years.

To accomplish this study we used a total sample of 33 athletes from the U-15 class (athletes aged 13 to 14 years) who were interviewed in the stands just before the entrance to the area of fighting.

The questionnaires were delivered only by filling in the free informed consent by those responsible and the explanation of the risks, objectives and other questions relating to the study. To homogenize the speech and minimize possible errors, the pattern of interviewers approach and practiced through a pilot study was agreed, held on the 6th (September 6th) in the class sub-13 (athletes 11 to 12 years).

For the statistical analysis we used percentages and Description fashion major levels of stress presented. The data are shown below.

RESULTS AND DISCUSSIONS

Below are the tables with the data collected from the questionnaire LSSPCI.

Table 1. Frequency Index percentage of complaints of symptoms of pre-competitive stress (n = 33)

		Replies / Frequency				
	Symptoms	Never	Rarely	Sometimes	Often	Always
		%	%	%	%	%
1	My heart beats faster than normal	12,1	21,2	21,2	**24,2**	21,2
2	sweat enough	**39,3**	24,2	12,1	15,1	9,0
3	I get hectic	**33,3**	15,1	30,3	9,0	12,1
4	I am troubled by criticism from people	**54,5**	18,1	18,1	6,0	3,0
5	I really wanted to pee	24,2	**27,2**	15,1	9,0	24,2
6	I'm worried about my opponents	15,1	**36,3**	12,1	15,1	21,2
7	Drink plenty of water	**42,4**	33,3	9,0	6,0	9,0
8	I bite nail	**45,4**	30,3	12,1	3,0	9,0
9	I get excited	9,0	15,1	24,2	24,2	**27,2**
10	I am afflicted	21,2	**42,4**	12,1	21,2	3,0
11	I'm afraid to go bad in competition	**36,3**	15,1	12,1	18,1	18,1
12	It takes a lot to sleep	**39,3**	21,2	9,0	12,1	18,1
13	I have doubts about my ability to compete	**48,4**	21,2	15,1	12,1	3,0
14	I dream with the competition	**33,3**	24,2	15,1	9,0	18,1
15	I get nervous	15,1	12,1	21,2	**27,2**	24,2
16	I'm worried about the outcome of the competition	12,1	**33,3**	15,1	15,1	24,2
17	My mouth goes dry	**36,3**	12,1	21,2	12,1	18,1
18	I feel very tired at the end of training	18,1	**27,2**	21,2	15,1	18,1
19	The presence of my parents in the competition concerns me	**60,6**	15,1	6,0	12,1	6,0
20	I talk a lot about the competition	21,2	**36,3**	3,0	18,1	21,2
21	I'm afraid of losing	**30,3**	27,2	21,2	6,0	15,1
22	I get impatient	**24,2**	21,2	21,2	12,1	21,2
23	I do not think about anything else except in competition	21,2	**33,3**	12,1	12,1	21,2
24	I cannot wait to compete	12,1	18,1	15,1	18,1	**36,3**
25	I get envolved	**45,4**	24,2	21,2	3,0	6,0
26	I look forward	12,1	12,1	18,1	21,2	**36,3**
27	On race day, get up earlier than usual	33,3	18,1	3,0	3,0	**42,4**
28	I'm afraid to disappoint people	**42,4**	21,2	6,0	9,0	21,2
29	I feel more responsible	3,0	18,1	27,2	15,1	**36,3**
30	I feel that people demand a lot of me	24,2	**39,3**	18,1	3,0	15,1
31	I'm afraid of making mistakes in competition	18,1	21,2	9,0	21,2	**30,3**

Table 2. Reincidency frequency of complaints of symptoms "stress" pre-competitive (n = 33).

	Symptoms	Reincidency Questionnaire Responses **LSSPCI**
1	My heart beats faster than normal	**Often**
2	sweat enough	Never
3	I get hectic	Never
4	I am troubled by criticism from people	Never
5	I really wanted to pee	**Few times**
6	I'm worried about my opponents	**Few times**
7	Drink plenty of water	Never
8	I bite nail	Never
9	I get excited	**Always**
10	I am afflicted	**Few times**
11	I'm afraid to go bad in competition	Never
12	It takes a lot to sleep	Never
13	I have doubts about my ability to compete	Never
14	I dream with the competition	Never
15	I get nervous	**Often**
16	I'm worried about the outcome of the competition	**Few times**
17	My mouth goes dry	Never
18	I feel very tired at the end of training	**Few times**
19	The presence of my parents in the competition concerns	Never

20	I talk a lot about the competition	**Few times**
21	I'm afraid of losing	Never
22	I get impatient	Never
23	I do not think about anything else except in competition	**Few times**
24	I cannot wait to compete	**Always**
25	I get envolved	Never
26	I look forward	**Always**
27	On race day, get up earlier than usual	**Always**
28	I'm afraid to disappoint people	Never
29	I feel more responsible	**Always**
30	I feel that people demand a lot of me	**Few times**
31	I'm afraid of making mistakes in competition	**Always**

The first data observed in the study that should be highlighted is that all 14 athletes had symptoms at least 31 possible stress of a 45.1% of total content. Among these it showed a clear predominance of psychological symptoms on physiological symptoms, with only "My heart beats faster than normal" obtained a significant frequency. This result is in agreement with that found by other authors in similar studies using the same instrument (BERTO, 2011; LOPES, 2012; Stefanello, 2007).

Among the most frequent symptoms observed with 42.4%, the "on race day up earlier than normal," followed by anxiety ("I get anxious"), greater sense of responsibility ("I feel more responsible "), and for looking at the time of competition (" I cannot wait to compete "), both three with 36.3%. Finally we find "I'm afraid of making mistakes in the" with 30.3% followed by "get excited" with 27.2%.

The act of waking up earlier than normal on the day of competition may be related to several factors, including other symptoms identified in the list of the most recurrent, such as anxiety and expectation at the time of competition. It is important to highlight that is not found the prevalence of this outcome in any other correlated study (BERTO, 2011; GUTIERREZ E CUNHA, 2012; Stefanello, 2007; HIROTA et al, 2008;. ROCK AND SILVA, 2005).

The anxiety that appeared in 36.3% of cases, refers to the emotional state in which there is an arrest and / or debilitating concern, causing a general fear generated by the expectation of danger, threat or imminent challenge (Bertuol And VALENTINI , 2008). In a similar study by Gutierrez and Cunha (2012), the authors found anxiety as a symptom in 50% of cases. Also De Rose (2000), in a study of 723 athletes using LSSPCI, found similar results among the symptoms "I get nervous (a)," "I get anxious (a)" and "I'm concerned about (a) the outcome of the competition ".

According Versari (cited Bertuol and Valentini, 2008) "anxiety is a natural phenomenon triggered by the stress of competition, coupled with pressures imposed on the athlete." Studies indicate that in adolescents these anxiety levels seem higher than in adults, tending to decrease over the years (Cratty, 1984; SANTOS and PEREIRA, 1997; Bertuol and Valentini, 2008). High levels of anxiety may jeopardize not only the sports performance as the health of this athlete (Bertuol And Valentini, 2008) and may be the generator of several other symptoms of stress such as fear, distress, nervousness, accelerated heart rate etc. .

The symptom "cannot wait to compete", also found in 36.3% is possibly linked to anxiety, aimed at shortening the stressful action generated by the confrontation expectation and mainly by insecurity, as evidenced in the symptom "I'm afraid of making mistakes in competition "with 30.3% frequency. It may also be related to the feeling of excitement for participating in the event, reported by 27.2% of the sample and that can be considered a symptom to sound.

The fear of making mistakes in competition reflects a sense of authorship in income that inspires responsibility, making the player feel autonomous in conducting their struggle. This sentiment explains the recurrence of the symptom "I feel more responsible."

The high frequency of symptoms related to liability were also found in studies with swimmers (ROCK AND SILVA, 2005), university athletes of futsal (HIROTA; Tragueta; Verardi, 2008) and volleyball players (GUTIERREZ E CUNHA, 2012)

The Athlete fact feel responsible and actor in the result makes the competition a challenge, calling it eustress, ie a situation where stress incurs a lower risk of negative effects. (MENDES AND MILK, 2004).

It is up to the coach to observe how the athlete faces competition. Situations that we believe to be beyond our control generate insecurity, may soon lead to a distress frame, able to generate many side effects, compromising the sporting performance (MENDES AND MILK, 2004).

Observe the results also the prevalence of response ever for psychological symptoms "have doubts about my ability to compete," "I worry (a) with reviews of people," "I'm afraid of bad compete," "I'm afraid to lose," "I'm afraid of disappointing people," "the presence of my parents in the competition concerns me" all in accordance with a high self-esteem frame in athletes.

CONCLUSIONS

It was identified in this study that all athletes presented varied symptoms of pre-competitive stress, mostly linked to psychological aspects, which requires adequate professional supervision, taking into account the risks of developing a toxic stress frame.

We observed within the symptoms the presence of sharp anxiety levels, which may affect the athlete's performance also bringing harm to their health.

In addition to the anxiety was noticeable feeling liability competitive practice, being seen as a positive effect of this process. Then we find the excitement in this aspect, which shows pleasure in attending the event.

We consider it essential that technicians remain attentive to the stress levels presented by their athletes, accompanying his symptoms to have it as a springboard in athletic performance and not a risk factor for health and individual performance. Remembering that stress at appropriate levels can enhance athletic performance.

We suggest finally to be realized new studies with similar groups, using other instruments and comparing the results with competitive levels of stress and symptoms presented.

REFERENCES

BERTO, S.; RUFFONI, R.; DUTRA, R. B. Os Principais Sintomas de Estresse Pré-competitivo Infanto-juvenil da Equipe Ruffoni de Judô. FIEP Bulletin On-line, v. 81, 2011.

BERTUOL, L.; VALENTINI, N. C. Ansiedade Competitiva de Adolescentes: gênero, maturação, nível de experiência e modalidades esportivas. Revista da educação física/UEM, v. 17, n. 1, p. 65-74, 2008.

CRATTY, B. J. Psicologia no Esporte. 2 ed. Rio de Janeiro: Prentice-Hall do Brasil, 1984.

DE ROSE, D.. Lista de sintomas de “stress” pré-competitivo infanto-juvenil: elaboração e validação de um instrumento. Rev. paul. Educ. Fís., São Paulo, v. 12, n. 2, p. 126-33, 1998.

DE ROSE, D. A competição como fonte de estresse no esporte. Rev. Bras. Ciên. e Mov. Brasília v, v. 10, n. 4, p. 19-26, 2002.

FABIANI, M. T. Psicologia do Esporte: A ansiedade e o estresse pré-competitivo. Elaborado em julho de 2009. Disponível em: http://www.psicologia.pt/artigos/textos/A0483.pdf. Acesso em 23 set. 2014

FREITAS, H.; OLIVEIRA, M.; SACCOL, A. Z.; MOSCAROLA, J. O Método de Pesquisa Survey. Revista de Administra&ccdeil; ão da Universidade de São Paulo, v. 35, n. 3, 2000.

GUTIERREZ, E. F. J.; Da CUNHA V. R. Sintomas de stress pré-competitivo em escolares praticantes de voleibol masculino da cidade de Pelotas. EFDeportes.com, Revista Digital. Buenos Aires, Año 16, Nº 165, Febrero de 2012.

HIROTA, V. B.; TRAGUETA, V. A.; VERARDI, C. E. L. Nível de estresse pré-competitivo em atletas universitárias do sexo feminino praticantes do futsal. Revista Conexões, Campinas, v. 6, n. especial, 2008

LIPP, M. E. N.; NOVAES, L. E. O que eu tenho é stress? De onde ele vem. O stress está dentro de você. São Paulo: Ed. Contexto, p. 11-18, 1999.

LIPP, M. N. Pesquisas Sobre o Stress no Brasil. São Paulo: Papirus, 1996.

LIMA, F. V. Correlação entre variáveis preditoras de estresse e o nível de estresse. 2005. Tese de Doutorado. Dissertação de Mestrado, Universidade Católica de Brasília, Brasília, Brasil.

LOPES, F. J.; ZANETTI, M. C. Sintomas de Stress Pré-competitivo: estudo com atletas de futsal categoria sub 11. ENAF vol. 7 n 1. ÍNDICE DOS TRABALHOS, p. 102, 2012.

MARGIS, R.; PICCON, P.; COSNER, A. F.; SILVEIRA, R. D. O. Relação entre Estressores, Estresse e Ansiedade. Revista de Psiquiatria do Rio Grande do Sul, v. 25, n. 1, p. 65-74, 2003.

MENDES, R. A.; LEITE, N. Ginástica Laboral – princípios e aplicações práticas. Ed. Manole Barueri, SP, 2004.

ROCHA, T. A.; DA SILVA, C. G. S. Sintomas mais frequentes de estresse pré-competitivo em crianças entre nove e dez anos na natação competitiva. São Paulo, 2005.

SANTOS, S. G.; PEREIRA, S. A. Perfil do nível de ansiedade-traço pré-competitiva de atletas de esportes coletivos e individuais do Estado do Paraná. Movimento, Porto Alegre, ano 3, n. 6, p. 3-12, 1997.

SILVA, A. M. B.; ENUMO, S. R. F. Estresse em um fio de cabelo: revisão sistemática sobre cortisol capilar. Avaliação Psicológica, v. 13, n. 2, p. 203-211, 2014.

STEFANELLO, J. Situações de estresse no vôlei de praia de alto rendimento: um estudo de caso com uma dupla olímpica. Revista Portuguesa de Ciências do Desporto, v. 7, n. 2, p. 232-244, 2007.

SHONKOFF, J. P. et al. The lifelong effects of early childhood adversity and toxic stress. Pediatrics, v. 129, n. 1, p. e232-e246, 2012.

SYMPTOMS OF PRE-COMPETITIVE STRESS IN JUDO ATHLETES OF SUB-15 CLASS PARTICIPANTS IN THE RIO CUP INTERNATIONAL JUDO

ABSTRACT

The term stress was first applied to health by Hans Selye physiologist who defined it as a state of pathogenic strain of the organism. This process sets up an important response of the body to sustain life, but at high levels can lead to serious health problems. For athletes stress is a key element in the quest for better performance and should be controlled within appropriate levels. The aim of this study was to identify the symptoms of stress pre-competitive juvenile whom were affected athletes participating in class U-15 Copa Rio International Judo For the year 2014 it was applied to “List Symptoms Stress Pre-competitive” Children and Youth - LSSPCI to a sample of 33 athletes. We observed in this study that all athletes had some level of stress, mainly psychological, demanding attention and professional support taking into consideration the risks of developing a toxic stress. We consider it essential that technicians remain attentive to levels of stress presented by their athletes, accompanying their symptoms to have it as a springboard in athletic performance, and not a risk factor for health and individual performance.

KEYWORDS: Stress, Stress Pre-competitive, Judo.

SYMPTÔMES DE STRESS PRÉ-COMPÉTITION DANS JUDOKAS DE CATÉGORIE SOUS-15 ANS LES PARTICIPANTS À LA COPA RIO INTERNACIONAL DE JUDO DE 2014

RÉSUMÉ

Le stress à long terme a été appliquée pour la première à la santé par le physiologiste Hans Selye, qui le définit comme un état de souche pathogène de l'organisme. Ce processus met en place une réponse importante du corps pour maintenir la vie, mais à des niveaux élevés peut entraîner des problèmes de santé graves. Pour les athlètes le stress est un élément clé dans la quête pour une meilleure performance et devrait être contrôlé à des niveaux appropriés. Le but de cette étude était d'identifier les principaux symptômes de la pré-concurrentiel des mineurs de stress qui ont été touchés athlètes participant à la sous-15 de la Rio Coupe Internationale de Judo de 2014. Pour cette catégorie de la liste des symptômes a été appliquée "stress" enfants d'âge pré-compétitifs et les jeunes (LSSPCI) à un échantillon de 33 athlètes. Elle a observé dans cette étude que tous les athlètes présentés certain niveau de stress, surtout psychologique, qui exigent une attention et un soutien professionnel en tenant compte des risques de développer un stress toxique. Nous considérons qu'il est essentiel que les techniciens restent attentifs aux niveaux de stress présentés par leurs athlètes, accompagnant ses symptômes d'avoir comme un tremplin dans la performance athlétique, pas un facteur de risque pour la santé et la performance individuelle.

MOTS-CLÉS: stress, le stress précompétitive, judo.

SÍNTOMAS DE ESTRÉS PRE COMPETITIVA EN ATLETAS DE JUDO EN LA CATEGORÍA MENORES DE 15 AÑOS PARTICIPANTES EN LA COPA RIO INTERNACIONAL DE JUDO

RESUMEN

El término estrés se aplicó primero a la salud por el fisiólogo Hans Selye, quien lo definió como un estado cepa patógena del organismo. Este proceso crea una respuesta importante del cuerpo para mantener la vida, pero a niveles altos puede provocar problemas de salud graves. Para los atletas del estrés es un elemento clave en la búsqueda de un mejor rendimiento y debe ser controlada dentro de los niveles adecuados. El objetivo de este estudio fue identificar los principales síntomas del juvenil estrés precompetitivo quienes fueron afectados los atletas que participan en la categoría menores del 15 años del Copa Rio Internacional de Judo de 2014. Para esta clase la Lista de verificación de síntomas se aplicó "Estrés" Niños

Pre-competitivos y jóvenes (LSSPCI) a una muestra de 33 atletas. Se observó en este estudio que todos los atletas presentan algún nivel de estrés, sobre todo psicológica, que exigen atención y apoyo profesional teniendo en cuenta los riesgos de desarrollar un estrés tóxico. Consideramos que es esencial que los técnicos se mantienen atentos a los niveles de estrés presentados por sus atletas, acompañando a sus síntomas para tenerlo como un trampolín en el rendimiento deportivo, no un factor de riesgo para la salud y el desempeño individual.

PALABRAS CLAVE: Estrés, Estrés Precompetitivo, Judo.

SINTOMAS DE ESTRESSE PRÉ-COMPETITIVO EM ATLETAS DE JUDÔ DA CLASSE SUB-15 PARTICIPANTES DA COPA RIO INTERNACIONAL DE JUDÔ

RESUMO

O termo estresse foi aplicado pela primeira vez à área da saúde pelo fisiologista Hans Selye, que o definiu como um estado de tensão patogênico do organismo. Esse processo configura uma importante resposta do organismo para a manutenção da vida, porém em níveis elevados pode acarretar em graves problemas de saúde. Para atletas o estresse é elemento fundamental na busca pela melhor performance e deve ser controlado dentro de níveis adequados. O objetivo do presente estudo foi identificar os principais sintomas de estresse pré-competitivo infanto-juvenil aos quais foram acometidos os atletas participantes na classe sub-15 da Copa Rio Internacional de Judô do ano de 2014. Para isto foi aplicada a Lista de Sintomas de “Stress” Pré-competitivo Infanto-juvenil (LSSPCI) a uma amostra de 33 atletas. Foi possível verificar no presente estudo que todos os atletas apresentaram algum nível de estresse, principalmente psicológico, o que demanda uma atenção e acompanhamento profissional levando em consideração os riscos de se desenvolver um estresse tóxico. Consideramos fundamental que os técnicos se mantenham atentos aos níveis de estresse apresentados pelos seus atletas, acompanhando sua sintomatologia para que este sirva de trampolim no rendimento atlético, e não um fator de risco para a saúde e performance do indivíduo.

PALAVRAS-CHAVE: Estresse, Stress Pré-competitivo, Judô.