213 - DIETARY INGESTION AND BODY COMPOSITION OF DANCERS OF UFPA (BELÉM-PA).

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INTRODUCTION

The dance is considered of the oldest and complete art, therefore it creates movements and if express through the body. Being its presence in the life of the man of great importance, therefore it folloies it since rituals of the primitive peoples until the present (PORTINARI, 1989).

The lack of an feeding balanced for who practises dance as profession is present to a large extent of this public, since, the majority of the dancers said its proper "balanced feeding", without the search of an adjusted professional to make it (BALDI, 2008).

The way of expression of the dance is the body of the dancer, this expression of the physical form, takes the search of a lean and delineated body, that is, with a low percentage of fat (KUWAE; SILVA, 2007). In what it says respect to the feeding of the dancers and its training, this was for much neglected time, being carried through without scientific beddings that assisted in optimum performance of the dancer (WEINECK, 1999).

The feeding for the dancer is essential, at the same time where they do not know which correct food must be ingested. However, for adopting an ideal physical standard, they are devoted of diets until this to lose its functionality for the same ones (LOUIS, 1992).

According to Amaral (2005), in the dance the healthful feeding is of extreme importance to keep the body always nourished, in good form and with the energy necessary to dance, mainly in the periods of assay and presentations.

METHODOLOGY

The study it folloied six dancers, with age between 18 and 29 years, of the choreographic group of the School of Dance of the Federal University of Pará in the period of December of 2008 the May of 2009.

All the participants of the study had after agreed to be clarified the volunteers regarding the objective of the study and the procedures of evaluation in signing the Term of Free and Clarified, requisite Assent obligator, approved for the Committee of Ethics in Research of the University Hospital João of Barros Barreto in accordance with Resolution 196/96, of the National Advice of Health of 10/10/1996, getting approval in day 05/11/2008.

The collection of data was carried through through three distinct evaluations in the period of five months. In the first evaluation (December month), it was applied a questionnaire of anamnese, a questionnaire of anthropometric evaluation and a questionnaire of alimentary frequency. In the questionnaire of anamnese they had been gotten personal data and information regarding practical of dance or the other type of physical activity, of the carried through meals daily, the interval between them, the main meal and if they made some type of diet. The registers of the total body weight, body stature, Index of Corporal Mass and cutaneous folds bicipital, supply-ilíaca, to subescapular, tricipital and circumference of the waist (WC) had been made in the questionnaire of anthropometric evaluation. In the questionnaire of alimentary frequency one searched to know the usual qualitative dietary consumption for elaboration and better adequacy of the dietary control that later was applied in the second evaluation.

In the second evaluation, after the period of three months, applied as the questionnaire of anthropometric evaluation where the same parameters verified in the first evaluation had been measures. Also it was delivers to the dance pupils an elaborated dietary lapsing in accordance with given related for them how much its alimentary habits, respecting the individuality of each one how much the schedule of the meals, preferences and practical of other porting activities together with the dance, as well as the duration of the same ones. The calculation of the energy expense of the dancers was made of form indirect and individual by means of the equation of Harris and Benedict (1919)), considering the factors age, weight, height and the type of activity. The metabolic equivalence value (MET) of the dance used in the calculation of the factor activity was 6,0.

All the prescribed diets had individually taken care of to the necessities of the dancers presenting a ratio of 60% of carbohydrate, 15% of proteins and 25% of fatty. The meals are distributed in breakfest, snack of the morning, lunch, snack of the afternoon, supper and supper, all I contend a substitution list

In the third evaluation, after two months of the previous evaluation, collected the data anthropometric, the same of the too much evaluations, searching to verify if the instituted dietary control had alteration in the body composition after.

The corporal weight was measure through the digital electronic scale (Linea II/Plenna), for the measures of the stature was used a metric ribbon of 150 cm of length, inelástic (not-extensible) with precision of 0,1cm fixed the wall with distance of 50 cm of the soil without baseboard, being reached the length of 2 meters, the points of cuts of the IMC for evaluation of the nutritional state had been made according to classification of the WHO (1995), for the measures of the cutaneous folds (tríceps, biceps, supply-ilíaca and to subescapular) used one plicômetro physician of mark CESCORF with precision of 0,1mm.

The body composition was esteem using sum it of the four cutaneous folds, according to equation of Durnin and Womersley (1974). E from the value of the corporal density, the percentage of total fat was determined through the formula of Siri (1961), being the cited equations made manually and the results compared with the values standards of the percentage of corporal fat for suitable women of Heyward and Stolarczyk (1996).

For the measures of the circumference of the waist an not-extensible metric ribbon was used, being used as point of cut of the circumference of the waist the classification of the WHO (1998).

The data had been stored in data bases and later used in the elaboration of the graphs created by means of the program Microsoft Excel 2003. E for the analysis statistics was applied the Anova test with level of significance statistics in 95% ($p < 0,05$) for the analysis of the difference statistics between the averages.

RESULTS AND QUARRELS

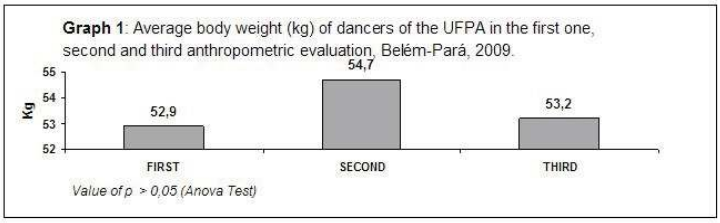
Picture 1 shows to the anthropometric profile of the dancers referring the three evaluations, being demonstrated through the average, together with the minimum and maximum values.

Picture 1 - Anthropometric profile of the dancers of the UFPA, Belém-Pará, 2009.

	1ª evaluation			2ª evaluation			3ª evaluation		
Variable	Average	Min value.	Máx value.	Average	Min value.	Máx value.	Average	Min value.	Máx value.
Body weight	52,9	50,1	56	54,7	49,1	62,2	53,2	49	57

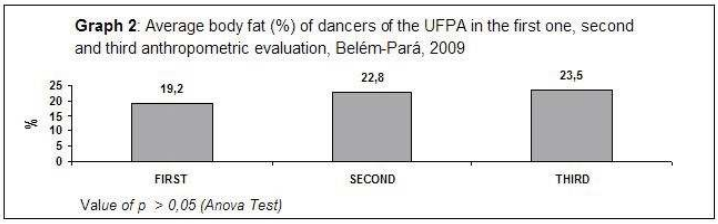
Stature	1,61	1,57	1,63	1,61	1,57	1,63	1,61	1,57	1,63
BMI	20,5	19,1	21,7	21,2	18,7	23,4	20,7	18,4	22
% Fat	19,2	13	24	22,8	19	25	23,5	19	29
WC	68,3	62	74	68,8	60,5	73,5	68,5	63,5	72,5

The graphs to follow present the percentile alterations and the averages of the anthropometrics variable of the studied group.



The graph 1 sample that had a rise of the corporeal weight between the first evaluation and second (of 52,9 for 54,7 kg) during the period without dietary intervention. Such alteration can have been decurrent of the lack of a balanced feeding and pauses in the period of training. However it had a reduction of the corporeal weight between second and the third evaluation (of 54,7 for 53,2 kg) during the period with dietary intervention, such alteration did not present significance statistics (p> 0,05).

For Martins and Santos (2004), the influence of the feeding and the physical exercise in the corporal composition, has been lately very valued as form to facilitate to lose weight or the maintenance of the weight, in athlete and other individuals.

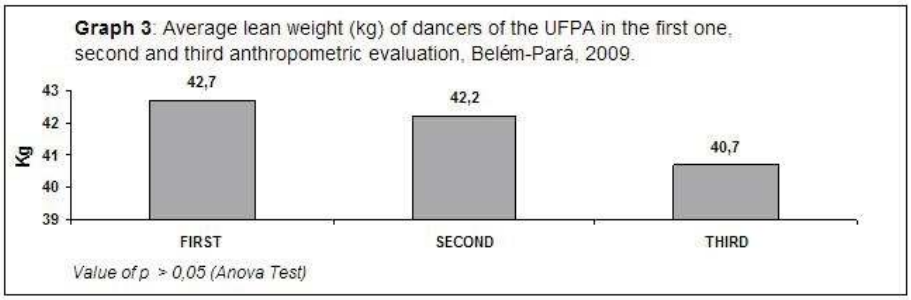


Graph 2 demonstrates that it had a rise of the percentage of fat of the dancers in the period without dietary intervention, of the first one for the second evaluation, such factor can have been modified through factors as the expense increased caloric and positive energy rocking.

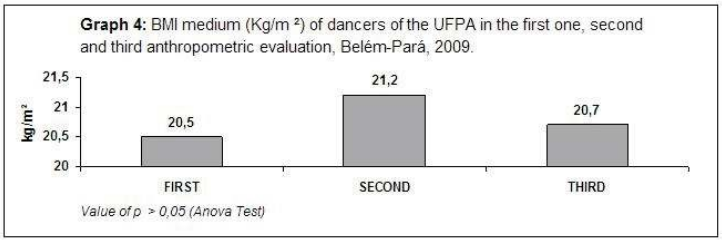
Evidences exist that also the composition of the diet concurs for alterations in the corporal composition. If the ingestion of fats will be superior what duly it is recommended (25 30% of it arrive in port total caloric) bigger is the risk of it if to accumulate (MARTINS corporally; SAINTS, 2004). Thus, the biggest energy density of the fatty could be the cause of the superior values of fat mass in the studied group.

In accordance with the graph had the average absolute increase of the corporal fat of the dancers in the first one (19.2%), second (22.8%) and third evaluation (23.5%) and such alteration did not present significance statistics (p > 0,05). Although the average of the corporal fat if has raised of the first one for the second evaluation and of the second evaluation for third, in accordance with Heyward and Stolarczyk (1996) the average of the percentage of fat for women that is of 23%, being to the dancers inside of the average.

Fração et al (1999) found through a study made with ten dancers of Porto Alegre that the percentage of fat had a 20,3% average, result this that is equivalent with the averages found in the referring research the three evaluations.



In graph 3 the average of the lean weight of the dancers in the first one is demonstrated (42,7Kg), second (42,2 kg) and third evaluation (40,7 kg). It is observed despite it had reduction in the percentage of the lean weight of the first one for the second evaluation, period without dietary intervention, such alteration can have been caused for the pause in the training and unbalanced feeding. Of the second for the third same evaluation with the dietary intervention lean weight it diminished. The factors that can have caused such alteration can have been estress it, illnesses during the period of the dietary intervention, reduction of the period of sleep, reduction in the frequency of the training and inadequate consumption of nutrients (negative nitrogenado rocking).

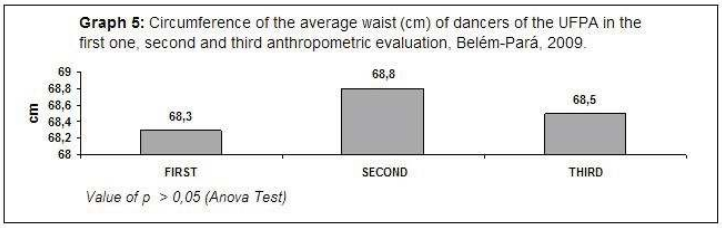


Graph 4 demonstrates the average absolute increase of the IMC of first for the second evaluation (of 20,5 for 21,2 Kg/m ²) and reduction of second for the third evaluation (of 21,2 for 20,7 Kg/m ²). Such alteration did not present significance statistics (p> 0,05).

In accordance with Cuppari (2005), the IMC is a pointer of the nutritional state, being that the value of normality for its classification is of 18,5 the 24,9 Kg/m ². However, one evidences that the dancers with or without dietary intervention if find inside of the normality band (eutróficas).

Kuwae and Silva (2007) had characterized the percentage of fat, IMC and corporeal weight of 10 dancers contemporaries of the city of Goiás, presenting in average values of 17,08%; 20,77Kg/m ² and 54,81Kg, respectively. Values these that if are similar to the joined one in this work and that sample that in accordance with the 0 variable found in the research, the dancers if find inside of the normality band.

On the other hand Ribeiro (2008) found through a study made with 12 dancers of dance of the womb of Rio De Janeiro that the IMC had a average of 24,42 +5,12 Kg/m ², representing that only 22.06% of them if found inside of the normality band, 19.50% if they found unfed, 28.78% with overweight and 35.32% with obesity degree II.



Graph 5 sample that the average of the circumference of the waist of the dancers oscillated of the first one for the second evaluation (of 68,3 for 68,8 cm) in the period without dietary intervention, and of the second evaluation for third (of 68,8 for 68,5 cm) in the period with dietary intervention. Such alteration did not present significance statistics (p > 0,05).

The average of the circumference of the waist of the three evaluations did not present significant variation and meets inside of the normality for women that is up to 80 cm according to WHO (1998), what it indicates a lesser visceral amount of fabric fat and diminishes the risk of metabolic complications.

CONCLUSION

Through the objectives initially established it was possible to conclude that this study it evidenced that the dietary ingestion before did not have significant difference in the changes of the corporal compositions of the dancers after (p > 0,05).

With regard to the corporeal weight it enters the evaluations without and with dietary intervention, the percentage remained constant in 66,7%, even so the average has diminished of 54,7 for 53,2 kg.

The fat percentage suffered to alterations the dietary intervention after, reducing its percentage for compared 50% with the period without intervention (66.7%). The average in absolute values increased in the period with the dietary intervention of 22,8 for 23,5%.

How much to the lean weight and the BMI percentile difference in the period without or with dietary intervention was not observed, being demonstrated for the 66,7% percentage. E in absolute values average in second for the third evaluation, the lean weight reduced of 42,2 for 40,7 kg and the BMI reduced of 21,2 for 20,7 kg/m ².

In relation to the circumference of the waist the percentage reduced for 50% in the period with dietary intervention. E the average in absolute values reduced of 68,8 for 68,5 cm.

The present study it presents as limitations a short space of time in was carried through the dietary ingestion, the small number of the population, beyond not the fulfilment of the diet for factors as: illnesses and alimentary inadequacion (lack of regularity of the schedules of the meals and inacessibility of foods), factors these that can have influenced in not significant alterations in the corporal composition.

In relation to the research until the moment studies had not been found that if are equivalent to the effect of the dietary ingestion in the corporal composition of dancers. In this manner it has necessity of new studies on this thematic one.

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DIETARY INGESTION AND BODY COMPOSITION OF DANCERS OF UFPA (BELÉM-PA).

The present study it had as objective to evaluate the dietary ingestion and body composition of dancers of the UFPA. Six pupils of choreographic dance of the School of Dance of the UFPA had been accompanied by currently. The collection of data was carried through at three distinct moments during a period of five months by means of a questionnaire of physical evaluation in which if anthropometrics information had registered (weight, cutaneous stature, folds and circumference of the waist) and a questionnaire of frequency of alimentary consumption to identify the alimentary habit of the dancers and to elaborate the dietary intervention after the first evaluation. For the analysis of the anthropometrics data comparisons between first and the second evaluation had been established, period without dietary intervention and between second and third, period with dietary intervention. It was observed that the total corporeal weight increased of the first one for the second evaluation of 52,9 +2,2 for 54,7 +4,7 kg and of this for third diminished for 53,2 +3,2 kg; the fat percentage increased of the first evaluation for second of 19,2 +4,0 for 22,8 + 2.4% and of this for the third evaluation with 23,5 + 3.6%; the lean weight diminished of the first evaluation for second of 42,7 +3,0 for 42,2 +3,9 kg and of this for the third evaluation with 40,7 +2,2 kg The BMI were inside of the band of normality in the three evaluations same with its increase of the first one for the second evaluation of 20,5 +1,0 for 21,2 +1,6 Kg/m ² and its reduction of this evaluation for third with BMI of 20,7 +1,6 Kg/m ². The circumference of the waist increased of the first one for the second evaluation of 68,3 +4,6 for 68,6 +5,2 cm and of this for the third evaluation it diminished for 68,5 +3,9 cm. This study it evidenced that the dietary intervention before did not have significant difference in the changes of the corporal compositions of the dancers after.

KEY WORDS: Dancers, nutrition, body composition.

INGESTION DIÉTÉTIQUE ET COMPOSITION CORPORELLE DE DANSEURS DE L'UFPA (BELÉM-PA).

Présente étude il a eu comme objectif évaluer l'ingestion diététique et la composition corporelle de danseurs de UFPA. Se sont accompagnés prospectivement six élèves de danse chorégraphique de l'École de Danse de UFPA. Il rassemble de données a été réalisé au trois moments distincts pendant une période de cinq mois au moyen d'un questionnaire d'évaluation physique dans laquelle se sont enregistrées des informations anthropométriques (poids, stature, pli cutanés et circonférence de la taille) et un questionnaire de fréquence de consommation alimentaire pour identifier l'habitude alimentaire des danseurs et élaborer l'intervention diététique après première évaluation. Pour l'analyse des données anthropométriques ont été établies des comparaisons entre première et seconde évaluation, période sans intervention diététiques et entre seconde et troisième, période avec intervention diététique. Il s'est observé que le poids corporel total a augmenté de première pour seconde évaluation de 52.9 +2.2 pour 54.7 +4.7 kg et de cette pour la troisième diminue pour 53.2 +3.2 kg ; le pourcentage de graisse a augmenté de première évaluation pour seconde de 19.2 +4.0 pour 22.8 + 2.4 % et de cette pour troisième évaluation avec 23.5 + 3,6 % ; le poids maigre a diminué de première évaluation pour seconde de 42.7 +3.0 pour 42.2 +3.9 kg et de cette pour troisième évaluation avec 40.7 +2.2 kg L'IMC est resté à l'intérieur de la bande de normalité dans les trois évaluations même avec son augmentation de première pour seconde évaluation de 20.5 +1.0 pour 21.2 +1.6 Kg/m ² et sa diminution de cette évaluation pour la troisième avec IMC de 20.7 +1.6 Kg/m ². La circonférence de la taille a augmenté de première pour seconde évaluation de 68.3 +4.6 pour 68.6 +5.2 cm et de cette pour troisième évaluation il diminue pour 68.5 +3.9 cm. Cette étude il a constaté qu'il n'a pas y eu différence significative dans les changements des compositions corporelles des danseurs avant après l'intervention diététique.

MOTS - CLÉ : Danseurs, nutrition, composition corporelle.

INGESTIÓN DIETÉTICA Y CABO COMPOSITION OF DANCERS OF EL UFPA (BELÉM-PA).

El actual estudio que tenía como objetivo para evaluar la ingestión y la composición dietéticas del cabo de los bailarines del UFPA. Seis pupilas de danza coreográfica de la escuela de la danza del UFPA habían sido acompañadas por el prospectivamente. La recogida de datos fue llevada a través en tres momentos distintos durante un período de cinco meses por medio de un cuestionario de la evaluación física en el cual si la información de los antropométricas se había colocado (peso, estatura cutánea, los dobleces y circunferencia de la cintura) y un cuestionario de la frecuencia de la consumición alimenticia para identificar el hábito alimenticio de los bailarines y para elaborar la intervención dietética después de la primera evaluación. Para el análisis de las comparaciones de los datos de los antropométricos en medio primero y la segunda evaluación había sido establecido, período sin la intervención dietética y entre segunda y tercero, período con la intervención dietética. Fue observado que el peso corpóreo total creciente de primer para la segunda evaluación de 52.9 +2.2 para 54.7 +4.7 kilogramos y de esto para el tercer kilogramo disminuyó para 53.2 +3.2; el porcentaje gordo aumentó de la primera evaluación para la segunda de 19.2 +4.0 para 22.8 + 2.4% y de esto para la tercera evaluación con 23.5 + 3.6%; el peso magro disminuyó de la primera evaluación para la segunda de 42.7 +3.0 para 42.2 +3.9 kilogramos y de esto para la tercera evaluación con 40.7 +2.2 kilogramos El IMC era dentro de la venda de la normalidad en las tres evaluaciones igual con su aumento de primer para la segunda evaluación de 20.5 +1.0 para el ² de 21.2 +1.6 Kg/m y su reducción de esta evaluación para el tercero con IMC del ² de 20.7 +1.6 Kg/m. La circunferencia de la cintura aumentó de primera para la segunda evaluación de 68.3 +4.6 para 68.6 +5.2 centímetros y de esto para la tercera evaluación disminuyó para 68.5 +3.9 centímetros. Este estudio que evidenció que la intervención dietética antes de que no tuviera diferencia significativa en los cambios de las composiciones corporales de los bailarines después.

PALABRAS - LLAVE: Bailarines, nutrición, composición corporal.

INGESTÃO DIETÉTICA E COMPOSIÇÃO CORPORAL DE DANÇARINAS DA UFPA (BELÉM–PA).

O presente estudo teve como objetivo avaliar a ingestão dietética e composição corporal de dançarinas da UFPA. Acompanharam-se prospectivamente seis alunas de dança coreográfica da Escola de Dança da UFPA. A coleta de dados foi realizada em três momentos distintos durante um período de cinco meses por meio de um questionário de avaliação física no qual se registraram informações antropométricas (peso, estatura, dobras cutâneas e circunferência da cintura) e um questionário de freqüência de consumo alimentar para identificar o hábito alimentar das dançarinas e elaborar a intervenção dietética após a primeira avaliação. Para a análise dos dados antropométricos foram estabelecidas comparações entre a primeira e a segunda avaliação, período sem intervenção dietética e entre a segunda e a terceira, período com intervenção dietética. Observou-se que o peso corpóreo total aumentou da primeira para a segunda avaliação de 52,9 +2,2 para 54,7 +4,7 Kg e desta para a terceira diminuiu para 53,2 +3,2 Kg; a porcentagem de gordura aumentou da primeira avaliação para a segunda de 19,2 +4,0 para 22,8 +2,4 % e desta para a terceira avaliação com 23,5 +3,6 %; o peso magro diminuiu da primeira avaliação para a segunda de 42,7 +3,0 para 42,2 +3,9 Kg e desta para a terceira avaliação com 40,7 +2,2 Kg. O IMC ficou dentro da faixa de normalidade nas três avaliações mesmo com seu aumento da primeira para a segunda avaliação de 20,5 +1,0 para 21,2 +1,6 Kg/m² e sua diminuição desta avaliação para a terceira com IMC de 20,7 +1,6 Kg/m². A circunferência da cintura aumentou da primeira para a segunda avaliação de 68,3 +4,6 para 68,6 +5,2 cm e desta para a terceira avaliação diminuiu para 68,5 +3,9 cm. Este estudo constatou que não houve diferença significativa nas mudanças das composições corporais das dançarinas antes a após a intervenção dietética.

PALAVRAS – CHAVE: Dançarinas, nutrição, composição corporal.

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