163 - RHYTHMICS GYMNASTICS: ATHLETES' SELECTION BASED ON SPECIFIC TESTS

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INTRODUCTION

The rhythmic gymnastics is an Olympic sport modality that requires physical and artistic capabilities, as well as posture from the female athlete. It also requires modern theories of sports coaching, as it demands a high level of development of physical and psychological abilities.

Those theories propose, among many other factors, that the scientific bases of modern training will give support to a high level performance and to a perfect techniques achievement. It also proposes that one must know the athlete in order to consider her limits within the training plan (LIZITSKAYA, 1986, p. 275). Currently, the rhythmic gymnastics teams are constituted after a strict selection process because the athletes must have an excellent potential, so that she can achieve a high level performance.

Considering the need for the teams' definition in the "*Centro de alto rendimento*" and desiring to get great results within the national ranking, this study aims: first, to select the athletes of rhythmic gymnastics for the "*Centro de Treinamento de Alto Rendimento do Amazonas'* team; second, to discover new talents for the rhythmic gymnastics; and finally, to contribute for the improvement of the training processes of the rhythmic gymnastics team in the Amazon state.

METHODS

One hundred seventeen athletes took part in this study. They were all from the "*Centro de alto rendimento da Vila Olímpica*". The age ranged between seven and eighteen years of age. The main assessment tool was the test battery by Ilia Vankov. This tool has been approved by the Rhythmic Gymnastics Bulgarian Federation. It is comprised of nineteen specific tests, appropriate for Rhythmic Gymnastics. In this study eleven tests were used, from which eight of them measured the following variables: anthropometric profile; basic physical capabilities (such as flexibility, explosive force, velocity, etc); perceptive-motor capabilities (such as balance, motor coordination etc). The results of the tests from number one to number eleven are scored up to fifty points. These scores vary according to each age-band. The best total score will be the one that reaches the maximum of 11x50=550. In this study the maximum total score was 400 points, corresponding to eight tests. All the tests were applied in the *Vila Olímpica of Manaus* by the researchers, the coaches, as well as by Physical Education students from the *Faculdade de Educação Física of Universidade Federal do Amazonas*, The tests were always applied between afternoon and noon, from July to August 2006. The test protocol was strictly followed. The results for each athlete were appropriately registered in individual files. All the measures were assessed twice, in the following way: First, were applied eight tests. The results usually showed the athletes current status allowing the researchers to proceed the selection for a general training program. Second, another three tests were applied aiming the discover of new talents, who could be prepared to take part in international competitions. These would lead to the choice of the "*Centro de Alto Rendimento*" adult and juvenile team. The results were divided according to the three following levels: (1) *excellent* - this level considers the athletes who reached the range between forty to fifty points, as in the test specific Table; being 320 to 400 points the results in the eight tests, and between 440 to 550 points the results in the eleven tests; (2) *very good* - this level was considered for the athlete who would reach the range between 30 to 39 points from the specific test Table; being 240 to 312 points the results in the eight tests; and 330 to 429 the results in the eleven tests; and finally (3) *good* - this level was considered for the athlete who would reach the range between 25 to 29 points from the specific test Table; being 200 to 232 points the results in the eight tests; and 275 to 319 the results in the eleven tests.

RESULTS AND DISCUSSION

Physical training programs general do aim changes in the general and specific conditions of the athletes, including muscles mass increasing and fat percentual reduction (FOX, BOWERS & FOSS, 1991). In this study our aim was to assess the level of physical condition of the beginners in order to find out their potential. Also to verify the efficacy of the training program adopted for the athletes already practicing, and to select the team of the "*Centro de Alto Rendimento de Manaus"*.

According to results it was observed that the criteria for the detection, selection and promotion of the high level performance Rhythmic Gymnastics athletes in this study could have been established according to the coaches subjective judgement, without the use of scientific criteria. Many coaching researchers have emphasized how important is the athlete's genetic potential linked to the environmental factors, in order to reach high level performance.

TEST N. 1 -anthropometric profile

ge	order	TEST 1			TEST 2			TESE 3			TESE 4			TESE 5			TESE 6			TEST 7			TEST 8		
		Anthropometric profile						Flexibility			Explosive force						Velocity			Abdominal			Balance		
		Ex	VG	G	Ex	VG	G	Ex	VG	G	Ex	VG	G	Ex	VG	G	Ex	VG	G	Ex	VG	G	Ex	VG	G
7 years old	10	03	01	00	00	00	00	02	03	00	00	00	00	01	00	00	00	00	00	00	00	00	00	00	00
8 years old	20	10	00	02	04	06	02	05	05	01	00	01	00	01	03	00	01	00	00	00	00	00	00	01	00
9 years old	16	02	02	00	07	01	02	06	03	00	00	00	00	00	00	01	00	01	00	00	00	00	02	00	00
10 years old	21	13	03	00	14	02	01	06	03	02	00	01	00	02	00	00	01	01	00	00	00	00	05	02	01
Group A Total	**67**	**28**	**06**	**02**	**25**	**09**	**05**	**19**	**14**	**03**	**00**	**02**	**00**	**04**	**03**	**01**	**02**	**02**	**00**	**00**	**00**	**00**	**07**	**03**	**01**
11 years old	21	06	05	02	12	03	00	04	01	01	00	04	01	00	01	01	00	04	00	00	00	00	02	01	00
12 years old	11	03	03	00	05	03	00	03	00	00	00	02	00	01	00	00	00	00	01	00	00	00	00	00	01
13 years old	07	01	02	00	04	01	01	00	01	00	00	01	00	00	00	00	00	01	00	00	00	00	01	01	01
14 years old	02	02	00	00	01	01	00	02	00	00	00	01	00	01	01	00	00	00	02	00	00	00	00	00	00
Group B Total	**41**	**12**	**10**	**02**	**22**	**08**	**01**	**09**	**02**	**01**	**01**	**08**	**02**	**02**	**02**	**01**	**00**	**05**	**03**	**00**	**00**	**00**	**03**	**02**	**02**
Group C Total	**09**	**01**	**02**	**00**	**05**	**02**	**00**	**05**	**00**	**01**	**01**	**01**	**04**	**02**	**00**	**01**	**01**	**00**	**03**	**00**	**00**	**00**	**00**	**00**	**00**
Not sufficient		54 athletes - 46,15%			40 athletes 34,18%			63 athletes 53,84%			98 g athletes 83,76%			101 athletes 86,32%			101 athletes 86,63%			117 athletes 100,0%			99 athletes 84,61%		
Sufficient		63 athletes 53,84%			77 athletes 65,13%			54 athletes 46,15%			19 athletes 16,23%			16 athletes 13,67%			16 athletes 13,67%			0 athletes 0%			18 athletes 15,38%		

The following results in a certain way were negatively surprising, once we expected satisfactory results compared to the test specific punctuation Table. In Table 1 the results from tests number 1 to 11 are presented: They show the classification of the athletes within the categories EXCELENT, VERY GOOD AND GOOD, according to the age and tests results; they also show the number of athletes by age-band; as well as the number and percentual of athletes classified with punctuation considered sufficient and not sufficient.

Table1 - Results presentation of the tests n. 1 to n. 8
Ex: excellent; **VG:** very good; **G**: good

TEST N. 1 -anthropometric profile

Table 1 shows that 63 athletes (57,84%) are below the ideal height for Rhythmic Gymnastics. However, there is nothing that could not allow for good results and to continue practicing this sport.

TEST N. 2- anthropometric profile

The measure related to the lower limbs is compatible with the requirement for competitive Rhythmic Gymnastics. The results show that 77 athletes (65,13%) have good body figure and good lower limbs measures.

TEST N. 3 - Flexibility

The results show that only 53 athletes (45,29%) have good waist flexibility. This is one of the most important physical capabilities and it represents the strongest characteristics of the Rhythmic Gymnastics. It could be concluded that the selection process was not led according to scientific criteria. This possibly have affected the low level of flexibility of the team.

TEST N. 4 - Explosive Force

This physical capacity is present in physical activities that require a big amount of force applied to an object and/or to one's own body, within a very short time limit, for example, a ball distance throw (BARROS & NEDIAKOVA, 1999, p.87). Its is also needed for jumping. In this test only 19 athletes (16,23%) managed to get 25 points. Only 9,98% had an excellent result. Most of the athletes (85,04%) did not present a sufficient result. This means that physical training has not been appropriate. Also it seems that there is no systematic control of the athlete's development.

TEST N. 5 - Explosive Force

The athletes showed good results in this test. A number of 17 athletes (13,67%) achieved 25 points. The explosive force should be one of the mostly trained capacities, once difficult elements such as "jumping" are required in nearly all exercises.

TEST. 6 - Velocity

Velocity refers to the ability to execute movement in the shortest time possible. From a number of 117 tested athletes only 16 (13,67%) did reach more than 25 points (average result). These results show that the training program has not been adequate for these athletes. The Rhythmic Gymnastics athletes must present ideal condition so that they can execute a series of jumping. This is a fundamental technique in the Rhythmic Gymnastics.

TEST N. 7 -Abdominal Force

None of the tested athletes had a good result. All of them presented performance below the lower level indicated in the specific Table. This was the first not sufficient result in the adult group. This shows a failure in the training program, related to the abdominal force. This capacities is highly required in the Rhythmic Gymnastics.

TEST N. 8 - Balance

Most of the athletes did not get good results Only 8.54% showed excellent balance, 4.27% very good and 2.56% good. Most of the them (85%) did not reach a satisfactory result, staying under the lower level (25 points). This is half of the required punctuation in the test Table.

TOTAL RESUTLS, TESTS N.1 TO N. 8

The required punctuation consists of at least 200 points in order to an athlete be selected. This testified the low level of physical performance of the tested athletes. Only 14 athletes reached above 200 points, as it may be seen in Figure 2. It was an agreement to determine a total of 150 points in the eight first tests, once this amount is only slightly below the average. A number of 25 athletes were selected to continue training during eight weeks. In the end of the period a new test section (tests 9, 10 and 11 from the test battery) would be carried out.

CONCLUSIONS

This study aimed to evaluate the Rhythmic Gymnastics athletes using the Ilia Vankov's test battery. This battery is based on scientific criteria and cineantrhopometry theory to select high physical performance athletes in different categories. We did tried to identify athletes who showed talent and could promote her own development after a systematic training program, achieving high level performance within the Rhythmic Gymnastics. It was verified that with no doubts most of the athletes did not presented the minimal physical condition to execute a high level training program, nor showed to have the capacities required to a high level performance. It was concluded that they may have been selected according to subjective criteria. This mode of selection do increase the likely hood of making wrong choices.

Even though it still remains unclear what is the best way for talent selection, there is no doubt that high performance is only achieved by athletes who sum up most of the genetic characteristics for a given sport modality, and these must be associated with environmental factors (MOSKOTOVA, 1998). Thus, after these results considered not satisfactory, a new training plan was designed in order to reach general and specific improvement of the 25 selected athletes.

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ABSTRACT

The main aim of this study was to evaluate rhythmic gymnastics athletes from Manaus, Amazon, aged from six to nineteen years old, and to select those athletes for a high performance training program. The tool used for the evaluation was a specific physical preparation battery test of Rhythmic Gymnastic from *Ilia Vankov*" (1983). This is comprised by eleven tests, of which only the eight first were applied, the last three were left for the next selection process stage. After this study it is expected to develop a training program that will promote the Rhythmic Gymnastics athletes' evolution within the Amazon state, so that they can achieve the highest performances as compared to the best Brazilian and American athletes, reaching a place in the Brazilian team.

KEY WORDS: evaluation of motor skills, tests, rhythmic gymnastics.

GYMNASTIQUE RYTHMIQUE - Sélection de gymnastes sur base de l'application d'essais spécifiques

RESUMÉ

L'objectif de cette étude a été d'évaluer des pratiquants de gymnastique rythmique à Manaus, État de l'Amazonas, de 06 à 19 ans, pour sélectionner des gymnastes de haute performance. L'instrument utilisé a été de passer par une batterie de tests pour préparation physique spécifique de Gymnastique Rythmique d'Ilia Vankov (1983). Cette batterie se compose de huit tests. Avec cette étude ce sera possible de développer un entraînement lequel rendra possible la promotion de l'évolution des gymnastes de l'état de l'Amazonas, et les placer au même niveau que les meilleurs gymnastes du Brésil et du continent américain, dans le but de faire partie de l'équipe Brésilienne de GR.

MOTS-CLEFS : évaluation d'habilitées motrices, gymnastique
rythmique, test physique.

GIMNASIA RITMICA - selecion de gimnastas con base en la aplicacion de testes especificos

RESUMEN

El objetivo de este estudio fue avaliar praticantes de gimnástica ritmica en Manaus, Estado de Amazonas, de 06 a 19 años de edad, para seleccionar gimnastas para entrenamento de alto rendimiento. Lo instrumento utilizado fue la "Bateria de testes para preparacion física especifica para Gimnástica Rítmica de Ilia Vankov" (1983). Esa bateria es composta por ocho testes. Con este estudio será possible desarrollar un entrenamiento que posibilitara promover la evolucion de las gimnastas de lo Estado de Amazonas, y colocar las en el mismo patamar de las mejores gimnastas de Brasil y del continente americano, buscando asi un lugar en la selecion brasileña de GR.

PALABRAS-LLAVE: avaliacion de habilidades motoras, gimnástica ritmica, teste fisico.

GINÁSTICA RÍTMICA - seleção de ginastas com base na aplicação de testes específicos

RESUMO

Este trabalho objetivou avaliar praticantes de ginástica rítmica em Manaus, Estado do Amazonas, por meio da "Bateria de testes para preparação física específica para Ginástica Rítmica-GR- de Ilia Vankov" (1983),

Foram aplicados 8 testes em ginastas de 06 a 19 anos de idade, objetivando selecionar ginastas para treinamento de alto rendimento.

A meta é promover a evolução das ginastas e colocá-las no mesmo patamar das melhores ginastas do Brasil e do continente americano, buscando assim um lugar na seleção brasileira de GR.

PALAVRAS-CHAVE: avaliação de habilidades motoras, ginástica rítmica, teste físico.