

Social Dance and Health from the Perspective of Sports Medicine and Sports Psychology

Univ.-Prof. Dr. Wolfgang Schobersberger and Mag. Mirjam Wolf, Institute for Sports- and Alpine Medicine & Health-related Tourism (ISAG), Medical University of Innsbruck, Private University UMIT, Hall/Tirol

Positive Health Effects of Dancing from the Medical Point of View

“Movement is medicine”, a slogan, which has been popular in recent years and which from the scientific and medical point of view is basically right. Until some years ago it was believed that physical inactivity wouldn't have any negative consequences, but this approach has been proven wrong. Many studies have proved that physical inactivity has a comparably negative influence on the human body as have other already-known risk factors (smoking as a risk factor for lung cancer, alcohol abuse for various liver-related illnesses, weight gain for cardiovascular and metabolic disorders). Based on those findings, physical inactivity has been identified as a risk factor for various illnesses. The lack of or the insufficient amount of regular physical activities increases the risk for weight gain and weight-related, so-called secondary, problems (Hypertension, Diabetes Mellitus, elevated blood lipids, muscular degradation, arthrosis, cancerous diseases). Therefore, all medical professional associations recommend regular physical activity as part of daily life. Physical activity does not only help to maintain the fitness of the body but also that of the brain. A few years ago, health advice was mainly directed towards strengthening the cardiovascular system, i.e. endurance sports, but nowadays it is known that the combination of endurance sport and strength training, both customized towards the individual needs, will have the best results on physical fitness and prevention. Another scientific finding is that physical activities should start in childhood since shortcomings are difficult to compensate later in life. On the one hand, movement and sport should be propagated as healthy but on the other hand, inactive persons should be motivated and inspired to move more and do sports. Lasting positive health effects will only be sustainable if physical activities are performed regularly.

What does this long introduction about the positive effects of physical activity have to do with dancing? The concept of dancing has various definitions and explanations. They cover the range from “translating inspiration to movement”, dance as a ritual, as a custom, as a performing art, dance as sport and therapy or simply dancing as rhythmic bodily actions to music. Regardless of the different forms of dancing, they all include physical activity. From the medical point of view, a key question should be asked: Is dancing good for your health? What are the health benefits of dancing? Are there differences based on different ages?

Basically, one can state that any form of movement which is practiced over a certain period of time and with a certain intensity is beneficial for the health.

In recent years, some studies about the health benefits of dancing were published in the scientific, medical literature. Albeit differences in researched participation groups and forms of dancing, the following statements can be seen as true:

Dancers, compared to non-dancers in their respective age group have:

- A better cardiovascular fitness
- A better dynamic balance
- More torso power

- A higher bone mineralization

Regular dancing will lead to:

- Reduction of an elevated Body Mass Index (BMI) with youth and adults, including a decrease of fat mass and triglycerides
- Reduction of the risk of overweight and adiposeness amongst youth
- Increase of the endurance capacity of the cardiovascular system
- Increase of muscular efficiency and stamina of torso and legs
- Better balance when walking and improved flexibility
- Reduction of risk of falling with older people

Literature:

Fong Yan A., Cobley S., et al.: The effectiveness of dance on physical health outcomes compared to other forms of physical activity: A systematic review and meta-analysis. *Sports Med* 2018; 48:933-951

Justin W.L., Kilding A., et al.: Physical benefits of dancing for healthy older adults: a review. *J Aging and Physical Activity* 2009;17:479-500

Mansfield L., Kay T., et al.: Sport and dance interventions for healthy young people (15-24 years) to promote subjective well-being: a systematic review. *BMJ Open* 2018;8:e020959 doi:10.1136/bmjopen-2017-020959

Positive health benefits of dancing to improve mental well-being

Recent years have seen a shift from health being defined as the absence of disease or infirmity towards health as 'a state of complete physical, mental and social well-being' (WHO, 1946). This results in the interest to research the influence of dancing towards health as a whole.

One on the hand, dancing can serve as a way of therapy which is already used in various clinical areas. For example, some empirical studies have proven a positive effect of dance therapy towards emotional disorders like depressions (Koch, Morlinghaus & Fuchs, 2007). On the other hand, dancing (as a past-time activity) can improve both physical and mental well-being. The focus lies on the salutogenesis, i.e. focusing on factors that support health and well-being rather than diseases. (Antonovsky, 1997).

The positive health benefits of dancing have already been shown in some empirical studies. Dancing consists of various parts that will contribute to those benefits. Music for example does not only have an influence on a subjective level, but also on vegetative reactions like blood pressure, respiration, body temperature, skin conductance, muscular tension and intestinal movement. Furthermore, dancing is a means to establish contacts and to create social integration. Movements in a dance form support the sense of community and group affiliation (Kosellek & Kosellek, 1993) and will consequently lead to a stress reduction (especially with females) (Ditzen, Neumann, Bodenmann, von Dawanes, Turner et al., 2007). An explorative study (Quiroga Murcia, Kreutz, Clift & Bongrad, 2010) found that dancing has an influence on the well-being at various levels. More than 90% of the respondents stated that dancing improved body awareness and balance and lead to a good mood.

Feelings of happiness and buoyancy arise and through dancing the burden of a day can be released and will therefore lead to relaxation. Emotional benefits are emphasized, and a general increase of positive emotions and a decrease of negative emotions can be identified.

An overview study (Schwender, Spengler, Oedl & Mess, 2018) found that dancing has positive effects on other aspects of well-being. Qualitative studies found that children and youth experience positive effects on body-related perceptions, self-confidence, self-esteem, self-image and self-awareness. For adults, a strengthening in self-image, self-confidence, self-efficacy, body awareness and self-esteem could be shown. Quantitative studies show improvements in body-related perceptions for both children, youth and adults.

In conclusion, it has to be stated that albeit some positive findings, the evidence for those singular, positive effects is still insufficient. Due to the low number of studies about individual constructs and inconsistent findings as well as methodical flaws, further studies (e.g. with a larger sample or active reference groups) will have to be conducted in order to have an integral knowledge about the influence of dancing on the well-being.

Literature:

Antonovsky A.: Zur Entmystifizierung der Gesundheit. Tübingen: Dgvt-Verlag, 1997

Ditzen B., Neumann I.D., et al.: Effects of different kinds of couple interaction on cortisol and heart rate responses to stress in women. *Psychoneuroendocrinology* 2007;32:565-574

Koch S.C., Morlinghaus K. et al.: The joy dance: Specific effects of a single dance intervention on psychiatric patients with depression. *The Arts in Psychotherapy* 2007;34:340- 349

Kosellek I. & Kosellek R.: Tanz als ganzheitliches Therapieangebot: Praxiserfahrung und Grundlagen. München: Pflaum, 1993

Quiroga Murcia C., Kreutz G. et al.: Shall we dance? An exploration of the perceived benefits of dancing on well-being. *Arts & Health: An International Journal for Research, Policy and Practice*, 2, 149-163, 2010

Schwender T., Spengler S. et al.: Effects of dance Interventions on aspects of the participants' Self: a systematic review. *Frontiers in Psychology* 2018; 9:1130. doi:10.3389/fpsyg.2018.01130.