

Goals Orientation and Pre Competitive Stress of Brazilians Track and Field Athletes

Rogério Marques Marcelino dos Anjos^a, Edione Najan Guedes Ferreira^a, Denis Domingos da Silva^a, Luiz Fernando de Lima Paulo^b, Vinicius Barroso Hirota^{b,*}

^aDepartment of Physical Education, Mackenzie Presbyterian University. 905, Mackenzie Av., zip: 06460-130 - Baruei, São Paulo, Brazil.

^bDepartment of Physical Education, Nossa Cidade College. 630, Francisco Pignatari Av., zip: 06310-390, Carapicuíba, São Paulo, Brazil

*Corresponding Author ph: 055-11-35552131 Email: vhirota@mackenzie.br

DOI: 10.26524/1521

ABSTRACT: The aim of this study is correlate the level of the stress pre competitive with the motivational orientation of the young athletes who participate in the sport competition. Through a research correlational we studied 25 younger Brazilians athletes of athletics (mean age 15.20±1.91) in Santana de Parnaíba, São Paulo City, Brazil; as instrumental we applied the List Of Symptoms Of "Stress" Pre-Competitive Youth Children and Teosq, then we tested the stability of the instruments and their correlation. Corresponding to the Teosq scale the Alpha was 0.69 for ego orientations and 0.75 for task orientation; for the stress scale, the Alpha result was 0.86, the average of task orientation was 4.20 and ego orientation was 2.64 showing that the group has tendency to task orientation; the level of stress was moderate and no significant correlations was found. We can conclude that both instruments tested in this study had a stable reliability and the pre-competitive stress, can cause changes in the behavior of a consistent athlete before the competition, disfiguring your sleep, and during sports practice, impair its performance.

Keywords: Motivation; Pre Competitive Stress; Track and Field.

INTRODUCTION

The practice of any sport reminds that the athletes involved in it needs to be up to break all the limits, and thinking about the younger athletes, we supposed that they could be able to stay playing and support all the emotional questions related of this age. Therefore, the motivational load must condition the stress load in the competition.

According to Hirota et al. (2010) the sport can lead decisive factors for the emergence of stress, since as a result to internal and external conditions that involve one person, several factors coming from the environment in which the individual belongs, it may represent potential incentives that causes stresses [1].

Weinberg and Gould (2001) describe the stress as a process containing four stages [2]. First, the individual and placed a demand that can be physical or psychological, after the second stage is the perception regarding to the demand, which is different for each individual. Third step response

occurs as demand lodged, and the last stage and the behavior of individual the stress caused by this process, so a continuous cycle especially when the answer is negative.

The theory of motivation is something that leads the individual to an action, which keeps him focused to persist toward their goals, so it is necessary to have an objective to be reach (Winterstein, 2002). Bebetos et al. (2014) says that the crux of the theory of the achievement Goal is that individuals engage in achievement contexts in order to demonstrate competence, so the individual who is high in task orientation uses self-referenced criteria to define success and perceives competence as improvement [3-4]. So Huffman et al. (2003) defines motivation as need for achievement of success; necessity of do better than others in activities and complete challenging tasks; the desire to rise above, especially when competing with others players [5].

Therefore, we can say that motivation takes place through a satisfied person with their performance from their individual behavior. Under the assumption, the cognitive theory of motivation can establish two types of orientation: guidance for ego and task orientation [6].

According to Duda (1992), there is a link between the motivational orientation in any particular environment and the potential socialization of values inherent in that environment [7]. So when we note that an individual are propelled by ego, we note some features such as individualism and performing tasks with a low degree of difficulty, while the individual task-oriented brings the team spirit alive all the time, self-reference against its will. Individuals task-oriented are concerned with the demonstration of learning and domain of the task, namely, their behavior is directed, are persistent and establish appropriate goals on their skills; have a greater need for achievement by being optimistic and believing in their effort. Klain et al. (2014) says that when subjects were instructed to ego, when subjects feel highly competent and successful only; when they show that they are better than others are, they perceived competence was judged by normative criteria [8].

In sports, individuals identified task orientation as the belief that hard work and cooperation with peers lead to success [4]. Therefore, the Young athletes could be task orientated and have less level of pre competitive stress. On the other hand, is it possible to stress hinder the motivation? Therefore, the aim of this study is correlate the level of the stress pre competitive with the motivational orientation of the young athletes who participate in the sport competition.

MATERIALS AND METHODS

This study was based in a correlational study, which according to Thomas and Nelson (2002) the proposal of correlational research is to examine the relationship between certain variables, such as the correlation between attitudes and behaviors [9].

Sample and Place of Research

The sample was established by convenience, and consisted in 25 (n: 25) younger Brazilians athletes of athletics (mean age 15.20 ± 1.91 and coefficient of variation of 12.59%), remembering that this is an individual sport, so they all training together every day. By the total of the participants, 12 (n: 12) were male (mean age 15.75 ± 1.81 and coefficient of variation of 11.52%) and 13 (n: 13) were female (mean age 14.69 ± 1.93 and coefficient of variation of 13.14%).

The place of data collection was provided by a non-governmental organization named of EPROCAD, which conducts sports and cultural activity in Santana de Parnaíba, São Paulo City, Brazil, for children and youth of a less privileged social class. Activities are carried out on Monday, Wednesday and on Friday in Eprocad foundation and made into a runway gravel and clay of approximately 405 meters with 6 lanes where they do sprints, resistance and obstacles training; a grassy field of 100 meters is used to make the proofs launch and pitch, jump distance and jump with makeshift stick and jumping area in height. Many of the materials used in training are tailored to related to the practices of everyday life, but we have official materials subsidized in part with partnership with the municipal government, as well as many of the young athletes receive transportation tickets, snack and uniform

The data collection procedure followed keep contact with the Coach, and as He authorized data collection, he signed the commitment of the institution; then we, with the signing of the Consent Facility and Term of Consent by parents or guardians, since the participants were adolescents, thereby following all care research ethics it collecting data only meant to answer two instruments. The procedures for data collection followed the Newsletter to Research Subjects and signature of the Terms of Consent, by paying attention to research ethics set by the Declaration of Helsinki [10]. Researchers were informed all subjects that their participation was voluntary and the individual responses would be held in strict confidence.

Instrumentation and Statistical Treatment

With the goal of achieving the aim proposed identify the level of pre-competitive stress of young athletes who join sports champion chips, we used the LSSCPI - List Of Symptoms Of "Stress"

Pre-Competitive Youth Children - developed and validated by De Rose Jr. (1998) [11]. This instrument also constitutes as a Likert scale of 5 points where the answers may vary: 1: Never/ 2: Rarely / 3: Sometimes / 4: Often and 5: Always. The applicability of the instrument provides that it be applied in the period from 24 hours before the sport competition, and can be administered to athletes aged 10- 14 years, upper age range of athletes since the language is properly appropriate to them

The second instrument used was the motivation scale used was Task and Ego Orientation in Sport Questionnaire – TEOSQ. This instrument was developed by Duda (1992), translated, adapted and validated by Hirota and De Marco (2006) and Hirota et al. (2006), and since then, the instrument has been tested in several studies both in Portuguese, the Brazilian version (Hirota and Tragueta, 2007; Hirota et al., 2009; Hirota et al. 2011; Hirota et al., 2012; Hirota et al., 2013; Hirota, 2014; Hirota et al., 2014a; Hirota et al., 2014b) [7-12-13-14-15-16-17-18-19-20-21]. The purpose of TEOSQ is to evaluate individual differences in perspectives of the goal, set a school sports practice, detecting if the individual is determined to be task-oriented or ego-oriented.

This instrument allows us to identify the motivational orientation of the participants assessed, when they performing a task, in other words, respondents should see in front of sports training and evaluate how successful it is seen in this sport; therefore the instrument consists of 13 Likert type questions of 5 points, divided by 6 issues regarding the guidance for the ego, or fear of failure, and seven questions related to orientation to task, or expectation of success.

As testing of the reliability and validity of the scale process used to calculate the Cronbach Alpha's. The application of this testing was bound to investigate the individual items of instruments, namely, the issues were seen separately if each item was deleted and hence possible correct answers in questions were conducted to raise scores of the constructs. This is a generalized coefficient of reliability that is more versatile than other methods and this coefficient is a feature that can be used with items that have multiple measures of values, such as writing test and the attitude scales to score as strongly agree, I agree, etc. In addition, the Alpha is probably the best coefficient to estimate the reliability in the most commonly used standardized test [9].

Besides the reliability, we computing scores of goals orientation toward sports competition, the mean, standard deviation, and the median of the students were determined using the following criteria: 1 Separated by age; 2 Separated by gender; Aside from the scale proposed by the fruit and the study's goal, score also did, for the type of (positive and negative) attitude, we chose to apply for the Man Whitney ($p \leq 0.05$). The same test procedure was established to list pre competitive stress, and for the correlation we used the *Spearman* correlation.

RESULTS & DISCUSSION

The Alpha reliability coefficients for the total athletes' corresponding to the Teosq scale was 0.69 for ego orientations and 0.75 for task orientation. For the stress scale, the Alpha result was 0.86. Morgan and Griego (1998) suggest that a good result would be an Alfa index above 0.70, so be accurate and reliable when it is intend to evaluate [22].

Observing the results of the descriptive analysis, we can see that the mean of task orientation of both gender are very similar with no difference statically ($p=0.06$), with median of 4; further according to the results of ego orientation we still have no statistical difference ($p=0.07$), with median in 3 (see Table 01). Establishing the difference between task and ego, we check significant difference in male ($p=0.002$), and in female ($p=0.002$), totaling a significant difference ($p=0.001$), so in all cases there is a significant difference between task and ego orientation, probably with tendency for task features.

TABLE 01: Results of Task and Ego Orientation of both Genders

		ORIENTATION							
		TASK				EGO			
		S.				S.			
GENDER		Average	Dev.	Median	Score	Average	Dev.	median	Score
MALE		4.16	±1.20	4	29.16	2.65	±0.94	3	15.91
FEMALE		4.23	±0.71	4	27.50	2.64	±0.85	3	14.71
TOTAL		4.20	±0.83	4	29.40	2.64	±1.03	3	15.88
	"p"	0.06				0.07			

Comparing with others studies conducted in Brazil, in team sports, Hirota et al. (2014b) found in students of elementary school aged from 10 to 16 years, average of 2.60 in task orientation and 3.95 for task orientation. In individual sports Hirota et al. (2011) the following averages were recorded, 4.20 and 2.42, respectively, guidance for task and ego. On skateboarders, Hirota (2014) have 4.47 for task orientation and 2.47 for ego orientation. Kalin et al. (2014) on female task orientation the average was 4.27 and 2.01 for ego orientation; for male 4.24 for task orientation and 2.25 for ego orientation.

Related to stress pre competitive, we observed medium values, whereas the median of both genders was 3. Thinking about the average the maximum value possible of this scale is 5, then for both the medium value was viewed.

TABLE 02: Results of Stress of both genders

STRESS PRE COMPETITIVE				
GENDER	Average	S. Dev.	Median	Score
MALE	2.68	±1.30	3	83.14
FEMALE	2.67	±1.23	3	83
TOTAL	2.63	±1.25	3	82.68

Comparing the stress between male and female there was no significant difference ($p=0.975$), so these results can be confirmed by the median and the scores, and no significant difference ($p=0.975$). In recent study with Hirota et al. (2014c) in 207 youngers sport players found 2.65 and 2.67 respect for boys and girls, but in this case the value of the median was 2, with no significant difference between genders [23]. Hirota et al. (2008) in female soccer players the average of stress with the same instrument was 2.59 [24].

Correlating the level of stress and task orientation of the total group, we measure negative ($s = -0.08$), faint and not significant correlation ($p=0.246$); between ego orientation and stress, the result still faint, but positive ($s = 0.04$), and not significant ($p=0.57$).

Correlating task orientation and stress separately by gender, the male athletes had a weak result ($s = 0.008$) and not significant ($p=0.94$); for the female the correlation was the same, i.e. weak ($s = 0.08$), and not significant ($p=0.44$). For ego orientation and stress pre competitive, in male we had a weak results ($s = 0.06$), and in female a weak and negative correlation ($s = - 0.104$); both of them were not significant ($p=0.60$ for male and $p=0.36$ for female).

Analising these results we can observe that if the athletes have more characteristics of task orientation they should have more control of their stress. It appears in the group results only, but in a weak form. In all the results the correlations was not significant, so we can conclude that in this case we can not say that the more stressed the athletes are more tendency to be ego orientation they should be, because the high level of stress could lead the athletes to be more anxious and impatiente. So, stress is a process that involves perception of a substantial imbalance between the demand of middle and responsiveness, under conditions where failure is perceived as having important consequences and responded with increased anxiety-state levels [25].

inexperience in his career, fear of disappointing people, unrealistic goal setting, need to always play well to be on top, self exaggerated charging, have to prove the value at all times, be worse physically prepared, lack of rest, injuries throughout his career are some of the situations appointed for De Rose Jr. (2002) that can cause more stress [26].

The prematurity competitive involvement may favor an early specialization frame because children of lower age group are not prepared to support excessive loads of stress that the competition surrounds, which can have serious consequences or even the abandonment of the practice sports. However, the competitive prematurity involvement may favor one early specialization frame because range of children lower age are still not prepared to support the excessive loads of stress that the competition surrounds [27].

Guedes and Neto (2013), studying the Sports practice motives in young athletes showed that, in general, the "Technical Competence" and "Physical Fitness" were the main motivating factors for sport practice pointed out by young athletes [28]. On the other hand, the motivation factors relating to the "Fun" and "social recognition" were considered by young athletes as the least contribute to their sports practice option. In addressing the reasons for sports practice according to gender, it was found that the boys attributed degree of importance to motivating factors "Competition" and significantly higher "Technical Competence" than girls, while they appreciated to a greater degree reasons related to the "Group Activity" and "Affiliate".

We can conclude that both instruments tested in this study had a stable reliability, showing that these athletes have more tendency to be task orientated, with a weak level of stress pre competitive. We need to pay attention to the sports involvement of these athletes to do not take them to a premature specialization and the competitive sports may cause more stress, which also tends to be more controlled with increasing experience and competitive sports and worth noting, the pre-competitive stress, can cause changes in the behavior of a consistent athlete before the competition, disfiguring your sleep, and during sports practice, impair its performance.

REFERENCES

1. V.B. Hirota, D.A. Lima C.E.L. Verardi and A. De Marco, Evaluation of the Level of Pre-Stress in Young Competitive Athletes of Base Categories on Soccer, *Collection Research in Physical Education*, 9 (2010) 89-94.
2. R.S. Weinberg and D. Gould, *Fundamentals of Sports Psychology and exercise*, (2001) Porto Alegre: Artmed.
3. P. J. Winterstein, *The Motivation for Physical Activity and Sport*, (2002) In: De Rose Jr, D. *Sport and Physical Activity in Childhood and Adolescence: A Multidisciplinary Approach*, Porto Alegre: Artmed

4. E. Bebetos, E. Zetou, and P. Antoniou, How does parental motivational climate differentiate athletic experience? *Journal of Physical Education and Sport*, 14 (2014) 526 – 531.
5. K. Huffman, M. Vernoy, and J. Vernoy, *Psychology*, (2003) São Paulo: Atlas.
6. J. G. Nicholls, Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance, *Psychological Review*, 91 (1984) 328-346.
7. J. L. Duda, Motivation in sport settings: a goal perspective approach. In: G.C. Roberts (ed.) *Motivation in Sport and Exercise* (1992) 57-91. Champaign, IL: Human Kinetics.
8. I. P. Klain, L. Cid, D. G. Matos, J. C. Leitão, R. C. Hickner, and J. Moutão, Motivational climate, goal orientation and exercise adherence in fitness centers and personal training Contexts, *Motriz: Revista de Educação Física*, 20 (2014) 249-256.
9. J. R. Thomas, and J. K. Nelson, *Research methods in physical activity*, (2002) Porto Alegre: Artmed.
10. World Medical Association, World Medical Association Declaration of Helsinki, Ethical Principles for Medical Research Involving Human Subjects, *Bulletin of the World Health Organization*, 79 (2001) 373-374.
11. D. De Rose Jr., List of symptoms of "stress" pre competitive Children and Youth: development and validation of an instrument, *Paulista Journal of Physical Education and Sports*, 12 (1998) 126-133.
12. V. B. Hirota, and A. De Marco, Identification of the motivational climate in public and private schools in sports learning in football field: a pilot study, *Brazilian Journal of Physical Education and Sports*, 20 (2006) 415.
13. V. B. Hirota, P. Schindler, and V. Villar, Motivation in university athletes practicing female soccer field: a pilot study, *Revista Mackenzie de Educação Física e Esporte*, 5 (2006) 135- 142.
14. V. B. Hirota, and V. A. Tragueta, Verification of Motivational Climate in Female Athletes of Futsal - indoor soccer: A Study with the task and ego orientation in Sport Questionnaire (TEOSQ). *Revista Mackenzie de Educação Física e Esporte*, 6 (2007) 201-21.
15. V. B. Hirota, A. De Marco, and C. E. L. Verardi, Evaluation of the Motivational Orientation of Young Athletes in Soccer Field. *Revista Mackenzie de Educação Física e Esporte*, 8 (2009) 35-37.
16. V. B. Hirota, D. H. A. Hayashi, De Marco, and C. E. L. Verardi, The influence of motivational orientation during training of novice athletes in tennis field, *Revista Mackenzie de Educação Física e Esporte*, 6 (2011) 11-20.
17. V. B. Hirota, C. E. L. Verardi, and A. De Marco, Motivational goal orientation in the sport of basketball, *Educação Física em Revista* (Brasília), 6 (2012) 1-9.

18. V. B. Hirota, A. De Marco, and C. E. L. Verardi, R. M. Gomes, and E. De França, Evaluation of motivational goal orientation in soccer sport, *Motrivivência*, 40 (2013) 67-79.
19. V. B. Hirota, Goal's orientation of Brazilians skateboarders, *Journal of Physical Education and Sport Management*, 5 (2014) 1-4.
20. V. B. Hirota, S. Rodrigues, and B. R. P. Saeta, Motivation instrument first testing on Brazilian's rugby players, *The International Journal of Social Sciences and Humanities Invention*, 1 (2014) 510-517.
21. V. B. Hirota, A. F. Touri, M. V. S. Ferreira, and P. S. Leite, Goal's Orientation of Brazilian's Youngers School's Sports Players, *International Journal of Physical Education, Sports and Health*, 1 (2014) 01-05.
22. G. A. Morgan, and O. V. Griego, Easy use and interpretation of SPSS for Windows: Answering research questions with statistics, (1998) New Jersey: Lawrence Erlbaun Associates.
23. V. B. Hirota, D. V. Diniz, M. R. Silva, and R. O. Lima, Situations of stress pre- competitive of young Brazilian's athletes, *ARENA - Journal of Physical Activities*, 3 (2014) 97-104.
24. V. B. Hirota, V. A. Tragueta, and C. E. L. Verardi, Level of stress pre-competitive in practicing university athletes of the feminine sex of the futsal, *Conexões*, 6 (2008) 487-497.
25. R. Martens, Sport competition anxiety test, (1977) Champaign: Human Kinetics.
26. D. De Rose Jr, Competition as a source of stress in sport, *Brazilian Journal of Science and Movement*, 10 (2002), 19-26.
27. M. Milistetd, J. V. Nascimento, J. Silveira, and D. Fusverki, Analysis of the Competitive Organization of Sports for Children and Youths Structural and Functional Adaptations, *Revista Brasileira de Ciências do Esporte*, 36 (2014).
28. D. P. Guedes, and J. E. S. Neto, Sports practice motives in young athletes and associated factors, *Journal of Physical Education / UEM*, 24 (2013).