

Psychological Effects of Dance and Movement at Adulthood – Preliminary Research –

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Abstract

Introduction: *It is widely accepted that dance and movement have positive effects over one's wellbeing. Body movement is strongly connected to internal feelings; therefore altering the movement behavior would lead to psychological changes. In addition, physical exercise will improve health and facilitate personal development. The research over the therapeutic effects of dance and movement will be based on this preliminary research.*

Objectives: *The main objective is to highlight the effects of dance and movement on several psychological dimensions: body image, verbalization of emotions, self-esteem, anxiety, stress and body awareness. For achieving this goal, the study involved 100 subjects aged 25 to 57 who were divided into two groups (54 subjects who practiced dance and movement, and 46 who did not). The second objective was to validate an instrument which can measure the psychological effects of dance and movement.*

Methods: *The questionnaire entitled „Psychological effects of dance and movement” was constructed specifically for this research and it was validated by calculating the Cronbach-Alfa index. The methodology is based only on a quantitative research. As a consequence, the subsequent aim is to illustrate the qualitative and also the therapeutic perspective of dance and movement.*

Results: *The results show that several psychological dimensions have been improved due to practicing dance/movement. Most of the psychological dimensions tested in the questionnaire resulted in $p=0.000 < p=0.005$, which means that the entire hypothesis is accepted.*

Conclusions: *The result of SPSS descriptive analysis and the psychological interpretations of the data revealed that body image, the ability to communicate emotions, self-esteem, anxiety and stress levels and body consciousness were positively influenced by practicing dance and movement.*

Keywords: *dance, movement, body-mind connection, emotions*

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I. Introduction

The present research aims to answer a set of questions regarding the habitual practice of dance and movement. One of the questions is whether it is true that dance and movement have a positive impact on one's body image and on the ability to communicate emotions – in other terms, do dance and movement truly improve human communication and do they enable assertiveness regarding the expression of emotions? Does the practice of dance and movement influences the development of self-respect and the reduction of stress and anxiety levels? Are dance practitioners able to develop coping strategies and use them in stressful situations? Does the practice of dance and movement impacts the ability to be aware and in control of our own body? Our research started from the observation that every human being exercises, more or less, and sometimes dances without even being aware of the beneficial effects that the constant practice of dance and movement may have. One of our research goals is to find whether this effect could be brought into awareness.

Movement is the core of life. We come to life in movement, not standing still. (Sheet-Johnstone, 2005). Developing the idea stated by Johnstone, gradual development of every human being and fundamental learning are both achieved primarily through movement and later through language. Meaning, children are not preverbal so language is post-kinesthetic. (Sheet-Johnstone, 2005).

An individual shows his emotions through his own body, which is the tool of his self-awareness (Albu, 2006). During human evolution, the way people move has changed. The changes in awareness which have been taking place in human society ever since the pre-historic cultures are closely connected to the changes in movement recorded over time.

People create their moves from the internal feelings that are connected to free forces. (Siegloch, 2001) The body needs to be considered an efficient and fine tool because its movement potential represents the fundamental criteria of its functionality. The fundamental meaning of the body is being a concrete message: a place where identity coherence between the dancer and what he/she communicates takes place. (Șerbănescu, 2007)

It is considered that dancing plays an important role in the individual's process of achieving authenticity. This process refers to developing a congruency between body, mind and spirit. Dance is about the human body and about movement. However, movement cannot be considered anymore the essence

of what is called "dance". Nowadays, the focus is not on the movement but on the ontology of presence. To be present represents the choice of replacing the pleasure of just watching the dance or the dancer with the intention to connect what we see with our personal experiences in order to find the answers to our personal questions. It is about changing pleasure with knowledge. (Șerbănescu, 2007)

Using body as a therapeutic and cathartic tool is an ancient tradition in different cultures. In many primitive societies, dance was a basic and necessary action with an essential meaning just like eating or sleeping. It offered different modalities of self-expression and emotional communication and it was considered a way of connecting with nature. Dance rituals accompanied the major changes in human life (birth, marriage, death), thus they were promoting human integrity – both personal integrity as well as integrity as a social value. (Levy, 1988)

Dance and movement therapy (DMT) uses dance/movement as healing tools that facilitate the process of unlocking the expressive and impressive potential of the body (Mitrofan, 2005). The main assumption of DMT is that body movement mirrors the internal feelings; consequently altering the movement behavior can lead to psychological changes. Thus, DMT promotes physical and psychological health while its main purpose is to assist both healthy and dysfunctional individuals in the process of regaining the significance of their life and the harmony between their body, mind and spirit (Armeniox, 1998).

II. Methods

Our main goal is to explain the variability of different psychological dimensions connected to the practice of dance and movement, using the independent and dependent variables. The independent variable has two values: practicing or non-practicing dance or other type of movement. The dependent variables refers to body image, the ability to communicate emotions, self-esteem, level of anxiety, level of stress and the consciousness of body.

We assumed the following hypothesis:

1. Individuals who practice dance/movement communicate their emotions more efficiently than those who don't dance or exercise in a meaningful way.
2. Individuals who practice dance/movement have a more positive body image as compared to those who don't practice.
3. Practicing dance/movement reduces the level of anxiety.

4. Dance/movement reduces the level of stress.
5. Individuals who practice dance and movement show greater self-esteem than those who don't.
6. Individuals who practice dance/movement are more aware of their body than individuals who don't practice.

In this research we have used the experimental design of independent groups – *t test for independent groups* from the SPSS Statistics Software version 18. We tested the independent variable which takes two values (practicing or non-practicing dance/movement) on two independent groups (one group which includes participants who practice dance and movement and the other which includes subjects who don't practice dance and movement).

Practicing dance (tango, salsa, contemporary dance, belly dance, etc.) or other types of movement (gymnastics, aerobic, fitness, stretching, etc.) refers to consequent sessions of training dedicated to dance/movement, for a minimum of two days per week. In this category we don't include walks or contact sports (boxing, martial arts, etc.)

Self-esteem refers to an emotional and global self-evaluation of one's will and personal value. Anxiety is characterized as an emotional state of psychic tension, irritability, lack of faith in one's strengths and inability to assume risks, autonomous reactions and other psychosomatic symptoms. There are many causes of anxiety; however, in the present research the focus is on the methods through which individuals manage to control their emotions. We are also concerned whether the practice of dance and movement truly influences the level of anxiety. Stress is defined as an environmental factor which provokes an abnormal reaction in the human organism. The level of this factor depends also on the coping strategies that are used by the stressed person. The psychological dimension of body awareness is characterized by the level at which the individual is being aware and in control of his own body.

The test sample of this research was extracted from an adult population of Romanian citizens aged 25 to 57, with various professional backgrounds, who come from different Romanian cities like Ploiesti, Bucharest, Cluj, Pitesti, Ramnicu Valcea, Busteni. There were involved 100 subjects divided into two groups: one group of 54 subjects who practice dance and movement constantly and another one including 46 participants who don't practice dance and movement at all. Subjects from the first group practice different styles of dance and movement, such as: traditional Romanian dances, modern dance, ballet, tango, belly-

dance, contemporary dance, flamenco, salsa, merengue, samba, aerobic, fitness, cycling, yoga.

In addition to test samples and dependent/independent variables, we used the "Questionnaire for evaluation of psychological effects of dance and movement" in the design of our research. For measuring the psychological effects of dance and movement we constructed a research tool which includes six dimensions. Some of the items were adapted from validated questionnaires as is the "Questionnaire of anxiety "C" " (Catell, R.B., 1963), Rosenberg Scale of Self Esteem (Rosenberg, M. 1965), "Body Image Scale" (Medeiros Souto, C. M. R., Ribeiro Garcia, T., 2002).

The "Questionnaire for evaluation of psychological effects of dance and movement" includes 26 statements, and the answers use Likert Scale from 1 to 5, where "1" means "totally false", "2" means "a little bit true", "3" means "partial true", "4" means "almost true" and "5" means "totally true". The subject needs to choose one of the five answers, which fits best in his/her case.

Data was collected in two ways: using the method called "pencil and paper" and online.

III. Results

Research data confirms the hypothesis that underlies it, as we can see below. We used "m1" and "m2" to describe the means of answers chosen by the subjects from the two groups and "t" for the results of the *t test* which shows the difference between the means of a single variable measured on two groups.

✓ We assumed that individuals that practice dance and movement communicate their emotions more efficiently than those who don't dance or move in a meaningful way. This assumption became a certainty as the statistical results show: $m_1=10.13$, $m_2=12.80$, $t=-4.396$, $df=98$, $p=0.000$. It is statistically accepted that the ability to communicate emotions is more developed in individuals who practice dance and movement compared to those who do not ($p=0.000 < p=0.005$).

✓ We assumed that subjects who practice dance/movement have a more positive body image compared to those who don't practice. Statistical results showed that this hypothesis is true: $m_1=11.04$ and $m_2=13.52$. The result of the *t test* was -4.767 , $df=98$ and, again, $p=0.000 < p=0.005$.

✓ The assumption that practicing dance and movement reduces the level of anxiety is true, as the statistical results show: $m_1=9.61$, $m_2=12.74$, $t=4.505$, $df=98$ and $p=0.000 < p=0.005$.

✓ The hypothesis that dance/movement implies

a diminished level of stress on individuals who practice it regularly can be accepted ($p=0.004 < p=0.005$) - $t=2.933$, $m_1=10.06$, $m_2=11.67$ and $df=98$.

✓ We assumed that the self-esteem of individuals who practice dance and movement is higher than the self-esteem of those who don't practice. Statistical results showed that this assumption is true: $p=0.000 < p=0.005$, $t=4.795$, $m_1=2.30$, $m_2=3.54$.

✓ The results of the descriptive analysis of SPSS

show that individuals who practice dance and movement are more aware of their body than individuals who don't practice. This statement is statistically verified ($p=0.002 < p=0.005$): $t=-3.198$, $m_1=8.41$, $m_2=10.26$ and $df=98$.

In conclusion, constant practice of dance/movement has positive psychological effects on those who practice it. Every hypothesis will be approached separately (*Table 2. Group Statistics*)

Practice of dance/movement		N	Mean
Body awareness	Yes	54	8,41
	No	46	10,26
Body image	Yes	54	11,04
	No	46	13,52
Ability to communicate emotions	Yes	54	10,13
	No	46	12,80
Self-esteem	Yes	54	2,30
	No	46	3,54
Stress level	Yes	54	10,06
	No	46	11,67
Anxiety level	Yes	54	9,61
	No	46	12,74

Table 1. Group Statistics

Regarding the variability of dependent variable which is also defined as the *size effect*, we obtained different results, each one depending on the psychological dimension that we had focused on calculating the *omega squared index* (ω^2). (*Table 3. Values of Omega squared index by Cohen*).

Cohen states that an omega squared index equal with 0.01 shows a low association between the independent and dependent variables, values of 0.06 or more show a medium adjunction, while 0.14 values or more indicate a high adjunction.

Psychological dimension	Low adjunction	Medium adjunction	High adjunction
Body awareness	-	-	0.10
Ability to communicate emotions	-	-	0.15
Self-esteem	-	-	0.18
Anxiety	-	-	0.16
Stress	-	0.07	-
Body image	0.03	-	-

Table 2. Values of Omega squared by Cohen

Internal consistency was calculated using the Cronbach Alfa index and we obtained a 0.897 value that can be considered „excellent”, as Kline (2005)

affirms. We had calculated the Cronbach Alfa index for every dimension of the questionnaire and we have obtained values ranging from ”very good” to

”relatively reduced”.

In conclusion, the hypotheses we assumed were all accepted and they can be connected with the specialized literature.

IV. Discussions

The acceptance of our hypothesis is claimed by the biological, physiological and psychological factors. It is expected for dance/movement to have a positive impact on the individuals who practice it because these activities involve all dimensions belonging to the human being.

This research showed that the level of stress is lower when practicing dance/movement. In a similar way, Iris Brauning, sustained by Marian Chace Foundation, in her study on 162 subjects, concluded that dance and movement diminishes stress and improves the quality of life.

Elena Mannheim demonstrated that dance and movement lead to an essential improvement in the quality of life, contributing to a lower level of anxiety and depression and an enhancement of self-esteem. Our research also shows that dance and movement influences the anxiety level in a positive way.

Sarah Rodriguez studied the effect of dance and movement therapy on fibromyalgia patients from a qualitative perspective. Through her thesis, she showed that the ability of self-expression through body language and nonverbal communication can help the individual become more aware of his emotions and his maladaptive mechanisms. This study suggests that self-perception and coping mechanisms can be improved through bodywork. (Rodriguez Cigaran, 2005) In the same way, the present research showed that dance and movement improves self-awareness.

These studies and several others motivated us to go beyond the psychological effects of dance/movement and study the therapeutic effects of these activities, from a qualitative perspective.

V. Conclusions

We consider that the practical usefulness of our research is eloquent. For understanding this aspect, we mention one characteristic of the Romanian communism period during which a ten minutes break per day was imposed for physical exercises in schools and manufacturing plants. Today, some employees use their lunch break to do dance or other sports. Also, it is a well-known fact that people are more interested in their bodies so they practice more sports in order to keep themselves fit. Therefore, the positive effects of dance/movement start to be acknowledged by

individuals. Also, the responsible companies where employees work until late at night invested in gyms in order to offer their staff the opportunity to relax or to work out and release their stress. We consider that the positive effects produced by exercise can be best observed through the diminished level of conflicts in the relationships between employees.

Therefore, dance/movement should be a part of our daily life because every human being needs to be aware of himself/herself in order to explore his/her resources, not only to criticize himself/herself. We need to be more aware of our emotions and thoughts in order to be able to fight our wounds and our diseases. In other words, we invite you to reflect more on your body and to acknowledge the benefits that you can obtain physically, psychologically and spiritually through the use of dance/movement as relaxation or as therapeutic tools.

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