

36 - PHYSICAL ACTIVITY PROGRAMMES WITHOUT PRESCRIPTION AND FOLLOW-UP DON'T CAUSE EFFECTS IN ANTHROPOMETRICAL, BIOCHEMICAL AND PULMONARY VARIABLES OF AGED WOMEN WITH OVERWEIGHT AND OBESITY

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INTRODUCTION

Recent data showed that 13% of the adult Brazilian are obese, with women higher prevalence (13,6%) when compared to men's (12,4%). (MINISTÉRIO DA SAÚDE, 2009). Obesity is one of the main causes of morbidity and mortality presently. The fat tissue secretes a variety of pro-inflammatory agents, pro-hypertensive and diabetogenic, which explains a strong association between the obesity and the majority of the chronic degenerative diseases.

It is well established that the exercise promotes decrease of vascular coronary disease risk, of obesity, type 2, serum triglycerides, beyond the HDL-c increase and the improvement of insulin sensitivity, among other benefits (SANTOS et al., 2005). Obese individuals that get to lose on average 5 to 10% of initial body weight present a greater probability of decreasing associated co-morbidities, improving in a short time their health (LAQUATRA, 2005). The exercise associated to energetic restriction promotes body weight reduction, accelerating fat loss and diminishing thin mass loss. With the physical training occur adaptive changes in our organism, as improvement of cardio respiratory conditioning, gradual loss and maintenance of hypocaloric diet (FRANCISCHI et al., 2000), without, however, promoting pulmonary volumes and capacities changes in the individual (WILMORE; COSTILL, 2001).

Nevertheless, the fat loss caused by the diet, the exercise or the association of these two factors can contribute to restore the reduction of the obese respiratory capacity. In the obese person, the excess of fat tissue causes a mechanical compression that provokes pulmonary volumes and capacities reductions, causing the individual to develop a restrictive pulmonary insufficiency (PAISANI; CHIAVEGATO; FARESINA, 2005). This way, with the weight loss would be possible to affirm that would occur volumes and capacities values restoration.

Although the intervention with exercise and diet is considered efficient in health improvement, the studies that demonstrate the exercises effects were done in scientific experiment situations, well controlled and with adequate prescription and follow-up. On the other side, community programmes stimulate persons to adopt a physical active life style, but these persons don't receive individualized prescription, neither adequate follow-up by health professionals. Even community programmes maintained by various health secretaries, when make available physical education professionals, limit these professionals activities just to orientate the exercise practices, without individualized prescription or adequate follow-up.

Therefore, the efficacy of the exercise practice without prescription for this population is something that must be better explained. Being this way, the aim of this study was to evaluate a physical activity community programme effect in aged women anthropometrical, biochemical and pulmonary variables.

METHODOLOGY

Type of study: This study had a retrospective and prospective character, simultaneously, once in a first evaluation were compared anthropometrical, biochemical and pulmonary variables between women who already did exercise (FAG) and a control group of previously sedentary women (SG). After that, it was done a prospective follow-up of three months in which the two groups suffered a nutritional intervention, being that FAG group continued doing the same activity and the SG stayed sedentary.

Subjects: were studied 28 aged women participants of ten Community Centers, distributed in two groups: sedentary (SG) with 14 aged women and physical activity (FAG) either with 14 old women. It included women with 60 years or more, that presented overweight and/or obesity class I, according to the classification proposed by Lipschitz (1994), who didn't smoke and hadn't any respiratory disease, and didn't use medicines for getting thin or glycolic/fat control. All of them signed the Free and Clarified Consent Term (FCCT) as professed by 196/96 resolution of the Health National Council. The research was approved by the Comitê de Ética em Pesquisa do Hospital Universitário Lauro Wanderley/UFPB protocol no 027/08.

Experimental design: Initially, the participants were evaluated from the body weight, height, waist circumference and hip circumference for the achievement of the nutritional diagnosis according to World Health Organization (1995), beyond a nutritional evaluation. After that, were scheduled spirometry exams, dynamic cirtometry and blood collects for glycolic and fat profile evaluation. The week after that, it was begun the procedure of exercise programme follow-up, that was followed by the aged women nutritional habits monitoring. At the end of three months of follow-up all the evaluations were remade.

Anthropometrical Evaluation: All the anthropometrical measures were achieved following the protocols proposed by Fernandes Filho (1999). The weight was measured with a digital scale, Acqua model (Plenna, São Paulo, Brasil), with admeasurement capacity of 180 Kg and graduation in 100g. To verify the height was used a stadiometer (Sanny, with tape measure type). The body mass index (BMI) was calculated using a weight/height² equation (RASSLAN et al., 2004). To measure the waist and hip circumferences was used an anthropometric measure tape (Sanny, São Paulo, Brasil), with 1 mm division. The waist circumference measure was measured between the lower flanks and the ilium crests. Her reading was done during the expiration (SAMPAIO, 2004). The hip circumference was measured in the greater circumference of the posterior extension of the buttocks. The body fat distribution evaluation was obtained through the waist/hip relation calculated from the division of the circumference of the waist by the hip's (BARBATO et al., 2006).

Biochemical Analysis: The blood collect was done after 12 hours of fasting. The samples were centrifuged to 1500 rpm for 20 minutes and the supernatant was refrigerated till the analysis. All the analyses were carried out in the laboratory of a university hospital by a professional qualified in automatic spectrophotometer (Biosystems A25, Barcelona, Spain). It was measured: glucose (glucose oxidase method, wave length of 340nm), total cholesterol and fractions (esterase-oxidase method, wave length of 500nm), and triglycerides (dehydrogenase method, wave length of 505nm).

Pulmonary Function: The pulmonary function tests were done with a spirometer Pulmowin model of SP 7

(Pulmosystem 2 Spirometer, Datalink Sarl, São Paulo, Brasil) with the volume-time and flow-time curves determination. The maneuvers were done according to the recommendations of Pulmonology and Tisiology Brazilian Society (2002). This way, were measured: forced vital capacity (PVC), forced expiratory volume in the first second (FEV₁), forced expiratory volume in the first second in percentage (FEV₁%), FEV₁/FVC relation, expiratory flow peak (EFP), vital capacity (VC) and expiratory residual volume (ERV). The dynamic cirtometry was done according to Costa protocol (1999). It was asked to a volunteer that did a maximum expiration followed by a maximum inspiration and other maximum expiration. It were carried out two measures in each line, being considered the average of the values (COSTA et al., 2003).

Nutritional Evaluation: It was carried out the 24 hours repertory proposed by por DeHoog (2005). Beginning with the first evaluation the women of the two groups received nutritional orientation aiming to standard the diet that would be followed in the three months in which their physical activities would turn to be followed. To be certain of the diets compliance, more three revaluations were carried out, with a month interval between each of them.

Characterization of physical activities community programme: The exercise programme of the FAC group was constituted of aerobic activities, being predominantly the walk, with some stretching exercises sections and localized gymnastics. All the participants subjects of the community programme did their activities with duration and intensity determined by themselves, there is, without individualized prescription or heart rate monitoring or any other variable that could reorient the intensity and duration adequate to each person. The stretching activities and localized gymnastics were done by a physical education professional, but there wasn't monitoring and follow-up of the aged women physiological variables during this practice.

Statistical Treatment: All the results were expressed as means + standard deviation of the average and analyzed statistically using the ANOVA of one way through the software Graph Pad Prism 4.01 (Graph Pad Software Inc; San Diego CA).

RESULTS

The initial evaluation of the aged women showed that the groups SG and FAG presented a nutritional ingestion similar among them. In the same way, they presented themselves as similar in terms of demographic, anthropometric, biochemical and pulmonary characteristics, indicating that, in a transversal and retrospective cut vision, the exercise that was practiced by the women didn't influence these variables in relation to the group of women previously sedentary.

These data are presented in table 1.

Table 1 – Demographic, nutritional, anthropometric, biochemical, pulmonary characteristics of the initial evaluation carried out with aged women of the physical activity community programme

Variables	Sedentary		Physical Activity	
	Initial	Final	Initial	Final
Demographic				
Age	68,71±5,45	-	68,14±4,54	-
Mean VET(kcal)	1.986	-	2.009	-
Weight (kg)	69,4±8,6	69,3±8,5	65,7±5,9	64,9±6,6
Anthropometry				
WC (cm)	98±6,1	97±6,3	97,7±4,7	97,2±5,2
HC (cm)	103,6±5,2	103,1±5,1	101,9±6,3	101,1±7,2
W/H R	0,94±0,06	0,94±0,06	0,97±0,07	0,97±0,08
BMI (kg/m ²)	31,6±3,4	31,5±3,3	30,3±2,4	29,7±2,2
Biochemistry				
Glucose (mg/dl)	120,5±55,	119,5±56,8	117,5±47	122,8±52,4
HDL-c (mg/dl)	43,9±9,3	44,34±7	47,4±11,3	50,7±10,7
VLDL-c (mg/dl)	36,3±11,2	35,6±13,9	36,7±19,6	27,7±11,5
LDL-c (mg/dl)	114,4±29,4	114,9±25,7	121,1±30,3	134,1±22,1
Total Cholesterol (mg/dl)	192,4±35,4	196,3±31,4	198,1±27,2	212,6±25,5
Triglycerides (mg/dl)	173,5±53,4	178±69,9	183,6±98,5	138,6±57,6
Pulmonary				
FVC (l)	1,89±0,3	1,79±0,3	1,91±0,4	1,88±0,4
FEV ₁ (l)	1,59±0,2	1,52±0,3	1,60±0,3	1,62±0,3
FEV ₁ % (%)	84,4±3,1	85,3±3,6	84,1±6,5	86,2±6,2
FEV ₁ /FVC (%)	78,1±6,3	77,4±6,9	76,6±4,7	77,2±4,7
FEP (l/s)	3,95±1,1	3,94±1,2	4,28±0,8	4,50±0,8
VC (l)	2,04±0,3	1,97±0,4	2,10±0,5	2,11±0,51
ERV (l)	0,29±0,2	0,29±0,2	0,40±0,1	0,44±0,3
Expansibility				
Axillary Line	3,67±1,29	3,84±0,88	3,58±1,09	3,25±0,65
Abdominal Line	0,81±0,91	1,53±0,79	1,08±0,99	1,33±0,74

These data are means and mean standard deviation. There aren't statistical differences between the groups SG and FAG or of the pre or post-evaluation for any of the variables. Legend: WC: waist circumference; HC: Hip circumference; W/H R: Waist-hip relation; BMI: Body Mass index.

The nutritional evaluations carried out during the period of three months follow-up this study showed that the women of the two groups followed adequately the diets and kept a similar food pattern during all this period. At the end of this period, both the group SG and the FAG kept the same anthropometric characteristics in relation to the initial evaluation. In the same way, the

final values of the two groups show themselves as similar, too. These data present longitudinal and prospective characteristics, and confirm the transversal and retrospective data of the initial evaluation (table 1).

As with the anthropometrical variables, the evaluation carried out after three months follow-up showed that there weren't differences in the glycolic and lipidic values between the two groups studied (Table 1). In relation to the data of the spirometry and dynamic cirtometry they didn't also meet significant changes between the SG and the FAG after three months follow-up (Table 1).

The unique information in favour of the FAG is that, in the final evaluation, it was observed a tendency of increasing the HDL-c levels, triglycerides reduction, VLDL-c and waist/hip relation reduction and significant increase of LDL-c in FAG, beyond a tendency, also positive, in this same group, in the initial and final means, to an improvement of forced expiratory volume in the first second in percentage (FEV1%), expiratory flow peak (EFP) and expiratory residual volume (ERV).

DISCUSSION

Recently, in Brazil, was approved the Health Promotion National Policy (HPNP) THAT includes the physical activity practice in the national schedule, insuring investments for the incentive and practice of physical activity. One of the first community initiative in brazil occurred in 1986, when the Ministries of Education and Sport and Health began the Physical Exercise and Health programme with the arising of new programmers in the following years, as the Agita São Paulo, the Exercise Orientation Service in Vitória-ES (HALLAL et al., 2009), The Recife city Academy ,among others (HALLAL et al., 2010). The main proposal of the physical activity community programmes was to change life habits through the regular physical activity practice stimulus during 30 minutes in the major part of the week days (BRASIL, 2002). Therefore, none of these programmes anticipate the exercises orientation and prescription or the food education. The lack of a professional approaching is that we met as possible cause of the lack of differences between sedentary and trained groups of our study.

The beneficial effects of the exercise and nutritional orientation in the obesity, hyperlipidemic diseases and pathologies caused by these conditions combat are already well established (KRAUSE et al., 2007). Moreover, according to Dunn et al.(2006) the physical activity practice can contribute to a better adherence to the intake of healthier nutrients, because of the psychological welfare increase, the caloric ingestion control , the physiological factors that control the appetite or even through other mechanisms that need investigation. The weight loss originating just from the exercise practice without caloric restriction is small (DÂMASO; FREITAS JUNIOR, 2003), once the body weight maintenance is directly related to the consumed diet and the physical exercises practice (JEBB, 2007).

Therefore, the present study contradicts all these previous data. The explanation for that is that the great majority of the studies was carried out in experimental conditions, well controlled, most times in laboratories environments. More important than this is to detach that in these studies the exercise and diet prescription parameters, of intensity, volume, sections durations and exercise modality, as well as caloric value, food ingestion and type of food are rigorously controlled. These conditions are different from the reality of the persons that do exercise in comunitary level. In the case of the women of this study, there wasn't any Professional intervention in the exercise prescription of the FAG, we just monitored what was being done by the women and intervened just with nutritional orientation.

After three months nutritional follow-up it was just observed a tendency in the FAG to a HDL-c levels increase, triglycerides reduction, VLDL-c and waist/hip relation reduction, as well as forced expiratory volume in the first second in percentage (FEV1%), expiratory flow peak (EFP) and expiratory residual volume (ERV) improvement. We've got two explanations for this phenomenon: 1- The intervention time could be short, so that a greater duration would do the tendency to develop to an statistical significance; 2- although the women diet had been modified, the exercise continued being practice without any change. This way, these data point out to the need of having these women exercise programmes a better monitoring and adequate prescription. Indeed, data of a study carried out in the same city showed that approximately 90% of the persons that practice community exercise, in this case in public squares, doesn't have Physical Education professionals follow-up and a similar percentile does walk with intensity lower than the recommended according to the heart rate target zone (SILVA et al., 2007).

Therefore, one can conclude that the physical activity associated to nutritional control didn't promote, in the sample studied, significant changes in the evaluate parameters suggesting the need of increasing the intensity and frequency of the aged women exercises, as well as the time of nutritional follow-up. The need of a physical activity practice and a prescribed diet that are followed in an individualized way seems to be the alternative for these persons that do exercises in community spaces. Thus, our study alerts for the fact that community programmes are very important to promote population life quality improvement, but the effects must be better monitored. Further studies might alert for the need of the health institutions not just stimulate the exercises practice but also favor the professionals presence in public spaces to orient and, consequently, intensify the effects of the diet and exercise in the body composition, lipidic and glycolic profile, as well as in the pulmonary function of the subjects already sensitized by the exercise promotion campaigns and are using the comunitary spaces to physical activity practice.

REFERENCES

- BARBATO, K.B.G. et al. **Efeitos da redução de peso superior a 5% nos perfis hemodinâmico, metabólico e neuroendócrino de obesos grau I.** Arq Bras Cardiol, v.87, n.1, p.12-21, 2006.
- BRASIL. Ministério da Saúde. **Programa nacional de promoção da atividade física "agita brasil": atividade física e sua contribuição para a qualidade de vida.** Rev. Saúde Pública, v.36, n.2, p.254-6, 2002.
- BRASIL. Ministério da Saúde. **Matérias especiais em saúde. Treze por cento dos brasileiros adultos são obesos.** Brasília, 2009. Disponível em: <F:\- Portal da Saúde - www_Saude_gov_br -Ações e Programas.mht >. Acesso em: 27 jul. 2010.
- COSTA, D. **Fisioterapia respiratória básica.** São Paulo: Atheneu, 1999.
- COSTA, D. et al. **Avaliação da força muscular respiratória e amplitudes torácicas e abdominais após a RFR em indivíduos obesos.** Rev. Latino-Am Enfermagem, v. 11, n. 2, p.156-160, 2003.
- DÂMASO, A.; FREITAS JÚNIOR, I.F.F., editores. **Alterações metabólicas no obeso: efeitos do exercício e do controle alimentar.** In: DÂMASO, A. Obesidade. Rio de Janeiro: Editora Medsi, 2003. p.273-86.
- DEHOOG, S. **Avaliação do estado nutricional.** In: MAHAN, L.K.; ESCOTT-STUMP; S. Krause - Alimentos, Nutrição e Dietoterapia. 11. ed. São Paulo: Roca, 2005. p.371-95
- DUNN, C.L. et al. **The comparative and cumulative effects of a dietary restriction and exercise on weight loss.** Inter Jour Obesity, v.30, p.112-121, 2006.
- FERNANDES FILHO, J. **A prática da Preparação Física.** Rio de Janeiro, Shape Editora, 1999.
- FRANCISCHI, R.P.P. et al. **Obesidade: atualização sobre sua etiologia, morbidade e tratamento.** Revista de Nutrição, Campinas, v.13, n.1, p.17-28, 2000.

- HALLAL, P.C. et al. **Avaliação de programas comunitários de promoção da atividade física: o caso de Curitiba, Paraná.** Revista Brasileira de Atividade Física & Saúde, v.14, n.2, p. 104-114, 2009.
- HALLAL, P.C. et al. **Avaliação do programa de promoção da atividade física Academia da Cidade de Recife, Pernambuco, Brasil: percepções de usuários e não-usuários.** Cad. Saúde Pública, Rio de Janeiro, v. 26, n. 1, p.70-78, jan, 2010
- JEBB, S.A. **Dietary determinants of obesity.** Obesity, n.8, p.93-97, 2007.
- KRAUSE, M.P. et al. **Associação entre perfil lipídico e adiposidade corporal em mulheres com mais de 60 anos de idade.** Arq Bras Cardiol, v. 89, n. 3, p. 163-169, 2007.
- LAQUATRA, I. **Nutrição no Controle de Peso.** In: MAHAN, L. K.; ESCOTT- STUMP, E. S. Krause alimentos, nutrição e dietoterapia. 11.ed. São Paulo: Roca, 2005.
- LIPSCHITZ, D.A. **Screening for nutritional status in the elderly.** Prim care, v.21, n.1, p.55-67, 1994.
- MATSUDO, S. et.al. **Do diagnóstico à ação: a experiência do programa Agita São Paulo na promoção do estilo de vida ativo.** Revista Brasileira de Atividade Física & Saúde, v.13, n.3, p.9-13, 2008.
- PAISANI, D. M; CHIAVEGATO, L. D; FARESIN, S. M. **Volumes, Capacidades Pulmonares e Força Muscular Respiratória no Pós-Operatório de Gastroplastia.** J. Brás. Pneumol., São Paulo, v. 31, n. 2, p.125-32, 2005.
- RASSLAN, Z. et al. **Avaliação da função pulmonar na obesidade graus I e II.** J. Bras. Pneumol., v.30, n.5, p.508-514, 2004.
- SAMPAIO, L.R. **Avaliação nutricional e envelhecimento.** Rev de Nutr, v.17, n.4, p.507-514, 2004.
- SANTOS, R. et.al. **Obesidade, síndrome metabólica e atividade física: estudo exploratório realizado com adultos de ambos os sexos, da Ilha de S. Miguel, Região Autônoma dos Açores, Portugal.** Revista Brasileira Educação Física. Esp., São Paulo, v.19, n.4, p.317-28, out/dez, 2005.
- SILVA, M. J. C. et al. **Adequação da execução de exercícios por hipertensos com os parâmetros de prescrição e relação com a origem da orientação.** In: XV Congresso da Sociedade Brasileira de Hipertensão, 2007, Recife-PE. Hipertensão (suplemento), 2007. v. 10. p. 18-18.
- SOCIEDADE BRASILEIRA DE PNEUMOLOGIA E TISIOLOGIA. **III Consenso Brasileiro no Manejo da Asma,** J Pneumol, v.28 (Sup 1), S1-S2, 2002.
- WILMORE, J.H.; COSTILL, D.L. **Fisiologia do Esporte e do Exercício.** 2 ed. São Paulo: Editora Manole, 2001.
- WORLD HEALTH ORGANIZATION. **Physical Status: the use and interpretation of anthropometry.** World Health Organization: Geneva, 1995.

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PHYSICAL ACTIVITY PROGRAMMES WITHOUT PRESCRIPTION AND FOLLOW-UP DON'T CAUSE EFFECTS IN ANTHROPOMETRICAL, BIOCHEMICAL AND PULMONARY VARIABLES OF AGED WOMEN WITH OVERWEIGHT AND OBESITY

ABSTRACT

This study evaluated the effect of a physical activity community programme in aged women anthropometrical, biochemical and pulmonary variables. Took part in the study 28 aged women with overweight and obesity, being 14 previously sedentary ones (SG, 68,7+5,5years) and 14 previously active in aerobical activities, carried out in community centers without individualized exercises prescription (FAG, 68,1+4,5 years). It was done a nutritional intervention with both groups for three months. The FAG did light aerobical exercises routinely twice a week, during forty five minutes a day and continued with these exercises during the intervention. The two groups were evaluated according to the anthropometry, spirometry, dynamic cirtometry and fat and glycolic profile before and after three months follow-up. In the initial evaluation, FAG didn't show itself better than the SG in any variable, indicating inefficiency of the exercise that was been done. After the three months of exercises and nutritional follow-up the FAG group presented Just a tendency for the HDL-c levels increase, triglycerides reduction, VLDL-c reduction, waist/hip relation, as well as improvement of the forced expiratory volume in the first second in percentage (FEV1%), of the expiratory flow peak (EFP) and of the expiratory reserve volume do volume (ERV). These data conduct us to the following assumptions: 1- The exercise practice without individualized professional follow-up don't promote improvement of the anthropometrical and biochemical chronicle diseases risk factors; 2- Intervention with nutritional orientation tends just to an improvement of these risk factors; 3- intervention also with exercises prescription seems to be necessary to intensify the nutritional intervention effects. Therefore, we concluded that the women who practiced exercises in community centers without an individualized prescription don't benefit themselves with chronicle degenerative diseases risk factors reduction.

KEY-WORDS: elderly; nutritional intervention; physical activity

LES PROGRAMMES COMMUNAUTAIRES D'ACTIVITÉS PHYSIQUES SANS PRESCRIPTION NI ACCOMPAGNEMENT NE PROVOQUENT AUCUN EFFET SUR DES VARIABLES ANTHROPOMÉTRIQUES, BIOCHIMIQUES ET PULMONAIRES CHEZ LES FEMMES ÂGÉES PRÉSENTANT SURPOIDS ET OBÉSITÉ.

RÉSUMÉ

Cette étude évalue l'effet d'un programme communautaire d'activités physiques sur des variables anthropométriques, biochimiques et pulmonaires chez des femmes âgées. Ont participé à cette étude 28 femmes dont 14 étaient auparavant sédentaires (groupe sédentaire (GS), 68,7 +5,5 ans) et 14 pratiquaient des activités aérobies réalisées dans des centres communautaires sans programmation individualisée des exercices (groupe actif (GA), 68,1+ 4,5 ans). Une intervention nutritionnelle a été réalisée sur les deux groupes pendant trois mois. Le GA réalisait régulièrement des exercices aérobies légers deux fois par semaine, 45 minutes par jour et a continué ces exercices pendant l'intervention. Les deux groupes ont été évalués quant à l'anthropométrie, la spirométrie, la cirtométrie dynamique et le profil lipidique et glycémique avant et après les trois mois d'accompagnement. Dans l'évaluation initiale, le GA ne s'est montré meilleur que le GS dans aucune des variables, montrant l'inefficacité des exercices qui étaient réalisés. Après les trois mois de suivi des exercices et l'intervention nutritionnelle, le GA a seulement présenté une tendance à l'augmentation des niveaux de HDL-c, à la réduction des triglycérides, du VLDL-c, du rapport tour de taille/ hanche, ainsi qu'une amélioration du volume expiratoire maximal par seconde (VEMS), du débit expiratoire de pointe (DEP) et du volume de réserve expiratoire (VRE). Ces données nous ont conduit aux conclusions suivantes : 1- La pratique d'exercices sans suivi professionnel individualisé n'entraîne pas d'amélioration des facteurs de risques

anthropométriques et biochimiques des maladies chroniques ; 2 Une intervention avec une orientation nutritionnelle tend seulement à améliorer ces facteurs de risques ; 3 Une intervention accompagnée d'un programme d'exercices paraît être nécessaire pour maximiser les effets de l'intervention nutritionnelle. Nous concluons donc que les femmes qui pratiquaient des exercices dans les centres communautaires sans un programme individualisé n'ont pas bénéficié d'une réduction des facteurs de risques de maladies dégénératives chroniques.

MOTS-CLÉS : personnes âgées ; intervention nutritionnelle ; activité physique

PROGRAMAS COMUNITARIOS DE ACTIVIDAD FÍSICA SIN PRESCRIPCIÓN NI ACOMPAÑAMIENTO NO CAUSAN EFECTOS EN VARIABLES ANTROPOMÉTRICAS, BIOQUÍMICAS Y PULMONARES EN MUJERES MAYORES CON SOBREPESO Y OBESIDAD.

RESUMEN

Este estudio evaluó el efecto de un programa comunitario de actividad física a través de variables antropométricas, bioquímicas y pulmonares en mujeres ancianas. Participaron del estudio 28 mujeres con sobrepeso y obesidad, siendo 14 previamente sedentarias (GS, 68,7 + 5,5 años) y 14 previamente activas en actividades aeróbicas, realizadas en centros comunitarios sin prescripción personalizada de estos ejercicios aeróbicos (GAF, 68,1 + 4,5 años). Fue realizada una intervención nutricional con ambos grupos a lo largo de tres meses. El GAF realizaba ejercicios aeróbicos livianos de forma rutinaria dos veces por semana, durante cuarenta y cinco minutos e continuó con estos ejercicios durante la intervención. Los dos grupos fueron evaluados en sus aspectos antropométricos, espirométricos, en función de la cirtometría dinámica, del perfil lipídico y glucógeno antes y después de los tres meses de acompañamiento. En la evaluación inicial, el GAF no se mostró mejor que el GS en ninguna de sus variables, indicando ineficacia del ejercicio que venía siendo realizado. Después de los tres meses de acompañamiento de los ejercicios y la intervención nutricional, el grupo GAF presentó sólo una tendencia de aumento en los niveles de HDL-c, de reducción de los triglicéridos, de reducción del VDL-c, de la relación cintura/cadera, así como la mejora del volumen respiratorio (VRE). Estos datos nos han llevado a las siguientes constataciones: 1. La práctica de ejercicios sin acompañamiento profesional personalizado, no promueve una mejora en los factores de riesgo antropométricos y bioquímicos para enfermedades crónicas. 2. Intervención con orientación nutricional sólo tiende a una mejora en estos factores de riesgo. 3. Intervención también con prescripción de los ejercicios parece ser necesaria para potenciar los efectos de la intervención nutricional. Por lo tanto, concluimos que las mujeres que practicaban ejercicios en los centros comunitarios sin una prescripción personalizada no se beneficiaban con la reducción en los factores de riesgo de enfermedades crónico-degenerativas.

PALABRAS CLAVE: ancianos; intervención nutricional; actividad física.

PROGRAMAS COMUNITÁRIOS DE ATIVIDADE FÍSICA SEM PRESCRIÇÃO E ACOMPANHAMENTO NÃO CAUSAM EFEITOS EM VARIÁVEIS ANTROPOMÉTRICA, BIOQUÍMICAS E PULMONARES DE MULHERES IDOSAS COM SOBREPESO E OBESIDADE

RESUMO

Este estudo avaliou o efeito de um programa comunitário de atividade física em variáveis antropométricas, bioquímicas e pulmonares de idosas. Participaram do estudo 28 idosas com sobrepeso e obesidade, sendo 14 previamente sedentárias (GS, 68,7+5,5 anos) e 14 previamente ativas em atividades aeróbias, realizadas em centros comunitários sem prescrição individualizada dos exercícios (GAF, 68,1+4,5 anos). Foi feita uma intervenção nutricional com ambos os grupos por três meses. O GAF realizava exercícios aeróbios leves rotineiramente duas vezes por semana, durante quarenta e cinco minutos por dia e continuou com estes exercícios durante a intervenção. Os dois grupos foram avaliados quanto à antropometria, a espirometria, a cirtometria dinâmica e o perfil lipídico e glicêmico antes e após os três meses de acompanhamento. Na avaliação inicial, GAF não se mostrou melhor que GS em nenhuma das variáveis, indicando inefetividade do exercício que vinha sendo realizado. Após os três meses de acompanhamento dos exercícios e intervenção nutricional o grupo GAF apresentou apenas uma tendência para o aumento dos níveis de HDL-c, de redução dos triglicérides, de redução do VLDL-c, da relação cintura/quadril, bem como melhoria do volume expiratório forçado no primeiro segundo em porcentagem (VEF1%), do pico de fluxo expiratório (PFE) e do volume de reserva expiratório (VRE). Estes dados nos levaram às seguintes constatações: 1- A prática de exercício sem acompanhamento profissional individualizado não promove melhoria de fatores de risco antropométricos e bioquímicos para doenças crônicas; 2- Intervenção com orientação nutricional tende apenas para uma melhora nestes fatores de risco; 3- Intervenção também com prescrição dos exercícios parece ser necessária para potencializar os efeitos da intervenção nutricional. Portanto, concluímos que as mulheres que praticavam exercícios nos centros comunitários sem uma prescrição individualizada não se beneficiaram com a redução dos fatores de risco para doenças crônico-degenerativas.

PALAVRAS-CHAVE: idosos; intervenção nutricional; atividade física.