## Ballroom dancing, Stroke and Body Image

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Stroke is an illness characterized by the acute beginning of a neurological *deficit* (decrease in function) which persists for 24 hours and affects the nervous system, causing a disturbance in the blood flow to the brain (European Stroke Initiative (EUSI), 2003; Rowland, 2002), and it can be categorized into two types: the transient ischemic stroke (or mini stroke) and the hemorrhagic stroke (intra-cerebral hemorrhage). Among the risk factors for stroke are: diabetes, hypertension, old age, race, tobacco use, elitism and sedentariness.

The symptoms vary and include weakness in the arms, legs or face; vision loss, sensation of "shadows" or "curtain", temporary blindness or double vision; numbness or loss of senses; space disorientation, apperception; speech problems, convulsions or coma resulting from growing hematomas in the brain. Other symptoms include difficulty thinking logical-mathematical thoughts, reading and the acquisition of new knowledge, excitation, irritability, lack of initiative, apathy, aggressiveness, lack of inhibition, difficulty ingesting food (EUSI, 2003).

In most cases, strokes can limit the functional performance of a person, affecting his/her motor skills, as well as their personal and social relationships, and it is necessary to be attentive to the physiological and psychological factors which may be related to the clinical condition of a person who has had a stroke (Marcucci, Cardoso, Berteli, Garanhani, & Cardoso, 2007).

In this context, ballroom dancing comes up as a possibility for preventive and recuperative activity for the person who has had a stroke, making it possible for improvements in one's balance, motor coordination and memory. Its practice assists in the movements of the joints, flexibility, muscular strength and bodily perception (Reid, 2003).

According to Schilder (1999, p.7), "body image is the mental image of one's body, that is, the way it presents itself to that person". This term denotes that we are not dealing with a mere sensation or imagination. It also means that, although it comes to us through our senses, it is not a feeling."

It is noteworthy that, to this author, one of the components of body image is the physiological aspect, which is something that can be drastically modified. According to Head and Holmes (1911) apud Schilder (1999, p.8), "an injury in the cerebral cortex makes it impossible to make any recognition of posture or of location of a point stimulated in the part of the body which was affected". However, the author highlights that "by means of continuous position alterations we are always building a postural model of ourselves, which changes constantly. Every new posture, or movement, is registered in this plastic scheme, and the cortical activity creates a relationship with every new group of sensations evoked by the altered posture".

According to Tavares (2003), the axis directing one's body image are the bodily sensations, which relate directly to body movement. This provides the individual with the contact with his/her mental processes - both the conscious and unconscious ones – increasing his/her knowledge of other people's as well as his/her body parts, in addition to the formation of his/her body identity.

Honori (2007) asserts that the professional ballroom dancer work directly with the bodies of the people who practice it, interfering in the conception and the representation they have of their own bodies. Ballroom dancing also teaches those who practice it to control anxiety, to lead (if male), or feel the lead (if female), and recognize the partner's touch, the sensations of the body, the touch.

Ballroom dancing improves self-esteem, socialization, personal relationships, knowledge of one's own body, agility, spacial perception, leisure, concentration, motor skills, equilibrium; both the psychological and physical aspects. It intensifies respect among people and contact with others (touch), decreases stress, brings couples close together, keeps loneliness and depression at bay, reduces shyness and improves physical conditioning (Reid, 2003). As such, it is clear that dancing makes body work possible, which will maintain relations with the three dimensions of body image: physiological, social and libidinal.

Therefore, this study analyzed the relationship between body image and the benefits of ballroom dancing in a person who has had a stroke.

The study, characterized as a case study, was composed by a person who had had two strokes and the medical team (neurologist, speech pathologist and cardiologist) responsible for the multidisciplinary treatment of the patient. The subjects were invited for an interview and the ones who were willing to participate signed a Free and Clarified Consent Term. All interviews were carried out six months after the second stroke, a time in which there were interventions from all members of the medical team.

This work was submitted to the Ethics Committee of Research of the Federal University of Juiz de Fora – MG, and approved under protocol number 0129.0.180.000-10.

The people interviewed were asked about the process of recovery of this patient during this period, wherein the following themes were approached: patient's initial profile, i.e., his health status when the treatment began; difficulties during recovery; improvements observed during the recovery. The people interviewed were told to answer which improvements were seen in the physiological, psychological and social aspects that would be related to the practice of ballroom dancing. For the data analysis, we have chosen Bardin's Content Analysis (2008).

The patient was a 64-year-old male who attended ballroom dance classes twice a week, of one hour each. The patient made movements such as frontal, lateral dislocations, spins; working the posture of his torso, legs, feet and head, as well as leading, and hand and left arm positioning so as to keep his posture. Besides those mentioned above, his hearing ability, motor coordination, limb support, attention to the rhythm and the moves of the dance, his memory and agility were worked on. Partner changes, contact with the other students and perception of the body in space were stimulated.

Through the analysis of the interviews with the medical team and the patient himself, we can demonstrate a significant improvement of the physiological, psychological and social components. All of the testimonies here reflect the thoughts of the people interviewed, regarding the benefits observed through ballroom dancing, that is, the accounts of the improvements noticed by them regarding the practice of the dance.

Most of the accounts demonstrated an expressive improvement of the patient's psychological and social components, a fact observed by means of the improvement of self-esteem and motivation:

"The patient has improved a lot. I noticed from what he said how ballroom

dancing has helped to balance him [emotionally]." - Neurologist "My balance and my memory have improved. I am more motivated and feel pleasure in being dancing. My wife has noticed I am in a better mood now." -Patient

Another recurrent point in the testimonies demonstrates the improvement in the physiological component, mainly of the motor skills and memory:

"Ballroom dancing may be a great help in the process of improving the patient's speech since it helps his performance in motor skills and memory." - Speech Therapist

"With the patient's adhesion to the treatment and his awareness of the treatment and of the disease, the response was positive in terms of improvements in the speech, the motor deficit and self esteem. - Cardiologist

These accounts point to an important relationship between human physical activity, body consciousness and self-knowledge in the improvement of the components related to one's body image. In this case, we can notice a strong influence of dance in the improvement of self-esteem, relationships with other people, memory and motor control. Schilder (1999) says that the construction of body image is strongly related to the relationship with others, which constitutes the presence and influence of the social aspect on the formation of body identity.

According to Lovo (2006, p. 105) "professionals who work assisting others with their bodies and who often use their own bodies during the intervention, almost always present the intuitive knowledge and experience of the issues which involve the relationship between body image and sensorial and motor impairments. Nevertheless, many times the theoretical references may significantly contribute to clarify these issues and may open new perspectives of "looking" into human relations and interactions. So, when speaking of the relationship between dancing and body image, this work is an important tool for the professional who works with his/her body and can provide a theoretical basis for that professional's work. We have concluded that ballroom dancing is an important tool in the treatment of a person who has had a stroke, providing many benefits and contributing to the holistic growth of the individual. It contributes to the process of a person's rehabilitation, such as improvements in the physiological, psychological and social components. As such, ballroom dancing is an important tool for the construction of one's body identity.

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