31 - VALIDITY OF THE INDEX OF CORPORAL MASS (IMC) AND CIRCUMFERENCE OF WAIST (CC) IN THE DETERMINATION OF THE CORPORAL COMPOSITION IN WOMEN BELONGING TO THE DESIGNATED AGE GROUP OF THIRD AGE

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INTRODUCTION

The Third Age, according to Moreira and Caetano (apud MASCHIO, 2006), it can be defined as the age group above 60 years of age

The Brazilian population in that age group, according to the Brazilian Institute of Geography and Statistics (IBGE) in 2000 it was 14,5 million people and the projection for the year of 2050 is that the seniors are about 20% of population.

In epidemic studies for the configuration of patterns of relative corporal composition to the health the World Health Organization (WHO), for its low cost it adopts the Body Mass Index (BMI) and Circumference of Waist (CW).

Based on Nunes et al. (2005) BMI constitutes in the current days the tool more used for the quantitative diagnosis of the obesity. It is defined as the reason of the total corporal weight in kilograms for the high stature to the square, expressed in meters. The values of high BMI can present association to the wide variety of responsible pathologies for the mortality tax in Brazil. The values of classification of BMI are based on: 18,5 (thin), from 18,5 to 24,9 (adequated), from 25 to 29,9 (overweight), 30 to 39,9 (obesity), above 40 (obesity exalts).

The data of the tests of BMI and CW obtained in studies of Paulino (2007), accomplished in Cornélio Procópio's city, North of Paraná, in Brazil, with women between 60 and 80 years of age will be used to verify the values adopted as patterns for the adult age can be also reference for the determination of the propensity or not for the obtaining degenerative diseases in senior. To determine of the index of functional autonomy (IG) of the populations in the appraised group in 2007 the protocol of Functional Autonomy of the Group of Latin-American Development was accomplished for the Maturity (GDLAM) based on Abreu Pernambuco and Vale (apud DANTAS e FERNANDES FILHO, 2005).

METHODOLOGY

The study was accomplished in two moments: the first accomplished in the year of 2006, with 42 women that was part of programs of physical activity of the Social Service of the Trade (SESC), here denominated of E06 (Picture 01) and the second accomplished in 2007, with the group of Basketball Adapted for the Third Age of the Federal University Technology - Paraná Campus Cornélio Procópio E07 (Picture 02), both in municipal district of Cornélio Procópio with data collected from 29 women above 60 years of age.



PICTURE 1 - Sample of the Study of 2006 (E 06)



PICTURE 2 - Sample of the Study of 2007 (E 07)

For the accomplishment of the antropometrical evaluations the same instruments were used in the two moments, being: analogical scales (Filizola, with graduation of 100 grams), stadiometer and it antropometrical stares with graduations of 1 millimeter. The measures were accomplished following patterns adopted by Farinati (1992).

For the evaluation of the functional autonomy, chronometer, cones, and banks (50 cm of height) and a shirt big size were necessary. For obtaining of IG they were following the procedures of GDLAM.

This protocol is used of a battery of tests related with the accomplishment of the activities of the daily life (ADL) in

senior women. The tests are composed of walking, getingup from the seating position, getingup from the position of ventral decubitus, getingup from the chair and moving around the house, dressing and removing a shirt.

The obtained data were submitted to statistical treatment, through the correlation analysis using Microsoft Excel® as electronic spreadsheet for subsequent foundation for developing of discussion and conclusion.

OBTAINED DATA

The results of the antropometrical evaluations were classified in a chronological order with crescent intervals of five years and, during each period, there were calculation of all data. That were transcribed in the Table 1. The Table 2 refers to the average of the evaluations of Circumference of Waist.

TABLE 1 - Averages of evaluations of Body Mass Index (BMI)

	60 to 65 years	65 to 70 years	70 to 75 years	75 to 80 years
Study of 2006 (E06)	27.41	27.35	29.04	27.85
Study of 2007 (E07)	28.46	26.65	25.63	26.65

TABLE 2 - Averages of evaluations of Circumference Waist (CW)

	60 to 65 years	65 to 70 years	70 to 75 years	75 to 80 years
Study of 2006 (E06)	96.07	92.75	97.36	95.00
Study of 2007 (E07)	99.67	89.50	92.17	89.33

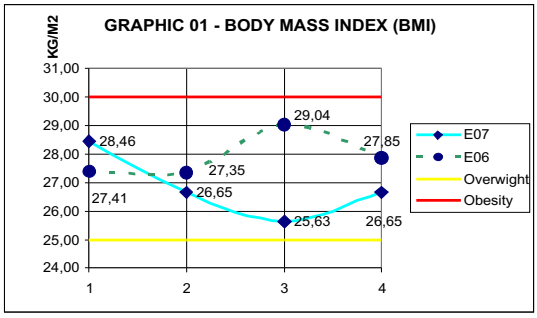
The evaluation of IG has been just accomplished in the second study in the year of 2007 that is represented in the Table 03 with the present averages in the strata of the ages between 60 and 80 years.

TABLE 3 - Averages of evaluations of Index of Functional Autonomy (IG)

	60 to 65 years	65 to 70 years	70 to 75 years	75 to 80 years
Study of 2007 (E07)	16.72	17.61	18.39	19.32

DISCUSSION

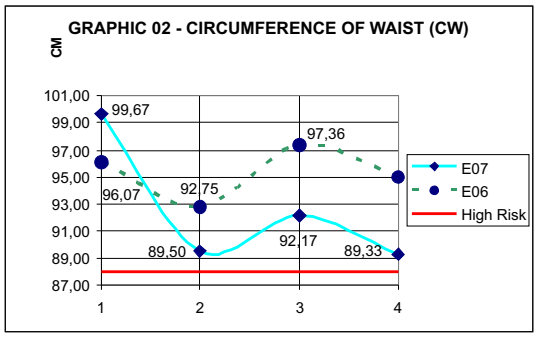
The averages of BMI are above the values of extra-weight (25 kg/m2) and below the obesity (30 kg/m2) according to the Graphic 01, what suggests that the studied samples are based on to the malicious effects to the health provoked by the high indexes of corporal mass.



01) 60 to 65 years, 02) 65 to 70 years, 03) 70 to 75 years, 04) 75 to 80 years

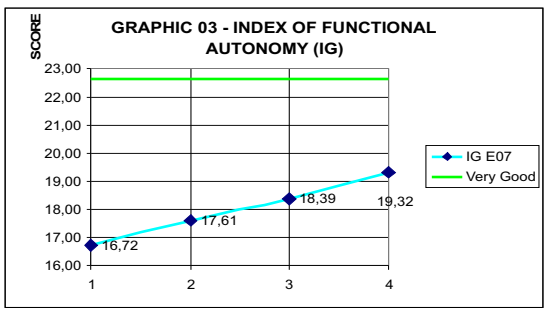
All the people of the group (all the ages) presented averages above the value (88 cm) that represents the maximum limit of circumference of waist for women are subject to high risk and acquisition of diseases for the accumulation of fat visceral.

(Graphic 02)



01) 60 to 65 years, 02) 65 to 70 years, 03) 70 to 75 years, 04) 75 to 80 years

IG increases progressively with the age that means that the functional autonomy declines with the aging, even in if taking care of active people as it demonstrated the Graphic 03, because all of the women come below the time (22,66 seconds) that is the limit of the "Very Good" classification



01) 60 to 65 years, 02) 65 to 70 years, 03) 70 to 75 years, 04) 75 to 80 years

When analyzing the correlations between the aging and the accomplished tests (IG, BMI and CW), constant in the Table 4, it was verified that just the correlation among the variation of the aging (age) and of the functional autonomy (IG) it is very strong, being good the existent ones between BMI and CW of each study.

TABLE 4 - Correlation between the Variation of the age and the accomplished tests

	AGE	*BMI E06*	*BMI E07*	*CW E06*	*CW E07*	*IG E07*
AGE	**1,00**					
BMI E06	0,50	**1,00**				
BMI E07	-0,71	-0,75	**1,00**			
CW E06	0,09	0,74	-0,10	**1,00**		
CW E07	-0,76	-0,19	0,77	0,47	**1,00**	
IG E07	**1,00**	0,47	-0,69	0,07	-0,76	**1,00**

CONCLUSION

The study was accomplished with physically activited women classified according to the Index of Functional Autonomy of the Group of Latin-American Development for the Maturity as "Very Good". This countersigns the good physical capacity and the low inclination to the acquisition of degenerative diseases, in spite of being considered for the tests of corporal composition as prone acquisition of those diseases.

The people belonging to the Third Age still have few diagnoses standardized for the seniors. An example to be mentioned refers to the leaflets of medicines, that present the suitable dosage for children and adults, but doesn't make specific mention for elderly. In the same way, this necessity becomes indispensable for the diagnoses of the corporal composition in seniors, because the study did not confirmed the relationship of fidelity between the results of the tests of corporal composition and the reality of women.

With aging, the woman suffers organic and metabolic adaptations that alter its structure body, thus requiring new studies to determine the parameters of body composition health for women of the Third Age.

In spite of the declining of the functional autonomy during the time, the study showed that the active people can maintain the physical activity above the strip of incapacity and with excellent functional autonomy.

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VALIDITY OF THE BODY MASS INDEX (BMI) AND CIRCUMFERENCE OF WAIST (CC) IN THE DETERMINATION OF THE CORPORAL COMPOSITION IN WOMEN BELONGING TO THE DESIGNATED AGE GROUP OF THIRD AGE

ABSTRACT

The present study had as its main goal to verify whether the patterns of corporal compotion enaluation for adults do have a correlation to the sample reality within the municipal district of Cornélio Procópio, northern Paraná, Brazil. The sample had the support of physically active women belonging to the Third Age period. It was realized stature and weight testes as well as waist circumference and the protocol of Functional autonomy of the Group of development for Latim Americam Maturity (GDLAM). The data were submitted to the correlation analysis in order to understand and conclude the study. After the analysis, the results pointed out that the ideal patterns established for adults are not in consonance to the third age women´s lifestyle.

KEYWORDS: Third Age. Corporal Composition. functional Autonomy

VALIDITÉ DE L'INDICE DE MASSE CORPORELLE (IMC) ET CIRCONFÉRENCE DE LA TAILLE (CC) DANS LA DÉTERMINATION DU CAPORAL COMPOSITION DES FEMMES APPARTENANT AU GROUPE D'ÂGE DE TROISIÈME ÂGE

RÉSUMÉ

La présente étude avait pour marquer à vérifier les modèles de l'évaluation de la chanson corporels pour les adultes possèdent une corrélation avec la réalité de l'échantillon dans le district municipal de Cornélio Procópio, située dans le nord du Paraná, au Brésil. De l'échantillonnage, ils ont annoncé les femmes physiquement actifs, appartenant au groupe d'âge de la Troisième Age. Stature tests ont été réalisés, le poids, la circonférence de la taille et le protocole d'autonomie fonctionnelle du Groupe d'Amérique latine pour le développement de la maturité (GDLAM). Les données ont été soumises à l'analyse de corrélation à la compréhension et à la conclusion de l'étude. Après analyse, les résultats ont fait que les schémas idéaux établis pour les adultes ne sont pas en harmonie avec les femmes du troisième âge de la vie.

MOT CLÉ: Troisième Âge Caporal la composition. Autonomie fonctionnelle

LA VALIDEZ DEL ÍNDICE DE MASA CORPÓREA (IMC) Y CIRCUNFERENCIA DE CINTURA (CC) EN LA DETERMINACIÓN DE LA COMPOSICIÓN CORPÓREA EN MUJERES QUE PERTENECEN AL GRUPO ETARIO DESIGNADO DE TERCERA EDAD

RESUMEN

El presente estudio tuvo como objetivo verificar si los modelos de evaluación de la composición corpórea para los adultos posee la correlación con la realidad de la muestra en la ciudad de Cornélio Procópio, localizada en el norte de Paraná, Brasil. De las pruebas participaram mujeres físicamente activas, pertenecientes al grupo etario de la Tercera Edad. Realizaramse los testes de estatura, peso, la circunferencia de cintura y el protocolo de Autonomía Funcional del Grupo de Desarrollo Latino-Americano para la Madurez (GDLAM). Los datos se sometieron al análisis de la correlación para conclusión del estudio. Después del análisis, los resultados apuntaron que los ideales de los modelos establecidos para los adultos no estan en consonancia con la manera de vivir de las mujeres de la Tercera Edad.

PALABRAS LLAVE: Tercera Edad. La composición corpórea. La autonomía funcional.

VALIDADE DO ÍNDICE DE MASSA CORPÓREA (IMC) E CIRCUNFERÊNCIA DE CINTURA (CC) NA DETERMINAÇÃO DA COMPOSIÇÃO CORPORAL EM MULHERES PERTENCENTES À FAIXA ETÁRIA DESIGNADA DE TERCEIRA IDADE

RESUMO

O presente estudo teve como escopo verificar se os padrões de avaliação da composição corporal para adultos possuem correlação com a realidade da amostra no município de Cornélio Procópio, situado no norte do Paraná, Brasil. Da amostragem participaram mulheres fisicamente ativas, pertencentes à faixa etária da Terceira Idade. Foram realizados testes de estatura, peso, circunferência de cintura e o protocolo de Autonomia Funcional do Grupo de Desenvolvimento Latino-Americano para a Maturidade (GDLAM). Os dados foram submetidos à análise de correlação para compreensão e conclusão do estudo. Após análise, os resultados apontaram que os padrões ideais estabelecidos para adultos não estão em consonância com o estilo de vida das mulheres da Terceira Idade.

PALAVRAS-CHAVE: Terceira Idade. Composição Corporal. Autonomia Funcional.