

## 182 - EFFECT OF THE PROGRAM OF TRAINING "BODY FOR LIFE" ON THE CORPORAL COMPOSITION IN USERS OF GYMNASTICS ACADEMY

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### INTRODUCTION

The gymnastics academies have been lately called of "industries of fitness", including in this term all its activities, such as gym lessons, weightlifting, hydrogym or any other programs that are developed in its dependences. We need to evaluate if this denomination is adjusted the proposals of the companies in question. Guiseline (1997) defines fitness as a series of factors that, when related they unconditionally promote an improvement in the quality of life of the people, these factors are the heartbreathing resistance, the muscular force, muscular resistance, flexibility and corporal composition. Is it true that in the gymnastics academies the concept of fitness is being practiced, leading its customers to an improvement in the quality of life? It is always convenient to evaluate that it will be possible or at least when will be implemented a new activity. We know that some reasons take a person to look for to make physical activity: "social, fashion, aesthetic, leisure and physicians". (GOMES & ARAÚJO FILHO, 1992, P.7). it is fitble to the professional of physical education to conscious the pupil and to adjust its objective to the concept of fitness considered by Guiseline.

In the City of João Pessoa - PB the Prodigy Academy was implemented in 2001 a attractive program initially with the only aesthetic, that would be the reduction of the corporal fat and increase of the lean or muscular mass, however this objective already fits in one of itens that they form fitness that is the corporal composition, improving it, the participant would not only have aesthetic profits as also in quality of life, therefore Pollock and Wilmore (1993) cite economic consequences and medical refusals in result of the fat.

It is convenient now to analyze estatistics on the basis of the data accumulated in the evaluations of the practitioners, if the related program, called "body for life" considered by Phillips and D'Orso (1999), if it gives to the divulged objectives to the customers of the Prodigy Academy. Soon the guiding question of this work was: will the training be considered for "body for life" during a period of three months provokes modifications in the corporal composition of its practitioners?

### HYPOTHESES.

**HO:** The program of physical training "body for life" does not cause significant modifications in the corporal composition of the participants.

**HE:** The program of physical training "body for life" cause significant modifications in the corporal composition of the participants.

### OBJECTIVES.

**GENERALITY:** To analyze the alterations of a training program "body will be life" on the corporal composition.

#### SPECIFIC:

**To identify:** Levels of corporal, per cent mass of fat, index of corporal mass, corporal fat stored and lean mass daily pay and after-training;

**To correlate:** Levels of corporal, per cent mass of fat, index of corporal mass, corporal fat stored and lean mass daily pay and after-training.

### METHODOLOGY

#### Characterization of the research

The research was characterized as descriptive, correlacional study that according to Thomas and Nelson (2002), the correlacional research is descriptive, what it makes with that you does not obtain to presume a relation cause and effect. Everything what can be established is that exists an association between two or more traces or performances. In this study the variable researched had been weight; percentage of fat; IMC (index of corporal mass), that it is a obesity pointer according to Nieman (1999); corporal fat and lean mass of the individuals.

#### Population and sample

The universe of the research consisted of users of an academy of specific gymnastics. The sample consisted of 33 individuals, being 18 of feminine sort and 15 of the masculine, average of age 24,79 32,78 years of the Prodigy Academy located in the region East of the city of João Pessoa credentiated for the Regional Advice of Physical Education - CREF.

It was selected sampling for the intentional not-probabilist method that consists of the research in places daily pre-established by the author, for access of exactly in the accomplishment of the research and for the peculiarity of information that they are of exclusiveness of the appraiser of the academy catalogued in registers (evaluation fiche) and for convenience, since the selected academy would be the only one in the city to carry through the training "Body will be Life" of regular and systemize form, as Vieira (1980), is the type of sample formed for elements congregated for the researcher because the same it made use of they. This type of sample is common in the area of the health, where if they use people who are part of one same segment, in the case practicing of the specific training.

The sample criterion considered the users who have participated of the training during the period foreseen for this, with evaluations pre and after the period of training.

#### Instrument for collection of data and selected 0 variable

One used a fiche of register, composed of 06 columns: record number, weight, percentage of fat, IMC, corporal fat and lean mass, these gotten through the evaluations of the pupils of the following form: The weight was gotten with scale of precision of 100 grams; so that the calculation of the IMC was possible, percentage of fat, corporal fat and lean mass, was necessary the one use a compass of cutaneous folds with precision of 0,1 mm; the values gotten in the weight and cutaneous folds are launched in the phisical program "test for windows" that it automatically supplies to the gotten results on the basis of pre selected protocols of test.

### Procedures for collection of data.

The authorization for this collection of data in its establishment was requested initially to the proprietors. After that, the collection of data was made in the registers (evaluation fichas) of the pupils who had participated of the previously described training intitled "Body for life", without identification of the same ones keeping the secrecy and being made possible only the number of the registration user, by means of the blind double system. The collection was carried through in the period of February the March of the current year.

### Procedure for treatment and analysis of the data.

After the accomplishment of the collection of the data, these had been formatted in a data base, in archive of statistical program SPSS version 10.0, where they had been calculated given relative the average descriptive statistics, shunting line standard, distributed error standard of the average, values maximum and minimum in tables. One applied test "t" of Student for side by side data and the coefficient of correlation "r" of Pearson for manipulation of the variable with point of cut of 0,700 for moderate classification. The adopted reliable level was 5%.

### Presentation and quarrel of the data.

It was accepted experimental hypothesis (He) of that it has differences between daily pre and after-test in the training of the "Body for life" in users of academies during a period of three months. Table 01 makes use the descriptive data of average, shunting line standard, maximum and minimum value of the variable corporal mass, IMC, PGA, percentage of fat and lean corporal mass of the pre and after-test.

TABLE 01: DESCRIPTIVE TABLE OF AVERAGE, SHUNTING LINE STANDARD, MAXIMUM AND MINIMUM VALUE OF THE VARIABLE CORPORAL MASS, IMC, PGA, % OF FAT AND MCM OF DAILY PRE AND AFTER-TESTE.

Estadistics	Minimum	Maximum	Mean	Std. Deviation
Corporal mass before	48,00	100,00	67,6273	12,8642
Corporal mass after	45,00	94,60	64,6515	11,2825
% of fat before	8,70	33,06	22,1045	5,4557
% of fat after	7,99	27,28	19,3715	4,8483
IMC before	18,96	30,86	24,1591	2,8945
IMC after	15,99	27,99	22,8094	2,7786
Weigth of fat before	6,40	25,90	14,8939	4,8882
Weight of fat after	5,90	20,80	12,4667	4,0689
Lean mass before	40,00	74,10	52,7242	10,4771
Lean mass after	40,70	78,90	55,4515	10,6655

Table 02 presents given of significance "t" for side by side data and coefficient of correlation "r" of Pearson with point of cut for 0,700, considered as moderate correlation, in the daily pay and after test. It had significant differences  $p=0,000$ , minor of whom 0.5% between all the pairs of analyzed 0 variable of the corporal composition. In relation to the correlation all had been presented above of 0,900 considered high ones for our study, or either, as the training is executed has a manipulation of the corporal composition in relation the reduction of corporal mass, IMC, PGA, MCM and % of Fat. In accordance with Wilmore and Costil (2001, p.492), the corporal composition can be modified from aspects as diet and exercise. The program "Body will be life" as physical training promoted this change, through trainings muscular and heartbreathing.

TABLE 02: DESCRIPTIVE TABLE OF THE TESTS OF SIGNIFICANCE "T" FOR PAIR UPED DATA AND COEFFICIENT OF CORRELATION "R" OF PEARSON OF THE DATA OF DAILY PAY AND PÓS-TESTE.

Estadística	Correlation "r" de Pearson	Sig	Teste "t" of Student
Corporal mass before			
Corporal mass after	,976	,000	5,517
% fat before			
% fat after	,918	,000	7,220
IMC before			
IMC after	,915	,000	6,587
Weight of fat before			
Weight of fat after	,922	,000	7,188
Lean mass before			
Lean mass after	,984	,000	-8,150

### FINAL CONSIDERATIONS.

The joined results had verified that it had modification of the corporal composition of the participants of the training "Body for life", with relation to the increase of the lean mass, a pointer of that had addition of muscular mass, reduction of the all up weight, percentile of fat, weight of fat and the IMC.

We can now affirm that the program in question produces also resulted in relation to fitness, therefore the increase of muscular mass consequently promotes the increase of the force and muscular resistance according to McArdle (1998), RIQUE et alli (2002) reaffirms, in its article of revision, the importance of the physical for prevention and control of cardiac diseases, allied activity the balanced diet, therefore they promote the reduction of the weight, percentage of fat and IMC, what it prevents a series of illnesses related to the obesity agrees Guedes and Guedes (1998). HUNTER and SOBRAL SON (2004) stand out, also, the importance of the physical activity as controlling factor of the arterial pressure. It was not searched if it had increase of bones mass in the practitioners, but as it suggests CADORE et alli (2005), the type of carried through muscular work in the training, can unchain an increment in the bones mass of the participants, question this, adjusted to a new study.

It was concluded that the program "Body for life" caused alterations in the corporal composition of its practitioners, improving it, still suggests the implementation of a systemize diet, since even so this has been suggested, was the criterion of the participants to opt or not to its use, therefore in this way the gotten results can be still better, therefore according to Nieman (1999,

p.234)"... the control of caloric ingestion represents the real power behind the efforts of loss of weight "agrees RIQUE et alli (2002) it does not invalidate the training as an efficient tool to reach this objective.

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#### EFFECT OF THE PROGRAM OF TRAINING "BODY FOR LIFE" ON THE CORPORAL COMPOSITION IN USERS OF GYMNASTICS ACADEMY.

##### ABSTRACT

The objective of the present work is to analyze the resulted obtained in the alteration of the students' of a gymnastics academy corporal composition submitted to the specific training "Body for Life", proposed by Phillips & D'Orso, that was adopted by this academy with the intention of marketing improvement, promising fat loss and increase of muscular mass, that is, just resulted aesthetic, however it is known that, this improvement can also introduce important changes in the quality of life, through the prevention of a series of diseases associated to the weight excess. The methodology elapses of a competitive study of statistical relevance. The sample consisted of 33 individuals, being 20 of the feminine gender and 13 of the masculine, average of age 24,79 ± 32,78, users of the Prodigio Academia, of the area east, of the city of João Pessoa. The data were collected in the records of the physical evaluations, which were obtained weight, percentile of fat, IMC, corporal fat and thin mass. The analytic plan used the database of the statistical program SPSS, with descriptive statistics of average, standard deviation and standard error, values maximum and minimum of the evaluations in each variable, before and after the specific training, and after than was applied the test "T" of Student for matched data and the coefficient of correlation of Pearson for manipulation of variables of cut 0,007 for moderate classification with level of trust of 5%. The results revealed that there is difference between before and after in the training "Body for Life" in users of academies during the period of three months. Conclusion: the program demonstrated to be adapted in the change of the participants' corporal composition, causing an increase of muscular mass, reduction of corporal fat and corporal mass, it is suggested the use of a diet it still specifies to maximize the results, because this procedure was optional to the participants, and few adopted it.

**KEY WORDS:** Training; Composition; Alteration.

#### EFFET DU PROGRAMME DE LA FORMATION "Body for Life" SUR COMPOSITION CORPORELLE D'ÉLÈVES DE L'ACADÉMIE DE GYMNASTIQUE.

##### ABSTRACT

L'objectif du présent travail est analyser les résultats obtenus dans la modification de la composition corporelle d'élèves d'une académie de gymnastique soumise à la formation spécifique "body for Life", fait l'éloge par Phillips et D'Orso, qui a été adopté par cette académie avec l'intention d'amélioration de marketing, promettant perte de graisse et augmentation de masse musculaire, ceci est, résultats seulement esthétiques, néanmoins se sait que par apporte de cette amélioration esthétique peut se produire des changements aussi en la capacité de vie des praticiens, à travers la prévention d'une série de maladies associées l'excès de pèse. La méthodologie s'écoule d'une étude simultanément d'importance statistique. L'échantillon a consisté de 33 personnes, étant 20 du type féminin et 13 du masculin, moyenne d'âge 24,79 ± 32,78. utilisateurs du Prodigio Academia, de la région est, de la ville de João Pessoa. Les données ont été rassemblées dans les fiches des évaluations physiques, dans lesquelles ont été rassemblées des informations sur poids, pourcentage de graisse, d'IMC, de graisse corporelle et de masse maigre. Le plan analytique a utilisé la banque de données du programme statistique SPSS, avec

statistique descriptive de moyenne, de détour étalon et d'erreur étalon, de valeurs maximum et minime des évaluations dans chaque variable, avant et après la formation spécifique, ensuite a été appliqué l'essai "T" de Student pour données appariées et le coefficient de corrélation de Pearson pour manipulation de variables de coupe 0.007 pour classement modéré avec niveau fiable de 5%. Les résultats trouvés ont vérifié qu'y a différence entre pré et pós-teste dans la formation "body for Life" dans des utilisateurs d'académies pendant la période de trois mois. Conclusion : le programme a démontré être ajusté dans le changement de la composition corporelle des participants, causant une augmentation de masse musculaire, une réduction de graisse corporelle et une masse corporelle, se suggère encore l'utilisation d'un régime spécifique pour maximiser les résultats, vu que cette procédure a été facultative aux participants, et peu ont adopté le même.

**MOTS-CLÉ :** Formation ; Composition ; Modification.

#### **EFFECTO DEL PROGRAMA DEL ENTRENAMIENTO "BODY FOR LIFE" EN LA COMPOSICION CORPORAL DE USUARIOS DE ACADEMIA DE GIMNASIA.**

##### **EXTRACTO**

El objetivo del actual trabajo es analizar resultante obtenido en la alteración en la composición corporal de los practicantes de la academia de gimnasia sometida al entrenamiento específico "Body for Life", propuesto por Phillips y D'Orso, que fue adoptado por esta academia con la intención de la mejora de la comercialización, de la pérdida gorda prometedor y del aumento de la masa muscular, es decir, apenas resultó estético, no obstante se sabe que, esta mejora puede también introducir cambios importantes en la calidad de la vida, con la prevención de una serie de enfermedades asociadas al exceso del peso. Los pasajes de la metodología de un estudio competitivo de la importancia estadística. La muestra consistió en 33 individuos, siendo 20 del género femenino y 13 del masculino, promedio de la edad  $24.79 \pm$  usuarios 32.78. de la academia Prodigio, del área del este, de la ciudad de João Pessoa. Los datos fueron recogidos en los expedientes de las evaluaciones físicas, que eran peso obtenido, porcentaje de la grasa, IMC, masa gorda y fina corporal. El plan analítico utilizó la base de datos del programa estadístico SPSS, con la estadística descriptiva de la desviación media, de estándar y del error de estándar, del máximo de los valores y del mínimo de las evaluaciones en cada uno variable, antes y después de que el entrenamiento específico, y después de que fue aplicado la prueba "T" de Student para los datos emparejados y el coeficiente de correlación "R" de Pearson para la manipulación de variables del corte 0.007 para la clasificación moderada con el nivel de la confianza de 5%. Los resultados revelaron que hay diferencia en medio antes y después en el entrenamiento "Body for Life" en usuarios de academias durante el período de tres meses. Conclusión: el programa demostrado para ser adaptado en el cambio de la composición corporal de los participantes, causando un aumento de la masa muscular, reducción de la masa gorda y corporal, se sugiere el uso de una dieta que todavía específica para maximizar los resultados, porque este procedimiento era opcional a los participantes, y poco lo adoptó.

**PALABRAS CLAVES:** Entrenamiento; Composición; Alteración.