Xournals

Academic Journal of Dance and Music

ISSN UA | Volume 01 | Issue 01 | January-2019

Role of Dance in Body Fitness

Carla Thomas[1]

Available online at: www.xournals.com

Received 27th September 2018 | Revised 19th October 2018 | Accepted 21st December 2018

Abstract:

Dance is an art form that involve the rhythmic movement of body and happen with music. Performing the dance with the movement of human body that contain significant medium for communication, feelings and emotions and it is cuddle movement, creation and performance. For improving the health related physical fitness, dance is an excellent alternative exercise and it increases the limits of human physical ability, feeling and power. When dance come into health dance, then it proves very effective in establishing the lasting healthy life. It is a non-competitive form of exercise which contain positive effect on physical and mental health. During performing the dance, the support through the physiological parts of body i.e., fitness of cardiovascular system, flexibility in muscles, strength and power of muscles etc. is necessary. The dance provides the many benefits and qualities which depends on the performance but the major rule is the improvement in the health on both level physically and mentally by developing strength, flexibility, synchronization and balance regarding the various aspects. In this review paper, studies about the balance and flexibility between dancer and non-dancer.

Keywords: *Rhythmic movement, Cuddle, Suppleness, Coordination*

Authors:

1. *Bangor University, Bangor, Wales, ENGLAND*

Introduction

Dance is categorized under the art in which body, mind and emotion works with music. It is an activity of body in which expression and communication are expressed through the body moves. The mind lives in conscious state as the body moves continuously with different pose and patterns. For performing the dance, the body should move in a systematic way and follow the particular rhythm.

Dancing, the form which is considered as an excellent way for the improvement of physical fitness, a set of features that can be related to health or skill. Dance also develops social skills, as a result to improving mental health. The best dance is that which encourage the people to move and develop coordination either with a partner or within a set. It is an alternative exercise form for the children through which the health issues are removed and body remains fit. In the physical fitness element, cardiorespiratory strength, strength of muscles, body structure and elasticity are considered. The positive effects of dance on physical fitness that observed in various areas like flexibility, strength and endurance. In recent studies, increasing the heart rate up to 65-85% by workout of dance fitness. It does not beneficial only for cardiovascular health but also helps for shape of body and weight loss.

By using particular technique, dancers are trained for working as choreographer. According to Foster, "says that the dancer are not only trained exclusively for a particular technique but each choreographic work was designed exclusive of others". The need of cardiovascular of choreographic work is seen during the technical training and subsequent rehearsals of that work: demand of the performance, the technique itself and subsequent rehearsals prepared the dancer for the physiological energy.

Flexibility: It is an essential element of normal biochemical functioning of dance. Dancing requires a great amount of flexibility. The soft tissue structure like muscles, connective tissue and tendons are more flexible and stretch smoothly. And for other all major muscle groups, dancers must try to achieve full range of motion. In most of the form of dance, the bending and stretching must require. Hence, dance become naturally more flexible even in the simple performance. It is divided into two components:

Dynamic Flexibility – Its obtainable the active range of motion (ROM) in which by contracting muscles, the ability of body to move the joint. For example, dynamic flexibility of dancers is seen in the performance.

Static Flexibility – During the passive movement, the external force movement is produced without the muscle contraction. For example, the hand s are used by the dancers to pull the passive leg up than the maximum height of grand battement.

Strength: The muscle's ability to apply the maximum force against the resistance. The strength are increased by dancing as it resist against the dance through the help of muscles. The body weight is supported by dancers when they perform flips, cartwheels and gymnastic movement. In case of ballet and contemporary, more demand of muscle strength and this strength is utilized for performing many movement like floorwork and lifts. Through the dance performance on daily basis, the strength of children after 12 months, is also increased as it gives the strength to hip muscles which is required for the jump and making the balance only at one leg. The dancers are described as having more limb strength compare to physically active participants.

Endurance: The muscles' ability for performing hard work for longer period of time without tiredness. For improving strength, regular dancing is most important mainly energetic dancing i.e., line and ballroom dancing.

Body Composition: Dance is considered as a very formal and mock art form. So, there is need of very specific body form for dance. Body composition is usually considered in case of the assessment of dancers' fitness level. Body structure of dancers is also important from nourishing standpoint. From use of Body Mass Index (BMI), nutritional status is typically determined. A better representation can be achieved by the fat free mass index (FFMI) which is defined as the amount of muscle mass, carried by the person divided by their height. Body composition is estimated by using equation:

FFMI =Body muscle mass/ height^2

The unit of FFMI is kilogram per square height.

The most common method for the determination of person's body composition and percentage of body fat is skinfold caliper measurement test. By measuring skinfold thickness, estimates the percentage of body fat from specific location of the body. The measured thickness of these skin folds fat is called as subcutaneous adipose tissue. According

to person's age and gender, the results of skinfold thickness are relied on the formulas which is used to convert the numbers into body fat percentage.

Sense of well-being: It is a social activity which offers many chances to interact with other people. After joining the dance classes, self-confidence level of person increases and the social skill also enhance. Regular dance reduce the stress and tension and feel overall sense of well-being.

Review of Literature

Koutedakis and Jamurtas (2004) proposed, for the purpose of professional career, muscular length, muscular balance of dancers, joint integrity and other related activities are more in use as training system and dance basis selection which constitute 'Archilles heels'. In particular, poor levels of physical fitness indicates the dance injuries that reflect to every other second individual. The initial data represents that there is an increase in exercise training which help in the fitness with the combination of dance and art performance.

Angioi *et al.*, (2009), stated that aerobic/strength training is effectiveness and improve dance performance. According to one well-methodology, increase in constituents of fitness that give result in advantageous effects in facets of performance. One of the most important point is considered as the improvement in the components of individual's fitness for numerous reasons. The increment in the injury is due to Knee extensor and flexor low muscle strength levels which is more found in professional dancer that gives outcome in the form of their total time off dance training.

Anbarasi, Rajan and Adalarasu (2012), stated that the high cramp tightness is felt by injured dancer that lead to pain and Mean Sac Diameter (MSD). The regular yoga, integral part of Bhartnatyam, is compulsory for all dancers. It is estimated that exercises of stretching are necessary for body, athletic event and Bhartnatyam. In the field of dance, a large ground have a complaint of pain but it is true that the pain cannot stop their dance career. **Costa, Ferreira and Felicio (2013),** dictated that static balance is better in ballet dancers in relation to non-trained individuals and athletes of different sport modalities. Dancers are presented more visual dependency in order to maintain static balance due to specificity of their training.

MALKOGEORGOS *et al.* (2013), concluded that dance is also called as excellent alternative exercise for the improvement of health related fitness elements. Physical fitness of dancer is developed that seems to be more derivative of skill achievement that focused fitness training. The individual's ability decides the fitness of body after working in the aerobic and anaerobic conditions which improve the height of muscle tension. For performing the dance, there is need of support from physiological part of body that includes mobility of joint, strength of muscular, cardiovascular fitness, and body composition.

Hwang and Braun (2015), in this review paper, strong evidence suggest that dance, irrespective of style and dosage that improves older adult's functional fitness. It concluded that dance may not be sufficient to change body composition significantly. Although dance involvements have low attrition rates, a majority of the older adults participating in the dance interventions were female.

Sil (2016), concluded that significance of difference between group mean for yoga students and Bhratnatyam dancers have analyzed by t-test that give result, is flexibility an static balance are higher for yoga students that the Bhratnatyam dancers. It is also reveal that difference between means for static balance between yoga and dancer groups were not statistically significant but in case of difference between means for flexibility between Yoga and Dancer groups were statistically significant.

Burzynska *et al.* (2017) stated the dancers' mind is different from the non-dancers at functional and structural levels. In this review, the writer discussed about the group differences on the level of skill and also correlate with the objectives of dance skill and balance. It increases induce neural alterations which is suitable in the long-term, adaptability, combined motor and coordination training and support performance demands. Neurostimulation techniques are used in dance training by which the brain functions are controlled. It also enhance the skill acquisition and motor performance.

Conclusion

Dance plays an important role in health fitness, it has some positive impact on health fitness and well-being of an individual. It is also considered as an excellent alternative exercise form in case of children after 12 months that improves the health

related element of physical fitness. The physical fitness of dancer is developed which seems as a result of skill acquisition than focused training. For performing the dance steps, there is need of physiological movement that includes joint mobility, strength of muscles, fitness of cardiovascular and body structure and recommended the extra aerobic and exercise training.

References:

Anbarasi, V., *et al.* "Analysis of Lower Extremity Muscle Flexibility among Indian Classical Bharathnatyam Dancers." *International Journal of Medical and Health Sciences*, vol. 6, no. 6, 2012, pp. 225–230.

Angioi, M., *et al.* "Fitness in Contemporary Dance: A Systematic Review." *International Journal of Sports Medicine*, vol. 30, no. 07, 2009, pp. 475–484., doi:10.1055/s-0029-1202821.

Burzynska, Agnieszka Z., *et al.* "The Dancing Brain: Structural and Functional Signatures of Expert Dance Training." *Frontiers in Human Neuroscience*, vol. 11, 2017.

Chatterjee, Dr. Saikot, *et al.* "A Comparative Study on Balance and Flexibility between Dancer and Non-Dancer Girls." *IOSR Journal of Sports and Physical Education*, vol. 1, no. 5, 2014, pp. 36–40.

Hwang, P W, and K L Braun. "The Effectiveness of Dance Interventions to Improve Older Adults' Health: A Systematic Literature Review." *Advances in Pediatrics.*, U.S. National Library of Medicine, 21 (5), 2015, pp. 64–70. Available at: www.ncbi.nlm.nih.gov/pubmed/26393993.

Koutedakis, Yiannis, and Athanasios Jamurtas. "The Dancer as a Performing Athlete." *Sports Medicine*, vol. 34, no. 10, 2004, pp. 651–661.

Lung, C. -W., *et al.* "The Differences in Gait Pattern between Dancers and Non-Dancers." *Journal of Mechanics*, vol. 24, no. 04, 2008, pp. 451–457.

Malkogeorgos, Alexandros, *et al.* "Physiological Elements Required by Dancers." *Sport Science Review*, vol. 22, no. 5-6, Jan. 2013.

Redding, Emma. "Dancers: Fit Bodies?" *International Symposium on Performance Science*, 2013, pp. 5–10.

Sil, Pintu. "Static Balance and Flexibility of Teen Aged Yoga Students and Bharatnatyam Dancers: A Comparative Analysis." *International Journal of Research & Review*, vol. 3, no. 3, Mar. 2016, pp. 89–91.

Silveira, Michelle Silva da, *et al.* "Static and Dynamic Balance in Ballet Dancers: a Literature Review." *Revista Brasileira De Hematologia e Hemoterapia, Associação Brasileira De Hematologia e Hemoterapia*, 20 (3), 2013, pp. 229–305. Available at: www.scielo.br/scielo.php?pid=S1809-29502013000300016&script=sci_arttext&tlng=en.

Stretching for Dancers Available at: www.iadms.org.