19 - PHYSICAL EXERCISE STRUCTURED AS A HEALTH PROMOTION AGENT FOR THE THIRD AGE OF THE MUNICIPALITY OF IVAIPORÃ - PR

AMANDA DE PAULA ZIMMER
ROSICLER DUARTE BARBOSA
Faculty of Higher Education of the Center of Paraná - UCP - Pitanga - PR - BR
amandapz@hotmail.com

doi:10.16887/88.a1.19

INTRODUCTION

It is known that the aging process greatly compromises people's quality of life, due to the greater difficulties of locomotion, balance, strength and muscular and cardiorespiratory endurance.

Currently the aging process is concerned with health professionals, because there is still a reality related to this phase of life, which can be explained by the physical degeneration of the majority of the individuals that reach this age group, the increase of their dependence and the proximity with the death.

Most people are aging without quality of life; they are people who go from an often active and independent process to a sedentary process with accumulation of degenerative diseases and low quality of life.

Physical exercise encompasses activities that are structured and planned in order to develop desired capacities in the individual, not only related to physical fitness but also to sports abilities, as an example of physical exercise, swimming, bodybuilding, gymnastics and others.

So it is necessary to understand how structured physical exercise can become a health promotion agent for the elderly in the municipality of Ivaiporã - PR. The purpose of this study was to analyze structured physical exercise as a health promotion agent for the elderly, as well as to determine the Body Mass Index (BMI) of the sample, to evaluate the Waist Hip Ratio (WHR), to establish mean arterial pressure, to classify fit or not suitable for the practice of physical exercise, to measure diabetes mellitus indexes and to compare data collected before and after practice of physical exercise.

MATERIALS AND METHODS

The sample studied was comprised of 19 female elderly women, between 60 and 80 years of age, with at least 80% attending gymnastic classes. Following the proposal of the study to evaluate the glycemic index was used a capillary glycemia test, then the values of body mass and height were calculated for BMI calculation, the waist and hip circumferences of the participants were also calculated for the WHR, the resting blood pressure of the sample was checked and the participants filled out the Par-Q. After the first data collection, 50 aerobic and localized exercises were performed, in addition to stretching exercises, performing a second data collection to compare the results. The data collected were analyzed using descriptive statistics, frequency and Student's t-test dependent. In the project phase, the study had a favorable opinion, from the Ethics Team of the Higher Education School of the Center of Paraná - UCP.

RESULTS AND DISCUSSIONS

The mean age of the study participants was 68.1 years, with a minimum of 60 and a maximum of 77 years, with a standard deviation of 5.03.

The average age of the research sample is close to the expectation of the Brazilian according to IBGE (2016, p.6):

The mortality table projected for the year 2015 provided a life expectancy of 75.5 years for the total population, an increase of 3 months and 14 days in relation to the estimated value for the year 2014 (75.2 years) . For the male population, the increase was 3 months and 22 days, going from 71.6 years to 71.9 years in 2015. For women, the gain was slightly lower, in 2014 life expectancy at birth was 78 , 8 years increasing to 79.1 years in 2015 (3 months and 4 days greater).

The Body Mass Index (BMI) was determined from the measurements of height and body mass of the sample. Thus the mean body mass in the first data collection was 67.5 (- 45, + 92), with a standard deviation of 12.9. In the second data collection, it was observed that the mean body mass was 66.5 (- 43, + 90), with a standard deviation of 12.9. The reduction of the body mass after intervention of 2 kilograms in the mean and minimum was observed, indicating a variation of 0.40 between the two data collections, through the analysis of test "t" dependent, showing a reduction of the body mass of the sample after regular physical exercise.

This index shows that the regular practice of structured physical exercise can be beneficial in reducing the body mass of the elderly, helping to reduce overweight and obesity, factors that influence the aging process and lead to numerous diseases.

Ciolac and Guimarães (2004) point out that one of the reasons that encourages the inclusion of physical exercise to reduce body mass is in the most variable effect of daily energy expenditure, where most people can generate metabolic rates that are up to ten times higher during exercise involving large muscle groups that resting metabolic rates.

It was also used for the calculation of BMI the analysis of the stature of the evaluated ones the average was in 156.9 cm having as minimum 147 cm and as maximum 173 cm, being the standard deviation of 7.0. It was also observed that from the analysis of the "t" test, there was a variation of 0.3 between the two data collections.

It was then possible to determine the BMI of the sample having as average in the first data collection 27.5 being classified in the table as slightly overweight, having a minimum of 20.7 (ideal weight), maximum 36.9 (obesity grade II - severe) and the standard deviation being 4.3. In the second data collection it was possible to observe the mean BMI of 26.8 being classified as slightly overweight, with a minimum of 19.9 (ideal weight) and a maximum of 36.5 (grade II - severe obesity) and presenting a standard deviation of 4.2. With the analysis of the test "t" dependent it was possible to observe a variation of 0.3 between the two collections.

Thus, it is possible to observe that the regular practice of structured physical exercise is able to reduce the Body Mass Indexes of the elderly population, being important the BMI analysis, which changes over the years, to maintain healthy levels of body mass.

According to Matsudo, Matsudo and Barros Neto (2000, p.23):

The importance of BMI in the aging process is due to the fact that values above normality (26-27) are related to increased mortality due to cardiovascular diseases and diabetes, whereas indices below these values, with increased mortality from cancer, diseases respiratory and infectious diseases.

The measurements of hip and waist circumference of the selected sample were used to evaluate the Waist Hip Ratio (WHR), which were measured before and after the period of physical exercise.

The hip circumference showed an average of 103.5 cm (- 85, + 122), with a standard deviation of 9.20. A dependent t-test analysis showed a variation of 0.28.

Thus, it can be observed that despite the decrease of the minimum and the maximum in the hip circumference there was an increase of the general average, this increase of the circumference of the hip over the years is related to the aging and the accumulation of gynoid fat for the female sex, being characterized by accumulation of fat in the hip and legs.

According to Matsudo, Matsudo and Barros Neto (2000), with the advancement of age there is an accumulation of specific body fat that in women is located in the hip and legs, this pattern of accumulation of fat is maintained over the years, influencing the increase of the circumferences of those regions.

Waist circumference was also measured, with a mean of 90.9 cm with a minimum of 75 cm and a maximum of 118, with a standard deviation of 11.8. Evaluating in dependent "t" test there was a variation between the two data collections of 0.3.

An increase in both the mean and the minimum and maximum waist circumference results was observed, which is worrisome due to the consequences generated by the accumulation of fat in the abdominal region.

According to Bueno et al (2008 p.1238):

Age-related changes occur in virtually all parts of the body, bringing various functional changes to the aging organism. Among them, the reduction of the lean mass, increase of the corporal adipose tissue and the less efficiency of pumping of the heart, being able to have decrease of the blood flow.

Evaluating the WHR it was possible to verify that in the first data collection the average found was 0.87 that is classified as high risk, being the minimum of 0.74 (low to moderate) and the maximum of 0.96 (very high) presenting a standard deviation of 0.05. And in the second data collection, an average of 0.87 was observed, classified as high risk, with a minimum of 0.74 (low to moderate) and a maximum of 1.0 (very high), with a standard deviation of 0, 06. In the dependent "t" test analysis there was a variation between the data collections of 0.4.

It can be noted that although the mean and minimum values were the same at the beginning and at the end of the intervention, there was a maximum increase of 0.04. This factor may be related to the chances of development of coronary diseases, as can be observed in the study by Bueno et al (2008, p.1240). "The CRW analysis showed 40.2% of the population at high risk, 34.2% in moderate risk, 13.4% at low risk and 12.2% at very high risk for the development of cardiovascular diseases. "

It was also necessary to establish the mean arterial pressure (P.A.) of the elderly participants of the study. Thus in the first data collection the mean BP was 134.2 by 82.6 with a minimum of 110 by 70 and a maximum of 160 by 100, presenting a standard deviation of 14.6 for systolic blood pressure and 7.8 for arterial pressure diastolic. And in the second data collection the mean BP was 140.5 by 83.1 with a minimum of 120 by 80 and a maximum of 180 by 100, with a standard deviation of 14.6 for systolic blood pressure and 5.6 for arterial blood pressure diastolic.

In the "t" test analysis, there was a variation of 0.1 for systolic blood pressure and 0.4 for diastolic blood pressure. It can be noticed an increase in the P.A. at rest of those evaluated in the second data collection in relation to the first data collection.

At the first data collection, 21% of the women had normal systolic blood pressure, 58% presented high systolic blood pressure and 21% presented some degree of systolic arterial hypertension. Still, 64% of the elderly had normal diastolic blood pressure, 32% had high diastolic blood pressure and 4% presented some degree of diastolic arterial hypertension.

According to Bueno et al (2008), "Approximately 30% of the elderly presented ideal blood pressure, 24.4%, normal blood pressure, 24.4%, high normal and 22.0%, some degree of arterial hypertension ".

In the second data collection, 16% of the elderly had normal systolic blood pressure, 47% presented high systolic blood pressure and 37% presented some degree of systolic arterial hypertension. Still 74% of the elderly had normal diastolic blood pressure, 21% had high diastolic blood pressure and 5% presented some degree of diastolic arterial hypertension.

To classify as fit or not fit to practice physical exercise, the elderly of the sample, was used the Par-Q test of determines through seven questions whether the evaluated is fit or not fit to practice physical exercises. Thus, it was observed that the mean was 1 (- 0, + 3) with a standard deviation of 0.8.

Being that 89% of the elderly women evaluated were fit to practice physical exercises and only 11% were classified as not fit to practice physical exercise.

According to Dinardi et al (2011), the use of Par-Q is recommended for the screening and identification of individuals at risk of cardiovascular event during physical activity, evaluating cardiovascular, osteomioarticular and other reasons that prevent regular physical exercise without prior medical follow-up.

In order to be able to measure diabetes mellitus, a fasting blood glucose test of 10 to 12 hours was used. Thus, it was possible to observe at the first data collection that the mean capillary glycemia was 109.3, having a minimum of 87 and a maximum of 224 and a standard deviation of 29.2. These data may show that the elderly women characterized in the study have high levels of fasting capillary glycemia which may characterize diabetes mellitus indexes.

Then to Arsa et al (2009, p 104):

Diabetes mellitus (DM) is an endocrine disorder characterized by a group of metabolic disorders, including high fasting glycemia (hyperglycemia) and elevated postprandial blood glucose concentrations, due to a decreased insulin sensitivity in its target tissues and / or by reduced insulin secretion.

In the second data collection, it was observed that the mean capillary glycemia was 108.6, with a minimum of 88 and a maximum of 226 and a standard deviation of 28.4. In the "t" test analysis, a variation of 0.4 was analyzed between the two data collections.

Thus according to Malerbi and Franco apud Sartorelli and Franco (2003, p.30):

In Brazil, the cities of the South and Southeast regions, considered as having the greatest economic development in the country, have a higher prevalence of diabetes mellitus and a decreased glucose tolerance. The main factors associated with the higher prevalence of diabetes in Brazil were obesity, population aging and family history of diabetes.

It was observed that despite the increase of minimum and maximum capillary glycemia indexes there was a decrease in the general mean and standard deviation which can prove the importance of structured physical exercise as an alternative to aid the control of diabetes mellitus in the elderly population .

As demonstrated by Arsa et al (2009), the benefits provided by physical exercise can occur in the short or long term, provided they are applied at the appropriate intensity and duration, respecting the characteristics of the individual, ie structured and planned for clear and attainable.

Thus it was noted in the comparison of the data collected pre and post practice practice of physical exercises an extremely important improvement in some points related to the health of the participants as the decrease of the body mass, and the increase of the stature which reduces the BMI and assists in the control of weight gain in the elderly, reducing problems related to senile obesity.

According to Monteiro et al (2010, p 568):

The BMI of the studied group was improved, which was observed through the drop in their values after physical training. Pratley et al showed that aerobic exercise training decreases the amount of body fat in elderly individuals, which may mediate some metabolic effects of aerobic physical exercise, mainly because excess abdominal fat is associated with insulin resistance and hyperinsulinemia.

As can be seen in the following table, assuring the importance of regular practice of structured physical exercise for the reduction of obesity and consequently health of the elderly.

Table 1 - Pre and Post Workout-Oriented IMC of Physical Exercises

	Mass 1	Mass 2	Stature 1	Stature 2	BMI 1	BMI 2
Mean	67.52632	66.52632	156.15789	156.9474	27.57895	26.87368
Minimum	45	43	144	147	20.7	19.9
Maximum	92	90	172	173	36.9	36.5
Standard Deviation	12.97515	12.98326	7.4216125	7.089456	4.311744	4.2885452

Source: authors.

It was also observed after the pre- and post-intervention guided comparison that there was a stabilization in the WHR, thus showing that the structured exercise may contribute to the reduction of the coronary risk in the elderly.

According to Monteiro; Pitanga apud Amer, Sanches and Moraes (2001, p. 101):

According to Monteiro (1998), the waist / hip ratio and visceral fat increase with age and are independent factors of overweight. Fat distribution does not change significantly in premenopausal women. According to Pitanga (1998), however, during menopause due to deficiency in estrogen production, body fat increases and there is a reduction in lean mass, while in the postmenopausal period there is a greater increase in visceral fat.

It was also possible to observe a decrease in glycemic index after postulated practice of physical exercises in the elderly, which may highlight the importance of regular practice of structured and planned physical exercises as an alternative to assist in the decrease of elderly women with diabetes mellitus.

According to Araújo, Britto and Cruz (2000, p.510) "Exercise improves insulin sensitivity, decreases hyperinsulinemia, increases muscle glucose uptake, improves lipid profile and arterial hypertension, and a sense of physical well-being and resulting psychic; can also contribute to weight loss. "

These data are illustrated in the following table showing the benefits of structured physical exercise for elderly health.

Table 2 - WHR and Pre and Post Workout-Based Glycemia of Physical Exercises

	WHR 1	WHR 2	Glucose 1	Glucose 2
Mean	0.875789	0.876316	109.368421	108.63158
Minimum	0.74	0.74	87	88
Maximum	0.96	1.0	224	226
Standard Deviation	0.056412	0.064499	29.2614539	28.494155

Source: authors.

FINAL CONSIDERATIONS

There were benefits related to the practice of physical exercises in reducing the BMI of the sample, as well as stabilizing the WHR and reducing the glycemic indexes, which indicates the importance in the regular practice of physical exercises in the third age as an important resource for health levels and quality of life.

It is understood that the Body Mass Index of those evaluated had a reduction which points out the benefits generated by the structured physical exercise related to the maintenance of the body mass and the decrease of the overweight and the obesity problems directly related to the aging and that influence in the health and in the quality of life of the elderly.

A stabilization in the Waist Hip Ratio indexes, which are related to the accumulation of visceral fat, which can lead to coronary problems, has been observed in an isolated way, an increase in waist circumference has been observed, which is explained by the aging process that reduces the anatomical space of the vicerial organs and these are projected forward thus increasing the general abdominal circumference.

There was also an increase in the mean arterial pressure of those evaluated in this study, which may characterize a senile aging process that is detrimental to the health and quality of life of the elderly women participating in the project.

Although blood pressure increased throughout the study, most participants were classified as fit for physical exercise through analysis of the Par-Q physical activity readiness questionnaire.

Finishing with the reduction of glycemic indexes, which points out the importance of structured physical exercise as an aid in maintaining healthy glycemia rates, influencing the health of the elderly and reducing possible cases of diabetes mellitus.

BIBLIOGRAPHIC REFERENCES

AMER, N.M .; SANCHES, D .; MORAES, S. M. F. Body mass index and waist / hip ratio of moderate aerobic activity practitioners. Journal of Physical Education, v. 12, n. 2, p. 97-103, 2008.

ARAÚJO, L. M. B .; BRITTO, M. M. S .; CRUZ, T. R. P. Treatment of type 2 diabetes mellitus: new options. Brazilian Archives of Endocrinology & Metabology, v. 44, n. 6, p. 509-518, 2000.

ARSA, G .; LIMA, L .; ALMEIDA, S. S .; MOREIRA, S. R .; CAMPBELL, C. S. G .; SIMÕES, H. G. Type 2 Diabetes Mellitus: Physiological, genetic aspects and forms of physical exercise for its control. Rev Bras Cineantropom Performance Hum, v. 11, n. 1, p. 103-11, 2009.

DINARDI, R.R .; SOUTO, R.C. M .; ROCHA, G. M. Q .; ANDRADE, A. G. P. Promptness Questionnaire for the Practice of Physical Activity as Pre-Exercise Screening. Research Collection in Physical Education. Vol.10, nº2, 2011. Available at: https://www.researchgate.net/profile/Ricardo_Dinardi/publication/267097437 Accessed on: 10/29/2017.

BUENO, J. M .; MARTINO, H. S. D .; FERNANDES, M. F. S .; COSTA, L. S .; SILVA, R. R. Nutritional assessment and prevalence of chronic noncommunicable diseases in elderly people belonging to a care program. Science & Collective Health, v. 13, n. 4, 2008.

CIOLAC, E. G .; GUIMARÃES, G. V. Physical exercise and metabolic syndrome. Rev bras med sport, v. 10, n. 4, p.

319-24, 2004.

IBGE. Complete mortality table for Brazil - 2015. Brief analysis of the evolution of mortality in Brazil. Rio de Janeiro, 2016. Available at: ftp://ftp.ibge.gov.br/Tabuas_Completas_de_Mortalidade/Tabuas_Completas_de_Mortalidade_2015/tabua_de_mortalidade_analise.pdf Accessed on: 10/29/2017.

MATSUDO, S. M .; MATSUDO, V. K. R .; BARROS NETO, T. L. Impact of aging on anthropometric, neuromotor and metabolic variables of physical fitness. Brazilian Journal of Science and Movement, v. 8, n. 4, p. 21-32, 2008.

MONTEIRO, L. Z .; FIANI, C.R. V .; FREITAS, M. C. F .; ZANETTI, M.L .; FOSS, M.C. Reduction of blood pressure, BMI and glucose after aerobic training in elderly women with type 2 diabetes. Arquivos Brasileiros de Cardiologia, v. 95, n. 5, p. 563-570, 2010.

SARTORELLI, D. S .; FRANCO, L. J. Trends of diabetes mellitus in Brazil: the role of nutritional transition. Cad Public Health, v. 19, n. 1, p. 29-36, 2003.

PHYSICAL EXERCISE STRUCTURED AS A HEALTH PROMOTION AGENT FOR THE THIRD AGE OF THE MUNICIPALITY OF IVAIPORÃ - PR

ABSTRACT

People are aging without quality of life, they are people who go from an often active and independent process, to a sedentary process with accumulation of diseases and low quality of life. The elderly who go through the process of aging in a healthy way have a higher life expectancy, a higher quality of life and, of course, less dependence, but for this to happen, specific care is needed throughout life. So it is necessary to understand how structured physical exercise can become a health promotion agent for the elderly in the municipality of Ivaiporã - PR. The purpose of this study was to analyze structured physical exercise as a health promoting agent for the elderly, as well as to determine the Body Mass Index (BMI) of the sample, to evaluate the Hip Waist Ratio (WHR), to establish mean arterial pressure, to classify fit or not fit to practice physical exercise, to measure diabetes mellitus indexes and to compare data collected before and after practice oriented physical exercise. The sample studied was comprised of 19 female elderly women, between 60 and 80 years of age, with at least 80% attending gymnastic classes. A field study was conducted with quantitative analysis through descriptive statistical analysis and Student's t-test dependent. There were benefits related to the practice of physical exercises in reducing the BMI of the sample, as well as stabilizing the WHR and reducing the glycemic indexes, which indicates the importance in the regular practice of physical exercises in the third age as an important resource for health levels and quality of life.

KEY WORDS: Third Age; Cheers; Structured Physical Exercise.

EXERCICE PHYSIQUE STRUCTURÉ COMME AGENT DE PROMOTION DE LA SANTÉ POUR LE TROISIÈME ÂGE DE LA MUNICIPALITÉ DE IVAIPORÃ – PR

RÉSUMÉ

Les gens vieillissent sans la qualité de vie, sont des gens qui passent d'un processus souvent actif et indépendant pour un processus sédentaire avec une accumulation de maladies et la mauvaise qualité de la vie. Les personnes âgées qui vieillissent de manière saine ont une espérance de vie plus élevée, une meilleure qualité de vie et, bien sûr, moins de dépendance, mais pour que cela se produise, des soins spécifiques sont nécessaires tout au long de la vie. Il est donc nécessaire de comprendre comment l'exercice physique structuré peut devenir un agent de promotion de la santé pour les personnes âgées dans la municipalité de Ivaiporã - PR. Ainsi, nous avons essayé d'analyser l'exercice structuré comme agent de promotion de la santé pour les personnes âgées, ainsi que pour déterminer l'indice de masse corporelle (IMC) de l'échantillon, pour évaluer le rapport de taille hanche (RTH) pour établir la pression artérielle moyenne, sorte de approprié ou ne pas être apte à pratiquer de l'exercice physique, à mesurer les indices de diabète sucré et à comparer les données recueillies avant et après les exercices physiques orientés vers la pratique. L'échantillon étudié était composé de 19 femmes âgées de 60 à 80 ans, dont au moins 80% suivaient des cours de gymnastique. Une étude de terrain a été menée avec une analyse quantitative par analyse statistique descriptive et dépendant du test t de Student. Il a été des avantages observés liés à l'exercice physique dans la réduction de l'IMC de l'échantillon, ainsi que dans la stabilisation de la WHR et la réduction de l'indice glycémique qui indique l'importance de la pratique régulière de l'exercice physique dans la vieillesse comme une ressource importante pour les niveaux de santé et qualité de vie.

MOTS CLÉS: troisième âge; Santé Exercice physique structuré.

EJERCICIO FÍSICO ESTRUCTURADO COMO AGENTE PROMOTOR DE LA SALUD PARA LA TERCERA EDAD DEL MUNICIPIO DE IVAIPORÃ - PR

RESUMEN

Las personas están envejeciendo sin calidad de vida, son personas que pasan de un proceso a menudo activo e independiente, para un proceso sedentario con acumulación de enfermedades y baja calidad de vida. El anciano que pasa por el proceso de envejecimiento de forma sana tiene mayor expectativa de vida, mayor calidad de vida y evidentemente menos dependencia, pero para que esto pueda ocurrir son necesarios cuidados específicos durante toda la vida. Entonces se hace necesario comprender cómo el ejercicio físico estructurado puede convertirse en agente promotor de la salud para la tercera edad del municipio de Ivaiporã - PR. Así se buscó analizar el ejercicio físico estructurado como agente promotor de salud para la tercera edad así como determinar el Índice de Masa Corporal (IMC) de la muestra, evaluar la Razón Cinta de cadera (RCQ), establecer media de la presión arterial, clasificar en aptas o no aptas para la práctica de ejercicio físico, medir índices de diabetes mellitus y comparar los datos recopilados pre y post práctica orientada de ejercicios físicos. La muestra estudiada fue de 19 ancianos del sexo femenino, con edad entre 60 y 80 años participantes y con un mínimo de 80% de frecuencia en las clases de gimnasias propuestas. Se realizó un estudio de campo con análisis cuantitativo a través de análisis estadístico descriptivo y Test "t" de Student dependiente. Se observó beneficios relacionados con la práctica de ejercicios físicos en la reducción del IMC de la muestra, así como en la estabilización del RCQ y en la disminución de los índices glucémicos lo que denota la importancia en la práctica regular de ejercicios físicos en la tercera edad como importante recurso para niveles de salud y calidad de vida.

PALABRAS CLAVE: Tercera Edad; Salud; Ejercicio Físico Estructurado.

EXERCÍCIO FÍSICO ESTRUTURADO COMO AGENTE PROMOTOR DA SAÚDE PARA A TERCEIRA IDADE DO MUNICÍPIO DE IVAIPORÃ – PR

RESUMO

As pessoas estão envelhecendo sem qualidade de vida, são pessoas que passam de um processo muitas vezes

ativo e independente, para um processo sedentário com acúmulo de doenças e baixa qualidade de vida. O idoso que passa pelo processo de envelhecimento de forma saudável tem maior expectativa de vida, maior qualidade de vida e evidentemente menos dependência, contudo para que isso possa ocorrer são necessários cuidados específicos durante toda a vida. Então se faz necessário compreender como o exercício físico estruturado pode se tornar agente promotor da saúde para a terceira idade do município de Ivaiporã – PR. Assim buscou-se analisar o exercício físico estruturado como agente promotor de saúde para a terceira idade bem como determinar o Índice de Massa Corporal (IMC) da amostra, avaliar a Razão Cintura Quadril (RCQ), estabelecer média da pressão arterial, classificar em aptas ou não aptas para a prática de exercício físico, mensurar índices de diabetes mellitus e comparar os dados coletados pré e pós prática orientada de exercícios físicos. A amostra estudada foi de 19 idosas do sexo feminino, com idade entre 55 e 80 anos participantes e com no mínimo 80% de frequência nas aulas de ginásticas propostas. Foi realizado um estudo de campo com análise quantitativa através de análise estatística descritiva e Teste “t” de Student dependente. Observou-se benefícios relacionados à prática de exercícios físicos na redução do IMC da amostra, bem como na estabilização do RCQ e na diminuição dos índices glicêmicos o que denota a importância na prática regular de exercícios físicos na terceira idade como importante recurso para níveis de saúde e qualidade de vida.

PALAVRAS-CHAVE: Terceira Idade; Saúde; Exercício Físico Estruturado.

Autor Principal:
Amanda de Paula Zimmer
Rua: Santa Catarina, 935 – Ivaiporã – PR
CEP: 86870-000 – Bairro: Centro
Tel:. (43) 3472-2436 Cel:. (43) 99978-9608
amandapz@hotmail.com