

Tango Therapy: What should we do to Maximize the Effectiveness of Tango Therapy?

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Introduction

A more systemic analysis of tango movement for proper and effective therapeutic application of tango is necessary for medical purposes. The aim of this study was to systematically approach how Argentine tango is being used and investigated for the therapeutic purpose in medical field to improved gait and balance.

Medical Effects of Dance

Medical interventions with dance and sport are similar to each other by promoting subjective well-being in healthy people [1]. However, dance goes together with music differently from sports. So, dance is commonly defined differently from sports as a performing art form which refers to the rhythmic movements and sequences of steps usually set to music [2]. Dance has additional positive effects as compared to sports because of music and artistic characteristics.

Dance is a worldwide human activity that involves complex whole body movements through space synchronized to music [3]. Dance may promote wellness by strengthening the immune system through muscular action and physiological processes [4]. Dance conditions an individual to moderate, eliminate, or avoid tension, chronic fatigue, and other disabling conditions that result from the effects of stress. Dance may help the healing process as a person gains a sense of control through possession by the spirit in dance, mastery of movement, escape or diversion from stress and pain through a change in emotion, states of consciousness, and/or physical capability, and confronting stressors to work through ways of handling their effects. Dance-related reviews of evidence have examined the effectiveness of dance therapy on psychological and physical health and well-being outcomes in patients with cancer, for schizophrenia, and on depression [5-7]. Dance can instill positive well-being feelings such

as exhilaration and sense of purpose, and increased confidence, self-esteem and feelings of belonging and purpose. On these backgrounds, dance was applied as therapy, ‘dance therapy’

Dance Therapy

Dance therapy was officially described first in 1948 [8]. The medical effects of dance in health and healing were scientifically reported in 1995 [4]. The medical application of dance therapy was well reviewed in neurologic conditions [9]. Walking, balance and mobility are almost invariably affected by the neurological conditions such as stroke, multiple sclerosis, spinal cord injury, traumatic brain injury, Huntington’s disease and Parkinson’s disease [9,10].

Interest in the use of dance as a therapeutic tool to address both psychological and physical impairments is increasing after the Cochrane review reporting positive effects on quality of life and fatigue in people with cancer [11].

Most of all, gait and balance impairments have a profound impact on an individual’s ability to perform activities of daily living and consequently, quality of life [12,13]. Clearly, new therapeutic approaches and interventions for balance, mobility, and gait are needed and dance instruction as therapy is a promising intervention that may address this need [9]. Older adults who regularly dance have a more stable gait pattern, better balance and faster reaction times than older adults who do not dance [14,15]. Especially, dance has been used extensively for the treatment of gait and balance dysfunction in individuals with Parkinson’s disease [16-18]. Dance may hold promise as an intervention to improve gait, balance and mobility in a variety of neurological conditions including stroke, multiple sclerosis, spinal cord index, and Huntington’s disease [9].

Dance as therapy has multiple benefits including improvements in balance, gait, and motor impairment in Parkinson's disease (PD) [17].

Argentine Tango Therapy

Argentine tango is the most frequently employed dance form in the treatment of Parkinson's disease [17]. Argentine tango therapy was reported officially in the medical research fields in 2008 for the first time, by studying effects of a community-based Argentine tango dance program on functional balance and confidence in older adults [19]. The effects of Argentine tango on movement control in Parkinson's disease were compared with those of American ballroom dance and the tango group was found to improve as much or more than those in the waltz/foxtrot group on several measures [20]. Tango therapy improved spatial cognition and disease severity, motor and non-motor manifestations as well as balancing and walking in Parkinson's disease. Tango therapy was proven to be feasible and safe through these studies in Parkinson's disease [21-24].

Argentine tango was also applied therapeutically for treating depression and compared the effects by mindfulness meditation and a waiting-list control [25]. Moreover, depression levels were significantly reduced in the tango and meditation groups, relative to waiting-list controls, but stress levels were significantly reduced only in the tango group.

Tango as a non-specific exercise in current tango therapy similar to every dance therapy

Tango movement or adjusted tango movement has been applied in diseases like Parkinson's disease by applying just movement as an extent of exercise therapy [26]. However, the only difference between tango therapy and exercise therapy is that tango therapy is applied merely with tango music. Dance exercise to music (aerobics) was reported to significantly improve self-reported positive well-being and reduce distress and fatigue at the end of the intervention [27]. Dance also has the same aerobic benefits as jogging and walking programs [28]. However, dance therapy is music therapy and exercise no matter how they see it. Argentine tango was also applied therapeutically as has other dances and movement and music is considered to be useful. However, movement was not applied over exercise in tango therapy.

It was reported that improvements made with dance as therapy may be greater than gains made with traditional exercise therapy or in some circumstances, conventional physiotherapy [29,30]. However, there was no description concerning the delicate reasons and the mechanisms of effects have not been suggested. For the therapeutic application of dance, dance therapy, free and guided dance movement, and dance movement were used as terms. The terminology themselves is obscure and not defined discretely [31-33].

To maximize the therapeutic effects of tango therapy, more systemic analyses in medical viewpoints and the deduction of the medical characteristics of Argentine tango are necessary. All dances have their unique characteristics and have their own unique usefulness [26]. Gains in gait, balance, and functional mobility can be made with different forms of dance across different neurological conditions [9].

Argentine tango has several characteristic movements and should be also applied delicately for the purpose of tango therapy according

to disease characteristics and disability [26]. Tango has many types of complicated movement. In tango therapy, the type of movement should be applied and described. For that, the elements of tango movement should be analyzed and applied properly for the therapeutic purpose.

Majority of studies did not describe adverse events and a lack of reporting in these studies does not imply that no adverse events occurred [9]. However, if it is approached inappropriately, the disease status can inadvertently be seriously aggravated. Adverse events are the other important aspects to be scrutinized in tango therapy. Not all tango movement may be beneficial for healthy subjects and a certain tango movement may be harmful according to the some conditions of specific disease condition. This should be expected before performing tango therapy.

Unique characteristics of argentine tango for the medical application as tango therapy

Lötzke et al. described that several styles exist and tango is mostly danced in either open or close embrace with long elegant steps and complex figures in Argentine tango [34]. In spite of therapeutic application of argentine tango, there was no specification of tango movements, styles and sequence with steps. First of all, the precise analysis of the principle of tango movement in the view point of medical concept may be necessary [26]. Argentine tango therapy has many favorable therapeutic characteristics.

Argentine tango is a popular couple dance which originated in Rio de la Plata, Argentina, in the mid-19th century and the terminology of Argentine tango was described as Spanish like Caminar (Walk, Gait), Ocho Adelante (forward round walk), Ocho Atras (backward round movement), Giro (turn around movement), Boleo (unique tango movement of lower limb), Cruse (cross stepping), Gancho, Saccada, Barrida, Colcada, and Volcada [34,35].

To maximize the effectiveness of tango therapy in application to these characteristic tango movements, these movements should be analyzed into basic elemental movement and the functional anatomical description of these elements and tango movement may be absolutely necessary.

What should we do to maximize the effectiveness of tango therapy?

For the analysis of basic elements and the functional anatomical description of tango movements, the collaboration between the tango specialist, who has profound knowledge for tango with a long tango career with experience in tango instructing and tango performance with stage tango, and the medical specialist who has enough experience including authentic tango lesson, tango instructing and tango performance in the knowledge of the essence of argentine tango may be requisite and inevitable. This is the first thing what to do.

After analysis of tango movement into basic elemental movement by functional anatomical tool, these basic elements should be described by anatomical kinesiology according to the osteology, musculoskeletal kinematics. Through this process, the tango movement may be evaluated as compared to the neutral position and natural movement in functional anatomical aspects. This process may reveal the permitted range of basic elemental movement and whether the basic elemental and complicated tango movement

may be harmful or beneficial. Also, the training technique and the protocols for therapeutic approach in tango therapy may be deduced.

Tango is the dance of walk and the walking, which may be the basic elemental movement of tango. So, tango gait (tango gaitology) should be analyzed comparing with normal gait (normal gaitology) from the structure to stepping of gait by functional anatomical kinematics. From solo tango which we do alone to dual tango which we do together with partner should be analyzed for the therapeutic approach of patients as well as the preventive approach for the practitioner to expert.

From this systemic approach, the indication and contraindication of such basic elemental tango movement in a specified condition of disease or disability state may be naturally built. These medical analyses and approach may be useful for the expert dancer to prevent the harmfulness of some tango movements.

Conclusion

Due to historical characteristics of tango development, tango movements are based in neutral position and natural movement, functional anatomically. So, tango is the best dance for the therapeutic application. Tango therapy includes not only therapeutic approach for the patients with some disability or disease including neurologic disorders, but also the preventive approach for the healthy subjects.

For the tango therapy, the first things that we should address is that tango movement should be analyzed based on the authentic tangology using functional anatomical kinematics into basic tango elements. So, the movement should be described systemically using medical terminology.

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