

**173 - FLEXIBILITY EVALUATION IN PRACTITIONERS OF RHYTHMICAL**DR<sup>a</sup> ARTEMIS SOARESProf<sup>a</sup> Doutora- Faculdade de Educação Física-Universidade Federal do Amazonas.- UFAM  
MANAUS/AM - BRASIL  
artemissoares@yahoo.com.br**INTRODUCTION**

With the studies advance in the training area, it confirms that today it is necessary to know individually the athlete to elaborate her training program, understanding and respecting her limits (LIZITSKAYA, 1986). In the same way, only the athlete who own the specific qualities demanded by the modality will be able to reach athlete's level of high performance.

The flexibility is considered an organic physical capacity (Mello, Daniel et al, 2006) that enables the great amplitude relation during the movements' execution, being maybe the biggest exigency to select a gymnastics athlete.

In this work it sought to evaluate the flexibility of gymnasts participating in the Training Center of High Yield of Olympic Village of Manaus with the goal of rationalizing the work and to verify gymnasts' real possibilities to attend to the high level training.

The tests application allowed us to locate exactly the condition of each gymnast in the flexibility aspect, could thus select them assuredly to constitute the teams of high performance and to crave good results in the future.

**OBJECTIVES**

The test application had as objective: 1. Evaluate the articulation gymnasts hip flexibility degree; 2. Select the gymnasts to As the teams of the Training Center of High Yield of Amazons; 3. Discover new talents for the practice of the rhythmical gymnastics of scientific form; 4. Contribute for the training process improvement of the teams of Amazons and of the scientific work of the Techniques.

**MATERIALS AND METHODS****Population /Sample**

The subjects of this research are the gymnasts of the Training Center of High Yield of Olympic Village of Manaus and clubs in Manaus, comprehended in the of age band between 09 and 19 years, totalizing in the sample 117 gymnasts.

**Instrument and Variables of the Study**

We choose the tests battery of ILIA VANKOV (1983), constituted of 19 specific tests for Rhythmical Gymnastics. The tests author is a modality researcher, admittedly the unique to accomplish specific tests for R.G. Which ones were adopted and already consolidated by the Bulgarian Federation of Gymnastics. Of the referred battery it used the flexibility test for the accomplishment of this study.

The test was accomplished by the researchers with assist of the Techniques of Olympic Village and of Faculty trainees of Physical Education of the Federal University of Amazons, during gymnasts' training in Olympic Village of Manaus, always during the afternoon and evening, from January to August to 2006. The application obeyed the protocol recommended by the Bulgarian Federation of Gymnastics, being the data registered in own forms for posterior treatment.

To accomplish the research were used as instruments and variables: metal measuring tape; Individual form; paper and pen.

**TEST DESCRIPTION****TEST N<sup>o</sup>. 3 - Flexibility of Inferior Members**

-SPAGAT IN THE SOIL -  $S = S1 + S2 + S3 = x : 3 = y$

S1= Spagat sagittal - with the right leg ahead

S2= Spagat frontal - with legs remote sidelong

S3= Spagat sagittal - with the left leg ahead

Execution: Measure with a ruler the necessary centimeters for reset spagat in each position, in other words, measure the distance that separate gymnast's soil legs, in the more distant point of this. Add the three values and divide by three.

Objective: Analyze the articulation gymnasts hip flexibility degree.

The test was applied for the 117 gymnasts practitioners in order to select previously those that present the characteristics and physical terms to continue the training of Rhythmical Gymnastics.

**RESULTS AND DISCUSSIONS**

In order to better to reach the goals the great group constituted of 117 gymnasts was divided into 3 subgroups:

**GROUP A:** Gymnasts from 07 to 10 years old - they are included in this group gymnasts beginners and belonging gymnasts to the category pre-infantile according to Gymnastics Brazilian confederation Regulation.

They were tested 67 gymnasts subdivided by of age band: 7 years, 10 gymnasts; 8 years, 20 gymnasts; 9 years, 16 gymnasts and 10 years, 21 gymnasts.

**GROUP B** - gymnasts from 11 to 14 years old, where are included belonging gymnasts to the infantile and juvenile category, according to Regulation of the Brazilian Gymnastics - CBG and International Federation of Gymnastics - FIG.

They were tested 41 gymnasts subdivided by of age band: 21 gymnasts 11 year old; 11 gymnasts 12 year old; 07 gymnasts 13 year old and 02 gymnasts 14 year.

**GROUP C:** 09 gymnasts Training Center of High Yield of the State of Amazons, belonging to the adult category according to the Regulation of the Brazilian Gymnastics- CBG and considered in the category SENIORS by the International Federation of Gymnastics - FIG.

The tests results were didactically divided into 3 levels: EXCELLENT, VERY GOOD and GOOD.

**EXCELLENT** - It is considered in this classification the gymnast who reached the band from 40 to 50 test specific table points; **VERY GOOD** - the gymnast who reached the band from 30 to 39 points; **GOOD** - the gymnast who reached the band from 25 to 29 test specific table points.

**SITUATION 1 - RESULTS OF THE GROUP A in the test N. 3 - 67 Gymnasts from 07 to 10 years old.**

07 years old	08 years old	09 years old	10 years old	GENERAL RESULT
EXC. 02	EXC. 05	EXC. 06	EXC. 06	EXC. 19 -28,35%
VG. 03	VG. 05	VG. 03	VG. 06	VG. 17- 25,37%
G. 00	G. 01	G. 00	G. 02	GOOD 03- 4,47%
Insuf 05	Insuf 09	Insuf 07	Insuf. 07	Insufficient 28- 41,79
10 gymnasts	20 gymnasts	16 gymnasts	21 gymnasts	67 gymnasts

The Group presents her the next results: excellent - 28, 35% from the gymnasts' total, Very good 25, 37% - Good: 4, 47% of the gymnasts and Insufficient-41, 79% of the tested gymnasts.

The test results n.3 show us that of the gymnasts of the Group The one of 7 to 10 years old, just 53,72% present the flexibility quality demanded for the practice of the competitive rhythmical gymnastics. It stress that 41, 79% of the gymnasts, thence most, presented insufficient results,. These data carry us to indicate a radical change in the gymnasts selection process, besides pointing for the training program possible restructuring with better working methodology choice to develop the hip articulation flexibility.

It verifies that the gymnasts 07 year old present inferior results, indicating as soon as the team owns gymnasts who do not present the minimum terms for RG's Practice demonstrating some kind of misunderstanding in the choice process.

**SITUATION 2 - results OF THE GROUP B in the test N. 3- 41 gymnasts from 11 to 14 years old**

11 years old	12 years old	13 years old	14 years old	GENERAL RESULT
EXC. 04	EXC. 03	EXC. 00	EXC. 02	EXC. 09
VG 01	VG. 01	VG. 01	VG. 00	VG. 03
G. 01	G. 00	G. 00	G. 00	G. 01
Insuf. 15	Insuf. 07	Insuf. 06	Insuf. 00	Insufficient 28
21 gymnasts	11 gymnasts	07 gymnasts	02 gymnasts	41 gymnasts

The Group B presents the next results: Excellent - 21, 95% from the gymnasts' total, Very good 7, 31% - Good: 2, 43% of the gymnasts And Insufficient-70, 73% of the tested gymnasts.

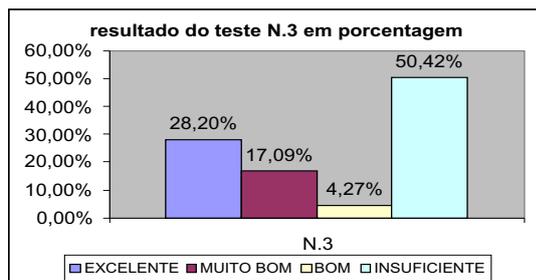
These results confirm the absence of a gymnasts choice efficient process and confirms the need to immediate changes in the training process owing the physical preparation to contemplate the hip articulation flexibility, besides lengthening exercises that are going to allow larger articulate mobility integrated to the muscular extensibility, accompanied of extension of the corresponding antagonistic muscles (Barros & Nedialkova, 1999 P. 84).

**SITUATION 3 - result of the GROUP C in the test N. 3- 09 Gymnasts starting from 15 years old**

TESTE n. 3-flexibilidade	
EXC.	05
MB.	00
B.	01
Insuficientes	03

In the group C found 66, 66% of the gymnasts with good hip flexibility, what corresponds to the exigencies of the Rhythmical Gymnastics. These results indicate that the choice and the training of this group can be considered in the very good concept. But cannot ignore that being these gymnasts of the adult category, the variable time of training also can be contributing for that result.

Graphic 01: Total result of the test N.3 in percentage



The results show us that just 28, 35% of all the gymnasts present excellent level and 17,09 % very good level at test of lame-femoral flexibility. Most, represented by 46,26%, presents insufficient flexibility for the practice of the competitive rhythmical gymnastics. Considering that the flexibility is a condition sine that non for gymnasts of high performance (Nedialkova, 2006), that carries us definitely to admit that the choice process and maybe training methodology should be radically scaled.

The Group A, that congregates the newest gymnasts, thence the ones that will have more time to present result and in whose group should find the talents, they present insufficient results. These results suggest that the newest gymnasts were not submitted to an adequate selective process, indicating the need to a training program evaluation and of new practitioners' selection.

**CONCLUSIONS**

Being the Rhythmical Gymnastics an activity where the action amplitude determines many times the quality and the difficulty value of this movement, the flexibility is a physical valence of the largest exigency for its practice in competitive level. The Punctuation Code determines itself and establishes its exigency of categorical form, arriving many times to an carries to an extreme exigency.

The physical preparation of a gymnast does not consist in the development isolated of his physical qualities, but to the interaction balance of these valences in an expression gimmick.

However, while persist the overvalue of this characteristic, the Trainers will have to accomplish with this exigency

seeking the best methodology to select and to prepare her gymnasts. It cannot ignore that the technical preparation only will result if the gymnast is physically ready to assimilate a load of corresponding training.

#### REFERENCES

- ATANASOVA, Tzvetana, SHISHKOVA, Todorca., Hudojestvena Gimnastica, NSA, Sofia, Bulgária, 1989.  
 BARTA, Ana. 1.000 exercícios e jogos de Ginástica Rítmica Desportiva. Editora: Paidotribo, Barcelona.  
 BARROS, Daisy e NEDIALKOVA, Giurga. ABC da Ginástica. Rio de Janeiro: Sprint, 1999.  
 CAÇOLA, Priscila Martins. Avaliação da retenção de uma habilidade de salto da ginástica rítmica ensinada através da prática em partes e da prática como um todo. [www.efdeportes.com/](http://www.efdeportes.com/) Revista Digital - Buenos Aires - ano 11- N.100 -sept.2006  
 CAÇOLA, Priscila Martins. A utilização de dicas na aprendizagem da ginástica rítmica: Um estudo de revisão. [www.efdeportes.com/](http://www.efdeportes.com/) Revista Digital - Buenos Aires - ano 10- N.82 - março.2005  
 CIGARRO, Rogério, D. Natália Martins. Ferreira, Danielli Braga de Mello. Avaliação de flexibilidade de articulação do quadril em bailarinos clássicos antes e depois de um programa específico de treinamento. Revista de Educação Física, nº133/março de 2006. ISSN 0102-8464 Exército Brasileiro.  
 DEL VALLE, Aurora F. Ginástica Rítmica. Editora: Comitê Olímpico Espanhol, 1991.  
 LAFFRANCHI, B. Treinamento Desportivo aplicado a Ginástica Rítmica. Paraná, Unopar, 2001.  
 LIOBET, Anna Canalda. Ginastica Rítmica Desportiva-Teoria e Pratica. Barcelona.Editorial Pai do tribo. 1998.  
 LISITSKAYA, Tatiana. Ginastica Rítmica. Barcelona. Editorial Paidotribo, s/d.  
 ROGATTO, Gustavo Puggina. Composição corporal e perfil antropométrico de ginastas masculinos. [www.efdeportes.com/](http://www.efdeportes.com/) Revista Digital - Buenos Aires -ano 09 -N.62 - jul 2003.  
 SHISHKOVA, T., KECHEDZHÍEVE, L. VANKOVA, M. Programa único de enseñanza y entrenamiento en gimnasia rítmica. ED. UCFD de Bulgária, 1980.  
 SOARES, Artemis. Ginástica Rítmica Desportiva e lateralidade: equalização do uso de ambas as mãos na performance de ginastas. Dissertação de Mestrado. Escola de Educação Física e Esportes da USP, 1981.  
 SOARES, Artemis; BARROS, Dayse. Ginástica Rítmica: em busca de novos talentos. Petrópolis: Portal Literário, 2006.  
 VANKOV, Ilia. Sistema za control, otzenca i optimizatzia na fizichescata podgotovia u hudojestvenata gimnastica ot 6-19 godistina vazrast. Izd: BSFS, 1983  
 Rua Visconde de Porto alegre, 38  
 69020-130-Centro-Manaus-Am  
[artemissoares@yahoo.com.br](mailto:artemissoares@yahoo.com.br)

#### FLEXIBILITY EVALUATION IN PRACTITIONERS OF RHYTHMICAL GYMNASTICS

##### ABSTRACT

The present study had as goal evaluate gymnasts' flexibility who make part of the Center of High performance of State of Amazonas, in Manaus, through Test battery tests of Ilia Vankov, approved by the gymnasts' Bulgarian Federation.

By the test results 3 (flexibility) can verify that just 53 gymnasts -45, 29% -own good hip articulation flexibility. Most of them- 54, 70%- did not manage to reach the established minimum exigency.

Being the flexibility one of the physical qualities demanded most in the practice of the Rhythmical Gymnastics, it can conclude that the gymnasts choice process was not made through tests and that maybe for this reason the team has few gymnasts with flexibility maxim. KEY WORDS: Flexibility, rhythmical gymnastics, physical tests.

#### GYMNASTIQUE RYTHMIQUE - ÉVALUATION DE LA FLEXIBILITÉ DES GYMNASTES DE GYMNASTES DE L'AMAZONE

##### RESUMÉ

L'étude suivant a eu comme objectif d'avaliser la flexibilité des gymnastes qui font parties du 'Centro de Alto Rendimento do Estado do Amazonas' à Manaus, à travers des testes de la batterie de Testes de Ilia Vankov, approuvée par la Fédération Bulgare de Gymnastes.

Par les résultats du teste 3 ( flexibilité) il peut se vérifier que seulement 53 gymnastes -45,29% - possèdent une bonne flexibilité de l'articulation des hanches.la plupart d'entre elles-54,70%- n'a pas réussi à atteindre l'exigence minimum établie.

Comme la flexibilité est une des qualités physiques les plus exigées dans la pratique de La gymnastique rythmique, Il peut s'en conclure que le procès sélection des gymnastes n'a pas été effectué à travers de testes ET c'est possiblement pour cette raison que l'équipe a peut de gymnastes aves une flexibilité maximum. MOTS CLÉ: flexibilité, tests d'evaluation

#### GINNASIA RITMICA - EVALUACION DE LA FLEXIBILIDAD DE LAS GIMNASTAS DEL AMAZONAS

##### RESUMEN

El presente estudio tiene como objetivo evaluar la flexibilidad de las gimnastas que hacen parte del 'Centro de Alto Rendimento do Estado do Amazonas' en Manaus, por médio de pruebas de la bateria de Test de Ilia Vankov, aprobada por la Federacion Bulgara de Gimnastas.

Por los resultados del teste 3 (flexibilidad) se puede verificar que solamente 53 gimnastas -45,29% - poseen buena flexibilidad de la articulacion do cuadril. La mayoría - 54,70%- no alcanzo la exigencia minima establecida.

Como la flexibilidad es una calidad muy exigida en la practica de la Gimnastica Rítmica, se puede concluir que el proceso de seleccion de las gimnastas no se efectuo por medio de pruebas e que talvez por esa razon la equipe tiene pocas gimnastas con flexibilidad maxima. PALABRAS CLAVE: flexibilidad, evaluation, testes.

#### GINÁSTICA RÍTMICA - AVALIAÇÃO DA FLEXIBILIDADE EM GINASTAS AMAZONENSES

##### RESUMO

O presente estudo teve como objetivo avaliar a flexibilidade das ginastas que fazem parte do Centro de Alto Rendimento do Estado do Amazonas, em Manaus, através de testes da bateria de Teste de Ilia Vankov, aprovada pela Federação Búlgara de Ginastas.

Pelos resultados do teste 3 (flexibilidade) pode-se verificar que apenas 53 ginastas -45,29% -possuem boa flexibilidade da articulação do quadril. A maioria delas- 54,70%- não conseguiu atingir a exigência mínima estabelecida.

Sendo a flexibilidade uma das qualidades físicas mais exigidas na prática da Ginástica Rítmica, pode-se concluir que o processo de escolha das ginastas não foi efetuado através de testes e que possivelmente por essa razão a equipe tem poucas ginastas com flexibilidade máxima.

PALABRAS-CHAVE: flexibilidade, ginástica rítmica, testes físicos.