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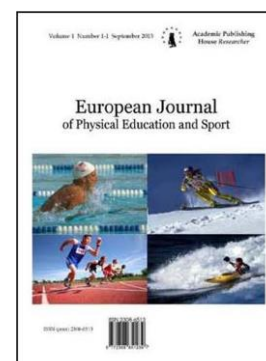
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Articles and Statements

The Acute Effects of Greek Dances on Old People's Self-Esteem

Eirini Argiriadou ^{a, b, *}, Fotios Mavrovouniotis ^a, Chrysi Mavrovounioti ^a, Pantelis Konstantinakis ^b, Argirios Mavrovouniotis ^c, Constantinos Mountakis ^b

^a School of Physical Education and Sport Science, Aristotle University of Thessaloniki, Greece

^b School of Sports Organization and Management, University of Peloponnese, Greece

^c Medicine School, Aristotle University of Thessaloniki, Greece

Abstract

The purpose of the present study was to examine the effect of a single bout of Greek dances on the self-esteem of old people. A hundred and twelve subjects, (89 women and 23 men), 65-88 years old, were separated to an experimental group (n=55) which participated in Greek traditional dances and a control group (n=57) which was discussing and watching television, both for one hour. The State Self-Esteem Scale (Heatherton, Polivy, 1991) was used to measure performance self-esteem, social self-esteem and appearance self-esteem. The scale was completed about 5 min before and after the Greek traditional dances' performance and the discussing and watching television session. For data analysis, *descriptive* analysis, the *non-parametric test Wilcoxon* of the *SPSS ver. 17.0* for windows was used. After dancing, significant increases in performance self-esteem ($z=-5.92$, $p<0.001$), social self-esteem ($z=-3.16$, $p<0.01$), as well as appearance self-esteem ($z=-3.90$, $p<0.001$) were observed. Likewise, no significant difference in control group was observed. Consequently, from the present results it can be said that Greek dances, as a form of physical activity, is an effective factor for the improvement of elderly people's self-esteem.

Keywords: single bout, traditional dance, performance, appearance, sociability, efficiency.

1. Introduction

The importance of self-esteem is great, since people with high self-esteem are in a better mental state and evaluate more positively their personal value, their competence and their relationships with others (Berryman-Miller, 1988; Kim et al., 2002). In addition, people with high self-esteem have fewer health problems, enjoy themselves and participate in a wide variety of activities, feel certain for their ability to deal with difficult situations despite failures and obstacles, are more flexible and adaptable to changing situations, they are also happy, energetic, enthusiastic and enjoy life (Kleon, Wilson, 2007). It is important, therefore, the general assessment made by the individual for themselves, that is, the whole of the thoughts and feelings one has for themselves (Simou, Papanis, 2007) to be positive.

* Corresponding author

E-mail addresses: mavrov@phed.auth.gr (E.A. Argiriadou)

Typical or basic self-esteem is the most stable aspect of an individual's self-worth emotions and is relatively consistent after adulthood (Crouch, Straub, 1983). State self-esteem, however, refers to the emotions of self-worth of a person subject to change, depending on the particular situation (Butler et al., 1994). Therefore, state or functional self-esteem refers to the changeable type of self-esteem that can be altered, for example in cases of acute or chronic stress, such as illness or unemployment (Crouch, Straub, 1983), or during participation in physical activity, as well as with physical condition (Sharkey, 1997).

Studies on the effects of physical activity have shown that participation in physical activity leads to positive self-perception and to improvement of self-esteem in both children (Gruber, 1986) and adults (Sharkey, 1997). In addition, other studies showed a very high correlation between self-esteem and physical activity (Patitsa et al., 2011; Spence et al., 2005).

It is worth mentioning that from the components of an exercise program, fitness activities were the most effective ones in developing self-perception (Gruber, 1986). Therefore, physical activity and physical condition improve self-perception, since when people take control of their lives, lose weight and improve their strength, stamina and appearance, and they feel better for themselves and their body. This new belief can change the attitude towards life, even the personality of an individual. As activity and physical condition change body image, this renewed belief in the body can be an important step for improved personal relationships. Thus, self-esteem can increase during physical activity, perhaps by improving physical fitness and self-perception (Sharkey, 1997). People who train, therefore, and those who are in a better physical condition, than those who are in a less well-off physical condition, have more positive overall self-esteem, higher self-perceptions and higher bodily perceptions (Berger, 1994). Furthermore, significant correlations have been reported between changes in the parameters of physical condition and self-esteem (Spence et al., 2005). Changes in physical condition lead to increased self-efficacy, enhancing physical competence and resulting in increased overall self-esteem (Sonstroem, Morgan, 1989).

It is also worth noting that self-esteem has an innate effect on anxiety (Sassaroli, Ruggiero, 2005) and on behaviors which harm people's health, such as reduced physical activity, smoking and alcohol. Physical activity, by being associated with the development of more positive self-perceptions, could help individuals reduce common stress responses. Presumably, the feeling of competence, liking someone's self and feeling good about them, are feelings that are conversely related to stress. Instinctively, people with positive self-perceptions or high levels of self-esteem would be less likely to appreciate their skills and talents as insufficient in order to meet the required behavior (Berger, 1994). It is very important, therefore, that the increased feelings of self-esteem achieved through physical activity can lead to a reduction in stress and symptoms of depression (Barron, Kenny, 1986; Ekeland et al., 2004). Consequently, it appears that participating in physical activities is advisable for self-esteem improvement.

However, although the effects of physical activity on self-esteem have been studied to a satisfactory degree (Ekeland et al., 2004; Patitsa et al., 2011; Spence et al., 2005; Sonstroem, Morgan, 1989), the effects of dance, and more specifically the acute effects of Greek traditional dances as a form of physical activity, have not been studied yet sufficiently, especially with reference to a very sensitive age group such as elderly people. Therefore, it remains to examine the effects of Greek traditional dances on old people's self-esteem. Thus, the purpose of this study is to address this issue to old people's self-esteem, by examining the pre- and post-dancing levels of performance self-esteem, social self-esteem and appearance self-esteem.

2. Methods

Sample

From all the Centres of Old People's Open Protection (C.O.P.O.P.) in the city of Thessaloniki, seven were chosen randomly. From the lists of the members kept in each C.O.P.O.P., 140 members, 20 members from each C.O.P.O.P., that fulfilled the inclusion criteria, that is participating only in a group dancing program for learning and performing Greek traditional dances to the C.O.P.O.P. or visiting the C.O.P.O.P. in order to discuss with other members, watch television and pass their time, were randomly chosen. Subsequently, a communication/invitation to each chosen member, in regard to the research was made. After that, a total of a hundred and twenty three (123) members volunteered to participate in the research.

A written informed consent for the participation in the research was obtained from each subject. All the subjects, before the beginning of the research, underwent medical control so that it could be certified that they do not suffer from any cardiovascular or other disease and, also, that they do not take any medication. Additionally, they answered a questionnaire about any health problems, while a research assistant was present in order to give any essential clarifications if there were any questions. Eleven subjects who were found to fulfil the exclusion criteria, that is health problems, or/and medication that could affect the results, or/and extra participation in exercise programs, were excluded from the research. Finally, a hundred and twelve (112) healthy members of the seven different C.O.P.O.P. (89 women and 23 men) participated in the research. Subjects' age ranged from 65 to 88 years ($M=67.47$, $SD=3.98$). The subjects were, then, separated to an experimental (group A) ($n=55$) and a control group (group B) ($n=57$), according to the following criteria: a) the subjects who had participated only in a group dancing program for learning and performing Greek traditional dances to the C.O.P.O.P. and no other structured dancing or exercise program, constitute group A, b) the subjects who didn't participate in any structured program of dancing or exercise, but were visiting the C.O.P.O.P. in order to discuss with other members, watch television and spend their time, constitute group B. It should be noted that the subjects of the experimental group at the beginning of the research were at the 18th session/lesson of Greek dances attendance.

Procedure

An approval for conducting the research was given from the committee of each C.O.P.O.P., after the aim and the treaties of the research were described. Procedures were in agreement with the ethical standards of the Declaration of Helsinki of the World Medical Association (2000).

All the subjects came to the C.O.P.O.P. where they were members, in scheduled afternoon hours. Before the beginning of the research, a description of general requirements was given and the aim of the research was also described to the participants without any briefing relative to previous research findings. The psychological instrument was also presented and the instructions were explained. The need for absolute honesty and precision was particularly emphasized.

Afterwards, the subjects of the experimental group participated in a group program of Greek traditional dances' performance, each and every one to the C.O.P.O.P. where they were members. Each session of Greek traditional dances was conducted by teachers of physical education with extensive practical experience and was exactly the same in all C.O.P.O.P., with regard to the dances, the number of dances, their duration and the accompanying music, as well as the number and duration of breaks. The performed Greek traditional dances were from different areas of Greece. In order to begin to dance the subjects were holding each other's hands, creating a hemicircle. The performed dances included a variety of simple kinetic patterns with music accompaniment. The dances' intensity ranged from low to moderate, with frequent rhythm alternations, so that the subjects could keep dancing continuously throughout the dance session. Essential breaks of approximately 10 sec in between dances in order to change dance were made. The duration of each dance was about 2.5 to 3 min. The session duration was 60 min in total. The subjects of the control group, on the other hand, were asked to stay in a room all together, free to discuss with each other or watch television. The discussing and watching TV session duration was 60 min in total.

Scale of measurement

The State Self-Esteem Scale (SSES), of Heatherton and Polivy (1991), is a self-rating scale designed to measure state-related changes in self-esteem. The scale facility and brevity allows its fast and repeated use by the researchers even during exercise. The SSES is a 20-item scale that measures a participant's self-esteem at a given point in time. The 20 items are subdivided into 3 components of self-esteem: 1) performance self-esteem, 2) social self-esteem and 3) appearance self-esteem. All items are answered using a 5-point scale (1=not at all, 2=a little bit, 3=somewhat, 4=very much, 5=extremely). SSES demonstrated high internal consistency ($\alpha = .92$), and the three-factor structure was verified by factor analysis in men and women (Heatherton, Polivy, 1991). SSES was completed about 5 min before and after the Greek traditional dances' performances and the discussing and watching TV sessions. SSES was administered in a counterbalanced order, which

was reversed at the post-test and translated in Greek following a standard procedure involving the discussion of multiple alternative wordings by a group of five bilingual experts.

Data analysis

For the statistical analysis the statistic packet SPSS/PC Version 17.0 for windows was used. The non-parametric test *Kolmogorov-Smirnov* was used to evaluate the normal distribution of the sample. Moreover, descriptive analysis and the non-parametric test *Wilcoxon* was also used to evaluate significant differences between measurements (before and after the Greek traditional dances, and before and after the discussing and TV watching sessions, too). The level of significance was set to $p < 0.05$.

3. Results

In [Table 1](#) the anthropomorphological characteristics of the subjects of both groups are presented ([Table 1](#)).

Table 1. Sample's characteristics

Parameters	Group A (experimental) Mean±SD	Group B (control) Mean±SD
Age (years)	65.95±2.04	68.95±4.79
Height (cm)	163.60±5.15	160.65±5.68
Weight (kg)	74.47±7.39	74.21±9.94
Body Mass Index (kg/m ²)	27.89±3.20	28.78±3.79

The fluctuation of the performance self-esteem factor as well as the existence of statistical differences between the pre- and post-measurements of Greek dances bout for the experimental group and before and after the discussion and TV watching bout for the control group is shown in [Figure 1](#), as well as in [Table 2](#).

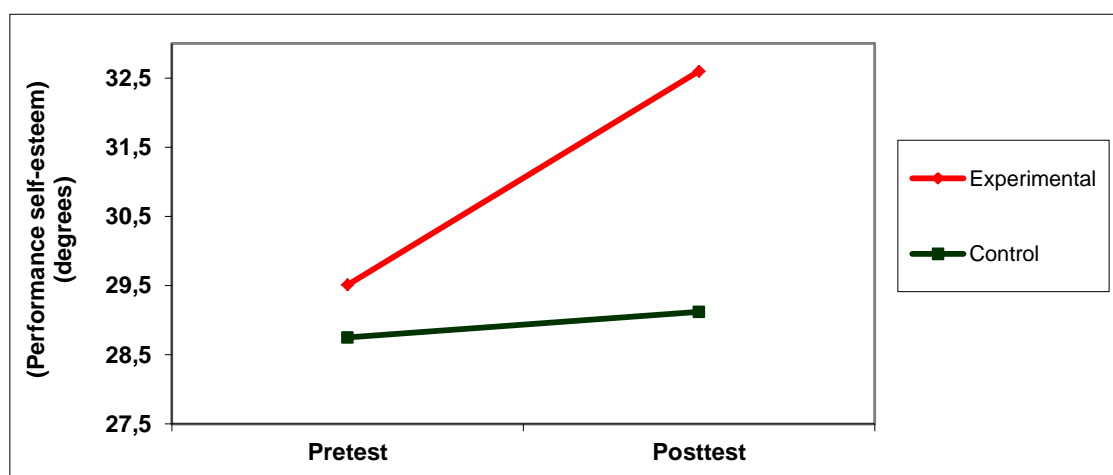


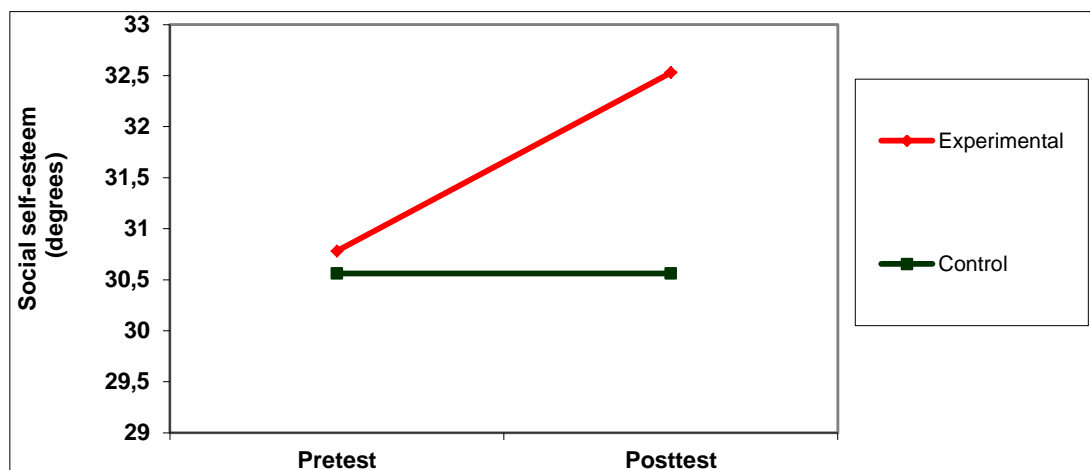
Fig. 1. Performance self-esteem ($\bar{x} \pm SD$)

Performance self-esteem followed a significant upward trend after the Greek dances concerning the subjects of the experimental group, while it remained almost unchanged for the control group after the discussion and TV watching.

Table 2. Performance self-esteem ($\bar{x}\pm SD$)

Group	Pretest (degrees)	Posttest (degrees)	z & p
Experimental	29.51±3.37	32.60±2.44	-5,92 <0,001
Control	28.75±2.75	29.12±3.16	NS

The fluctuation of the social self-esteem factor, as well as the existence of statistical differences between the measurements before and after the Greek dances bout for the experimental group and before and after the discussion and TV watching bout for the control group is shown in [Figure 2](#), as well as in [Table 3](#).

**Fig. 2.** Social self-esteem ($\bar{x}\pm SD$)

The social self-esteem followed a significant upward trend after the Greek dances for the individuals in the experimental group, while it remained almost unchanged for the control group after the discussion and TV watching ([Figure 2](#), [Table 3](#)).

Table 3. Social self-esteem ($\bar{x}\pm SD$)

Group	Pretest (degrees)	Posttest (degrees)	z & p
Experimental	30.78±4.03	32.53±2.92	-3.16 <0.01
Control	30.56±3.22	30.56±3.84	NS

The fluctuation of the appearance self-esteem factor, as well as the statistical differences between the measurements before and after the Greek dances bout for the experimental group and before and after the discussion and watching TV for the control group is shown in [Figure 3](#), as well as in [Table 4](#).

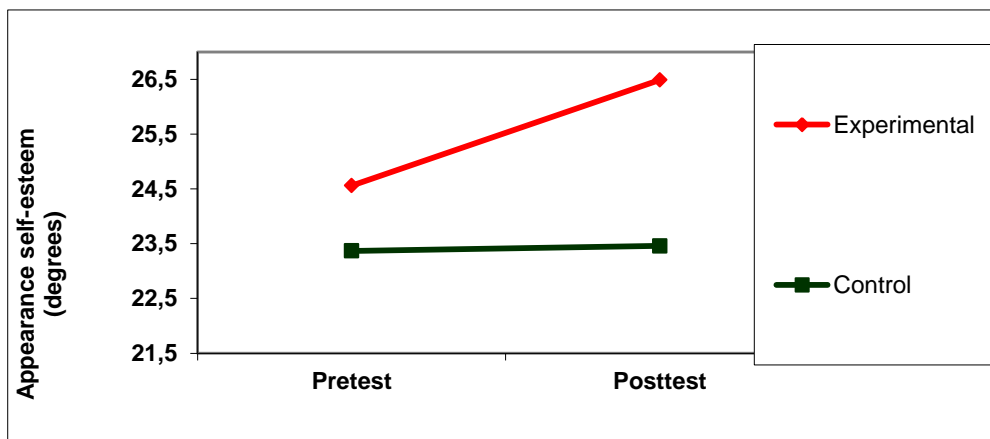


Fig. 3. Appearance self-esteem ($\bar{x} \pm SD$)

The appearance self-esteem had a significant increase after the Greek dances for the subjects of the experimental group, but remained almost unchanged for the control group after the discussion and TV watching (Figure 3, Table 4).

Table 4. Appearance self-esteem ($\bar{x} \pm SD$)

Group	Pretest (degrees)	Posttest (degrees)	z & p
Experimental	24.56 \pm 2.79	26.49 \pm 3.10	-3.90 <0.001
Control	23.37 \pm 3.81	23.46 \pm 3.71	NS

Table 5 summarizes the effects of Greek dances bout and of discussion and TV watching bout on the SSES factors studied.

Table 5. Alterations to SSES factors for Group A and B

SSES	Group A	Group B
Performance self-esteem	↑ ***	NS
Social self-esteem	↑ **	NS
Appearance self-esteem	↑ ***	NS

*: $p < 0.05$ **: $p < 0.01$ ***: $p < 0.001$ NS: μη-σημαντική

Table 5 clearly shows the significant positive effect of Greek dances bout on the factors of self-esteem of elderly people. On the contrary, it seems that discussing and watching TV did not have any effect on the factors studied in the control group.

4. Discussion

The results of this research showed that the individuals of the experimental group after their participation in the Greek dances' bout increased significantly the performance self-esteem, the social self-esteem and the appearance self-esteem. So, it could be said that dancing movements strengthen self-esteem (Bunce, 2006; Kowarzik, 2006; Paulson, 2005a; 2005b). In agreement with our study, other studies that used dance programs found that the elderly people who participated in them improved their self-esteem and their mental state and assessed more positively their personal value, their competence and their relationships with others, compared to the control group that lived a sedentary lifestyle (Berryman-Miller, 1988; Kim et al., 2002).

From the results of the present research, it is clear that participation in Greek dances increased significantly the performance self-esteem, the social self-esteem, and the appearance self-esteem of the elderly in the experimental group, compared to those in the control group who

participated in the discussion and sedentary type activities. It can, therefore, be said that the participation in physical activities, in the form of Greek dances, leads to increased emotions of self-esteem. Similar results were found in a program of practice with movements of traditional Korean dances, as moral satisfaction, improvement of self-confidence and of psychological state were observed in old women participants (Kim et al., 2002). Furthermore, Berryman-Miller (1988) found out that the 8-month application of a dancing program to individuals aged 55 to 85 years old, affected their self-esteem and well-being positively and led to mood state improvement.

The mechanisms for the induced improvements in self-esteem appear to be more of psychosocial nature (Taylor, Fox, 2005). It is worth noting that the observed effects of Greek dances are very important since self-esteem has an innate effect against anxiety (Sassaroli, Ruggiero, 2005) and that the increased emotions of self-esteem can reduce the symptoms of depression (Barron, Kenny, 1986). The emphasis on the reduction of depression shows that dance can promote mental health (Paulson, 2009). Moreover, the most positive assessment of the personal value, the competency and the relationships of older people who participated in a dance program are factors which contribute positively to the quality of life (Berryman-Miller, 1988).

In agreement, Bunce (2006) reports that dance therapy for the elderly patients with Parkinson's disease can increase body awareness, self-esteem, communication, mobility skills, and also provide reduction of depression. It has also been found that a program of social / traditional dances helped the old women with dementia who participated, to reconstruct their remaining skills and to present in their personal style the dance movements they were taught and their experiences, to communicate as a group and to try positive emotions (Palo-Bengtsson et al., 1998). It seems that the benefits of therapy via dance movements concern the development of a favorable environment for elderly people with dementia living in nursing homes (Kowarzik, 2006). In addition, Connor (2000) reports that recreational folk dance provides social, physical, creative, cultural and intellectual benefits to the elderly as a moderate form of exercise. All of these benefits can lead the dance participants to an increase in performance self-esteem, as it has been observed in the present study.

As for the sociability that emerges from the dance, it is for many people more than an expression of the whole group/community, since it includes rituals in which group behavior is characteristic, regardless of the social and economic class of every person (O'Connor, 1997; Turner, 1974). The dance, and more specifically the Greek dance that is basically circular dance, can be described as an inner closed social world. The social nature of dance actuates individuals to express the need to hold each other, to touch, to have general contact, and to do things together as a group. Moreover, in dance groups there is a collective spirit and understanding, and this is good as the participants feel they belong somewhere. Moving together is a powerful force in the emotional connection of the individual with the group, which has been attributed to dancing in many historical and social periods (McNeill, 1995). The concept of group/community is not expressed in an oral or written way. It permeates the consciousness of the dancers and affects their social behavior inside and outside the dance (Cooper, Thomas, 2002) and it can be said that it emerges through the increase of the social self-esteem of the participants in the dance, which was observed in this research.

So, it could be said that dancing has a big importance for the elderly people, because they have the chance to enjoy themselves, as they used to, when they were young (Atchley, 1993). Additionally, dancing has been their basic social activity from their adolescence until their aging (Cooper, Thomas, 2002). Besides, Greek traditional dance is an integral part of Greek culture. Moreover, it is one of the most indicative characteristics of the temperament, history and cultural identity of Greek people, because it is connected with the same spontaneous, instinctive expression of human mind and body. Greek traditional dance, music and songs are not just social life expressions and depictions, but also organic and integral elements of social life (Filiass, 1999). Greek traditional dance is a familiar and favorite activity for older Greek adults.

Furthermore, in agreement with the present results, Palo-Bengtsson et al. (1998) found that music and dance stimulated social interaction and increased communication among the elderly people who have joined long-term care programs. In addition, dancing creates a sense of group/community involvement among the elderly, providing a chance to dress officially, to change (Cooper, Thomas, 2002; Maristela, Vieira, 2007). Hurd-Clarke et al. (2009) and Twigg (2008) highlight the role of dressing in relation to aging and self-expression as a fundamental aspect of the

experience of incarnating life for the elderly and it can be said to stimulate the appearance self-esteem observed in this research.

On the other side, after the discussing and TV watching session for the control group, the subjects' self-esteem remained unchangeable, while the state of the subjects of the experimental group improved significantly after dancing Greek traditional dances, indicating the significant positive effects of Greek traditional dances on old individuals' self-esteem. Consequently, it could be said that dancing is an effective factor of self-esteem improvement for old people. This is probably happening because dancing contributes to the creation of a special stream state of consciousness which is related to various ecstasy levels, or, in other words, to a state of enthusiasm. Therefore, it appears that dancing is not simply and only the means of body-spirit reconnection. It is a kinetic activity that can, as the primitive, ritual dances, use brain properties in order to connect, via the conceiving rhythm, the internal and the external, that is the individual and the world, a fundamental element in psychotherapy (Schott-Billmann, 1997).

Dancing, also, constitutes a form of exercise. Thus, it is a fact that dancing in the form of a physical activity of moderate intensity, of approximately 3-5 METs, contributes to the improvement of physical fitness (Balady, Weiner, 1987; Klissouras, 2004). Dancing can lead to a calorie loss that amounts to 300-360 Kcal/h, when dancing in a low intensity pace, while when dancing in a more intensive way, individuals may burn from 420 up to 480 Kcal/h (Byrne, 1991; Klissouras, 2004; Papanikolaou, 1993).

Moreover, it has been shown that exercising in Greek traditional dances increased old people's HR from 75.6 bpm at rest to 96.4 bpm in 30 min, and to 103.92 bpm in 60 min, that is the end of Greek traditional dances bout. Thus, old people's HR was increased significantly and approximately 63 % of their HRmax was activated (Mavrovouniotis et al., 2010). This exercise intensity can develop and maintain older people's cardiorespiratory fitness (American College of Sports Medicine, 1998). In particular, the HR exercise benefit range (EBR) for people older than 61 years old is fluctuated from 85 to 139 bpm (Chase, <http://www.plu.edu/~chasega/main.htm>). Consequently, the physical load caused from the Greek traditional dances is found to be within the EBR for the specific age group. Therefore, Greek traditional dances could constitute a part of a regular exercise program aiming an improvement on physical fitness, and thus on physical benefits for old people (Mavrovouniotis et al., 2010).

In this direction, it was found out that the elderly people, who participated in a Greek dances' program, consider their health better, as well as their health and their physical activity better in comparison with their age peers, meaning the subjects of the control group who didn't participate in a Greek dances' program. So, the value of Greek dances rises from the rank as a form of exercise, the participation in which may be extremely useful in the enhancement of positive definitions of health. Consequently, Greek dances as a physical activity may be extremely useful for elderly people (Mavrovouniotis et al., 2016).

In addition, it has been found that the old people who participate in Greek dances' programs have a better picture for their body limbs and functions, as well as bigger satisfaction than their age peers who do not participate in similar programs (Argiriadou, 2013). Furthermore, it has been found out that Greek dances induce significant decreases in state anxiety and psychological distress, significant increases in positive well-being, as well high levels of enjoyment. Besides, the subjects who enjoyed highly their participation in Greek dances bout had significantly higher positive well-being, and felt lower psychological distress. So, it could be said that the felt and expressed high enjoyment caused by the participation in Greek dances may be a crucial factor in the improvement of the psychological well-being (Mavrovouniotis et al., 2010; Argiriadou et al., 2013).

Consequently, the Greek traditional dances that the people performed in the present study, as an aerobic exercise with music accompaniment, are considered a pleasant form of exercise that helps the participants to escape from their problems. Besides, pleasure/enjoyment from physical activity appears to be a main factor in the improvement of psychological well-being and quality of life, which is closely related to the concept of flow (Berger, 1993; Wankel, 1993). When a person is in the condition of flow, concentrates on a limited field of stimuli, loses the sense of time, forgets personal problems, has a "time out" from the daily routine, feels capable and in control, and has a wonderful sense of harmony with the environment (Colussi, 2002; Csikszentmihalyi, 1991).

5. Conclusion

In summary, it can be said that Greek dances are an effective factor in improving the self-esteem of older people. This may be the case since Greek dances contribute both to improving the physical condition of individuals, as a form of physical activity, and to creating a special conscious state of flow associated with different levels of ecstasy or in other words with a state of enthusiasm, pleasure and well-being.

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