
COMMENTARY

Dance as a Therapy for Cancer Prevention

Gurbuz Aktas¹, Filiz Ogce²

Abstract

Even though the field of medicine has developed tremendously, the wide variety of cancer is still among chronic and life threatening disease today. Therefore, the specialists constantly research and try every possible way to find cure or preventive ways to stop its further development. For this reason, studies concerning the chronic disease such as cancer have been spread to many different fields. In this regard, many other alternative ways besides medicine, are used in prevention of cancer. Nutritional therapy, herbal therapy, sportive activities, art therapy, music therapy, dance therapy, imagery, yoga and acupuncture can be given as examples. Among these, dance/movement therapy which deals with individuals' physical, emotional, cognitive as well as social integration is widely used as a popular form of physical activity.

The physical benefits of dance therapy as exercise are well documented. Studies have shown that physical activity is known to increase special neurotransmitter substances in the brain (endorphins), which create a state of well-being. And total body movement such as dance enhances the functions of other body systems, such as circulatory, respiratory, skeletal, and muscular systems.

Regarding its unique connection to the field of medicine, many researches have been undertaken on the effects of dance/movement therapy in special settings with physical problems such as amputations, traumatic brain injury, and stroke, chronic illnesses such as anorexia, bulimia, cancer, Alzheimer's disease, cystic fibrosis, heart disease, diabetes, asthma, AIDS, and arthritis.

Today dance/movement therapy is a well recognized form of complementary therapy used in hospitals as well as at the comprehensive clinical cancer centres.

Key-Words: dance therapy - cancer prevention - alternative therapy

Asian Pacific J Cancer Prev, 6, 408-411

Introduction

Even though the field of medicine has developed tremendously, the wide variety of cancer is still among chronic and life threatening disease today. Therefore, the specialists constantly research and try every possible way to find cure or preventive ways to stop its further development. For this reason, studies concerning the chronic disease such as cancer have been spread to many different fields. Thus, besides medicine, there are many different alternative practices to prevent and help to cure these types of illnesses. Nutritional therapy, special diet, herbal therapy, sportive activities, art therapy, music therapy, dance therapy, imagery, yoga and acupuncture can be given as examples. Among this dance/movement therapy, as a popular, pleasant and stressless physical activity, is widely used in variety of settings with people who have social, emotional, cognitive, or physical concerns. It has been used as part of the

prevention and recovery of chronic illnesses (Chrisman, 2001; Boughton, 2002; Byers et al., 2002). And, for its unique connection to the field of medicine, dance/movement therapy is a recognized form of complementary therapy used in hospitals and comprehensive clinical cancer centres (Cohen et al, 1999).

Defining Dance Therapy

Many different specialists define DMT in their own words. However, no matter in what words or ways it's defined, the purpose of DMT does not change. Because the main ideas of practicing dance therapy, as the specialists particularly point out is to benefit from its social, sportive and psychotherapeutic aspects.

According to Chrisman, L.'s definition "Dance is the most fundamental human behaviour and art forms, involving direct expression through the body. Thus, it is an intimate

¹Ege University, State Conservatory of Turkish Music, Department of Dance, Izmir, Turkey, ²Ege University, Izmir Atatürk School of Health, Izmir, Turkey. Correspondence: F. Ogce, Ege University Izmir Atatürk School of Health, Izmir, Turkey. Telefax: +90 232 342 79 75 E-mail: ummuhan.filiz.ogce@ege.edu.tr

and powerful medium for therapy based on the assumption the body and mind interrelated Throughout the ages, people of many cultures have used dance to express powerful emotions, tell stories, treat illness, celebrate important events, and maintain communal bonds". Chrisman L., 2001)

The American Dance Therapy Association defines dance/movement therapy as the psychotherapeutic use of dance and movement in a creative process, which furthers the individuals' physical, emotional, cognitive as well as social integration. Important factors are the body, the dance, creativity and the therapeutic relationship (Jordan, 2003). These two definitions clearly support the main idea and purpose, of DMT. Therefore, it is not necessary to give more examples of definitions. But, it is important to know how it has developed and gained its popularity today.

Chronological Development of Dance Therapy

The therapeutic aspect of dance has always been valued by the people of different cultures. Especially, among the religiously motivated, original societies therapeutic value of dance is unquestionably accepted. The curable Shaman dances, "trans dances" and "ritual dances" of these societies are some of the examples. However, effects of these dances were and still are more spiritual than physical.

The functions of dance were practiced as early as the antique times. However, the importance of dance therapy, as a curable physical activity, was not known until the middle ages. It was first mentioned around sixteenth century in Robert Burton's "Anatomy of melancholy." The English physician suggested dance as a therapy for the treatment of the condition of the melancholic; the second partition of the book lists several genres of cure. Here the dance is widely mentioned as a therapeutic use of exercise, both physical and spiritual. A century later another British author, Richard Browne in his "Medicina musica" first published in 1727, recommended dance as being the most effective of all forms of exercise (Arcangeli, 2000).

Dance anthropologist Paul Spencer, the editor of "Society and the Dance", also widely mentions about dance therapy saying that the notion that dancing may have some therapeutic value is at least as ancient as the dancing epidemics of the Middle Ages. "The literature on dance frequently emphasises its cathartic value, releasing pent-up emotions. This notion was developed in stages in the writings of Herbert Spencer when he explored the variety of emotions that expressed themselves in muscular action, first in relation to in genius theory of the origins of music (1857), then of laughter (1860), and then briefly of dancing (1862:234-5) He viewed emotions as a form of nervous energy that became intensified when denied its natural outlet, and had to be released through some other channel. This concept of dancing as a safety valve for releasing emotional steam foreshadowed Freud's concept of the libido- a psychic force analogous to hunger that requires some direct or indirect physical outlet" (Spencer, 1985).

Although dance therapy was first mentioned as a

therapeutic form of exercise by the British authors around 16th and 17th century, it truly came into existence in 19th century in connection with modern dance and psychiatry. It was pioneered by Marian Chase who lived between 1896-1970, Marian Chase studied dance in New York City before establishing her own studio in Washington, DC, in the 1930s. Because Chase's dance classes provided unique opportunities for self-expression, communication, and group interaction, psychiatrists in Washington began sending patients to her. By the mid-1940s Chase was giving lectures and demonstrations, and other professional dancers soon followed her lead, using dance to help people with an array of emotional, mental, and physical problems. Another woman who was a dancer and mime, Trudi Schoop, volunteered to work with patients at a state hospital in California at about that time. It was not until 1966, when the American Dance Therapy Association (ADTA) was founded, that dance therapy gained professional recognition. Today the ADTA has nearly 1,200 members in 46 states and 20 countries around the world (Arcangeli, 2000; Boughton, 2002; Byers et al., 2002).

How does Dance Therapy Help People?

The questions like how does dance therapy work?, in which fields it is effective?, can dance therapy help people with chronic illnesses, and as well as with other disturbances lead us to explore the effective field of DMT.

Dance therapy is based on the premise that the body and mind are interrelated. Dance therapists believe that mental and emotional problems are often held in the body in the form of muscle tension and constrained movement patterns. Conversely, they believe that the state of the body can affect attitude and feelings, both positively and negatively. Dance may and believed to promote wellness by strengthening the immune system through muscular action and physiological processes. Dance conditions an individual to moderate, eliminate, or avoid tension, chronic fatigue, and other disabling conditions that result from the effects of stress (Hanna, 1995).

The purpose of dance therapy is to help people achieve greater self-awareness and a positive sense of well-being. The idea is that through authentic movement, one can express oneself and come into contact with the conscious and unconscious parts of their personality. This contact leads to accepting one's self for who they are (Jordan, 2003). Paul Spencer in his work stated the therapeutic aspect of dance as "dance as a safety valve: the cathartic theory among the traditional societies. "Following the harvest in certain years, alarming symptoms would sweep through the poorer communities of Europe: a burning sensation (St. Anthony's fire), a sense of suffocation, cramp, twitching limbs, convulsions, frenzy, mental confusion, hallucinations, necrosis, and death. These were popularly associated with an invasion by demons and a heightened terror of death and eternal torment. In this climate, the notion developed that these conditions could be avoided and even cured by resort

to a contorted form of dancing that matched the convulsing limbs, and this dancing (St. John's and later St. Vitus's dance) spread as the terror mounted. Backman (1952) has examined the probability of an association between these symptoms and alkaloid poisoning from a rye fungus (ergot), and later concluded that the dancing would indeed provide a symptomatic relief for victims until the poison had worked its way through their systems. His systematic shifting of the medical and historical evidence provides an outstanding model of analysis on one aspect of dance" (Spencer, 1985). The physical benefits of dance therapy as exercise are well documented. Experts have shown that physical activity is known to increase special neurotransmitter substances in the brain (endorphins), which create a state of well-being. And total body movement such as dance enhances the functions of other body systems, such as circulatory, respiratory, skeletal, and muscular systems and helps in developing body image; improving self-concept and self-esteem; reducing stress, anxiety, and depression; decreasing chronic pain, and body tension; and increasing communication skills (Boughton, 2002, Mendelsohn, 1999; Lewis, 2003).

Dance movements promote healing in a number of ways: Moving as a group brings people out of isolation, creates powerful social and emotional bonds, and generates the good feelings that come from being with others. Moving rhythmically eases muscular rigidity, diminishes anxiety, and increases energy. The rhythmic beat, singing, and movement are therapeutic tools; through these, sick and depressed people find energy in their minds and bodies and smiles on their faces. They rediscover the feeling of wellness that is their goalé. Hope and positive thinking is created and helps people cope with their illness (Berrol, 1997; Boughton, 2002).

Moving spontaneously helps people learn to recognize and trust their impulses, and to act on or contain them as they choose. Moving creatively encourages self-expression and opens up new ways of thinking and doing.

On a purely physical level, dance therapy provides the benefits of exercise, improved health, coordination, and muscle tone; it helps people stay physically fit (Brown, 2003).

On an emotional level, it helps people feel more joyful and confident, and allows them to explore such issues as anger, frustration, and loss that may be too difficult to explore verbally.

On a mental level, dance therapy seeks to enhance cognitive skills, motivation, and memory (Thulin, 1997).

Some experimental studies evaluating the effects of dance therapy on health have been published. Studies show that balance diet, caloric intake with physical activity and effective weight control will help to reduce and prevent the risk of types of cancers such as:

- Breast (among postmenopausal women)
- Colon
- Endometrium
- Esophagus

- Gallbladder
- Pancreas
- Kidney (Eyre, 2004; Byers et al., 2002)

Some other research results have shown that the magnitude of the risk reduction is consistently around 40 % for colon cancer. Studies to evaluate effect modification have shown that physical activity may most importantly reduce risk of colon cancer in the presence of high levels of energy intake, a high glycaemic index or large body size.

The decrease in risk of breast cancer was, on average, about 20-40 %, with some studies observing up to 70 % risk reductions. An effect of physical activity on breast cancer risk is biologically plausible, since physical activity has direct effects on prevention of weight gain and on postmenopausal obesity, both established breast cancer risk factors. A total of 30-60 minutes of moderate to vigorous intensity activity is needed for breast cancer risk reduction (Brown, 2003; Eyre, 2004; IARC Hand Books of Cancer Prevention-Cancer preventive effects of physical activity, 2002).

Mendelsohn mentioned that, dance/movement therapy encourages medically ill children to discover and use their full movement potential. She noted dance movement therapy principles serve well when working with young cancer patients or other seriously ill children who need to express stress. Since children who undergo lengthy hospitalizations are those who are most critically ill, the goals of long-term treatment aim to enable these children to express their feelings and anxieties and provide them with consistent emotional support. So it helps reduce the movement limitations that result from emotional tension, decreases anxiety, improves body image and enables these children to participate in an active, rather than passive, experience (Mendelsohn, 1999).

Berrol et al were studied 134 older adults (70 experimental, 64 control subjects) with neurotrauma. Ten treatment groups of six to eight members each received two 45 minute dance/movement therapy (DMT) sessions per week for a period of five months in the experimental group. The controls continued to participate in their usual activity regime during this time frame. End of the study subjects sampled found DMT enjoyable and perceived it as beneficial in terms of improved mood, social interaction, physical function and levels of energy (Berrol et al., 1997).

As a type of exercises, because, DMT affects the body as a whole and it creates a state of well being, its effective field is broad. Therefore, DMT is not only used in connection with hospitals and cancer centres to help people who have chronic illness; but, it is also used in many different fields such as: Special Education and Treatment Centres, (abused woman, child etc.), Youth Development Programs, Children Development Centres, Drug related treatment centres; dance also used to reduce stress and anxiety.

Erwin-Grabner et al. have defined efficacy of DMT for reducing self-reported symptoms of anxiety in a university population with a mean age 29 years. In their study twenty-one participants randomly assigned to the experimental

(n=11) and the control group (n=10). Individuals included in the experimental group participated in four movement sessions, 35 minutes in duration carried out over two consecutive weeks. Both of the two groups were completed the Test Attitude Inventory (TAI) before and after completion of the DMT sessions of experimental group. Results suggest that DMT may be an effective intervention for reducing self-reported levels of test anxiety (Erwin-Grabner, 1999).

Is There any (what might be the) Complication with Dance Therapy?

According to the therapists there isn't any known negative effect of dance therapy. However, as a safety, they suggest that People with psychological ailment, cancer and chronic conditions such as arthritis and heart disease should consult with their physician before undergoing any type of therapy that involves manipulation of joints and muscles. It is also important to find a dance therapist with whom one feels comfortable, since the dance therapy experience involves spontaneity, trust, and the expression of some times difficult emotions (Cohen, 1999).

Conclusion

Dance, being the most fundamental and unique form of art, effects people spiritually, the first. Then it refines them socially and physically. As a form of therapy it does not only helps people with chronic illnesses; it also, helps socially and physically abused people to cope with their emotion, anger and frustration, in a mental level. Because dance develops a gentle behaviour, calmness and powerful thinking, it is also widely used for child and youth development programs, as well. After all, being a natural human behaviour, it can simply be a most pleasurable form of activity for everyone.

References

- Arcangeli A (2000). Dance and health: dance as a means of cure. *J Society Dance Res*, **18**, 23-4.
- Berrol CF, Ooi WL, Katz SS (1997). Dance/movement therapy with older adults who have sustained neurological insult: a demonstration project. *Am J Dance Therapy*, **19**, 135-60.
- Boughton B (2002). Dance therapy, Encyclopaedia of Nursing and Allied Health, available at www.findarticles.com
- Byers T, Nestle M, McTiernan A, et al (2002). Reducing the Risk of Cancer with Healthy Food Choices and Physical Activity. *CA Cancer J Clin*, **52**, 92-119.
- Brown JK, Byers T, Doyle J, et al (2003). Nutrition and physical activity during and after cancer treatment an American cancer society guide for informed choices. *CA Cancer J Clin*, **53**, 268-91.
- Cohen SO, Walco GA (1999). Dance/movement therapy for children and adolescents with cancer. *Cancer Pract*, **7**, 34-42.
- Chrisman L (2001). Movement therapy, Gale Encyclopaedia of Alternative Medicine, available at www.findarticles.com
- Erwin-Grabner T, Goodill SW, Hill ES, et al (1999). Effectiveness of dance/movement therapy on reducing Test Anxiety. *Am J*

Dance Therapy, **21**,19-34.

- Eyre H, Kahn R, Robertson RM, et al (2004). Preventing cancer, cardiovascular disease, and diabetes: a common agenda for the american cancer society, the american diabetes association, and the american heart association. *CA Cancer J Clin*, **54**,190-207.
- IARC Hand Books Of Cancer Prevention (2002). In "Cancer preventive effects of physical activity" Eds. Vainio H and Branchini F. Asian Pacific Education Press, Lyon, pp: 134-69.
- Hanna JL (1995). The power of dance: health and healing, *J Altern Complement Med*, **1**, 323-31.
- Jordan H (2003). Dance/Movement Therapy, available at <http://faculty.wm.edu/jmchar/Kim493/dancetherapy.html>
- Lewis P (2003). Dancing with the movement of the river. *Am J Dance Therapy*, **25**, 17-37.
- Mendelsohn J (1999). Dance/movement therapy with hospitalized children. *Am J Dance Therapy*, **21**, 65-80.
- Spencer P (1985). Introduction: Interpretations of the dance in anthropology, In "Society and the Dance" Ed Spencer P. Cambridge University Press, USA, pp4.
- Thulin K, (1997). When words are not enough: dance therapy as a method of treatment for patients with psychosomatic disorders. *Am J Dance Therapy*, **19**, 25-43.