



RELIABILITY ANALYSIS OF PRE-COMPETITIVE STRESS INSTRUMENT OF YOUNG BRAZILIANS SOCCER PLAYERS

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Abstract:

The aim of this research is to test the stress instrument, and identify the symptoms of pre-competitive stress of young Brazilians athletes from soccer, and throw a descriptive research we evaluated 300 male Brazilian soccer players aged between 10-17 years (age average 13.45 ± 2.37) using a *Likert* scale named List of Symptoms of "Stress" Pre-Competitive; as statistical it was made the descriptive statistical, reliability analysis counting with the Alpha's Coefficient and Factorial exploratory analysis of the instrument. The results showed an excellent reliability of the issues of the instrument, and detected six factors, demonstrating that the youth athletes has a moderate level of stress and concluded that another analysis need to be done in future studies.

Keywords: stress pre-competitive, soccer, reliability, youth athletes, evaluation

Introduction

Amongst the wide sporting world, we can take into account different aspects, whether motor, cognitive or psychological. Faced with a sports practice experienced by children and adolescents must keep in mind always respect the steps of sport improvement, beyond the individuality of each practitioners. During practice, the children and adolescents are able to experience different experiences and possibilities, which can

later be used to supplement your life is in the professional, private or social. However, many experiences can contribute negatively to the performance of each practitioner, as is the case of precompetitive stress suffered by many athletes.

That willingness to participate, which soon reaches the starting time to be harmful or part of the game's climate? These and other questions are pertinent, because since many children are not prepared to be part of this circle of competition, making your sport performance is compromised due to their lack of experience and insufficient age.

De Rose Jr. (2002) says that like any human activity, sport can also be a stress-generating potential if it is not appropriate to the needs and potential of the practitioner, especially if this is unprepared and not ready to face difficult situations inherent in the competitive process.

Böhme (2002) also says that the sports performance capability is the presentation of the sports performance that can be analyzed through the observation and measurement of its elements and components. It can also be verified through the great achievement and solving tasks / sports activities, which can be observed, measured and evaluated / judged.

Alves et al. (2004) say that the trajectory of the human corresponds to intensely live your performance, so the experience when we speak of a greater motor amplitude comes to culminate in a better performance. Weineck (2003) explains that on the motor point of view it is important that the child receive sufficient stimuli as to develop their synaptic connections, achieving a satisfactory functional maintenance, thus coinciding with a development between biological age and physical.

In addition to elements of motor skills, technical and sporting experience, psychological elements are inherent in sports activities, and the stress can be identified from a complexity of the larger task that the resources of the practitioner, pressure exerted by adults involved in competitive process as parents and coaches, unrealistic goal setting or exaggerated expectations level (De Rose Jr., 2002).

Considering aspects that can influence the sporting performance of children and adolescents in sports competitions the objective of this research is to test the stress instrument, and identify the symptoms of pre-competitive stress of young Brazilians athletes from soccer, justifying by giving greater subsidies technicians and teachers of this modality to meet the needs of their athletes and handle better control stress that precedes the sports matches.

Method

Sample

This study was based in a descriptive research (Thomas & Nelson, 2002), and the sample was established for convenience; the total of 300 male participants (n:300), aged between 10-17 years (age average 13.45 ± 2.37 , coefficient of variation=17.62%); all soccer players are from the city of São Bernardo do Campo, São Paulo, Brazil. The soccer schools are public and maintained by the municipal office, so students have no cost in order to train and play soccer, taking part in the detection and selection process of sporting talent. Routine class of football schools, it follows that students must maintain weekly frequencies of three times, and participates in the championships systematized by the municipality on the weekend. The data collection procedure followed keep contact with each Director of the pertaining to school unit and the same was authorized data collection signing 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,

Instrumentation and Statistical Treatment

To 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 for Youth Children - developed and validated by De Rose Jr (1998). This instrument is 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 (Hirota et al., 2008). Cronbach Alpha's was used as testing of the reliability and validity of the scale process. 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.). It was performed exploratory factor analysis (rotated matrix (Varimax / Kaiser Normalization) as an alternative measurement process is to identify variables that "go together", i.e., variables that have the same underlying structure; according to Figueiredo Filho & Silva Jr. (2010) the main function of the different factor analysis techniques is to reduce a large amount of observed variables to a few factors.

Besides the reliability, we compute scores of the list pre-competitive stress, the mean, standard deviation, and the median of the soccer players. Data were organized and analyzed in the light of the SPSS software - Data Editor, version 20.0 for Windows.

Results and Discussion

The results of reliability of the instrument was 0.92; this result that allows us to show that the instrument appears to be reproducible in different ages, by the internal consistency of items, reaffirming studies in Brazil (Anjos et al., 2015; Hirota et al., 2014; Santos et al., 2012; Hirota et al., 2008).

Observing Table 01, we can see that all Alpha coefficient results surpass results of 0.9, so if any of the items were deleted the result of alpha not decline. The average stress group analysis was 2.47 ± 0.69 (27.93% of coefficient of variation, median 2), demonstrating a balanced moderate average over pre-set stress or competition, however not uniform relative to the total group studied due to the high value of coefficient of variation. This result is borne out in the results of coefficient of variation within each question (Table 01).

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Table 01: Results of Mean, Standard Deviation, Variation Coefficient, Median and Alpha's if Item (Q) were deleted

ISSUES	Mean	Sta. Dev. (±)	Var. Coeff. (%)	Median	Cronbach's <i>Alpha</i> if Item Deleted*
1	2,21	0,89	40,41	2	.919
2	2,48	1,33	53,63	2	.920
3	2,25	0,87	38,66	2	.919
4	2,45	1,37	55,85	2	.919
5	1,89	0,99	52,24	2	.923
6	2,25	1,05	46,59	2	.921
7	2,94	1,34	45,52	3	.922
8	2,23	1,40	62,80	2	.920
9	2,79	1,30	46,40	3	.917
10	2,15	1,05	49,04	2	.919
11	2,42	1,35	56,07	2	.918
12	2,40	1,39	58,18	2	.918
13	2,40	1,30	54,07	2	.920
14	2,53	1,41	55,81	2	.920
15	2,43	1,18	48,30	2	.918
16	2,62	1,34	50,98	3	.918
17	2,25	1,32	58,71	2	.921
18	2,19	1,14	51,88	2	.919
19	1,83	1,20	65,30	1	.923
20	2,72	1,32	48,77	2	.918
21	2,55	1,36	53,23	2	.916
22	2,26	1,25	55,12	2	.918
23	2,49	1,34	53,91	2	.918
24	2,83	1,49	52,69	3	.917
25	2,74	1,29	47,25	3	.918
26	2,94	1,31	44,55	3	.918
27	3,08	1,36	44,22	3	.920
28	2,55	1,41	55,38	3	.919
29	2,83	1,43	50,39	2	.921
30	2,30	1,21	52,50	2	.920
31	2,87	1,35	47,02	3	.915

*Maximum possible result of Alpha is 1.0.

The results of Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was 0.740 ($p=0.0000$). Higher the better, and 0.50 as the minimum suitability level (Hair et al., 2006). Observing Table 02 by the results of Varimax rotated matrix we extract six factor's; so for the first factor we associate 24 issues (Issues: 01, 03, 04, 09, 10, 11, 12, 13, 14, 15, 16, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31), and corresponding to 31.80% of the variance. Factor extract Issues 02 and 19; factor 03 extract Issue 08; factor 04 extract factor 06 and 17; factor 5 extract Issue 07 and factor 6 extract Issue 05. Were considered only the saturation values above 0.40 (Pedhazur, 1982), and in this study were all above (Table 02).

Table 02: Results of extraction values of each factor and % of variance of each Item (Q)

ISSUES	FACTOR's						Extraction	% of Variance
	1	2	3	4	5	6		
1	0,58	0,01	-0,18	-0,47	0,13	0,24	,663	31,803
2	0,51	0,53	-0,40	-0,15	-0,23	0,18	,801	7,306
3	0,62	-0,01	-0,20	-0,49	0,12	0,27	,745	6,501
4	0,55	0,51	-0,44	-0,15	-0,24	0,15	,859	6,049
5	0,08	0,27	0,47	0,00	0,25	0,54	,651	5,225
6	0,38	0,27	0,11	0,50	-0,25	0,04	,549	4,500
7	0,31	0,28	0,46	-0,26	0,47	0,07	,685	4,096
8	0,44	0,25	0,51	-0,08	-0,10	-0,26	,609	3,407
9	0,69	0,23	0,08	-0,22	-0,20	-0,01	,629	3,072
10	0,59	0,17	-0,24	0,36	0,23	-0,05	,613	2,904
11	0,65	0,23	-0,13	0,12	0,41	-0,31	,767	2,747
12	0,67	-0,07	-0,12	-0,09	0,01	-0,03	,476	2,692
13	0,51	0,25	-0,10	0,06	0,46	-0,23	,602	2,483
14	0,53	-0,15	0,16	-0,11	-0,29	0,25	,486	2,183
15	0,61	0,27	0,06	-0,09	-0,28	-0,34	,644	1,972
16	0,61	-0,24	0,14	-0,17	-0,14	0,03	,501	1,882
17	0,39	-0,25	0,07	0,47	0,00	0,28	,520	1,537
18	0,52	0,09	0,08	0,17	-0,17	0,37	,478	1,494
19	0,17	0,55	0,45	0,20	0,14	0,06	,591	1,289
20	0,63	-0,46	0,11	-0,09	-0,04	0,01	,636	1,078
21	0,79	-0,05	-0,08	0,17	-0,05	-0,03	,671	1,009
22	0,65	-0,05	-0,24	0,34	-0,12	0,03	,610	,943
23	0,63	-0,06	0,30	-0,08	-0,13	-0,35	,642	,663

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24	0,69	-0,15	0,01	0,05	-0,10	-0,32	,607	,571
25	0,60	-0,30	0,29	0,39	0,00	0,18	,716	,549
26	0,61	0,00	0,26	-0,12	-0,27	-0,15	,551	,498
27	0,49	-0,28	0,26	-0,24	0,19	0,00	,474	,448
28	0,60	-0,30	-0,15	0,07	0,04	0,01	,475	,328
29	0,43	-0,41	-0,13	-0,18	0,28	-0,06	,481	,314
30	0,48	0,04	-0,28	0,27	0,42	-0,01	,565	,238
31	0,81	-0,22	-0,08	0,05	0,08	0,13	,731	,217
Eigen values	9.85	2.26	2.01	1.87	1.62	1.39		
% Variance	31.80	7.30	6.50	6.04	5.22	4.50		

We believe that the result compared with coefficient of variation of other factors should be taken into consideration, or differentiate between old and thus verify that soccer players are more stressed than older ones. Some of the factors extracted in this study should be regarded with greater representation, since they could be associated with each other, thus meaning to associate factors.

We conclude that the results of internal consistency of the instrument was satisfactory, and for exploratory factor analysis identified six factors, the same could be revised to groups them, seeking better instrument performance.

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