

Dancing and Health

Article Reviewed. Keogh, J.W.L., et al. 2009. Physical benefits of dancing for healthy older adults: A review. *Journal of Aging and Physical Activity*, 17, 479–500.

Proposed benefits of resistance training, balance drills and aerobic exercise include improvements in muscular strength, muscular endurance, body composition, cardiovascular fitness, and functional independence in activities of daily living, along with reduced risk of falling. However, much less is known about the health benefits of dancing for the senior population. Many different forms of dancing may be quite appealing to a range of older individuals of various ages. In addition, dancing may promote social interaction, a sense of belonging to a community and long-term dancing compliance among older adults.

Keogh and colleagues' comprehensive study reviews 15 training studies and three cross-sectional investigations (i.e., an observation of the senior population at a specific point in time) of apparently healthy adults (>60 years of age). The forms of dancing include ballroom, line dancing, folk dancing and some traditional dance forms from certain cultures, including Korean, Argentine tango, Turkish folkloristic, Greek and Caribbean. The results of this original investigation show that dancing can improve aerobic power, lower-body muscular endurance, strength, flexibility, balance, agility and gait speed for older males and females. It will also reduce cardiovascular health risk and can be central in the prevention of falls.

Practical Application. While involving special populations in more health-promoting activities, the idea of adding dance steps and music to a session may be productive.

Mary Wykle's notes:

In reviewing this article, the comparison of advantages of dance upon health for the senior population is not addressed when the dance steps are performed in the pool. The following synopsis of the impact on health can be translated to the pool and perhaps with greater benefits. Much is known about the effect of water immersion on cognitive performance (Bressel) yet an understanding of the impact on cognitive response to water immersion is unclear. It has been shown that healthy adults tend to make few cognitive errors while immersed in chest-depth water as compared to land. Immersion has also been shown to increase blood flow to the brain and in limited studies has shown an improved impact of cognition to include dementia. (Becker, B.) Looking at the points provided below, think of translating to a pool session and intertwine with a land dance program. Seniors will improve strength, coordination, agility, and cognition (memory of steps) when practiced in both mediums.

Dancing and Health provides an overview of the role the many types of dance can play in the physical activity of the senior citizen. This is important because with age, typical physical activity tends to decrease often because of chronic conditions such as osteoarthritis, cognitive decline, and solitary living leading to a decrease in their Quality of Life and ability to perform Activities of Daily Living. According to Kattenstroth, "During aging sensorimotor, cognitive and

physical performance decline, but can improve by training and exercise indicating that age-related changes are treatable...Dancing is increasingly used as an intervention because it combines many diverse features making it a promising neuroplasticity-inducing tool." When dance is compared to conventional fitness activity, it was found that it led to larger volume increases in more brain areas, including the cingulate cortex, insula, corpus callosum and sensorimotor cortex. (Rehfeld)

Dance as an activity in many senior centers provides a social outlet where music, movement, and comradeship come together. Adding music is an important component as music impacts every area of the brain and has a powerful psychological impact on human beings. Music provides a rhythm and rhythm influences perception and thinking along with all movement. Rhythm has its own unique language and coordinates movement and emotion in human beings, especially seniors. This is true regardless on the type of dance as mentioned in the review above.

The movement in dance along with music provides a continuous learning process. Examining movement in ballroom dance should be introduced different from traditional movement patterns. In ballroom dance, the "lead" begins on the left foot and usually with a backward step. This is opposite of common movement patterns directly related to gait. This is the beginning of new movement patterns and includes balance, a varied movement pattern, coordination and agility. In a therapeutic setting, the patient would be the "lead." Dance becomes a potentially powerful interventional approach because of rhythmic motor coordination, balance and memory, emotions, affection, social interaction, acoustic stimulation and musical experience. (Kattenstroth) Dance and cognition are enhanced by adding steps or dances to sessions and requiring patients to recall the steps or dances in the previous session. This is challenging to many seniors as it requires not just recall, but foot placement and accuracy. Pichierra found that "Dance training is superior to repetitive physical exercise in inducing brain plasticity in the elderly."

Planning a dance program includes the elements of dance as described in the Dance Workshop:

- Centering – ability to move, hold, organize yourself around your own physical body.
- Gravity – force that pulls us down toward the center of the earth making it hard to jump.
- Balance – achieving an inner relationship between the points in your body which hold your attention.
- Posture – body alignment – key to balance and movement
- Rhythm – acquired by learning to listen for obvious beat.
- Moving in Space – our bodies are made to move. Space is not empty as air is a tangible element to move through just as water is a tangible element to move through.
- Breathing – in dance it is an expressive tool. Breathing in harmony with movement gives calmness and fluency.
- Contraction – makes the body move in multitude of different ways.

Ideas for adding dance steps in the pool is not always enthusiastically accepted. A suggestion is to start the new step patterns without saying the name of the dance, then adding music.

References:

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