World Journal of Research and Review (WJRR)
ISSN:2455-3956, Volume-6, Issue-6, June 2018 Pages 16-21

Greek Traditional Dances and Health Effects for Middle-Aged and Elderly People- A Review Approach

Eir. Argiriadou

Abstract— **Greek traditional dances are an integral part in Greek people's lives, treated as a cultural element. Recently, many middle-aged and elderly people participate in programs of Greek traditional dances due to internal and external motivation, but mainly for health improvement. From the literature review it became clear that, indeed, Greek traditional dances incorporate effects and benefits for all the health dimensions, that is physical/somatic, psychological, mental and social health effects. These beneficial effects on middle-aged and elderly people's health may be due to the features of Greek traditional dances. These are the music accompaniment, the fact that Greek traditional dances constitute an aerobic exercise mode, the rhythmical and repetitive movements, the hemicyclic dance shape, the variety of the performed steps, movements and dance directions, the absence of competition, the enjoyment/pleasure that helps the participants to escape from their problems. Consequently, all the middle-aged and elderly people should participate in Greek traditional dances in order to achieve positive physical, psycho-emotional and social effects, leading to health achievement.**

Index Terms— **bsence of competition, aerobic exercise mode, enjoyment, hemicycle shape, music..**

I. INTRODUCTION

Until recently, Greek Traditional Dances (GTD) were treated as a cultural element in people lives and were placed, spatially and temporally in celebrations for various reasons, fetes, festivals, celebration of the patron saint, social events, weddings, baptisms, name days, etc. However, the last years many people in Greece participate in programs of Greek traditional dances apart from such occasions. More specifically, many middle-aged and elderly people learn and perform GTD through their participation in programs of GTD scheduled and performed in cultural clubs and centers for elderly people. Thus, in the present review we will try to answer to two questions: "why middle-aged and elderly people choose or/and prefer to participate in GTD programs?", and "why should all the middle-aged and elderly people participate in GTD programs?"

II. WHY MIDDLE-AGED AND ELDERLY PEOPLE CHOOSE OR/AND PREFER TO PARTICIPATE IN GREEK TRADITIONAL DANCES PROGRAMS?

Middle-aged and elderly people participate in programs of GTD, because through their participation have the chance to enjoy, as they used to when they were young [1]. Additionally, dancing has been their basic social activity from their adolescence to their aging [2], since Greek traditional dancing is an integral part of Greek culture and their lives, too. Moreover, it is one of the most indicative characteristics of temperament, history and cultural identity of Greeks because it is connected with the same spontaneous, instinctive expression of human mind and body. Greek traditional dance, music and singing are not just social life expressions and depictions, but also organic and integral elements of social life [3].

Researches examining the motives for the participation of adults in GTD concluded that stress reduction, relief from everyday stress, having fun, co-existence in a team, being with friends, as well as mood and physical fitness improvement are the main motives for the participation in GTD [4]-[6]. In agreement, [7] found that the motives for the participation in GTD are the rejection of boredom, social relations-friends, popularity, the improvement of dancing skills, the acquisition of new experiences and health. Thus, people who participate in recreational dance activities have a lot to aspire to. Participants expect to preserve their health on good levels or even to improve it, since they consider dancing as a form of exercising, to meet with friends and make new ones, to feel members of a team, sharing the same interests, and simultaneously to improve their dancing skills [8]. It could be said that Greek traditional dancing activities combine internal and external motivation, because factors such as "fitness", "success" and "popularity" operate as external motivation to participate in physical activities, since people hope to gain something from this participation, while factors such as "friendship", "team" and "rejection of boredom" operate as internal motivation for action, since people participate in an activity for its own sake and the pleasure of learning something new [8], [9].

Eirini Argiriadou, School of Physical Education and Sport Sciences, Aristotle University of Thessaloniki, GREECE

III. WHY SHOULD ALL THE MIDDLE-AGED AND ELDERLY PEOPLE PARTICIPATE IN GREEK TRADITIONAL DANCES PROGRAMS?

Another significant factor for the participation and the adherence in GTD programs is enjoyment/pleasure. The extent to which the participants in GTD sessions enjoy doing Greek dances is ranging in a high rate. In general, Greek traditional dancing activity is characterized as a desirable type of physical activity [4], [10], [11]. This enjoyment, derived from the participation in GTD, presents a very significant positive correlation with the positive well-being that the participants felt. Thus, it has been found that the middle-aged people who enjoyed highly their participation in Greek traditional dances bout had significantly higher positive well-being, and felt lower psychological distress. Thus, it can be said that the physical activity enjoyment constitutes a significant factor that could affect the subjective health of the participants in the GDT [10].

In addition, almost 90% of the middle aged people, participants in programs of GTD, declared that their participation in the Greek traditional dancing program had an effect on their lives. The bigger percentage declared that the participation in GTD offered them joy, well-being and calmness (33,30%), as well as many effects on their bodies (33,30%), while a smaller percentage claimed that their participation in the program offered them sociability-participation in a group (16,70%) and activity increase (16,70%). In addition, more than 4/5 (86,50%) believe that their participation in the Greek traditional dancing program has changed their confidence concerning their mobility or possible falls. About three-quarters of the people (73,70%) consider that their participation in the program of Greek traditional dances influenced in any way their everyday activities. The majority (78,90%) believe that their physical activity has changed as a result of their participation in the program of Greek traditional dances. Finally, all people feel that they have been benefited from their participation in the Greek traditional dancing program, a very important fact. It could be said that GTD as a regular physical activity may be extremely useful for the quality of life of the participants offering many benefits [12]. Thus, old people participate in dancing activities not only to revive the passion of their youthful years [2], but mainly to improve their health, since health is the main motivation for adults and older people to participate in exercise programs [13], including dancing programs.

Positive determinations of health are perceived as gains resulting from exercise. In addition, subjective definitions of health determined in part through social comparisons [14]. Thus, [15] in their research found that a significantly greater percentage of elderly people who attend a GTD program (experimental group), determine their health as very good (32,7%), in comparison with the subjects of the control group who don't participate in any program (19,3%). In addition, a much bigger percentage of the experimental group determine their health as better and much better (92,7%) and a much smaller percentage as the same (7,3%) in comparison with that of age peers, than the subjects of the control group (71,0% και 28,1%, respectively). Moreover, as for physical activity level, a much bigger percentage of the elderly people who participate in a GTD program consider themselves more or much more active (89,1%) than other people of the same age, in comparison with the elderly people who don't participate in any program (49,1%) [15]. Similarly, [16] concluded that women who participate in GTD may feel the benefits to their health more strongly and may feel much better compared to their age peers who do not participate in GTD programs. Thus, it could be said that the middle-aged and old people who participate in dancing programs feel more intense the profits in their health, physical and mental, define their health in positive terms and feel much better, in comparison to their age peers [17].

Psychosocial benefits have been, also, found in other studies using GTD for middle-aged and elderly people. More specifically, GTD contributed significantly to the adult women's entertainment, relaxation, stress relief, communication, sociability, expressiveness and promotion of physical and mental health [18]. In addition, after the participation in a single bout of GTD, significant decreases in psychological distress, as well as significant increases in positive well-being of middle-aged participants were observed [10]. Moreover, [19] examined the effect of a GTD session of one and a half hour duration on psychological state of women aged 18-44 years, 45-64 years and 65-88 years. The women of all the groups presented significant increases in the factor positive well-being, significant decreases in the factor psychological distress, while the factor fatigue altered but not significantly. The authors concluded that GTD is an exercise form that could keep the participants fit as far as they feel the somatic fatigue, but, also, fresh as far as they feel less stress and more well-being, and recommend the participation in GTD. In similar results were led other researches after one bout of GTD in young adults [20]-[21] and in older people [22]-[23].

In agreement, other researches that implemented a program of GTD, also, led in similar results. More specifically, old women participating in GTD programs reported improved perception of life [24]. Moreover, the young and middle-aged participants in programs of GTD scored significantly higher from exercisers in a gym and non-exercisers, on factors of quality of life such as body pain, role emotional and mental health. In addition the dancers scored significantly higher than the non-exercisers on physical role, general health, vitality and social functioning. The authors concluded that GTD contributes in a better quality of life [25].

In addition, [26] in a literature review concluded that GTD, in a form of acute physical activity-a single bout- or of program, seems to have a positive effect on the quality of life of both healthy and unhealthy middle-aged and elderly people, improving characteristics of mental health. Argiriadou et al. [10] concluded that GTD, in a form of a single bout or a program, can induce state anxiety reductions, mood states improvement, satisfaction strengthening and significant improvement in all the parameters that delimit the quality of life generally. Thus, it could be said that through their participation in GTD adult, middle-aged and elderly people may improve their quality of life [25], [26], [18], [22].

Yet, the participation in GTD may increase significantly the performance self-esteem, the social self-esteem, and the appearance self-esteem of the elderly participants in the dances. It can, therefore, be said that the participation in

physical activities, in the form of GTD, leads to increased emotions of self-esteem of elderly people [27]. The mechanisms for the induced improvements in self-esteem appear to be more of psychosocial nature [28]. It is worth noting that the observed effects of GTD are very important since self-esteem has an innate effect against anxiety [29] and that the increased emotions of self-esteem can reduce the symptoms of depression [30]. The emphasis on the reduction of depression shows that dance can promote mental health [31].

As for mood state, [32] observed an increase in vigour, exhilaration and fatigue, and a decrease in tension, depression, anger, confusion, total mood disturbance and state anxiety, in women 21 to 55 years old, after one bout of GTD. The authors concluded that the participation in a Greek dances bout could lead to significant improvements in women's psychological health state through the decrease in state anxiety and the enhancement of mood states. It is worth mentioning that GTD and aerobic dance affect with the same way and on the same direction women's psychological health state [32].

Additionally, it has been found that GTD may induce mood states improvements in adults [20]-[21], in middle aged people [33]-[34], in older people [22], and in young, middle-aged and elderly women [19], [24], [32], [23]. Furthermore, in similar results were led authors examining the effects of other traditional dances in elderly women, such as Turkish traditional dance [35] or social/traditional dances [36].

The main etiology of the induced state anxiety decrease and mood improvements is the aerobic mode, as well as, the fact that GTD is a rhythmical and repetitive activity, important features resulting in positive affect [32]. Repetitive movements seem to encourage introspective thinking during participation. Since the activity does not require much attention, the participant's mind is free to wander [37]. In GTD the participants follow the "leader" rhythm, let themselves free and perform a number of well-known steps/movements that are repeated [32]. Thus, dancing is an effective factor of mood state, as it 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 [38].

Another important feature of physical activities explaining the mood improvement is the absence of competition. Instead of competition, participants in Greek dances, while they dance, are coming close one to another, as they are holding each other from the hands, creating a hemi-cycle. With this way all the participants in the cycle are sharing the activity, the music and the rhythm, and their feelings, and they are having not only contact by the touch, but visual contact, as well [33]. Thus, it could be said that the absence of competition leading on a winning or a losing, is a key-element of GTD, which may result in mood improvement of the participants. So, the participation in a GTD bout could lead to significant improvements in psychological health state through the decrease in state anxiety and the enhancement of mood states [32]. This effect of GTD on mood is very important, since mood is related to psychological well-being as evidenced by an individual's general level of enjoyment, self-concept, and subjective well-being, can alter general behavior patterns, and influences physical health [39]-[40]. In addition, mood seems to affect an individual's general satisfaction with life, a very important fact in everyday life [41], particularly today.

It is, also, worth to mention another very significant integral element of GTD and of dance, generally, the music, as dance can exist only with music accompaniment. Actually, music helps in the expression of movement [42]-[43], and in anxiety decrease [44], and reinforces mood state positively [45]-[46]. Dancing and movement with the help of music provide an improvement of psychological well-being and a clear reduction of anxiety symptoms [47]-[48].

Thus, GTD as an aerobic exercise with music accompaniment, are considered a pleasant exercise type 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 [49]-[50]. When a person is in the condition of flow, concentrates on a limited field of stimuli, loses the sense of time, forgets personal problems, makes a "time out" from the daily routine, feels capable and in control, and has a wonderful sense of harmony with the environment [51], [44].

Moreover, GTD may be treated as a physical activity, because they include a big total of performed steps, a variety of simple kinetic patterns performed with appropriate intervals and frequent rhythm alternations. Besides, it has been found out that during the one hour GTD session, which is a typical duration for the programs of GTD, the mean performed steps were 4721.29 (SD 469.094), and the mean travelled distance was 1.414 km (SD 0.15), as they were measured by the Omron pedometers. However, when dancing GTD many other movements, such as foot skips, arsis, etc., except clear steps as well as hand movements are performed that, probably, cannot be measured [33]. Consequently, it could be said that a GTD session includes a great amount of performed movements, indicating that they, indeed, constitute a physical activity that may contribute to the improvement of physical fitness as a physical activity of moderate intensity, of approximately 3-5 METs and may lead to a calorie loss that amounts from 300-360 kcal/h, when dancing in a low intensity pace, to 420-480 kcal/h, when dancing in a more intensive way [33], [52]-[55].

Moreover, it has been shown that exercising in GTD increased old and middle-aged people's heart rate (HR) significantly and approximately 63%-65% and 77.4% of their HRmax, respectively, was activated [33], [22], [56]. This exercise intensity can develop and maintain older and middle-aged people's cardiorespiratory fitness [57]. In particular, the HR exercise benefit range for people older than 61 years old is fluctuated from 85 to 139 bpm [58]. Consequently, the physical load caused from the GTD is found to be within the exercise benefit range for the specific age group. Therefore, GTD could constitute a part of a regular exercise program aiming an improvement on physical fitness, and thus on physical benefits for middle-aged and elderly people [33], [22]. Thus, GTD are an aerobic form of exercise with physiological effects. Additionally, the induced mood improvements may be due to the aerobic mode of the

performed GTD. It is worth to be mentioned that the existence of significant positive correlations between the score in mood states and parameters concerning the activity, such as HR and calorie loss, shows that as the exercise intensity, is increased, the mood score is increased as well, proving mood states improvement [33].

Regarding the cardiorespiratory fitness, [56] examined the effectiveness of 12-week GTD training for improving postmenopausal women, aged 55-68 years, cardiorespiratory fitness. Experimental group attended a 12-week GTD program at a frequency of three sessions per week, 50 minutes each, and control group didn't attend any dancing or exercise program and continued their daily habits for the same period. Cardiorespiratory fitness was assessed by the six-minute walking test and resting heart rate (HR). After the 12-week GTD training it was found out a significant decrease in resting HR for the experimental group, but an increase for the control group. A significant increase in distance travelled during the 6MWT was observed in the experimental group, while the control group presented a significant decrease. The results provide evidence for the effectiveness of GTD programs in improving the cardiorespiratory fitness of postmenopausal women [56]. In similar results led a research of [59] in women 60-78 years old. This effect of GTD is very important, because high cardiorespiratory fitness level is associated with lower mortality [60], and the improvement of cardiorespiratory fitness seems to result in easier execution of daily activities and thereby in the improvement of the quality of life [61].

It is, also, generally accepted that dancing is recommended for maintaining the skill and coordination of movements and of joints, as well as for maintaining muscle tone. Additionally, [62] underlie that GTD dances from the region of Crete exercise the deep trunk stabilizer muscles regardless of gender, age and musical rhythm- fast or slow. The movements of head and trunk and the transfers of center of gravity in any direction when a person dances enable the development of all aspects of balance such as the coordination and flexibility of joints, elements of prevention of falls in the elderly. Dancing through agility and balance improvement, and the strengthening of the muscles of posture can lead to a significant reduction in falls (~50%), which is probably due to "proprioceptors" improvement [63]-[67].

It is worth to be mentioned that older people who regularly participate in dance had better balance, longer stride, increased time in swinging gait, reduced time in double support and were able to walk in a brisk and steady pace than the peers who did not occupied with dance [68]-[69]. This was, also, found out in [59] study, where the old women who participated in the GTD intervention program had better reaction time, better movement coordination, faster gait and better dynamic balance than the old women of the control group. This happens due to the fact that dance movements are multidirectional, versus the straightforward motion on treadmills or elliptical machines. Thus, joint mobility-specifically, hip motion and spine flexibility may benefit from the different movements. Dance requires agility and balance as well as various speeds of movement, skills that are generally not a focus of typical gym workouts [59], [68]. Thus, it could be said that dance may play an important role in maintaining the physical structure of the body of the elderly. Also dance helps the older person to remain active and capable, a fact that affects his/her psychosocial health [70].

In addition, [59] found out that after a 14-week GTD program the old women functional abilities were improved. More specifically, there were observed improvements in the upper body strength, upper body flexibility, lower body strength, coordination, agility and dynamic balance and the level of aerobic endurance as evaluated through the simple field tests of the Fullerton Test, which are based on everyday activities. These changes highlight the significance of Greek traditional dances for old people functional capacity, capability, independence, health and quality of life [59].

As for the intensity, programs for the training of middle-aged and elderly people should be moderate in intensity, simply and conveniently on participation, of low cost, uncompetitive, and covering social interaction needs-with regard to women [71]. Besides, high intensity exercise is not practical for the majority of middle-aged and elderly people, is associated with more musculoskeletal injuries and less participation, and is not considered necessary for health benefits [72], [61]. A physical activity choice, gathering all these features in one, is dance which fit to the target population age, physical limitations, and culture as well [73]. In addition, dance is a form of aerobic exercise that does not require special equipment and can be performed anywhere regardless of season or weather [74].

IV. CONCLUSION

Summing up, it could be said that GTD contribution is very close to the objectives of the World Health Organization for health, which is defined as the state of complete physical, mental and social well-being and not merely the absence of disease or infirmity [75]. On the question "why middle-aged and elderly people choose or/and prefer to participate in GTD programs?" the answer is because GTD incorporate effects and benefits for all the health dimensions, that is physical/somatic, psychological, mental and social health effects. Consequently, all the middle-aged and elderly people should participate in GTD in order to achieve positive physical, psycho-emotional and social influences, leading to health achievement.

REFERENCES

[1] Atchley, R. (1993). Continuity theory and evolution of active. In J. Kelly (Ed.), Activity and Ageing (pp. 5-16). Sage: London.
[2] Cooper, L., Thomas, H. (2002). Growing old gracefully: Social dance in the third age. Ageing & Society, 22: 689-708.
[3] Filias, V. (1999). Society and culture- Traditional culture and folk creation. Athens: Papazisis Pubs (in greek).
[4] Papaioannidou, M., Basdeki, N., Filippou, F. (2005). Participation motives of adults in dance activities. Sport & Society, 36: 69 (in greek).
[5] Patsiaouras, A., Xatzigiannis, E., Anagnostou, E. (2012). Reasons for participation in traditional Cypriot dances. FACTA UNIVERSITATIS, 10(1): 39-48.
[6] Zanou, S., Hassandra, M., Goudas, M. (2001). Researching of participation reasons of people in recreational physical activities. Qualitative study in people participating in traditional dance groups. Sport Psychology, 12, 61-72.
[7] Filippou, F., Goulimaris, D., Baxevanos, St., Genti, M. (2010). Adult attendance in Greek Traditional dancing classes. Exercise and Quality of Life, 4(d): 52-59.

[8] Goulimaris, D., Filippou, F. (2016). The relation between participation motives and goal orientation of participants in recreational dance activities. Mediterranean Journal of Social Sciences, 7(3): 302-308.
[9] Bebetsos, E., Goulimaris, D. (2014). Personal outcome and leadership as defining factors of satisfaction in the context of the course "Arts II: Overview of Greek Music and Dance" of the Hellenic Open University. Turkish Online Journal of Distant Education, 15(2): 12-23.
[10] Argiriadou, Eir., Mountakis, C., Konstadinakos, P., Zakas, A., Mavrovouniotis, F., Mavrovounioti, Chr. (2013a). The effect of a single bout of Greek dances on subjective health of middle-aged people. Journal of Physical Education and Sport (*JPES*), 13(2): 177-183.
[11] Goulimaris, D., Filippou, F., Kottis, I., Genti, M. (2008). The perceived relation between participation motives and goal orientation of participants in recreational dance activities. Mediterranean Journal of Social Sciences, 7(3): 302-308.
[12] Argiriadou, Eir., Mavrovouniotis, F., Mavrovouniotis, A., Mavrovounioti, Ch., Nikitaras, N., Mountakis, C. (2017). Greek traditional dances program and self-evaluated effects and changes in life. World Journal of Research and Review, 5(6): 19-24.
[13] Cheung, S., Wong, A.K.Y. (2001). The physiological and psychological profiles of older person in Hong-Kong. In A.Papaioannou, M.Goudas, & Y.Theodorakis (Eds.), Proceedings of the 10th World Congress of Sport Psychology (2nd vol, pp. 136-137). Skiathos, Hellas.
[14] Mechanic, D. (1972). Social psychologic factors affecting the presentation of bodily complaints. New England Journal of Medicine, 286: 1132-1139.
[15] Mavrovouniotis, A., Argiriadou, Eir., Mavrovouniotis, F., Mavrovounioti, Chr., Mountakis, C., Nikitaras, N., Deligiannis, A. (2016b). The evaluation of physical health of elderly participants or non-participants in a Greek dances program. Journal of Physical Education and Sport (JPES), 16 Supplement issue (1), Art 116: 713-719.
[16] Pikoula, I., Mavrovouniotis, F., Argiriadou, Eir., Papaioannou, Chr. (2007). Dance and health on middle aged women. In Proceedings of 3rd FORUM for Physical Education, pp. 94-97. Komotini: Greek Academy of Physical Education.
[17] Ransford, H.E., Palisi, B.J. (1996). Aerobic exercise, subjective health and psychological well-being within age and gender subgroups. Social Science and Medicine, 42(11): 1555-1559.
[18] Lykesas, G., Tyrovola, V. (2012). The contribution of Greek traditional dance in promoting characteristics personality and social behavior of women. Woman & Sport, 8: 25-35.
[19] Argiriadou Eir., Moudakis K., Zakas Ath., Konstadinakos P., Mavrovouniotis F. (2009). The effect of a Greek traditional dances session on psychological state of women of different ages. Proceedings 2nd Annual International Conference: Physical Education Sport and Health, Pitesti, 20th – 22nd of November 2009, Romania. Scientific Report Series Physical Education and Sport (Buletin Stiintific Seria Educatie Fizika si Sport), 13(1): 46-50.
[20] Argiriadou, Eir., Mavrovouniotis, F. (2001). Alterations in mood states and anxiety after Greek traditional dances performance. A presentation at the 1st Paneuropean Congress for Doping in Sport challenging & 4th Panhellenic Congress of Physical Education and Sport May 4-6, Thessaloniki, Greece (in greek).
[21] Argiriadou, Eir., Mavrovouniotis, F. (2002). Dance and psychological responses. A presentation at the 10th International Congress on Physical Education and Sport Komotini, Greece. Exercise and Society, 31: 156 (in greek).
[22] Mavrovouniotis, F., Argiriadou, Eir., Papaioannou, Chr. (2010). Greek traditional dances and quality of old people's life. Journal of Bodywork & Movement Therapies, 14(3): 209-218.
[23] Papaioannou, Chr., Argiriadou, Eir., Mavrovouniotis, F. (2010). The effect of Greek traditional dances on elderly women's well-being. Woman and Sports, 7: 25-38 (in greek).
[24] Konstantinidou, M., Harahousou, Y., Kambitsis, Ch., 2000. Dance movement therapy effects on life satisfaction of elderly people. In Proceedings of the 6th World Leisure Congress, Bilbao, 207 pp.
[25] Bougiesi, M., Zisi, V., Gregoriou, S., Pollatou, E. (2011). Greek folk dance systematic participation affects quality of life in young and middle age adults. Inquiries in Sport & Physical Education, 9(2): 134-143 (in greek).
[26] Bougiesi, M., Gianni, A., & Zisi, V. (2014). Quality of life and dance in middle aged and older adults: A literature review. Inquiries in Sport & Physical Education, 12(3): 191-203 (in greek).
[27] Argiriadou, Eir., Mavrovouniotis, F., Mavrovounioti, Ch., Konstadinakos, P., Mavrovouniotis A., Mountakis C. (2018). The acute effects of Greek dances on old people's self-esteem. European Journal of Physical Education and Sport, 6(1): 3-13.
[28] Taylor, A.H., Fox, K.R. (2005). Effectiveness of a primary care exercise referral intervention for changing physical self perceptions over 9 months. Health Psychology, 24: 1-11.
[29] Sassaroli, S., Ruggiero, G. (2005). The role of stress in the association between low self-esteem, perfectionism, and worry and eating disorders. ***International Journal of Eating Disorders, 37:*** 135-141.
[30] Barron, R., Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51: 1173-1182.
[31] Paulson, S. (2009). An Exploration of how various "Cultures of Dance" construct experiences of health and growing older. Dissertation Thesis. London: City University.
[32] Mavrovouniotis, A., Argiriadou, Eir., Mavrovouniotis, F., Mavrovounioti, Chr., Deligiannis, A. (2016a). Greek dances, aerobic dance and women's psychological health state. Journal of Physical Education and Sport (JPES), 16 Supplement issue (1), Art 117: 720-726.
[33] Argiriadou Eir., Mountakis C., Konstadinakos P., Zakas A., Mavrovouniotis F., Mavrovounioti Ch. (2013b). The physiological effects of Greek traditional dances on mood states of middle-aged people. Sport- und Präventivmedizin, 43(2): 4-6.
[34] Serbezis, V., Kouli, O., Vasiliou, A. (2007). The influence of Greek traditional dances, aerobic and strength conditioning, on psychological mood in adult women with and without chronic disease. Science of Dance, 1: (Electronic Journal), www.elepex.gr (in greek).
[35] Sibel E., Karapolat, H., Durmaz, B., Ibisoglu, U., Cakir, S. (2009). A randomized controlled trial of Turkish folklore dance on the physical performance, balance, depression and quality of life in older women. Archives of Gerontology and Geriatrics, 48: 84-88.
[36] Palo-Bengtsson, L., Winblad, B., Ekman, S.L. (1998). Social dancing: A way to support intellectual, emotional and motor functions in persons with dementia. *Journal of Psychiatric and Mental Health Nursing, 5:* 545-554.
[37] Berger, B.G., Owen, D.R. (1988). Stress reduction and mood enhancement in four exercise modes: Swimming, body conditioning, hatha yoga, and fencing. Research Quarterly for Exercise and Sport, 59: 148-159.
[38] Schott-Billmann, F. (1997). When the dance cures: approach anthropologic of dance therapeutic function. Athens: Greek Letters (in greek).
[39] Cohen, S., & Rodriguez, M.S. (1995). Pathways linking affective disturbances and physical disorders. Health Psychology, 14: 374-380.
[40] Thayer, R.E. (1996). The origin of everyday moods: Managing energy, tension, and stress. New York: Oxford University Press.
[41] McInman, A.D., Berger, B.G. (1993). Selfconcept and mood changes associated with aerobic dance. Australian Journal of Psychology, 45 (3): 134-140.
[42] Chen, P. (1985). Music as a stimulus in teaching motor skills. New Zealand Journal of Health, Physical Education and Recreation, 18: 19-20.
[43] Spilthoorn, D. (1986). The effect of music on motor learning. Bulletin de la Federation Internationale de l' Education Physique, 56 : 21-29.
[44] Csikszentmihalyi, M. (1991). Flow: The psychology of optimal experience. New York: Harper Perennial.
[45] Karageorghis, C.I., & Terry, P.C. (1997). The psychological effects of music in sport and exercise: A review. Journal of Sport Behavior, 20(1): 54-68.
[46] Karageorghis, C. I., & Terry, P.C. (1999). Affective and psychophysical responses to a synchronous music during treadmill running. In Proceedings of the 4th Annual Conference of the European College of Sport Science (pp. 218), Rome.
[47] Herman, C., Renzurri, J. (1978). Creative movement for older people. Hartford, C.T: Institute for Movement Exploration.
[48] Ritter, M., Low K.G. (1996). Effects of dance/ movement therapy: A meta-analysis. The Arts in Psychotherapy, 23 (3): 249-260.
[49] Berger, B. (1993). Introduction to exercise and mental health. International Journal of Sport Psychology, 24: 87-93.
[50] Wankel, L.M. (1993). The importance of enjoyment to adherence and psychological benefits from physical activity. International Journal of Sport Psychology, 24: 151-169.
[51] Colussi, J. (2002). Dance Therapy and Relaxation Therapy-Effects on Anxiety. http://www.anselm.edu/internet/psych/theses/seniors2002/colucci
[52] Balady, G.J., Weiner, D.A. (1987). Exercise testing for sports and the exercise prescription. Cardiology Clinics, 5 (2): 183-196.
[53] Byrne, K.P. (1991). Understanding and managing cholesterol: A guide for wellness professional. Champaign, IL: Human Kinetics.
[54] Klissouras, V. (2004). Ergophysiology (vol. I). Athens: Medical Pubs. P.Ch.Paschalidis (in greek).
[55] Papanikolaou, G. (1993). Up-to-date nutrition & dietetics (3rd ed.). Athens: Lorenzo DeGiorgio Pubs (in greek).
[56] Mavrovouniotis, F., Kontaxi, E., Argiriadou, Eir., Deligiannis, A. (2018). The effectiveness of 12-week Greek Traditional Dances training

for improving postmenopausal women cardiorespiratory fitness. Journal of Social Science Research, 12(2): 2661-2679.
[57] American College of Sports Medicine. (1995). ACSM's guidelines for Exercise Testing and Prescription (5th ed., pp. 93-119). Baltimore, MD: Williams & Wilkins.
[58] Chase, G.A. Activity program management. Retrieved from: http://www.plu.edu /~chasega/main.htm.
[59] Denazi, E., Mavrovouniotis, F., Kouidi, E., Deligiannis, A., Argiriadou, Eir. (2013). The effect of a Greek traditional dances program on functional capacity in elderly women. Sport- und Präventivmedizin, 43(1): 6-11.
[60] Farrel, S., Braun, L., Barlow, C., Cheng, Y., Blair, S. (2002). The relation of body mass index, cardiorespiratory fitness, and all-cause mortality in women. Obes Res, 10(6): 417-423.
[61] Lindheim, S., Notelovitz, M., Feldman, E., Larsen, S., Khan, F., Lobo, R. (1994). The independent effects of exercise and estrogen on lipids and lipoproteins on postmenopausal women. Obstetrics & Gynecology, 83: 167-172.
[62] Aligizakis, A.K., **Timmons, W.**, Gigourtakis, S.E., Katounis, P. (2002). *Basic principles of dance medicine.* Heraklion: Kavadias (in greek).
[63] Crotts, D., Thompson, B., Nahom, M., Ryan, S., Newton, R.A. (1996). Balance abilities of professional dancers on select balance tests. The Journal of Orthopaedic and Sports Physical therapy, 23: 12-17.
[64] Federici, A., Bellagamaba, S., Rocchi, M.B. (2005). Does dance-based training improve balance in adult and young old subjects? A pilot randomized controlled. Aging Clin Exp Res, 17: 385-389.
[65] Hopkins, D.R., Murrah, B., Hoeger, W.W., Rhodes, R.C. (1990). Effect of low-impact aerobic dance on the functional fitness of elderly women. The Gerontologist, 30(2): 189-192.
[66] Judge, J.A. (2003). Balance training to maintain mobility and prevent disability. Am. J. Prev. Med., 25: 150-156.
[67] Shigematsu, R., Chang, M., Yabushita, N., Sakai, T., Nakagaichi, M., Nho, H., Tanaka, K. (2002). Dance-based aerobic exercise may improve indices of falling risk in older women. Age and Aging, 31: 261-266.
[68] Food and Fitness Advisor. (2007). Dance your way to fitness: you can swing, salsa, or even waltz your way to better bones, a fitter heart, and improved balance. http://www.highbeam.com/doc/1G1-160271532.html
[69] Verghese, J. (2006). Cognitive and mobility profile of older social dancers. J Am Geriatr Soc, 54(8): 1241-1244.
[70] Hayes D., Ross C.E. (1986). Body and mind: the effect of exercise, overweight, and physical health on psychological well-being. J Health Soc Behav, 27(4): 387-400.
[71] King, A. (2001). Interventions to promote physical activity by older adults. Journals of Gerontology, 56A(Special Issue II): 36-46.
[72] King, A., Haskell, W., Young, D., Oka, R., Stefanick, M. (**1995).** Long-term effects of varying intensities and formats of physical activity on participation rates, fitness, and lipoproteins in men and women aged 50 to 65 years. Circulation, 91: **2596-2604.**
[73] Hwang, P.W., Braun, K.L. (2015). The effectiveness of dance interventions to improve older adults' health: A systematic literature review. Altern Ther Health Med., 21(5): 64-70.
[74] Se-Hong, K., Minjeong, K., Yu-Bae, A., Hyun-Kook, L., Sung-Goo, K., Jung-hyoun, C., Seo-Jin, P., Sang-Wook, S. (2011). Effect of dance exercise on cognitive function in elderly patients with metabolic syndrome: A pilot study. J Sports Sci Med, 10(4): 671-678.
[75] World Health Organization (WHO). Constitution of WHO: principles. http://www.who.int.