

## Dance contribution in health promotion

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### Abstract:

The purpose of this research was to investigate if any form of dance can prove to be an asset of conservation or improvement of human health. The term “health”, is used to describe the physical mental and social well-being of the individuals. Through the review of literature of the last decade, which has been used as a method of data collection, 24 papers related to the subject were found. Although the majority of survey samples consisted of women and elderly people, men, children and teenagers also constituted considerable sample of many researches. Such surveys dealt with all kinds of dance and their effects in dancers’ health. Traditional dance forms (i.e. Greek, Turkish, Korean, Caribbean Islands) were the field of quest for nine researches, while ballroom dances (salsa, tango, waltz, and rumba) constituted the field of other seven. Aerobic, belly dance, Wu Tao dance and jazz were the field of the rest of the eight researches. Healthy people, but also others suffering from various diseases were involved in these studies. These diseases included breast cancer, osteoporosis, rheumatoid arthritis, Parkinson, obesity, but also dementia, depression and people with hearing loss. From the study results of researches, it was found that dancing helps in many ways to preserve and improve human health, as far as physical health is concerned - as it maintained the physical state in good level-,but also concerning mental health - by minimizing stress and depression. Finally, social health also proved to be positively affected-as the factors that prevent an individual from socialization were reduced.

**Key-words:** dance, traditional dance, teaching dance, dancing program, health.

### Introduction

According to the World Health Organization (W.H.O.), health is “the state of complete physical, mental and social well being and not merely the absence of disease or infirmity” (1946 p. 100). In this definition at 1948 the wording: “Health is not merely the absence of disease or infirmity, but the combination of good physical and mental condition with social well-being” was added (W.H.O., 1948 p.100). According to the above it seems that the concept of health does not depend solely on the physical condition of people, but it is directly related to many other factors such as family, work, or environment.

By referring to physical health, we describe the levels of various health indicators such as cholesterol, blood pressure, bone density, or proper function of all senses, which in combination with good body composition- meaning less fat and more muscle tissue- gives a good functional body (Patsialas, 2011; Katsavouni, Bebetos, Antoniou, Malliou, & Beneka, 2014).

The term "mental health" refers to the emotional and psychological well-being of human beings (Michail, 2012). Mental health is a term which is used to describe the level of cognitive and emotional well-being and the absence of mental disorder. W.H.O. (1948) defines as mental health the state of emotional well-being, in which the person can live and work comfortably into the community and can be satisfied by his personal features and achievements.

Spiritually healthy is the person who feels comfortable with himself and with people around him (Kingston Bayside Primary Care Partnership, 2011), appreciates the simple things of life, feels optimistic about the future and is simultaneously interested in what happens around them. Being a mentally healthy person means that you have the power to positively address the difficulties of life. The spiritually healthy people are able to overcome difficult situations and thrive under appropriate conditions (Kingston Bayside Primary Care Partnership, 2011).

There are a lot of factors that improve the physical, mental and spiritual health. Such factors include proper nutrition, communication with others, participation in various groups or organizations etc. Today it is common knowledge that participation in physical activity is a major contributor to mental balance (Bebetos, Derri, Zafeiriadis, & Kyrgiridis, 2013), as it promotes the psychological state of interns (Craft, 2005; Lawlor & Hopker, 2001) and prevents diseases such as atherosclerosis, hypertension, asthma, cardiovascular disease, type

II diabetes, osteoarthritis, osteoporosis, obesity, some types of cancers and digestive complaints (Paffenbarger, 1996; Mavridis, Filippou, Rokka, Bousiou, Mavridis, 2004; Dimitrakaki, Porpodis, Bebetos, Zarogoulidis, Papaiwannou, Tsiouda, Tsioulis, & Zarogoulidis, 2013; Vernadakis, Zetou, Derri, Bebetos, & Filippou, 2014). Frequent aerobic exercise (walking, jogging, badminton, and swimming) is beneficial to both adults' (Fentem, 1992; Bebetos, Antoniou, Kouli, & Trikas, 2004) and elderly health (Krawczynski & Olszewski, 2000; Matsouka, Bebetos, Trigonis, & Simakis, 2010).

The debate on the benefits of participation in various forms of exercise or on human health, have been intensified during the past few years (Kouli, Bebetos, Kamperis, & Papaioannou, 2010). This debate also relates to the type of exercise and to its suitability according to the age and health status of the individual.

Dance of any form is being used since ancient times as a treatment modality and it forms an integral part of all therapeutic rituals (Schechner, 2011). The use of dance as a therapeutic agent aims, primarily, to influence higher forces (Papadopoulos, 2005; Filippou, 1993), to remove evil spirits and to invoke some good ones. The aim, through it all, is to achieve the treatment of diseases. The shaman's ecstatic dance constitutes a practical treatment for thousands of years. The shaman, with the help of the drum, "empties" his body from the ground and lets it be "possessed" by the spirits and thus become able to heal (Schechner, 2011). Also, the dervishes dance is the most important part of the worship of God and for this reason it should never be used in cosmic manifestations. The dervish must fall into a trance to unite with God. This is achieved through the dance which includes clockwise spins and certain repetitive movements of the feet, hands and head (Schott-Billmann, 1998).

The purpose of this study was to investigate if dance, in any form, is today a means of preserving and improving human health or a means of treatment and prevention of various diseases.

To collect the necessary data for the research, related to the topic or to the equivalent bibliography were reviewed. From all the literature material, 37 pieces works were selected for the presentation, which were related to the theme and were found of great interest.

### **Defining the concept "dance"**

During the research it was found that the word "dance" is not of the same importance among all researchers and that each one of them attributes different meaning to the above term. Dance therapy, therapeutic dance, primitive expression, eurhythmy therapeutic, meditative dance, dance yoga, and dance self defense, are some of the dance formalities included in the research of our essay.

The differences between dance therapy and other types of physical activities, such as primitive expression, therapeutic dance etc (Zaxos, 2006) is mentioned below:

1. Dance therapy aims to push the participant to dare, through movement, new ways to live and feel. Moreover, it encourages them to approach feelings that are not verbally expressed. However, according to dance teachers, conventional dance focuses on the participants' attempt to finalize their movement and then move more freely.

2. Dance therapists on the one hand leave participants free to move and express themselves emotionally at will, without any directions. On the other hand, dance teachers, through specific movements, orientate them towards certain feelings. In this way, however, the individual's personal expression is limited through additional promotion of imitation. On the contrary, dance therapy, through structured movement, deliberates the individual from any personal and social inhibitions in order to allow them to harmonize their body, mind and spirit (Malliou, 2012).

3. Dance therapists are not interested in perfection of movement and for this reason in dance therapy there are no wrong moves. Conventional dance teachers, though, are interested in the perfection of movements and as a result they tend to correct any mistakes (Filippou et al., 2006).

4. Dance therapy as a process uses movement as a starting point which leads to paths of the unconscious where the individual can reveal symbols and metaphors for later interpretation.

5. Contrasts and symbolic movements are used during dance therapy in order to provide better acknowledgement of the person's body and spirit which will gradually lead to personal release.

Traditional dance is mostly used in the researches after the prom of dance therapy. Greek, Turkish or Korean traditional dance and dance from the Caribbean islands appear in 9 papers. According to Zachos (Moustaka, 2003), traditional dance is a "prop" in the process of dance therapy of psychotic individuals. "Props are some objects (e.g. balls, sails, chests) that help individuals to activate and move when there is equivalent difficulty. Traditional dance contributes to improve the mental state of psychotic elderly people, as it reminds them of normal life. For example, a psychotic patient who had positive symptoms at that time would not let anyone get close to her, and if someone approaches her, she would beat them. During dance treatment, not only she allowed people to approach her but she also gripped the hands of people next to her (Moustaka, 2003).

Greek traditional dance improves the condition of young people with mental illness, since most Greek dances are gang and circular. Group movement is very strong and it has been used since ancient times to help people to face difficult emotions, such as pain or anger, and to reduce stress. From their participation in group activities, the individuals acquire a feeling that they belong somewhere and they also create channels of communication (Filippou, 2015). This feeling is so strong and primitive that it touches the deepest emotions of

the person (Spenser, 1985). The cycle was used from the first dance therapists, since it allows the coexistence of everybody in a group and at the same time it gives the opportunity of leading to a patient, each time to a different one, who improvises guiding all the others (Filippou, 2014; Pitsi & Filippou, 2014).

The Wu Tao (street dance) is a new dance ganger which improves fitness, health, joy, vitality and vigor, while reducing everyday stress, depression, obesity, insomnia and the effects of other modern diseases. Based on movements of traditional Chinese medicine, it regulates the flow of energy in the body through dance, music, rewriting the forces and meditation.

### **Results-Discussion**

From the index of research work, it was found that almost all forms of conventional dance forms have been used. Traditional dance, dance aerobic, ballroom dance such as waltz and tango, belly dance, jazz, salsa, the Wu Tao (street dance) and classic dance, were applied to investigate their effects on health. Dancing in the aspect of dance therapy was also used, in order to encourage free movements accompanied by music.

In 7 studies the sample consisted of only women and only in one of them the sample consisted of men. In the remaining of 16 studies, the sample consisted of both men and women, although even in these studies the majority of the participants are women. Regarding the age of the participants, the interest of researchers has been oriented towards extreme ages. The samples of researches consisted either of older people or of young children and adolescents. Given that only few studies have been applied to people of that age, the lack of interest of researchers in middle age is rather noticeable.

### **Dance and physical health**

In their research Kudlacek et al (1997) implemented dance programs in order to examine their effect on the bone density of the peripheral lumbar degree in women suffering from osteoporosis, while Moffet et al (2000) evaluated the effectiveness of an adjusted exercise program based on dance on people with rheumatoid arthritis of the III type.

Belardinelli et al (2008) tried to examine whether dance is a safe activity and whether the effect it has on a person's body can improve the functional abilities of patients with chronic heart failure of the II and III type. Similar research was carried out by Aweto et al., (2013) aimed at investigating the effects of dance-therapy programs on special cardiac vascular conditions and at measuring the highest oxygen consumption in hypertension patients.

Wallmann, Gillis, Alpert and Miller (2009) tried to assess the effectiveness of an intensive dance course in the static balance of healthy women over 50 years old. Abreu and Hartley (2012) carried out a study to examine the effects of a dance-therapy program, based on Salsa dance, on the functions, balance and fall danger of an elderly patient whose lifestyle was sedentary and who suffered multiple ailments. Mavrovouniotis et al., (2013), tried to study the effect of Greek traditional dance on people with special learning difficulties. The purpose of their study was to examine the effect of a program of Greek dances and Pilates on the balance ability of blind children.

Murrock, Higgins and Killion's (2009) pilot program aimed at studying the effects of dance and the role of the peer support in the improvement of the negative parameters of diabetes mellitus like glycolated hemoglobin (A1C), weight, body fat and blood pressure on African-American women suffering from diabetes type 2. The researchers observed that the participants in the 12-week dance program experienced a significant decrease in the systolic blood pressure and in all the parameters of diabetes in comparison to those who followed an ordinary program.

Tsimaras et al., (2010) carried out a research in order to examine the effect of a Greek dance program in the aerobic capacity and muscle tone of 13 adults with hearing problems. After 12 weeks of practice the researchers observed a significant improvement in peak physiological parameters (peak minute ventilation, peak oxygen consumption, time to exhaustion, and peak torque values between the initial and final measurements).

A number of investigators (Hackney & Bennett, 2014) tried to investigate the effect of active involvement in dance classes on people with Parkinson's disease, as these patients experience mostly mobility problems, which increase the danger of falling and lead to a deterioration of their quality of life. Hackney and Earhart (2010) conducted a research aiming at assessing the effects on balance, confidence, stamina and quality of life of a person suffering severe Parkinson's disease (use of wheelchair for transportation) through participation in partnered tango classes (duration 1 hour per lesson). A similar study was carried out by Heiberger et al., (2011) which focused on: (i) the short term effects of dance (i.e. the effects immediately after the dance class) on the mobility control of Parkinson's patients and (ii) the long term effects, after 8 months of participation in weekly dance classes, on the quality of life of Parkinson's patients and their caregivers. The findings demonstrate that a) dance has a beneficial effect on the functional mobility of individuals suffering P.D. and b) dance improves the quality of life of the patients and their caregivers. The researchers supported that dance is an excellent therapeutic means as it is engaging and enjoyable.

Wu, Tsao, Hsu, Tu and Yang (2011) carried out research in order to examine the effects of a low intensity dance program in the knee torque and the movement span of the lower limbs in elderly women. Their

results showed that low-impact dance can help achieve higher lower extremity ROM and knee torque values than attained by inactive individuals.

### **Dance and mental health**

The results of all the above research were positive and confirmed the estimations of the researchers on the positive effects of dance programs in the improvement of the physical health of patients with various illnesses. Similar programs were implemented in order to examine the effects of dance programs in the improvement of mental health.

Accordingly Kim, June and Rhayun (2002) found that a workout program consisting of movements deriving from Korean dances can yield satisfaction, confidence-boosting and mental state-improvement in the participating elderly women. A similar study, but with Greek dances, was carried out by Konstantinidou, Harahousou and Kabitsis (2000), examining effects of a dance-therapy program in the parameters of depression, stress (occasional and typical), control of the body and satisfaction in the life of adult and elderly women. The results of the study showed a decrease in depression, occasional and typical stress levels and an increase in the levels of physical control and life-satisfaction of the subjects of the experiment. Similar outcomes were yielded in the study of Eyigor et al., (2009) as well as of Akandere and Demir (2011) that examined the effects of a Turk dance program on depression levels and reached the conclusion that a 12-week dance program had a positive impact on the decrease of depression levels of the sample.

On the other hand, Jeong et al., (2005) carried out a study where teenagers of both sexes participated. The study aimed at examining the mental health profile and the change in the neurohormones in teenagers with mild depression before and after a dance-therapy program. The researchers found that through a 12-week dance program a significant decrease in mental dissatisfaction and a stabilization of the sympathetic neurological system of teenagers with mild depression can occur.

Duignan, Hedley and Milverton (2009) through their research attempted to find if a dance-therapy program based on Wu Tao helps patients suffering from dementia improve physically and mentally; they also attempted to observe the effects of this dance in stimulating these people. Sample stimulation was assessed with the use of Cohen-Mansfield Agitation Inventory (CMAI). The results showed that stimulation decreased in 4 out of 6 patients and there was a total average decrease in CMAI scores before and after the program.

Mavrovouniotis, Argiriadou and Papaioannou (2010) examined the effects of Greek traditional dances, while Selman, Williams and Simms (2012) examined the effects of a yoga program in the improvement of the quality of life of elderly people. Both studies concluded that there were only positive effects on the quality of life and in the welfare of the subjects from their participation in organized dance programs.

Kaltsiatou, Mameletzi and Douka (2011) conducted a study in order to assess the effects of a mixed exercise program in the physical state, strength and mental state of women surviving breast cancer. The researchers, after the end of the program, came to the conclusion that aerobic exercise containing Greek traditional dances and physical training could serve as an alternative to physical activity for women who survived breast cancer as it improves their physical and mental health on various levels, thus extending the benefits of dance in the physical, strength and mental state of those individuals.

Finally, the purpose of Argiriadou et al. study was to examine the effect of a single bout of Greek dances on the subjective health of middle-aged people (2013). The results showed that “it can be inferred that entertainment (having fun) constitutes a significant factor that could affect the subjective health of the participants in Greek dances. Consequently, Greek dances are an ideal and enjoyable alternative form of exercise promising subjective health improvement for middle-aged people”.

### **Conclusions**

From the analysis of the survey data the following conclusions came out:

1. Dancing contributes positively to maintaining and improving the health of individuals and to treating various physical and mental ailments.
2. All forms of dance also contribute positively to maintaining and improving the health of individuals and to treating various physical and mental ailments.
3. There is a wide range of physical and mental diseases that dance can contribute positively to as far as their treatment is concerned.
4. In dance programs men and women can both participate easily, pleasantly and efficiently.
5. Participation in dance programs has a positive impact on people of all ages. Children, adolescents, adults and elderly people constitute the majority of participants within the samples and they had positive results from their participation in dancing programs.

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