113 - TRAINING STAND OR WATER AEROBICS? A COMPARATIVE STUDY OF THE BENEFITS OF TREATING OSTEOPOROSIS IN THE ELDERLY.

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INTRODUCTION

In the last two decades, many studies have been conducted in order to verify the importance of physical activity to maintain muscle and bone health, especially in the elderly (Terra, 2003). The loss of bone mass leads to increased susceptibility to fractures, which is one of the manifestations of osteoporosis. You can reach all races and social classes, but is most common in postmenopausal women (Salles, BRAZ, 2001; Carvalho et.al., 2004).

According to IBGE (2011), the elderly currently represent more than twenty-one million Brazilians, which equates to almost 11% of the population total.

Matsuda (2001) defines osteoporosis as the main disease that affects women in later life, disabling and invalidating every year millions of women worldwide. Given the large social and economic impact of this disease, considered by some as the epidemic of the century and a sedentary lifestyle which has in its main risk factors.

Given this scenario, health professionals have recommended participation in a physical activity program that is right and satisfying it can be performed both in the aquatic environment (gymnastics) and on land (Resistance Training) (GALI, 2001).

But how to know if resistance training (RT), presents itself as an effective stimulus in getting bones stronger and more resilient because it offers considerable tension overload, representing forces greater than those imposed on the activities of daily living (ADLs) (Herlihy, 2002), the activity is highly recommended if you have better adherence and frequency with by osteoporotic about Water aerobics (or Aquatic Physical Activity), which, though disputed by many scholars, for the physical and therapeutic properties of water is beneficial for improving Bone Mineral Density (Sova, 1998).

This was the guiding question of the survey, research also sought to identify what each environment provides for the osteoporotic persist or give up physical activity chosen. To answer the questions posed above was carried out a descriptive exploratory study.

METHODOLOGY

To carry out research on the option was exploratory descriptive / qualitative. We selected nine subjects aged 60 to 80 years and diagnosis of osteoporosis were four practitioners of resistance training and aerobics five. All residents in the city of Caieiras - SP.

All subjects were informed of the objectives of the investigation and instructed regarding the procedures to be performed, then signed a Consent clarifica ¬ recido that ensures anonymity and the possibility of withdrawal.

To investigate how physical activity most recommended by doctors and which one has greater adhesion and permanence of its participants, it was decided to collect data through semi-structured interviews with issues related to information aspects, prevention and motivational. During the interview instrument was completed with data from age, gender, education, marital status, and income of individuals according to the Brazilian Association of Research.

The survey was conducted between June and August 2011 in three locations: the data collection was done in Resistance Training "Qualivida Academy", located in the center of Caieiras in this branch, located in the largest city district, to collect data from water aerobics, aqua gym in located in the "Municipal Sports Complex" in the city since the city has only two gyms with swimming pool without the profile of the public searched. It is noteworthy that two of the researchers working in the selected sites, which facilitated the development of research. The possibility to evaluate the statements of the subjects involved in the process, facilitating the monitoring of the content analysis of respondents' answers was used Bardin. The categorization has facilitated the analysis of information which helped to elucidate the meanings of the responses.

RESULTS

The tables were analyzed only seven of the fifteen questions asked, this is because the focus is not on the statistical approach of income of each activity, but on the roads leading to the elderly to choose and remain in activity with the aim of improving their condition and treatment .

The questions gave rise to "categories" that facilitated the analysis of the interview content. In Table 1, are pointed out the paths that lead to choose an osteoporotic activities and disease status prior to physical activity. Table 2 shows the relationship between each environment (aquatic and terrestrial) and the permanence or abandonment of the activity.

TABLE 1

Modalities	Resistance Training	Water aerobics
1- Average age	70 to 80 years	60 to 70 years
2- professions	Entrepreneur, Visual Artist, nursing assistant	Clerk, seamstress, home embroiderer.
3- Who said?	Orthopaedic and gynecologist	Physiotherapist, general practitioner, therapist, rheumatologist, orthopedist. .
4- What felt uncomfortable before physical activity?	no	➢ Severe pain in the legs , back, shoulders, ankles ➢ Pain in whole body.

5- What were the recommendations from the doctors?	➢ Practicing any type of physical exercise; ➢ Strengthen the muscles to support the bones; ➢ Just can not sit still, have to practice physical activity.	➢ Practicing gymnastics to avoid going mad with pain; ➢ After physical therapy , have to go to water aerobics; ➢ Practice stretching into the water; ➢ Do not practice another kind of physical activity other than gymnastics; ➢ Or water will or will not get out of bed soon. .
6- How do you feel now?	➢ With more available; ➢ Very good; ➢ I improved 100%	➢ I feel very well in such a short time; ➢ I feel much better, but I still have pain; ➢ Only the column that still bothers me to lie down and get out of bed; ➢ Very happy, a wonderful person.
7- Do you feel motivated to continue to practice this exercise?	➢ Yes; ➢ I have no option, I have to do; ➢ It gives me great pleasure, because I'm new	

TABLE 2

Resistance Training	Water aerobics
Need for the teacher to be motivating and guiding the elderly during the exercises;	Have weaknesses that influence the performance of Activities of Daily Living (ADL) and surgical or clinical (indication for surgery), to escape this treatment can seek a solution in water;
The restriction of social classes that frequent this environment, since it generates an additional cost in the budget for the elderly, which is often spent on specific medical medication;	Many can no longer perform ground exercises in physical activity;
Physical space is not adaptable to accommodate the needs of the elderly (the dimensions of the equipment , equi pment out of place, uneven floors, stairs excess, musicality);	Social environment of aquatic physical activity promotes a greater satisfaction in performing frequently, since there is an intergenerational relationship in this environment (lack of young people) and there is no exposure of the body during exercise performed.
The lack of professional preparation of physical education to meet this public (in many cases this is not the public interest for the teacher);	The Physical Education professional knows the predominance of the public for this activity, having to fit the specific needs required by them.
The old man becomes a "problem" when attends the academy in times of " peak"	The elderly as you age is prevalent in this activity. .
The medical field can restrict membership of physical activity when it is inappropriately applied.	The medical field can restrict membership of physical activity when it is inappropriately applied
The supply of public places where it can be performed resistance training specific to the elderly is null with respect to physical activity aquatic.	

REPORTS: A SUBJECT OF LISTENING

In the subjects who practice gymnastics, spirituality appears to be hope in the treatment of osteoporosis, since, by what was perceived in spite of the age group is lower than the practitioners of resistance training, the level of disease is more advanced:

"She is the best remedy that God sent to us. I feel very happy and when I have not seem to carry two stones in my body. " (M.R.P.C., 73 years)

In the speeches that follow what is observed is that family relationships change and the sensations, emotions and pain relief that promotes physical activity in the treatment:

"I feel very motivated! My husband always says, it's not too early for you to go to class? wow, this gym just to make you get up early and stop complaining of pain. "(VHCS, 63 years)

Sometimes, for some factor or negative experience, physical activity would be ideal to first ends being replaced:

"I started doing gym, but I could not do any stretching exercise, and everyone else hurt me a lot, got in my house with more dor.Aí the doctor told me to do everything in the water and down the floor with you today" (AAF66 years).

DISCUSSION OF RESULTS

As a fact of nature and culture, aging differs not only between societies and culture, as between individuals, so it does not follow chronological age, their is significant individual variation (Alves, 2009). This statement is evident in Table 1, we see that it is the least among the elderly, in chronological age, that osteoporosis has a more advanced degree, which may warrant referral for medical gymnastics. This is because these seniors would be practicing the activity in a way that enables the performance of

movements certainly impossible outside, safely and without pain the famous post-exercise (Matsuda, 2001). In Table 2 we have other factors that, according to Simões (2008) and SOVA (1998), enable a greater adherence to the practice of gymnastics, like buoyancy, which acts as a support to the joints, the benefits related to the terms of trade minimization of social and self-criticism in relation to movements. This "preference" for water is evident in the accounts given in the same table as the practitioners of resistance training have difficulties related both to the environment of practice, as professionals in the area, causing a steady drop.

Regarding the profile, purchasing power is higher among subjects who do resistance training. The data in Table 1 show that the medical referral is for the more diverse than Hidrogym practitioners for practitioners of Resistance Training. These data lead to reflection on the relationship between advanced stages of the disease and the practice of gymnastics, since the most dependent on others, especially families, to have access to health insurance or rely exclusively on public health. Zimerman (2000) recalled that the family must help seniors live longer and better, so as not to become a burden to themselves and those who surround them, but people integrated in the family.

As for the benefits of physical activity in relation to pain, it is evident in Table 1, the practitioners of Resistance Training joined this activity early in the disease, a phase in which no complaints of pain, on the other hand, those who practiced water aerobics , in addition to having severe pain, are in spirituality (religion) the support needed to minimize their suffering. EARTH tells us this feeling:

[...] As the years go by, to see how the world will lose the material component, which finds a certain spirituality, justified by the presence of unexpected or no physical limitations, pain, loss professionals, losses by death from family, friends, people close, constant threat of illness, retirement, marriage, children, social acceptance as a burden, poor integration into social life, providing a feeling of emptiness, distress, helplessness that leads to moments of reflection on aging and the meaning [...] Life (2003, p.14)

Investing in preventive health treatments, providing more public places for the practice of resistance training for seniors, train professionals, to adjust the gym to accommodate this audience (as noted in Table 2), increase the supply of public places for the water aerobics and stimulate cautionary information are all factors that can change the current picture of osteoporosis in Brazil.

FINAL THOUGHTS

Escape of the objectives of this study affirm what is the best physical activity for those with osteoporosis, but it is known that the impact is important, as is the work against the resistance. Therefore, professionals who work on activities in the liquid medium should work on keeping some impact and preventing the students develop self-protection mechanisms, for those who criticize this activity, usually cite the reduction or absence of impact as the main feature, which negative affect bone remodeling through the practice of these activities are important exercises that involve the support of body weight, which does not occur in the liquid medium.

From the investigation we can say that the choice of physical activity in the treatment of osteoporosis is directly linked to the degree of the disease and factors such as purchasing power, lifestyle, social and family relationships. For medical professionals, these factors are crucial in terms of their indication of activity, are equally important for the adaptation of environments in which the activities will be developed, avoiding evasions and frustrations.

We can not allow, for negligence in the application of resistance training or aerobics, the medical professionals to feel uneasy in the indication of these two physical activity so important in the treatment of osteoporosis. But it is evident that, even being challenged, water aerobics and currently has among the participants, a much greater acceptance in relation to resistance training in the treatment of osteoporosis.

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TRAINING STAND OR WATER AEROBICS?
A COMPARATIVE STUDY OF THE BENEFITS OF TREATING OSTEOPOROSIS IN THE ELDERLY.

ABSTRACT

This study aimed to conduct a comparative analysis of the paths leading to the pursuit of the elderly resistance training (RT) and / or water aerobics as practices that benefit the treatment of osteoporosis, as well as factors that lead to stay in the chosen activity. The study was conducted in the city of Caieiras / SP, in the period from June to August 2011. We selected nine subjects aged between 60 and 80 of these, four were practitioners of Resistance Training and five water aerobics. All subjects exercised the activity for more than a year for medical referral. The instrument used was a questionnaire, composed of fifteen items, contemplated the profile, the degree of disease activity and the environment of the results obtained to date research. The instrument was administered to elderly people who practiced resistance training and / or water aerobics at three sites: two sites of a gym (Qualivida), considered the best city in Resistance Training and Sports Center Municipal Water aerobics is a reference in that region. Data analysis was used Bardin. The results show that osteoporosis is routed to one or other activity by health professionals (in this case, physicians) from the level of disease and the general conditions of the patient, without considering a change of environment-related social problems, trauma or inappropriate use of exercises to meet the same; show also that both act effectively in the treatment of osteoporosis, even with greater adherence to physical activity on water.

KEYWORDS: Osteoporosis, resistance training, aerobics, elderly.

FORMATION DE RÉSISTANCE OU DE L'AQUAGYM ?
UNE ÉTUDE COMPARATIVE DES PRESTATIONS DE TRAITEMENT de L'OSTÉOPOROSE CHEZ AGEES.

SOMMAIRE

Cette étude visait à effectuer une analyse comparative des chemins menant à la poursuite de l'entraînement de résistance des personnes âgées (RT) et / ou l'aquagym comme des pratiques qui bénéficient du traitement de l'ostéoporose, ainsi que les facteurs qui conduisent à rester dans l'activité choisie. L'étude a été menée dans la ville de Caieiras / SP, dans la période de Juin à Août 2011. Nous avons choisi neuf sujets âgés entre 60 et 80 de ces derniers, quatre étaient des pratiquants d'entraînement en résistance et cinq d'aquagym. Tous les sujets exercé l'activité pendant plus d'un an pour un renvoi médical. L'instrument utilisé était un questionnaire, composé de quinze articles, contemplé le profil, le degré d'activité de la maladie et l'environnement des résultats obtenus à ce jour la recherche. L'instrument a été administré aux personnes âgées qui ont pratiqué l'entraînement en résistance et / ou aquagym sur trois sites: deux sites d'une salle de gym (Qualivida), considéré comme la meilleure ville dans la formation de résistance et des Sports Aerobics Center municipale de l'eau est une référence dans cette région. L'analyse des données a été utilisé Bardin. Les résultats montrent que l'ostéoporose est acheminé vers un ou l'autre des activités par des professionnels de santé (dans ce cas, les médecins) à partir du niveau de la maladie et les conditions générales du patient, sans prendre en compte un changement d'environnement liés à des problèmes sociaux, un traumatisme ou l'utilisation inappropriée des exercices afin de répondre aux mêmes; montrent également que les deux agissent efficacement dans le traitement de l'ostéoporose, même avec une plus grande adhésion à l'activité physique sur l'eau.

MOTS-CLÉS: ostéoporose, l'entraînement en résistance, l'aérobic, les personnes âgées.

ENTRENAMIENTO DE RESISTENCIA O AERÓBICOS EN EL AGUA?
ESTUDIO COMPARATIVO DE LOS BENEFICIOS DEL TRATAMIENTO DE LA OSTEOPOROSIS EN LA TERCERA EDAD.

RESUMEN

Este estudio tiene como objetivo realizar un análisis comparativo de los caminos que conducen a la consecución de los mayores ejercicios de resistencia (RT) y / o aeróbicos en el agua como las prácticas que beneficien el tratamiento de la osteoporosis, así como los factores que conducen a la permanencia en la actividad elegida. El estudio se realizó en la ciudad de Caieiras / SP, en el período de junio a agosto de 2011. Hemos seleccionado a nueve sujetos con edades comprendidas entre 60 y 80 de estos, cuatro fueron los practicantes de entrenamiento de resistencia y aeróbicos en el agua cinco. Todos los sujetos ejercido la actividad durante más de un año de la remisión médica. El instrumento utilizado fue un cuestionario, compuesto por quince artículos, contemplaba el perfil, el grado de actividad de la enfermedad y el medio ambiente de los resultados obtenidos hasta la fecha la investigación. El instrumento fue aplicado a las personas de edad avanzada que practican ejercicios de resistencia y / o aeróbicos en el agua en tres sitios: dos sitios de un gimnasio (Qualivida), considerada la mejor ciudad del entrenamiento de resistencia y aeróbicos Deportes Centro Municipal de Agua es una referencia en la región. Análisis de los datos se utilizó Bardin. Los resultados muestran que la osteoporosis se encamina a una u otra actividad por profesionales de la salud (en este caso, los médicos) a partir del nivel de la enfermedad y las condiciones generales del paciente, sin tener en cuenta un cambio de relación con el medio ambiente los problemas sociales, trauma o uso inadecuado de ejercicios para cumplir con los mismos, muestran también que ambos actúan de manera efectiva en el tratamiento de la osteoporosis, incluso con una mayor adherencia a la actividad física en el agua.

PALABRAS CLAVES: Osteoporosis, entrenamiento de resistencia, ejercicios aeróbicos, de edad avanzada.

TREINAMENTO RESISTIDO OU HIDROGINÁSTICA?
UM ESTUDO COMPARATIVO DOS BENEFÍCIOS DO TRATAMENTO DA OSTEOPOROSE EM IDOSOS.

RESUMO

Este trabalho teve como objetivo realizar uma análise comparativa dos caminhos que levam os idosos à busca do Treinamento Resistido (TR) e/ou Hidroginástica como práticas que beneficiam o tratamento da Osteoporose, bem como os fatores que levam à permanência na atividade escolhida. O estudo foi realizado na cidade de Caieiras/SP, no período de junho a agosto de 2011. Foram selecionados nove sujeitos com idades entre 60 e 80 anos; destes, quatro eram praticantes do Treinamento Resistido e cinco da Hidroginástica. Todos os sujeitos exerciam a atividade há mais de um ano e por encaminhamento médico. O instrumento utilizado foi um questionário que, composto por quinze itens, contemplavam o perfil, o grau da doença, o ambiente da atividade e os resultados obtidos até o momento da investigação. O instrumento foi aplicado em idosos que praticavam o Treinamento Resistido e/ou a Hidroginástica em três locais: duas sedes de uma academia (Qualivida), considerada a melhor da cidade em Treinamento Resistido e um Centro Esportivo Municipal que é referência em Hidroginástica na região. Para análise dos dados utilizou-se BARDIN. Os resultados obtidos mostram que o osteoporótico é encaminhado para uma ou outra atividade por profissionais da saúde (no caso, médicos) a partir do grau da doença e das condições gerais do paciente, sem considerar uma mudança de ambiente relacionada a problemas sociais, traumas ou utilização de exercícios inadequados para atender às necessidades do mesmo; mostram, igualmente, que ambas atuam de forma eficaz no tratamento da Osteoporose, mesmo com adesão maior a atividades físicas aquáticas.

PALAVRAS-CHAVE: Osteoporose, Treinamento Resistido, Hidroginástica, idoso.