

153 - PROFILE OF THE FLEXIBILITY OF THE HIP, THE ACADEMIC DEGREE OF PHYSICAL EDUCATION IN THE REGION FOZ DO IGUAÇU - PR.

ANANIAS DOS SANTOS IZIDORO,
ELTON ANTÔNIO VALENTINI,
PEDRO FERREIRA REIS,
GLEISON MIGUEL L. FERREIRA
FEFFI – FACULDADE DE EDUCAÇÃO FÍSICA DE FOZ DO IGUAÇU,
FOZ DO IGUAÇU, PARANÁ, BRASIL.
ananas_8@hotmail.com

INTRODUCTION

Alter (1999, p. 1) defines flexibility as "the ability to move muscles and joints in all ranges of motion, referring to this term as a degree of normal movement." The flexibility can be developed by stretching the tissue and muscles involved in articulation, which are to increase range of motion. According to Elliot and Mester (2000), flexibility can be developed by stretching the surrounding soft tissues of a joint, is of great importance for athletes in many sports, it can greatly improve your overall performance. Already Sigorseth (1971, apud ELLIOT and MESTER, 2000, p. 23) "said in early 1970 that certain skills could be improved with increased or decreased flexibility in various joints."

A low level of flexibility is a factor commonly associated with muscle damage. Therefore, many scientists and doctors in sports medicine say that stretching reduces the incidence of severe injuries and muscle-tendinous and joint (ELLIOT and MESTER, 2000). Therefore, flexibility is considered one of the most effective means to prevent injury.

Some of the factors that affect flexibility are: age, sex, environmental conditions and psychological effects. With advancing age of the individual muscles, tendons and connective tissue are shortened and there may be some calcification of cartilage, with a significant reduction in flexibility [...] Blomfield (et al. 1994, cited in ELLIOT and MESTER, 2000). The fact that the female pregnancy to be adapted to the child support enables higher levels of flexibility in the hip region (ALTER, 1999).

Since environmental conditions can significantly alter the levels of flexibility, as a means of facilitating the flexibility attributed to the heat, which can cause muscle injury and improve performance in physical activities (ELLIOT and MESTER, 2000).

The psychological effects are related to the condition of cooperativity, ie, in a social situation, it is possible for a group to achieve better results if carried out a program of personal training, but it is important to isolate the competitiveness, because stretching can cause excessive injuries (ELLIOT and MESTER, 2000).

METHODS

The research is characterized by quantitative exploratory. According to Santos (2002) quantitative research is a method of social research that uses statistical techniques, which usually involves the construction of questionnaire surveys. To Malhotra (2001), the main objective of exploratory research, it is possible to understand the problem faced by the researcher, and the exploratory research is used in cases where it is necessary to define the problem more accurately and identify relevant courses action or additional data before it can develop an approach.

For the study was sent an invitation letter to Education Institutions requesting authorization for the data collection. All study participants received and signed the consent form.

The survey sample consisted of 36 individuals, aged between 18 and 25 years, 19 men and 17 women.

Before data collection all participants were evaluated according to the Anamnesis Form (Table 1).

Table 1: Anamnesis Form

| |
|---|
| ANAMNESIS |
| Name: |
| Gender: |
| Age: years. |
| Practice Exercises: Yes () No () |
| What? |
| Frequency: |
| Time diary: |
| Flexibility training: Yes () No () |
| Frequency Weekly: days |
| Time diary: |
| It has a hip injury? Yes () No () |
| What kind of injury? Articulate () Muscular () Bind () |
| Do you have any pain you know the origin at the moment? |
| |
| how long has this injury or pain? |
| Feel any pain after exercise? |
| Have you had any injuries in the past? What kind? |
| -articular muscle rigidity? |
| If woman is pregnant at the time? |
| Feel any pain after exercise? |
| Have you had any injuries in the past? What kind? |
| Do you have joint or muscle rigidity? |
| If woman is pregnant at the time? |

Source: Monteiro (2000).

To collect data we used a Fleximeter Sanny, using the evaluation protocol of flexibility (MONTEIRO, 2000) as follows: The measurement will be done with hip flexion with the knee extended test (elevation of the limb extended passive and active).

In hip flexion with the knee extended is assessed in the supine position, the knee is fixed member that is not being assessed (extended), the segment does not lose contact with the litter during the movement.

The fleximeter is placed in the lateral thigh so that there is some change in the angle at the knee movement. The display is turned off (to the evaluator).

Stabilize the pelvis, preventing the elevation of the hip and lumbar spine taken from the surface. The pelvic rotation later (hip dislocation) starts from 9 degrees to the start of the lifting of the leg raising test straight-leg passive and the rotation angle increases with the angle of the leg elevated (BOHANNON et al., 1985 apud MONTEIRO, 2000, p. 39).

This rotation increases with a very flexible person and stabilization of the hip is essential for the validation of measurement, which could compromise the position of the appliance, making the wrong angle.

Note: Alter (1999) says that to minimize the tension from the gastrocnemius, the ankle can cause a slight plantar flexion.

In the test of active elevation of the limb extended, the individual performs to its maximum flexion in three attempts, and will be considered the movement that achieve the greatest degree of flexion.

In the test of passive elevation of the limb extended, the estimated runs flexion and assists in evaluating performance without exceeding the limit, in three attempts, considering the movement to achieve the greatest degree of flexion.

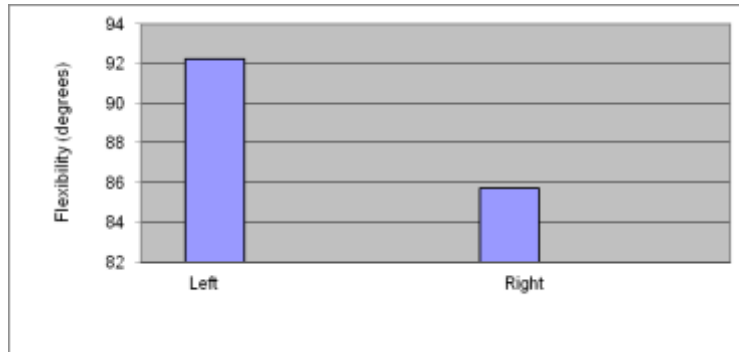
All data were collected at the same time, temperature by the same investigator to avoid any bias in the results. The evaluator went through training before taking measurements.

RESULTS AND DISCUSSION

The data collected related to the level of flexibility were analyzed by descriptive statistics, mean and standard deviation, and test t and applied in means between men and women with regard to the time of physical activity.

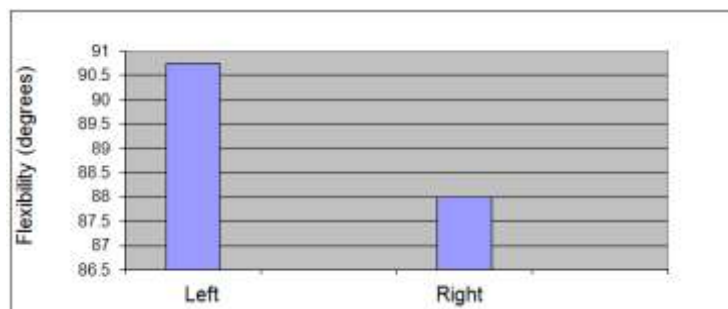
The flexibility test, measured in degrees by fleximetry was compared with normative data of flexibility provided by Leighton (1987).

GRAPH 1 - Average level of flexibility of the lower limbs of men evaluated



It can be seen in Graph 1 that the average flexibility of the men was assessed in 92.3 (± 13.8) degrees to the left hip, right hip and 85.7 (± 14), which according to the reference table is an average level of flexibility for the right hip and moderately high for the left hip.

GRAPH 1 - Average level of flexibility of the lower limbs of women evaluated



Graph 2 shows the flexibility of the medium was evaluated in 90 women, 8 (± 11.3) degrees to the left hip and 88 (± 11.4) degrees to the right hip, values compared to reference values show that for both women members had moderately low level of flexibility. These results are in the results found by Aubaut et al. (2006) who performed the data collection in dancers and compared men and women, also found a better index of flexibility in men. Since the results Cruz et al. (2010) showed that men have lower levels of flexibility than women. It should be noted that both studies used methods of assessment of different flexibility, goniometry and bank Wells respectively.

Were also collected data related to the level of physical activity among participants, the results are shown in Table 2.

| | Days a week | Minutes a Day |
|--------|-------------------|--------------------|
| Men | 3,4 (± 2,3) | 86,7 (± 64) |
| Women | 3,3 (± 2,2) | 76,9 (± 69) |
| Test t | - 0,4224 (p=0,05) | - 0, 1418 (p=0,05) |

According to Table 2 can be seen that no significant differences between levels of physical activity of men and women, according to Melo, Oliveira and Almeida (2009) flexibility appears to be influenced by the level of physical activity. This conclusion

is not supported by Silva and Rabelo (2006), analyzing two groups of women, and another one for sedentary to physically active, concluded that the sedentary group had lower levels of flexibility than the physically active. The same conclusion reached Mayolino and Souza (2009) that collected data on athletes and sedentary, showing that athletes had higher levels of flexibility than a sedentary lifestyle.

By collecting data there is also none of the participants undertake specific flexibility, which may explain the moderate levels of flexibility between the data collected.

CONCLUSION

The available literature shows that flexibility is a key parameter for the functionality of the human locomotor system (Vilarba, 2007), all individuals should be concerned about the levels of this parameter is one of those who are part of the health-related physical fitness.

The Academy of Physical Education should understand that they are opinion leaders, especially in relation to physical activity, and this study shows that many are forgetting that flexible working is also a form of physical activity. It is suggested that more studies be conducted in order to raise the levels of flexibility between academics and physical education, as well as studies aimed at raising awareness about the importance of performing specific flexibility training.

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PROFILE OF THE FLEXIBILITY OF THE HIP, THE ACADEMIC DEGREE OF PHYSICAL EDUCATION IN THE REGION FOZ DO IGUAÇU - PR.

ABSTRACT

This research aims to assess the degree of hip flexibility of academic degree in Physical Education in the region of Foz do Iguaçu. **METHODS:** The survey sample consisted of 36 individuals, aged between 18 and 25 years, 19 men and 17 women. Before data collection all participants completed a case history sheet, which contained questions about the amount of time you exercise for trained and flexibility. To collect data we used a Fleximeter Sanny, using the evaluation protocol of flexibility (MONTEIRO, 2000). **RESULTS:** The average flexibility of the men was assessed in 92.3 (\pm 13.8) degrees to the left hip, right hip and 85.7 (\pm 14), and flexibility of the medium was evaluated in 90 women, 8 (\pm 11.3) degrees to the left hip and 88 (\pm 11.4) degrees to the right hip. **CONCLUSION:** The available literature shows that flexibility is a key parameter for the functionality of the human locomotor system (Vilarba, 2007), all individuals should be concerned about the levels of this parameter is one of those who are part of health-related fitness. The Academy of Physical Education should understand that they are opinion leaders, especially in relation to physical activity, and this study shows that many are forgetting that flexible working is also a form of physical activity.

NIVEAU DE FLEXIBILITE DE LA HANCHE, LE GRADE ACADEMIQUE DE L'EDUCATION PHYSIQUE AU FOZ DO IGUAÇU REGION - PR.

RÉSUMÉ

Cette recherche vise à évaluer le degré de souplesse de la hanche du diplômé universitaire en éducation physique dans la région de Foz do Iguaçu. **METHODOLOGIE:** L'échantillon du sondage était composé de 36 individus, âgés entre 18 et 25 ans, 19 hommes et 17 femmes. Avant la collecte de données tous les participants ont rempli une feuille histoire de cas, qui contenait des questions sur la quantité de temps que vous exercez pour la formation et de flexibilité. Pour collecter les données, nous avons utilisé une Sanny Fleximeter, en utilisant le protocole d'évaluation de la flexibilité (Monteiro, 2000). **RÉSULTATS:** La flexibilité moyenne des hommes a été évaluée dans 92,3 (\pm 13,8) degrés à la hanche gauche, la hanche droite et 85,7 (\pm 14), et la flexibilité du milieu a été évaluée dans 90 femmes, 8 (\pm 11,3) degrés à la hanche gauche et 88 (\pm 11,4) degrés à la hanche droite. **Conclusion:** La littérature disponible montre que la flexibilité est un paramètre clé pour la fonctionnalité de l'appareil locomoteur humain (Vilarba, 2007), tous les individus devraient être préoccupés par les niveaux de ce paramètre est un de ceux qui font

partie de la condition physique . L'Académie d'éducation physique doivent comprendre qu'ils sont les leaders d'opinion, notamment par rapport à l'activité physique, et cette étude montre que beaucoup sont en oubliant que le travail flexible est également une forme d'activité physique.

GRADO DE FLEXIBILIDAD DE LA CADERA, EL GRADO ACADÉMICO DE EDUCACIÓN FÍSICA EN LA REGIÓN FOZ DO IGUAÇU - PR.

Esta investigación tiene como objetivo evaluar el grado de flexibilidad de la cadera de grado académico en Educación Física en la región de Foz do Iguaçu. **METODOLOGÍA:** La muestra del estudio consistió en 36 individuos, con edades comprendidas entre 18 y 25 años, 19 hombres y 17 mujeres. Antes de la recolección de datos todos los participantes completaron una hoja de historia clínica, que contenía preguntas sobre la cantidad de tiempo que el ejercicio de capacitación y flexibilidad. Para recopilar los datos se utilizó un Sanny Fleximeter, utilizando el protocolo de evaluación de la flexibilidad (MONTEIRO, 2000). **RESULTADOS:** La flexibilidad media de los hombres se evaluó en 92,3 (\pm 13,8) grados a la cadera izquierda, cadera derecha y 85,7 (\pm 14), y la flexibilidad del medio fue evaluada en 90 mujeres, 8 (\pm 11,3) grados a la cadera izquierda y 88 (\pm 11,4) grados en la cadera derecha. **CONCLUSIÓN:** La literatura disponible demuestra que la flexibilidad es un parámetro clave para la funcionalidad del aparato locomotor humano (Vilarba, 2007), todas las personas deberían estar preocupados por los niveles de este parámetro es uno de los que forman parte de la salud relacionados con el fitness . La Academia de Educación Física deben entender que ellos son los líderes de opinión, especialmente en relación con la actividad física, y este estudio demuestra que muchos están olvidando que el trabajo flexible es también una forma de actividad física.

NÍVEL DE FLEXIBILIDADE DO QUADRIL, DOS ACADÊMICOS DE LICENCIATURA EM EDUCAÇÃO FÍSICA DA REGIÃO DE FOZ DO IGUAÇU – PR.

RESUMO

Esta pesquisa tem o objetivo de avaliar o grau de flexibilidade do quadril dos acadêmicos de licenciatura em Educação Física da região de Foz do Iguaçu. **METODOLOGIA:** A amostra da pesquisa foi composta por 36 indivíduos, com idade entre 18 e 25 anos, sendo 19 homens e 17 mulheres. Antes da coleta de dados todos os participantes responderam uma Ficha de Anamnese, onde continha perguntas a respeito da quantidade de vezes que praticava atividade física e se treinava flexibilidade. Para a coleta de dados utilizou-se um flexímetro marca Sanny, utilizando-se do protocolo de avaliação da flexibilidade de (MONTEIRO, 2000). **RESULTADOS:** a flexibilidade média dos homens avaliados ficou em 92,3 (\pm 13,8) graus para o quadril esquerdo, e para o quadril direito 85,7 (\pm 14), e flexibilidade média das mulheres avaliadas ficou em 90, 8 (\pm 11,3) graus para o quadril esquerdo e 88 (\pm 11,4) graus para o quadril direito. **CONCLUSÃO:** a bibliografia disponível mostra que a flexibilidade é um parâmetro essencial para a funcionalidade do aparelho locomotor humano (Vilarba, 2007), todos os indivíduos deveriam se preocupar com os níveis deste parâmetro que é um dos que fazem parte da aptidão física relacionada à saúde. Os acadêmicos de Educação Física devem entender que eles serão formadores de opinião, principalmente em relação a atividade física, e este estudo mostra que muitos estão esquecendo que trabalhar flexibilidade também é uma forma de atividade física.