

**91 - DANCE AND TRAINING WITH WEIGHT IN THE STATE OF ANIMAL IN ELDERLY**JOSÉ PATRÍCIO GONÇALVES DE SOUSA<sup>1</sup>ALANA SIMÕES BEZERRA<sup>2</sup>MARCOS ANTÔNIO MEDEIROS DO NASCIMENTO<sup>3</sup>

1 Graduado em Bacharelado em Educação Física

2 Professora Mestra do curso de Bacharelado e Licenciatura em Educação Física

3 Professor Doutor do Curso de Bacharelado e Licenciatura em Educação Física

Faculdades Integradas de Patos, Patos – PB, Brasil.

doi:10.16887/89.a1.91

**INTRODUCTION**

A global phenomenon that has been influencing public policies in several countries is the aging of the population. It is a result of reduced birth rates and increased longevity and life expectancy rates in both developed and developing countries. Estimates suggest that by 2025 there will be a total of approximately 1.2 billion people over 60 years of age, and by 2050 there will be two billion, 80% of which in developing countries (WORLD HEALTH ORGANIZATION, 2015).

There is recognition that physical activity is an important means of promoting health and reducing risk factors, as well as increasing the longevity of the elderly (WHO, 2015). Bodybuilding or weight training, in turn, qualifies as an excellent form of physical exercise for the elderly, since it minimizes functional losses, loss of muscle mass and bone mass, retaking strength gain, balance and flexibility (NAHAS, 2006).

In the middle of this agreement, some doubts still persist about the evolution of strength gain in the elderly in response to weight training, especially when it comes to individuals with a high level of functional independence and / or in programs conducted over long periods. On the other hand, the physical activity modalities include dance, which allows for fun, affective contact between partners, and social interaction. The benefits of endothelial function, blood pressure and cardiorespiratory fitness have been demonstrated. quality of life. It is believed that people who practice dancing are often more motivated to engage in physical activity than members of conventional physical activity programs (CARVALHO et al., 2015).

Considering the above, it is necessary to study the changes through which weight training and free dance practice will improve the mood of older people, also looking for different behaviors in the psychological aspects. So what is the influence of dance and weight training on the mood of the elderly?

The aim of the present research is to investigate the influence of free dance and Training with Weights (TP) on the mood of the elderly in the active life project.

**METHODOLOGY**

It is a direct research, which intends to search the data directly from the source, making it possible to know the reality in practice (MYNAIO; GOMES, 2011). It is a field research, since it observes the facts and phenomena exactly as it happens in the real one, based on a consistent theoretical foundation, aiming to understand and to explain the problem of this research (SAMPIERI; COLLADO; LUCIO, 2013).

This study has as a descriptive procedure method that is characterized according to Mattos, Rossetto Júnior and Blecher (2008), in observing, recording, analyzing, describing and correlating facts or phenomena without manipulating. It is a quantitative research that, according to Martins Junior (2015), is the quantification of the obtained data, in which the amount of participants, means and resulting percentages will be described in the form of tables or graphs.

The subjects investigated by the research were 09 elderly women, participants of physical activities carried out in the group Active Life, Project developed in the course in Bachelor of Physical Education of the Faculdades Integradas de Patos - FIP. The selection of the sample was not intentional probabilistic, as it allowed the participation of the participants of the Active Life project.

As a research tool, the LEA-RI - Reduced and Illustrated State List (VOLP, 2000) was used to analyze and compare the mood of the elderly during dance and weight training activities.

This questionnaire consists of a list of 14 adjectives: Happy, Active, Calm, Light, Pleasant, Shy, Full of Energy, Sad, Spiritual, Agitated, Heavy, Unpleasant, Scared and Useless.

The present study was carried out in the Active Life Project of the Faculdades Integradas de Patos - PB. Sixteen elderly women who already belonged to the Physical Activity for the Elderly Project were offered the Bachelor's Degree in Physical Education. And that, among other activities, offers dance sessions and training with weights. However, only 09 elderly women participated in the activities, because to be part of the study, the elderly women should be present in 100% of the sessions. All participants should be over 60 years of age, be resident in Patos-PB and be in accordance with the Informed Consent Form, approved by the Research Ethics Committee of the Faculdades Integradas de Patos - FIP, being approved and having CAAE: 56633216.6.0000.5181.

After the exposition of the thematic of the study, the elderly continued to attend dance and weight training sessions, however, respecting a protocol developed by the authors, in which a total of six sessions were performed, three sessions for dance and three sessions for training with weights, 108 questionnaires were used to the total. Each session lasted one hour and one session of each activity was performed once a week (one dance on Thursdays and one on TP on Fridays), with sessions were constituted of an initial part of heating, main part finalizing with a relaxation.

Thus, the intervention period of the sessions of the two yeast three-week activities. They were submitted to the evaluation of mood states before and after activities in the intervention period, through the LEA-RI (VOLP, 2000) List of States of Low and Illustrated Status. In which the research participants completed the list individually in writing, at the beginning and immediately after each session, indicating by a system of choice the intensity of each sensation at that moment. According to the data were established values for each of the intensities, the LEA-RI contains fourteen states of humor, being seven positive and seven negative that can be classified by the participant in a scale of 4 points, being: very strong = 4, strong = 3, little = 2 and very little-1.

Classes with varied rhythms (samba, electronic music, forró, classical music, romantic and religious music) were observed to understand how much music influences the mood of these elderly women. In the first week it was observed in the

dance sessions and training with weights the rhythms varied samba and classical music, second week electronic and forró music, and in the third week romantic and religious music.

Data analysis was performed from the results of the LEA-RI instruments. Data were submitted to comparative analysis by means of graphs. For the analysis of the variation of mood states, the T-Test of paired samples was used to compare the change between the pre and post-intervention moments, dance sessions and weight training, adopting a level of significance of 5%, to verify if there were improvements in the functional capacity components in the participants.

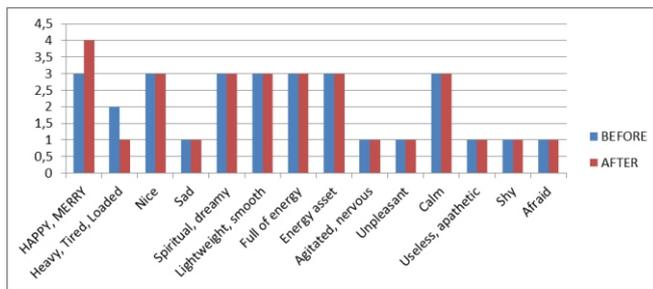
Subsequently, a comparison was made between mood levels in dance and weight training, comparing means to analyze if such levels were influenced by each activity performed and according to the musical rhythm of each session.

The fourteen adjectives of the LEA-RI scale were analyzed from the nine elderly women practicing dance and weight training, comparing if the elderly women who started practicing both activities presented mood changes after three weeks of intervention.

**RESULTS**

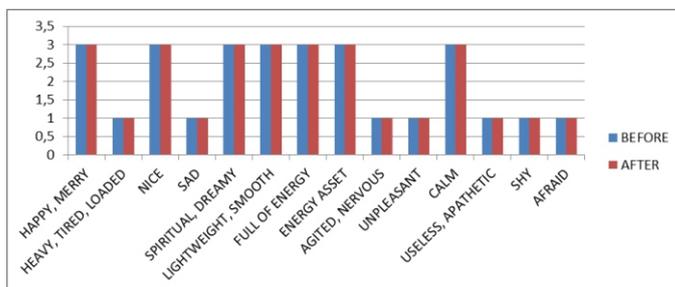
The changes in the mood states identified by the LEA-RI (VOLP, 2000) were evaluated on a very strong, strong, little or very little scale for each of the adjectives before and after each session by the participants themselves of dance and weight training, the T-Test of samples in pairs presented a statistically significant difference in mood states compared in the pre and post-intervention period for the dance sessions, the descriptive analysis shows that mood states varied in the participants after the dance sessions, whereas the positive states as happy and cheerful increased, while states considered negative as heavy, tired, and loaded decreased after performing the dance activity. The results obtained are presented in graphs 1 and 2.

Graph 1 - Changes in moods for dance after three weeks.



Graph 1 shows the changes in mood states for dance after three weeks of sessions with LEA-RI application, it was verified that the positive, happy / joyful adjectives had their intensity increased after the practice of the dance activity, since the heavy, tired, loaded negative adjectives had a reduction after the sessions, despite changes before and after the dance activity sessions, they presented significant values for change. In the other adjectives there was no preponderance of changes.

Graph 2 - Changes in moods for training with weights after three weeks.



Graph 2 shows the changes in moods for training with weights after three weeks, it was verified that the adjectives of the training sessions with weights, did not present significant values for change, it is perceived that a stabilization of the states occurred of humor.

**DISCUSSION**

Data analysis showed that there were significant results for change in moods of the participants after the dance sessions. Positive, happy and joyful adjectives had their intensity increased after practice of dance activity, already heavy, tired, loaded negative adjectives had a reduction after sessions of activity with dance. However, the adjectives of state of mind related to the training sessions with weights did not present significant values for change, in relation to the other adjectives of the LEA-RI, therefore, it is not possible to affirm that there was change, since the values found were not significant.

By doing a comparative analysis of the two activities on the change factor, it can be seen that the dance emphasized on training with weights when it refers to the potentiation of positive mood states and decrease in the negative aspect, as detailed in graphs 1 and 2.

A study that reports the relationship of dance practice and mood states in the elderly has shown that dance practice also enhances positive states and reduces or stabilizes negative mood states, giving the elderly a healthier life (GOBBI et al. 2007).

The results of the present research may have been a consequence of the participants' familiarity with the activities performed, since they already practiced dance and weight training in the Active Life Project, which participate in the referred practices, being thus accustomed to such activities and to the musical styles used for the search, because the songs used are easily popular. Thus, it is noticed that there was a stabilization of the mood states in the activity with training with weights, since the activity offered no challenges.

On the other hand, studies by Swoap (1994, apud MATSUDO; BARROS NETO, 2000) state that success in performing unknown tasks causes the elderly to have a new perception of themselves and their potentialities, which can

positively alter the states of spirit. In agreement with the results obtained in this research, the studies of Edworthy and Waring (2006) affirm that the presence of the music in exercise with moderate intensities, with maximum heart rate between 50 and 75% is able to improve the state of mood. This positive result can be attributed to the fact that music is a good stimulus, providing pleasure to the elderly, drawing attention to recurring health and social problems in this phase of life.

In studies by Oliveira et al. (2015) the dance allowed the elderly participants of the activity to maintain positive mood states and inhibited the negative ones, as well as improving functional levels such as coordination, agility and strength. In the results of the free-dance activity, the positive adjectives outweigh the negative ones after the intervention period, showing that this practice causes physical and psychological well-being.

Thus, in light of the above, observing the results presented in this research, one can see that the dance associated with different musical styles can promote positive results for the participants.

#### CONCLUSION

The results allow to infer that the free-dance sessions had a greater difference than the training sessions with weights, thus provoking improvements in the moods of the elderly, however, either because of the distinct characteristics of these two modalities, or because of the LEA-RI, the dance proved to be more efficient, since it enabled the elderly participants to maintain positive mood states and to inhibit the negative ones, provoking an improvement in mood states in dance more than weight training. Thus, positive mood states outweighed the negative moods after the intervention period with free dance sessions. The changes that occurred during the three weeks showed that the activities provoke a well-being not only physical, but also psychological.

However, other research needs to be carried out, so that there is a greater control of variables such as familiarity with the activity, level of physical fitness, among others. So that it becomes possible to detect what musical styles should be used in dance classes and weight training, and for this knowledge to be passed on to Physical Education professionals, so that they can program and implement these activities even more efficient and effective, increasing the likelihood of beneficial changes in mood in the elderly.

#### REFERÊNCIAS

- CARVALHO, G. M. D. et al. Exercício físico e sua influência na saúde sexual. *Cinergis*, v. 16, n. 1, 2015.
- EDWORTHY, J.; WARING, H. The effects of music tempo and loudness level on treadmill exercise. *Ergonomics*, London, v.49, n.15, p.1597-610, 2006.
- GOBBI, S. et al. Efeitos da dança e do treinamento com pesos nos estados de ânimo de idosos. *Revista da Educação Física/UEM*, Maringá, v. 18, n. 2, p. 161-168, nov./maio 2007.
- MARTINS JUNIOR, J. Como escrever trabalhos de conclusão de curso: instruções para planejar e montar, desenvolver, concluir, redigir e apresentar trabalhos monográficos e artigos. 9<sup>o</sup> ed. Petrópolis, RJ: vozes, 2015.
- MATSUDO, S. M. M.; MATSUDO, V. K. R; BARROS NETO, T. L. Efeitos benéficos da atividade física na aptidão física e saúde mental durante o processo de envelhecimento. *Revista Brasileira de Atividade Física e Saúde*, Londrina, v. 5, n. 2, p. 70-76, 2000.
- MATTOS, M. G.; ROSSETTO JÚNIOR, A. J.; BLECHER, S. Metodologia da pesquisa em Educação Física: construindo sua monografia, artigos e projetos. 3<sup>o</sup> ed. São Paulo: Phorte Editora, 2008.
- MINAYO, M. C. S.; GOMES, S. F. D. Pesquisa social. 30<sup>a</sup> ed. Petrópolis, RJ: vozes, 2011.
- NAHAS, M. V. Atividade física, saúde e qualidade de vida: Conceitos e sugestões para um estilo de vida ativo. 4<sup>a</sup> ed. Londrina: Editora Mediograf, 2006.
- OLIVEIRA, R. de C. et al. Interferência do estado de humor na melhora dos componentes da capacidade funcional do idoso. *Estud. Interdiscipl. Envelhec.*, v. 20, n. 1, p. 285-296, 2015.
- ORGANIZAÇÃO MUNDIAL DA SAÚDE. Relatório Mundial de Envelhecimento e Saúde. 2015. Disponível em: <<http://sbgg.org.br/wp-content/uploads/2015/10/OMS-ENVELHECIMENTO-2015-port.pdf>>. Acesso em: 15 mar. 2017.
- SAMPIERI, R. H.; COLLADO, C. F.; LUCIO, M. P. B. Metodologia de pesquisa. 5. ed. Porto Alegre: Penso, 2013.
- VOLP, Cátia Mary. LEA para populações diversas. Relatório Trienal apresentado a CPA. Instituto de Biociências – Universidade Estadual Paulista. Rio Claro: UNESP, 2000.

#### DANCE AND TRAINING WITH WEIGHT IN THE STATE OF ANIMAL IN ELDERLY

The various types of physical activity may trigger different emotional states in the practitioners. Therefore, the objective of the present research was to investigate the influence of the free dance and weight training (WT) upon the state of mind (SM) of elderly women of the active life project. This study is a field research with a quantitative and direct approach and a descriptive procedure method, carried out in the municipality of Patos, in the State of Paraíba, in 2017, the target public were elderly women of the active life project developed by the Bachelor in Physical Education Course, of the Integrated Faculties of Patos. An instrument with 14 adjectives was used, organized in the form of a scale, the LEA-Ri – List of States of Mind, reduced and Illustrated. The states of mind of 09 participants of the dance group and weight training were assessed by means of a questionnaire, before and after a session of each activity. All the participants carried out both activities, which had the duration of one hour each, on separate days. The fixed variable among the modalities was the music selection. The data obtained was submitted to comparative analysis by means of graphs. It is thereby perceived, that the practice of dance and weight training influenced the state of mind of the elderly women of the active life project. The results demonstrated a positive improvement of the adjectives when initiating and ending the lessons, there was an increase of motivation to exercise and socialize, causing the individuals to feel more comfortable and happier.

Keywords: Elderly women. State of Mind. Dance. Weight Training.

Les différents types d'activité physique peuvent déclencher différents états émotionnels chez les praticiens. De la sorte, l'objectif de la présente recherche était d'étudier l'influence de la danse libre et de la formation de poids sur l'état d'esprit (EA) chez les personnes âgées du projet de vie active. Cette étude est une recherche de terrain, approche quantitative et directe avec méthode de procédure descriptive, tenue à Patos, Paraíba, en 2017, le public cible était les personnes âgées du projet de vie active développé dans le cadre du programme de licence en éducation physique. des collègues intégrés de canards. Un instrument comportant 14 adjectifs a été utilisé, organisé sous forme d'échelle, la LEA-Ri - Liste d'état d'esprit réduit et illustré. Un questionnaire évaluait les humeurs de 09 participants en danse et en musculation, avant et après une séance de chaque activité. Tous les participants ont exécuté les deux activités, qui ont duré une heure chacune, des jours différents. La variable fixe entre les

modalités était la sélection musicale. Les données ont été soumises à une analyse comparative au moyen de graphiques. Ainsi, il est perçu que la pratique de la danse et de la musculation a influencé l'humeur des personnes âgées dans le projet de vie active. Les résultats ont montré une amélioration positive des adjectifs au début des cours et à la fin, une motivation accrue à l'exercice et à la socialisation, rendant les sujets plus à l'aise et plus heureux.

Mots clés: personnes âgées. États d'esprit. La danse. Entraînement avec des poids.

#### DANZAY ENTRENAMIENTO CON PESOS EN EL ESTADO DE ÁNIMO EN IDOSAS

Los diversos tipos de actividad física pueden desencadenar diferentes estados emocionales en los practicantes. De esta forma, el objetivo de la presente investigación fue investigar la influencia de la danza libre y del Entrenamiento con Pesos (TP) sobre el Estado de Ánimo (EA) en ancianas del proyecto vida activa. Este estudio se trata de una investigación de campo, de abordaje cuantitativo y directo con método de procedimiento descriptivo, realizada en la ciudad de Patos, Paraíba, en 2017, el público objetivo fueron ancianos del proyecto vida activa desarrollado en el curso de Bachillerato en Educación Física de las Facultades Integradas de Patos. Se utilizó un instrumento con 14 adjetivos, organizado en la forma de la escala, el LEA-Ri - Lista de Estado de Ánimo reducida e ilustrada. Por medio de cuestionario fueron evaluados los estados de ánimo de 09 participantes en la danza y en el entrenamiento con pesos, antes y después de una sesión de cada actividad. Todos los participantes realizaron las dos actividades, que tuvieron una duración de una hora cada una, en días separados. La variable fija entre las modalidades fue la selección musical. Los datos obtenidos fueron sometidos al análisis comparativo por medio de gráficos. Así, se percibe que la práctica de la danza y del entrenamiento con pesos tuvo influencia en el estado de ánimo de las ancianas del proyecto vida activa. Los resultados demostraron una mejora positiva de los adjetivos al iniciar las clases y al finalizar, hubo un aumento de la motivación para ejercitarse y la socialización, haciendo que los sujetos se sientan más cómodos y felices.

Palabras clave: Ancianos. Estados de ánimo. La danza. Entrenamiento con Pesos.

#### DANÇA E TREINAMENTO COM PESOS NO ESTADO DE ÂNIMO EM IDOSAS

Os diversos tipos de atividade física podem desencadear diferentes estados emocionais nos praticantes. Desta forma, o objetivo da presente pesquisa foi investigar a influência da dança livre e do Treinamento com Pesos (TP) sobre o Estado de Ânimo (EA) em idosas do projeto vida ativa. Esse estudo trata-se de uma pesquisa de campo, de abordagem quantitativa e direta com método de procedimento descritivo, realizada na cidade de Patos, Paraíba, em 2017, o público alvo foram idosas do projeto vida ativa desenvolvido no curso de Bacharelado em Educação Física das Facultades Integradas de Patos. Foi utilizado um instrumento com 14 adjetivos, organizado na forma da escala, o LEA-Ri – Lista de Estado de Ânimo reduzida e ilustrada. Por meio de questionário foram avaliados os estados de ânimo de 09 participantes na dança e no treinamento com pesos, antes e após uma sessão de cada atividade. Todos os participantes realizaram as duas atividades, que tiveram duração de uma hora cada, em dias separados. A variável fixa entre as modalidades foi a seleção musical. Os dados obtidos foram submetidos à análise comparativa por meio de gráficos. Assim, percebe-se que a prática da dança e do treinamento com pesos teve influência no estado de ânimo das idosas do projeto vida ativa. Os resultados demonstraram uma melhora positiva dos adjetivos ao iniciar as aulas e ao finalizar, houve um aumento da motivação para exercitar-se e a socialização, fazendo com que os sujeitos se sintam mais confortáveis e felizes.

Palavras – chave: Idosas. Estados de ânimo. Dança. Treinamento com Pesos.