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Implementation of Dance therapy elements in pyshical education classes in order to reduce stress in schoolchildren

PHD THESIS SUMMARY

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CONTENT

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CHAPTER 1. INTRODUCTION AND ARGUMENTATION OF THE THEME

Motivation for choosing the theme

Being a former practitioner of gymnastics, rhythmic gymnastics and dance, as well as a graduate of plastic arts, being familiar with both art and sport, I considered that proposing an action system applied to students by combining them would be useful for reducing stress and harmonizing the whole body - both physically and mentally.

Due to the fact that in modern society technology is advancing fast, man, through his desire for self-reliance, or his desire to overcome others, is constantly under stress. Sport seems to be the key to health, but not all people have the opportunity, or the desire, to practice it. Therefore, a form or combination thereof must be found to be accessible to all, in a fun and enjoyable way. Analyzing various forms of art, we have come to the conclusion that dance, be it professional, maintenance, leisure, educational-formative, spectacular or therapeutic, in the many forms under which we can find it, represents the expression of human activity, being in the a continuous dynamic of what man creates for himself. Dancing is sport and art, exactly what we need for the harmonious relaxation of the body.

Recent studies

Numerous studies carried out on students show positive changes in their behavior. Italian researchers investigated the role of dance in the educational process. Because dance reflects either the physical and mental aspects, or the emotional and cognitive aspects, it can teach children to discover their untapped potential, raising their self-awareness. In addition, the flexibility that dance brings allows us to connect primarily with music, but also with other disciplines, thus facilitating their connection and contributing to a global vision of knowledge (Candela et al., 2013). The article by (Panagiotopoulou, 2018), highlights the importance of dance therapy in the school environment. It is based on a research conducted in two schools in Greece. The purpose of the research was to determine if dance therapy could contribute to the development of students' social and emotional abilities. The data obtained showed that dance therapy allows students to develop their potential

and overcome their personal difficulties. German researchers investigated how emotional and collaborative connections of adolescents change using dance in school. Mutual collaborative relationships have had positive changes in boys, so the findings suggest that they need to be encouraged in academic co-operation to develop future collaborative connections (Zander et al., 2014).

In relation to social dances, American researchers (Lakes, 2016), concluded that dance in pairs has benefits over self-esteem and the more often this type of dance is practiced, the better the results of individuals will show. Experienced dancers reported significantly greater physical, cognitive and social benefits than beginner dancers. They also showed signs of improvement in mood. Traditional Scottish dancing can have the effect of delaying the signs of aging of functional abilities in women, and simple physical activity can help maintain a correct posture. In both groups, body balance and composition remained the same (Dewhurst et al., 2014). In another study, Salsa dance proved to be effective for controlling posture in adults (Granacher, 2012). A study from the University of Washington, St. The Louis School of Medicine has shown that the Argentine tango has been more successful in improving mobility in Parkinson's patients than in fitness (Hackney et al., 2008). Another subsequent study showed the same result using Tai Chi (Hackney et al., 2008). A study of older women showed that those who were in the dance group had stronger legs, were more agile and could travel longer distances compared to those who were in the golf, swimming or fitness groups. (Dougall, 2008). As an aerobic exercise, dancing lowered blood cholesterol levels (Dougall, 2014). In general, dance increased muscle strength and flexibility, improving overall movement. Also, the balance, coordination and posture through which the back pain was reduced (Ward, 2008) were improved.

The effects of dance therapy and music therapy on the body

Music therapy means the use of music to improve health and functional outcomes. Music therapy is an artistic therapy, which consists of a process in which the therapist uses music and all its facets - physical, emotional, mental, social, aesthetic and spiritual to help clients improve their physical and mental health. Music therapists aim to improve cognitive functioning and improve motor skills, emotional development, communication, social skills and quality of life and emotional development using active musical experiences, such as improvisation, composition, listening and discussing music in order to reach treatment-related goals. Music therapy is used in some hospitals

or schools (Smith, 2011). Music therapy is beneficial for anyone physically and mentally. This reduces anxiety, aids memory and stimulates brain activity. Therapists use their techniques to help patients of any kind reduce their stress before and after surgery. One study showed that children who listened to music during an intravenous injection showed less stress than children who did not listen to music during this procedure (Novotney, 2013). Similar studies have been performed on patients diagnosed with various mental disorders such as anxiety, depression and schizophrenia. After completion of the intervention program, the mental health of the patients was significantly improved (McCaffrey et al., 2011). Music therapy has many benefits that contribute to maintaining children's health. The advanced technology that can monitor cortical activity, provides insight into how music can produce changes in the brain during the production and perception of musical stimuli. Music therapy, when used with other rehabilitation methods, increases the success of the sensory, cognitive and communicative rate (Stanley et al., 2012). Music has many calming, soothing properties that can be used as a sedative in the rehabilitation of patients of any kind. For example, a patient with chronic pain may lower their stress level and may be distracted by pain, focusing on music (Barksdale, 2006).

In a study by Giovagnoli (2013), entitled Complementary Therapies in Medicine, the effects of active music-therapy (AMT) in knowledge and behavior in chronic vascular encephalopathy are described. Cognitive performance, mood, interpersonal interaction and perceived skills were assessed using neuropsychological and psycho-behavioral measures. According to AMT, the cognitive profile was improved by attention, visuomotor coordination and verbal and spatial memory. These positive changes were confirmed after 3 months. Also, an increase in interpersonal interaction and consistent anxiety reductions were observed (Giovagnoli et al., 2013). In an article by Hackett, we find that music therapy provides conditions that can intentionally stimulate communication and to increase opportunities for social interaction. Trend analysis using the Statistical Process Control diagrams proved the above hypothesis in children diagnosed with autism. Musical therapy is used in children with autism in order to teach the brain other possible ways of responding, which may be useful when they become older (Berger, 2002).

In the article "Fifteen-minute music intervention reduces pre-radiotherapy anxiety in oncology patients", by Lee (2012), the effects of music therapy intervention in reducing anxiety have been investigated in oncology patients. The results showed a statistically significant difference between

the patients from the music-therapy group and the control group. Through music therapy, the level of anxiety has also decreased (Lee et al., 2012) Psychological distress, suffering and negative emotions are often felt by breast cancer patients (Romito, 2013). Italian researchers examined distress and negative emotions with The Emotion Thermometer Tool. It was administered before and after the intervention. The instrument is a combination of visual scale that measures stress, anxiety, depression and anger. In the experiment group, stress, anxiety, depression and anger were significantly reduced. Integrative intervention can be considered useful in reducing negative emotions during chemotherapy, especially anger and depression.

The effects of art therapy on the body

Talking about dance, music, art and how they are used and the connections between them. Art therapy is a creative method of expression used as a therapeutic technique. This may refer to the process of artistic creation itself, or to an analysis of the expression acquired through an exchange of interaction between the patient and the therapist. The psychoanalytic approach was one of the first forms of artistic psychotherapy. This approach involves the process of transfer between the therapist and the client who makes the art. The therapist will interpret the symbolic expression exhibited in the client's art (Edwards, 2004). The British Association of Art Therapists defines therapeutic art as a form of psychotherapy that uses art as a primary mode of expression and communication (Edwards, 2004).

Slightly different from this, the American Association of Art Therapists has defined therapeutic art as a profession of good integrative psychic status and service for people that enriches the lives of individuals, families and different communities through interactive art. In addition, it has been called a creative process and a human experience engaged in a psychotherapeutic relationship (Edwards, 2004). People are always looking for an escape from any kind of disease, and it has been found that art is one of the most common methods. Art and the creative process can help improve many diseases (cancer, cardiovascular disease, influenza, etc.). People can get rid of the emotional effects of diseases by practicing art, but sometimes they cannot express how they feel because it can be difficult to describe in words. During art therapy, people can express their past, present and future experiences. Art can be a refuge for the intense emotions that are associated with diseases, knowing that there is no limit to the imagination and finding ways to express emotions (Stuckey et al., 2010).

The specialists began to study the influence that art has on patients in hospitals and concluded that those who participated in art programs had more vitality and benefited from a more restful sleep. Artistic influence does not mean participating in an artistic program, but studies have shown that painting from a hospital ward representing a landscape reduces the need for painkillers to be administered to patients and they need less recovery time (Stuckey et al. , 2010). Art therapists have conducted many studies to understand why many cancer patients choose to use art therapy. The programs dedicated to the patients helped them to regain their identity apart from the fact that they were suffering from cancer, the emotional pain of the cancer fight was diminished and at the same time they had hopes for the future (Stuckey et al., 2010). Another study showed that those who participated in such activities were expelled faster than those who did not participate, and related to their psyche, emotional distress decreased considerably (Stuckey et al., 2010). Art therapy helps to solve behavioral problems (Cowl et al., 2014), and to improve the quality of life of many people who practice or have practiced art therapy, shows us the results of a study by American researchers (Chancellor et al., 2014) .

In a study by Cortina et al. (2014), with the help of art-therapy, the students presented a significant reduction of emotional and behavioral problems and there was an improvement of 87.5 in the students who showed signs of depression at the initial moment. A study of traumatized children was found and considered useful in a variety of contexts as a treatment regimen for them (Eaton et al. 2007).

After 48 weeks of art therapy, the patients in the experimental group had a significant increase in positive emotions compared to the control group. 80% of those examined gave up antidepressant drugs (Goggin et al. 2012). The term retention, within art therapy, has been used to describe what the client may experience in a trusting relationship between client and counselor (Farrell-Kirk, 2001, cited by Stace, 2014). This term was also assimilated in the art-therapy research with the limitation of a problem related to the visual expression, as a border or the circumference of a mandala (Chambala, 2008). Creating mandalas for symptom regulation is not a new approach in art therapy, numerous studies have been conducted to evaluate their effectiveness (Henderson et al., 2007, cited by Martin et al., 2018).

Recent studies on stress and fatigue

There is limited knowledge about how fatigue develops and worsens and how daily fatigue fluctuations are influenced. Stress has been found to influence fatigue. The level of fatigue and stress during the day seems to "cooperate" in a couple. These associations were very strongly felt when the partners interacted with each other. This information underlines the importance of social factors in fatigue and stress in daily life (Doerr, 2018). The relationship between stress and fatigue factors on musculoskeletal symptoms experienced by radiologists working in clinics and hospitals was examined. According to the complex results of this study, work-related stress, psychosocial stress and fatigue experienced by radiologists have had an impact on musculoskeletal disease in several regions of the body (Lee, 2015). Fatigue is a very common factor in the metropolitan area of primary care, and studies have shown that it mediates the relationship between stress and poor body resistance. Therefore, when stress is strong enough to cause fatigue, it can have negative effects on an individual's health (Maghout-Juratli, 2010). There is a wealth of research that suggests that daily stressors and fatigue can have a significant effect on learning and different cognitive functions in adolescents. It is little known that these effects influence learning and other neurocognitive functions in students with learning problems. The results showed that fatigue and stress had significantly negative effects on learning and cognitive performance of participants (Joosen, 2008).

General purpose and objectives of the research

The present paper aims to analyze the level of stress in students between the ages of 13-14 years, thus reducing the level of stress felt by them by applying dance therapy. In daily life, stress and anxiety can have negative effects on the physical and mental health of man, constantly seeking methods to reduce them through various methods and techniques. Applying artistic techniques improves the results of the students and optimizes their behavior. By applying specific means systems, we aim to modify the dysfunctional negative emotions before and after the dance: stress, anxiety, sadness, guilt. Positive emotions such as self-confidence and self-esteem grow.

Knowing the many therapies that help to achieve the physical and mental well-being of the human being, we chose the intervention through dance as a method of helping in reducing stress and improving the school results for young people aged 13-14. Therefore, we have proposed an action

system, an intervention plan that can be applied in the hours of physical education and sports, using the specific means of dance.

The research stages

Phase I - Documentation - carried out between October 2015 - December 2019 - Analysis of the specialized literature on recent and classical approaches in the scientific knowledge of this topic. The most relevant conceptual and theoretical references were identified and identified, identified in libraries and sites with academic, international and national profile, as well as in international databases (Science Direct, ProQuest, Ebsco et al. M.d.).

Stage II - Formulation of the hypothesis and construction of the intervention program for the preliminary study - carried out during the period April 2016 - May 2016 - After a long period of studying the specialized literature, the second stage of our research consisted in formulating the hypothesis as well as in identification and construction of an intervention program appropriate to the experimental group (the full intervention program can be consulted in chapter 7, subchapter 7.7)

Stage III - Selection of evaluation instruments - carried out during May 2016 - July 2016 - Identification and exposition of techniques, instruments and methods established, validated and representative in recent research of topics similar or close to our work. A few subjects' assessment tools were selected.

Stage IV - Composition of groups of subjects - carried out during September 2016 - The fourth phase of the research consisted in the construction of groups of subjects in order to establish the psychometric coordinates and validate the techniques and the instruments used. The experimental group and the control group for the pilot study were identified.

Stage V - Tests and application of the preliminary study - conducted between October 2016 - January 2017 - Preparation of subjects for the initial tests, performing the initial tests with the EMAS (Endler Scales of Multidimensional Anxiety Assessment) tests, the test of progressive relaxation of the E. Jacobson muscles. , R. Bandler PDE (Emotional Distress Profile), AP2 - attention perception, MA - focus attention, AD- distributive attention, PSI (Psychological Screening Inventory) that measures self-regulation, execution and informational capacity, as well

as conducting preliminary study with application of the intervention program. (The details of the tests and the study can be found in chapter 7, subchapter 7.6)

Stage VI - Final tests of the pilot study - conducted between 1-28 February 2017 - Second test of the subjects at the end of the preliminary study.

Stage VII - Analysis, interpretation and discussion of the data - carried out during the period March 2017 - April 2017 - Collecting and analyzing the results of the preliminary study, comparing the data from the initial and final tests and validating the techniques as well as the tools used in the research.

Stage VIII - Conclusions of the preliminary study and the continuation of the research - carried out during the period May 2017 - August 2017 - Formulation of the conclusions following the pilot study, motivating the continuation of the research, formulating the hypothesis of the actual study, as well as determining the research direction based on the obtained results. at the preliminary study. Building the intervention program for future research based on the results and experiences obtained in the preliminary study.

Stage IX - Organization of groups of subjects - held between October 2017 - November 2017 - Identification of subjects and setting up of the experimental group. Organization of the necessary logistics for the implementation of the long-term intervention program.

Stage X - Conducting the experiment (application of the intervention program) carried out during the period January 2018 - January 2019 - During this period, the intervention program of the personal research took place, the periodic monitoring and verification of the compliance with the requirements involved, as well as the observation and notation of the details. significant appeared during the intervention.

Stage XI - Final tests - conducted during February 2019 - Final training and testing of subjects following the completion of the one-year intervention program, carried out between January 2018 - January 2019

Stage XII-Analysis, interpretation and discussion of the data - held between March 2019-April 2019 - Processing of the results obtained after the tests, statistical analysis and data comparison.

Stage XIII - Finalization of the doctoral thesis - carried out between May 2019-December 2019 - Interpretation of the obtained results and formulation of the research conclusion based on the specialized literature studied, as well as the elaboration of the final form of the doctoral thesis.

Research methods

Throughout our research, we have chosen to be guided by a well-known and widespread research scheme in the research activity. The list of methods used in our research includes:

The method of studying the specialized bibliography (the documentation method) - as a starting point we started with the method of studying the specialized literature that offered us a theoretical basis on which we can build, and which at the same time gave us a direction in the subsequent researches. I studied documents and specialized works both from Romanian authors and from foreign literature with emphasis on the fields of physiology, psychology, education sciences and statistics-mathematics. In our research, it has helped us a lot in collecting and synthesizing professional opinions by consulting specialists in the field of interest, such as psychologists, teachers and even parents of some students.

The observation method - in our paper we used it in order to obtain information regarding the specific psychomotor ability of the students. I used 2 types of observations:

• direct observation of students in the preparation process. The collected information will be recorded in the observation grids.

The experiment method - in our research, we also took into account the possible sources of error and tried to keep the subjects motivated for the continuation of the collaboration, ensuring that they are concentrated when applying the tests.

Statistical-mathematical method

Test Method - A quantitative method used in our research is the test, an instrument that assesses individual psychic abilities or traits, traits that train knowledge or capabilities and enhance their structure. The purpose of using the tests is to gather accurate data and not subject to the researcher's subject or the exact data. The test aims to obtain the consent for the participation in the research and the correct information regarding the purpose of the research and its possible effects. Another important aspect is that the samples are validated psychometrically before being applied in

research. Through the pilot study, or pre-test, the test must be well polished so that the sources of distortion are minimized.

CHAPTER 2. DEFINITION OF THE RESEARCH CONCEPTS

Dance

Dance is a fun activity to promote health that more and more people around the world are incorporating into their lifestyle. Dance for health has become an important factor in the prevention, treatment and management of health (Ravelin et al., 2006). It is not only important for physical health, but it also contributes to mental health and social communication. Dancing is an art learned from many cultures. Dance types may involve bodily movements for expressing inner states (Ward, 2008). Dance is an optimal way to maintain well-being. It has a wide range of physical and mental benefits including: improvement of heart and lungs, increased muscular strength, improved muscle tone, reduced risk of osteoporosis, improved coordination and balance, spatial awareness, improved mental functioning, improved functioning, mental functioning self-esteem (Ravelin et al., 2006).

Most types of dance can be considered an aerobic exercise that reduces the risk of cardiovascular disease, helps control weight, reduce stress and other benefits commonly associated with physical fitness. In addition, studies have shown a positive correlation between dance and psychological well-being (Arts Council England, 2006). A study by Italian researchers shows that dance is a very good exercise for patients suffering from cardiovascular disease, compared to other aerobic exercises such as cycling (Belardinelli, 2005).

Society dances began to appear first in Italy, in the first years of the Renaissance. The popularity of this type of entertainment has quickly passed to the rest of Europe, the United States and around the world. Although many other simpler dances have diminished the influence of social dances, modern dance audiences around the world have begun to regain their popularity. These dances include waltz, Viennese waltz, tango, cha-cha, rumba, samba, mambo, quickstep, jive, swing, flamenco, salsa, and more.

Dance Therapy

Dance therapy is the psychotherapeutic use of movement and dance for the intellectual, emotional and motor support of the body (Ekman et al., 1998). As a way of creative artistic therapies, DT aims at the correlation between movement and emotions (Schore, 1994). Dance has been used therapeutically for thousands of years. Since the beginning of human history it has been used as a healing ritual for diseases, and as an influence for fertility and births. Between 1840-1930, a new philosophy of dance developed in Europe and the United States, defined by the idea that movement could have an effect on movement in that dance is not just an expressive art (Schwartz, H., 1992). There is a general view that dance or movement was created by Jung in 1916 as an active imagination, (Chodorow, 1991), the idea being developed in 1960 by dance therapy pioneer Mary Whitehouse. Tina Keller-Jenny and other therapists began using the therapy in 1940 (Pallaro, 2007). The actual establishment of dance therapy and its use as a profession appeared through the 1950s, thanks to Marian Chance, founder of the Dance Therapy Association (Strassel et al., 2011).

Dance-therapy theory is based on the principle that the mind and body interact. Both conscious and unconscious movement of a person, based on the premise between body and mind, affects the total functioning of the body and reflects the individual personality. Therefore, the therapist-client relationship is partly based on non-verbal cues, such as body language. The movement has a symbolic function and as such it can help to understand the self. Improvisation of movements allows the client to experience new ways of being, and dance - therapy offers a way or channel in which the client can consciously understand the early relationships with negative stimuli through non-verbal mediation by the therapist (Levy, 1988).

Stress

The concept of stress is very often mentioned in recent decades in industrialized societies, most of them referring to the media and organizational groups, but also to informal social groups, sports teams, the family space, in response to various requests (unpleasant events, illness, family incidents). etc.).

The definition of stress belongs to Selye (1974), who was the representative of a physiological approach to this phenomenon: stress appears as an adaptive reaction of the individual to an event that troubles him. In other words, it is not the stressful situation that produces the stress, but the individual reaction to it. Selye identifies three phases in this response: resistance, alarm reaction and exhaustion, each having effects on the individual's psychophysical system (Selye, 2010, cited

by László, 2008). The author also emphasizes the presence of multiple forms of stress reaction, due to sets of causes, distinctive as stressors: personality, situational, social support etc. The most well-known model of stress explanation, the interactive or transactional model was developed by Lazarus and Folkman (1984), representing the phenomenon in context of the interaction between a person and his environment, as an individual's reaction to different situations with which he comes into contact. Therefore, stress is not always with the stimulus or with the response of the person subjected to the stimulus, but is a process in which the person participates as an active agent, influencing the effects of coping with the stressful situation through different cognitive, emotional and behavioral strategies, depending on his abilities to put these strategies in practice (Lazarus & Folkman, 1984).

Fatigue

Fatigue can be defined as a reduction in the maximum capacity to generate muscle strength. This may result from peripheral processes distal to the neuromuscular junction and central processes that control the rate of motoneuronal discharge. During fatigue, reflex inputs from intramuscular receptors may contribute to a decrease in the rate of unloading of the motor unit - a decline that optimizes force output during peak effort (Gandevia, 1992). The bad habits of the nervous system often lead to vicious circles in mental processes. Changing the environment can distract you from negative thoughts. Recovery from mental fatigue is less a matter of correcting metabolism than the formation of vicious habits, emphasizes the author of a study in England (Stiles, 1920). Fatigue needs to be recognized as an important condition and not just a symptom, and can be modified by different measures depending on it (Finsterer, 2014). Fatigue is a universal symptom described by individuals in general as well as by those suffering from various medical and psychological problems such as cancer, sclerosis, depression and anxiety. The debilitating and prolonged nature of fatigue can have significant economic consequences for society (Jason, 2010).

Self-esteem - dimensions

Self-esteem is defined as a dimension that is constantly changing. It is about the perception of its own characteristics that configure its own self. It has in each conception a basis about its value, what situation it has to overcome or what situation it has to face (Tom, 2005). In the broad sense, an applicative sense of self-esteem implies the essential condition of dealing with paranormal and normative crises and problems without discouraging you (Humphreys, 2006). In fact, self-esteem gathers the dimensions of self-confidence and self-respect. There is also talk of involving the acceptance of self in the formation of self-esteem. The aspect of self-esteem concerns two directions: the opinion or feed-back of others (the extrinsic dimension), and the sense of ability, competence in achieving the goals or solving problems by the individual in order to perform the tasks (the intrinsic dimension Humphreys, (2006) .

In the table below we can see the comparison between high self esteem and low self esteem:

High self-esteem vs. Low self-esteem

High self-esteem:

• New situations are received as challenges, not threats

• Independence is highly valued;

• Assumption of responsibilities will be made automatically;

• Active participation in solving new tasks;

• Positive and negative emotions are adequately expressed, they are recognized;

• Assuming the consequences of actions is natural;

• Their own achievements are valued, feelings of pride appear after the success;

Low self-esteem:

• Doubts and frustrations related to their own qualities;

• New responsibilities or tasks are avoided or rejected;

• There is under-appreciation, lack of confidence in one's own forces;

• The consequences of their own actions are not assumed;

• Poor tolerance to frustration, to stress, to group tension;

• Positive and negative emotions are inadequately expressed or denied and are considered a vulnerability;

• The skills and achievements are not correctly perceived, the underestimation appears.

Source: adaptation by Humphreys (2007, p. 42)

Tony Humphreys (2006) offers a profile of young people according to their self-esteem:

- young people with low self-esteem have very protective tendencies towards external challenges, they despise, they are not prepared for a correct evaluation of their own potential, they are perfectionist, inflexible, disadapted and dissatisfied with their own achievements. They manifest complex markings of superiority or inferiority, which is a camouflage of low self-confidence. They have isolation tendencies, have very difficult relationships, have depressive tendencies and become slightly jealous and possessive, victimized, isolated and lonely, have disproportionate reactions to criticism, are unstable behaviorally and emotionally, are demonstrative, narcissistic and have a heightened fear of failure.

- young people with average self-esteem have moderate protective tendencies towards external challenges, they do not always have the feeling that they deserve admiration, love, admiration recognition, they are critical about their own potential. Depending on the acceptance of others, they are cautious, they have low optimism, they practice social comparison often, they seek acceptance abroad, they show envy towards the successes of others and they have low autonomy.

- young people with high self-esteem have minimal protective tendencies towards external challenges. They have no problems in assuming their own personality, they are spontaneous, optimistic, flexible, they show a high independence and they are active both in the profession and in the personal life. They take the challenges as optimal for their personal development, have an open and direct communication, have an increased capacity for self-responsibility and take on the problems or consequences of the decisions taken and are generous.

Self

Adams and Berzonsky (2009) define the self as an important component of personality that is analyzed by several disciplines (psychology, sociology), and involves a range of associated concepts such as self-identity, self-image, self-concept, self-awareness and self-concern (Adams & Berzonsky, 2009). The self can be defined as a multitude of beliefs and images about our own person. Taylor et al. (2001) have shown that the image we create about our own person is a deep part of our personality and means reflexivity, and this image is neither superficial nor changeable.

The social dimensions of the self are described as follows: the concept of self encompasses mental, physical traits, is a mental, central self, its identity or essence is the way in which we categorize our external behaviors and internal states, intimate thoughts being socially valued (Taylor and et al., 1994, cited by Ilut, 2001). Throughout our lives, we wonder "Who are we?" This question can include a wide range of answers, which may differ depending on the crucial moments in an individual's life, which form and reconfigure our own aptitudes, assumed social status, own identity and self-image. The self has two basic dimensions: I - the existential self, a subjective component of the self, which offers a sense of awareness and identity of my own existence and myself - based on objective data that circumscribes physical data, cognitive abilities and personality traits (James, 1980). If, in 1961, the psychologist Goffman (1961), said that the self has two components: self-image - picture of self containing specific data about a person such as physical appearance, accumulated experiences and preferences and self-esteem - evaluative components: axiological assessment and the internalized social judgments of one's personality traits (Adams & Berzonsky, 2009).

Music therapy

Music therapy means the use of music to improve health or functional outcomes. It is a creative artistic therapy, which consists of a process in which a therapist uses all physical, emotional, mental, social, aesthetic and spiritual facets to help clients improve their physical and mental health, especially cognitive functioning, motor skills. , emotional development, communication, sensors and social skills and quality of life, using both active and receptive musical experiences such as improvisation, composition and discussion of music. There is a literary basis for qualitative and quantitative research. Some commonly encountered practices include developmental activities with people with special needs, compositions, listening to music in reminiscence, orientation with the elderly, processing and relaxation, rhythmic training for the physical rehabilitation of stroke

victims. Music therapy is also used in some hospitals, centers, schools and psychiatric hospitals (McCaffrey & al., 2011). The approaches used in music therapy in the field of music education include Orff-Schulwerk, the Dalcroze Eurythmias and the Kodaly method. Models that have developed directly from music therapy are neurological music therapy (NMT), Nordoff-Robins music therapy and the Bonny method - images and guided music (Davis & al., 2008).

CHAPTER 3. A SMALL MONOGRAPH OF DANCE

Evolution from the origins until the present

Dance, like many others, is part of the social life of people, or rather, dance is the most important act of social life. Dance is a continuous rhythmic movement of the body that comes from a human soul. This rhythmic movement is carried by the music. Therefore dance and music form a whole where one without the other would not be as spectacular to the viewer and as beneficial to the practitioner (Terry, 1956).

We would be tempted to believe that a samurai was preparing his fighting techniques by resorting to dance and music. No, dance and music were merely mystical forms, like many arts that the practitioner used in prayers, prayers with which Kami (spirits) were called to participate in military training. Following these incantations, legends say that Yamagugi, forest spirits can participate and even reveal certain secret techniques (Barboș, 2015). Dance was an art practiced in ancient Greece in all social media. Philip of Macedonia (379 BC-336 BC), the father of Alexander the Great, was married to the dancer Larissa, the fifth wife of the seven he had. Philip of Macedonia fell in love with Larissa at a banquet after she performed a dance (Worthington, 2010).

Balanchine and the American ballet

The prototype of the Balinese art is Agon (1957), with bent knees, broken angles with the neck of the foot, with the tendency to project the pelvis forward and to push the hip out. Interruptions, imbalances, speed are elements of the modern type, which reject any expressionist gesture and mimic, in favor of a clean dance, with savvy lines, similar to baroque dances (Joseph, 2002).

Stravinsky's music is what fits here, which cannot be illustrated and an auditory but visual equivalent must be sought for what we hear. It is a big enough effort to create a choreography of such density, variety, craftsmanship and quality displayed in both asymmetry and symmetry. His

music is like a school of rigor. Starting from this, the choreographer will have the courage to approach any score: Mozart, Tchaikovsky, Ravel, Bach, making the rhythm, composition and melodic line visible. Thus, we will see at the dancers not their soul that is difficult to see, but the spark that they will ignite in the eyes of the spectators. Dancers can convey emotions without them living, they are like angels (Joseph, 2002).

Today, Balanchine is a true ballet institution, its works being interpreted by countless companies all over the world. In front of his interpreters he keeps a modest reserve, which brings him closer to Cunningham. He looks at the dancers he considers to be living bodies, and his ideas come while they perform pirouettes, jumps and stretches. It is believed that the Balanchinian style is difficult to carry on, this style being well cultivated as a plant in a greenhouse, and dancers are few and rare who integrate into the band (Guilbert, 2000).

Post-war dance

After 1945 the resumption of international relations became very favorable for the development of dance. International tournaments are advancing and companies from all over the world take part in festivals, especially in Paris, the coveted place of consecration. Starting with this moment, dance flourishes by taking root in various ways in countries where it had not existed before.

The International Dance Festival in Paris, which was born in 1963, animated by Jean Robin, in addition to the superb impetus of dance, highlights a line that demarcates the East-West that corresponded to the split between the two parts of Europe. The arrival of the dictator Stalin, in the Soviet Union in 1924, suddenly stopped the enthusiasm of free dance. The Bolshoi Theater in Moscow, the Mariinski Theater in St. Petersburg, symbols of bourgeois art, seem to have disappeared. However, Stalin is pleased with the bounce of the Mariinsky Theater in Kirov, encouraging topics inspired by Bolshevik ideology. In 1965 the Parisians finally had the opportunity to realize the extent of the regression. This is happening at the Theater du Chatelet, where the revelation of Diaghilev's Ballets took place, discovering Lake of the Swords, the Flames of Paris and Giselle, a tribute to the French Revolution and an exaltation for the Russian folklore: The Fountain from Bahcisarai.

Dance - a movement

Dance can really only be explained by dance. As in mathematics, this is impossible to explain by words alone. The metaphor is encoded, hidden, with multiple meanings. Dancing is a poetry, to the extent that it represents in a limited time and space, a concentrate of large quantities of metaphors and energy in unexpected and multiform episodes. In geography, the encounter between a parallel and a meridian results in a point, and each has its own specific character, which belongs to it, its own spirit. Each dance has its own grammar and geometry and of course its own poetry.

So we try to establish: an inventory of points directly perceived by space, body and their components, and a mapping of space and body in the direction of its evolution, with the precise naming of a point of the body in relation to another defined point of space . An inventor and a cartographer require the study of the relations of corporal volumes, spatial volumes and reciprocity of action as well as the interdependence between spatial and corporal volumes (Robinson, 1981).

CHAPTER 4. THEORETICAL ASPECTS OF MOTRICITY AND PSYCHOMOTRICITY

Motricity

Motility is the general name of the muscular reactions through which body movement takes place. Motility refers in particular to the reorganization in the relaxation and contraction of the muscles, the changes of positions and to the movement and coordinated acts of intervention in the environment (Popescu-Neveanu, 1978).

The concept of motility is formed by the concept of movement analyzed together with that of movement, in general, biological motion. The word movement, originates from the Latin language - movement and means exit from the state of immobility, change of body position and transformations that take place in the body (Dragnea & Bota, 1999). The concept of motility is defined as expressing an innate and acquired human trait of reacting to internal and external stimuli with the help of the locomotive apparatus, through movements (Terminology of physical education and sport, 1987). Dex defines motility as "an ability of the superior nervous activity to rapidly move from one excitation process to another, from one dynamic stereotype to another" (DEX, 1998).

The overall motility represents the possibility to perform movements of the legs, arms or body with a certain control. Physiological perfection is necessary to separate certain challenges, and training and experience have an influence on these skills. Studies show that associating a certain

notion with a movement can make learning easier. Activities that involve movement: dancing, throwing, running, climbing, allows for coordination, balance and development and helps the body's good perception in its environment. The repetition of the movements leads to the improvement of the practiced technique (Dragnea & Bota, 1999).

Motor skills

The motor qualities are some significant attributes of the human body, materialized in the ability to perform motive actions that are based to a certain extent on speed, strength, endurance and skill (Mitra, 1977).

The variety of acts, activities and motive actions performed by a man during his life, occur in accordance with the degree of development of the motor qualities. A complex motive action, even a simple motive act results from the multiple forms of association of the technical elements with the motor qualities. The indices of development of the flexibility, resistance, speed, force and skill condition make the movement skills as well as their maximum use. Between the motor qualities and the skills and the movement skills there is an indissoluble connection, and their development must be done differently and in accordance with the concrete requirements of the application of the skills in the different practical activities. The motor qualities will develop individually and are determined by age, heredity, sex, previous motor experience, genetic component, social factors and the natural geographical environment. Their development favors the adaptation of organs, systems and functions, increasing the effort capacity to a higher level of demand (Dragnea & Bota,

Motor reactions

These can be of two types: simple motor reaction, which consists of known responses to known exciters, and motor reaction involves the elaboration of responses that have not yet been practiced under the given conditions (Ardelean, 1991).

Repetition speed - It consists of the ability to perform a number of identical movements in a predetermined time (ibidem).

Speed of execution - Represents the ability to perform an act or motor action as quickly as possible (Ozolin, 1972).

The concept of psychomotority

Psychomotricity is "a result of the integration of motor and mental functions under the effect of maturation of the nervous system, which concerns the relationship of the subject with its body" (Encyclopedia Universalis, 1990). Another definition tells us that "psychomotor activity is a basic function that includes in its structure phenomena of a psychic nature, generated by the movements of the body and expressed through voluntary movements that condition its use in actions" (Horghidan, V., 2000).

CHAPTER 5. MOVEMENT ANALYSIS

The dancing act is mentioned by an uninterrupted alternation of expirations and inspirations, stresses and tensions, of fullness and emptiness. The dance body receives energy from the external environment in the way an antenna captures radio waves. We imagine a poetic image, which defines well the state of aspiration, of capture, of energy, and its channeling in the center of the body. At the origin of each movement there must be some kind of invisible body that triggers it. This trigger can be imagined as an in-ergy concentrate that strikes the surface of the moon like a meteorite, causing a visible reaction of the ex-ergy that supports the movement. When we see a suspended object, its dynamic demand is totally concentrated in a single point, as if we see the body in a state of dance, it is the subject of a suspension movement. The whole effort, mental attention, muscular effort and tension are focused at one point (Horst, 1961).

Location of the movement

The system of parallels and meridians can prove useful when the location of a certain body point is needed. We call body geography what we get. The name we give: longitudinal axis, different segments or transverse planes are of course random.

Space as drama in choreography

Choreography must be understood as the art of moving spatial volumes through temporal volumes with the desire to create works of art. The dance is composed of movements, which are composed of moments, vibrations and particles. The choreographic space is like an ice rink, the ice, the surface is continually reshaped to clear the footprints of the skaters, of course they are not erased at all. The trajectories of the movements remain forever inscribed on this space (Allen, 2002). The dance does not only represent the play of the bodies that are expressed, but also through the placement of the dancers creates vibrant dynamic fields, larger than those of the bodies. The space

between two dancers is energetically charged with poetry and meaning. What plays a greater role than the bodies of the dancers are the invisible spaces, like the dark matter. The dance movement and the body in a state of motion that is the dance act is a pure artistic entity.

Involuntary posture language

As emphasized by Erwin Strauss and Rudolf Laban, beyond the mechanical issue of locomotion, the orthostatic outfit has expressive and psychological elements, before the intentionality of expression or movement. The relationship with gravity or weight already has a look, a state of the world. The individual management of the weight we are talking about allows us to identify, according to the sound of the steps, an individual from our surroundings, who is climbing a ladder. In the situation of weightlessness, expressiveness is radically different. This is demonstrated by astronauts, because the essential landmark that allows us to analyze the meaning of a gesture, appears deeply modified (Palade, 2000).

The components of the outfit and artistic execution

- In any trunk movement, the head has the delayed action, it comes a little behind, to give the impression of amplitude and prolongation of the movement.

- Torso holding, with the abdomen sucked, the pelvis slightly designed before to reduce the lumbar curvature for the sake of a thin line of the body.

- Shoulders pulled down to clear the neck line.

- Use the position of the "supported arms" to clear the head line.

- At the position of the arms supported laterally or in front are slightly rounded (with the elbow and fist joints), with the fingers slightly controlled, but relaxed.

- In any movement of the arms, the hand has the delayed action to give the impression of a smooth, flowing character of the movement (Grosu & co., 2009)

- The tips of the legs and knees are slightly twisted outwards, and at any movement of the foot, the tip leaves the last soil, and at the first place it rests.

- The tip is stretched whenever the foot rises from the ground, either totally or only the heel (Stroescu, 1962). In addition to the elements of a correct outfit, the musicality, the rhythm and the

transmission of an emotional state specific to the moving performer are added. The movement must be divided into phrases according to the music. To correspond to the indications of slow, fast or gradual growth, and as intensity to have ample movements on the nuances of forces, smooth, in those of piano. The movements must be executed with maximum amplitude, to give the impression that it is large and generous. The exercise should be italicized to give the impression that the elements are naturally, uninterrupted. In order for a movement to be highlighted by beauty and expressiveness, it is necessary to fully participate in the movement. The execution of the exercises must be free and natural, the front should not reflect the effort of the performer.

CHAPTER 6. THE FUNDAMENTAL ELEMENTS NECESSARY FOR INITIATING THE DANCE THERAPY - Operational Models

The procedures for choosing the music for dance

There are at least two important aspects that we must consider when choosing the right music when composing a dance exercise:

• Compose the exercise and write the music for it: this process has the advantage that the music does not impose the composition and the form of the movements. The coach must have knowledge of music theory, so that the exercise can include musical forms and can be expressed musically. Also, the composer must also know the movement and possess a mastery of composition to render the expressiveness of the movements as musically as possible. When using this process, mistakes can be made if the one who composes the exercise without music cannot give the movement an emotional artistic coloration and expressiveness, and often the music is reduced to a rhythm that accompanies the movement, completely neglecting the melody, the harmony, the melodic thread. and the emotional coloration of the music, which is a contributor to the artistic movement.

• Spatio-temporal perceptions in dance

Spatial perceptions ensure the orientation of the human being in the environment. Their importance in bodily activities lies in the fact that they give the subject the opportunity to act in the most varied situations and conditions, both in the branches of sports in which they act independently and in the activities in which he depends on the actions of partners and opponents (Berger, 1978).

There are many perceptions of space. Objects existing in space have size, shape, volume and are perceived in depth and movement. Perceptions are realized through the collaboration of several analyzers, among which, in addition to the artistic visual, a significant role is played by the analyzer of Physical Education (Berger, 1978).

Temporal perceptions

The perception of time consists of the appreciation of the duration and the changes of the moments of the actions undertaken by the man. In the form of the perception of time in the human consciousness, the relationships between the different stages or moments of certain phenomena, their alternation and their succession are reflected. As they are sometimes prefigured also in the visual holographic artistic works of Rudie Berkhout's work, where sometimes a grouping of lines, shapes and colors tells us nothing, but through the aesthetic value of the composition realized our aesthetic sensitivity the perceptions are formed and reacted temporal, and on the ground of a receptive aesthetic attitude will be able to build ethical and educational consciences more easily (Berger, 1978).

PART II

PRELIMINARY STUDY SEEING THE PRE-TESTING OF RESEARCH TECHNIQUES

CHAPTER 7. CHECKING THE WORKING INSTRUMENT AND THE INTERVENTION PROGRAM

Purpose and tasks of the study

The pilot study is a kind of simulation, which includes people with a vision for research as initial participants. Pilot research aims to improve planning through award proposals before the actual research begins (Bryman, 2009).

In our own empirical approach, the purpose of our preliminary study is the pre-testing of the research techniques, before the initial and final phase of the actual research, carried out in two distinct time stages, for detaching the effects of the independent variable - the EmWave2 technique and the PSI coordination test. - on the experimental group, on the monitored dimensions - dependent variables, ie on some parameters regarding the psychosomatic equilibrium state registered to the targeted students.

The objectives of the study

The objectives proposed by us take into account the well-being of the young people, more specifically the students aged 13-14 years. We consider reducing stress by applying intervention plans based on a succession of specific dance steps, an artistic program made by us specially for this purpose. We will use steps from contemporary ballet, classical dance, but also specific elements taken from rhythmic gymnastics and sports gymnastics.

The second aspect we aim at is improving student coordination for the efficient functioning of the membrane parts, taking into account the efficient results of the coordination and the introduction of our program into the school structure.

The hypotheses of the preliminary study

In order to formulate the hypothesis of the preliminary study, we started from the premise that certain psychological components related to stress can be measured by the correct choice of tests and assessment tools.

At the same time, these stress indicators (such as anxiety, emotional distress, etc.) can be improved by a focused intervention program, created specifically for this purpose. Therefore, in our preliminary study, we sought to find out if these forms of stress are measurable, and whether they can be improved by an active relaxation program (dance program).

Study subjects

The students who participated were members of the "George Barițiu" National College, Cluj-Napoca. The inclusion of the subjects in the experiment was made on the basis of the informal consent regarding the purpose of the study and the work program. They were guaranteed confidentiality regarding the use of the results obtained in the applied tests. For this intervention I had an experimental group of students, all aged 13-14 years. The group of students was a mixed one, consisting of boys and girls in proportion of 45% and 55% respectively.

Organization of the research and elaboration of the intervention program

I started the preparation for the preliminary study with a documentation on the recent and classical approaches in the scientific knowledge of this topic. The most relevant conceptual and theoretical references were identified and identified, identified in libraries and sites with international and

national academic profile, as well as in international databases (Science Direct, ProQuest, Ebsco, etc.). At the same time, the results of research published in studies and articles on the main topics covered in this doctoral thesis were presented: self-esteem, self-evaluation methods and their adjacent conceptualizations, motivation, stress, dance therapy, music therapy , the effects of these therapies on the mental health of the subjects present in this study. We focused on identifying and exposing some techniques, tools and methods established and validated and representative in recent research of topics similar to or close to our work. As a result, a number of instruments have been selected that measure certain physiological (EmWave2) and psychological indicators of the subjects, considered relevant for the purpose of the research.

Tests and evaluation tools used in the preliminary research

In order to find out the emotional state of the students, and to determine if these states are dependent on certain external factors, and if these changes are measurable with the tests and instruments chosen by us, in the preliminary study we chose to administer the following tests to the experimental group:

• Relaxation technique R. Bandler, Jacobson

• EMAS test - Endler Scales for Multidimensional Anxiety Assessment (Anxiety Scale)

• PDE - The Profile of Emotional Distress

• AP2 - Perception of attention and the spirit of observation

• MA - Focus of attention

• AD - Distributive attention

• PSI - Psychological Screening Inventory (measures self-regulation, execution and information capacity)

Intervention models for Dance - therapy

Dance therapy can be performed by the modality called "Primitive Expression" or "Afro-Latin rhythm dance therapy". We will outline below the main features of Dance therapy:

1. The implicit condition of existence of the lesson of "Primitive Expression" is represented by the existence of percussion instruments and their use.

2. The characteristic of the expressive expression are the movements: playful, playful, friendly, communication and exchange of views through movement with other children or colleagues.

3. Soft energy taken from "tribe", a group in our case, through smooth and rounded movements made on the beat of drums

4. Introspection and joy

5. Dance primitive expression therapy is performed through activities carried out in small group - tribe.

6. The psychological characteristics of this type of dance therapy are expressed by: increasing the capacity for introspection, joy

7. Unison participation, that is to say all the students at once: it is possible to work in a large group (with the whole group of students)

8. The training of the dancers can be done in a regular room and can take place in a smaller group, or in a larger group - collectively, using interjections and songs made up of repetitive syllables, during the dance.

9. Recovery of the body through simple movements performed from the back, exercises performed in slow tempo

Since sitting with the legs bent, all participants in the circle discuss the lesson and the teacher waits for feedback from his students. Moment of relaxation, reconnection

18. Sharing the session experience in pairs and then in groups

Standing in a circle - walking on the rhythm of music with shouting joys on the music (hua-hua-hua)

CHAPTER 8. PROCESSING AND INTERPRETING OF THE RESULTS AT THE PILOT STUDY

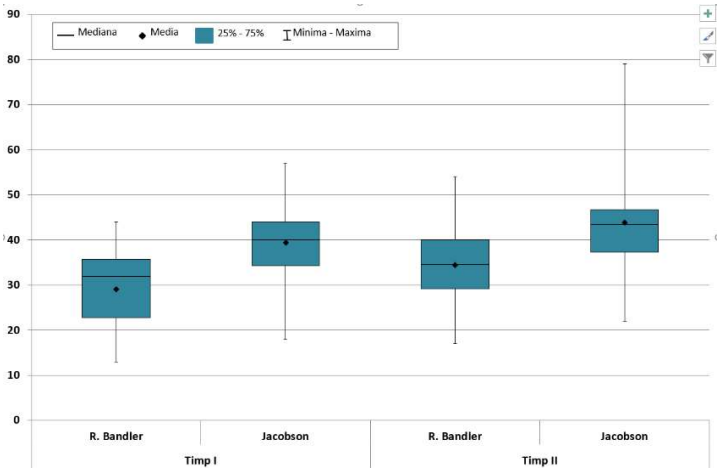
Results and statistical analysis of the tests

Comparing the results of the two measurements (from the beginning and the end of the intervention period), we managed to record in the tests used certain values that mean statistically significant changes between the two moments of time. These results, together with the statistical explanation are presented in the tables and graphs below. Finally, the correlations between the test indicators applied in the study will be presented.

R. Bandler, Jacobson, EMAS, PDE, AP2, MA, AD tests and statistical significance

Indicators	Time	Mediate	ES	Median	DS	Min	Max	*Statistical significance (p)*
R. Bandler	**1**	29,13	1,6468	32	9,0200	13	44	**0,038**
	2	34,43	1,3786	34,5	7,5507	17	54	
Jacobson	**1**	39,40	1,6474	40	9,0233	18	57	0,1366
	2	43,83	2,1157	43,5	11,5880	22	79	
EMAS	**1**	30,57	1,4752	30,5	8,0801	20	50	0,1269
	2	35,13	2,0414	32	11,1811	20	70	
PDE	**1**	15,57	2,4540	13,5	13,4413	1	65	**< 0,0001**
	2	30,13	2,1876	27,5	11,9820	10	57	
AP2	**1**	19,53	0,4173	19	2,2854	16	24	**< 0,0001**
	2	22,83	0,4042	23,5	2,2141	17	25	
MA	**1**	0,97	0,3088	0	1,6914	0	7	0,7823
	2	0,77	0,2430	0	1,3309	0	6	
AD	**1**	0,17	0,0140	0,2	0,0769	0,05	0,38	0,9696
	2	0,17	0,0148	0,1505	0,0808	0,05	0,38	

These results show us that compared to the initial measurement, after completing the intervention program, the students were able to reduce the psychic tensions to a greater extent by releasing the accumulated tension in the muscles more effectively.



R. Bandler and Jacobson T1-T2

We can see above the graphical illustration of the R. Bandler and Jacobson indicator. We can see how the students' ability to reduce mental stress has increased, by applying relaxation methods with which they can more effectively discharge the tension accumulated in the muscles.

Statistical correlation analysis for R. Bandler test values

Statistical correlation analysis for R. Bandler test values showed:

• at the initial testing (T1)

- an acceptable correlation of the same meaning with the Jacobson and PDE tests - this result indicates that if the relaxation methods are applied and executed more effectively, we can expect an improvement in the perception of emotional distress and negative emotions of "fear". or "sadness"
- an acceptable but opposite correlation with AP2 - an interesting result that shows us that as physical relaxation increases, the perception of attention and the spirit of observation diminishes.

Statistical correlation analysis for Jacobson test values showed:

• at the initial testing (T1) - a weak / null correlation with EMAS, PDE, AP2, MA, AD tests

• at the final test (T2)

- an acceptable correlation and in the same sense as the AD test - As the level of relaxation increases, so can the level of distributive attention.

PSI (Psychological Screening Inventory) Test Results

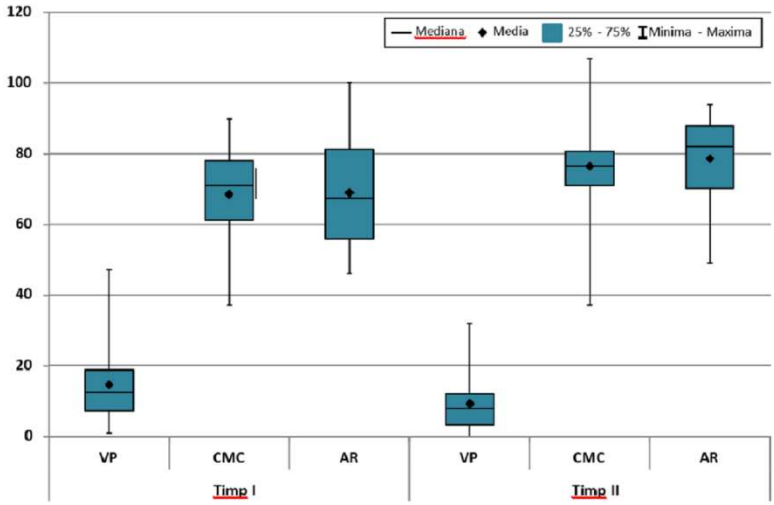
By administering the PSI (Psychological Screening Inventory) test, we sought to study the essential psychological components in order to evaluate the motor and psycho-cognitive abilities of the students and, possibly, their evolution, following the submission to the intervention program of the preliminary study.

PSI test for the studied lots and the statistical significance

Indicators	Time	Mediate	ES	Median	DS	Min	Max	*Statistical significance (p)*
VP	1	14,63	1,9818	12,5	10,8548	1	47	0,0269
	2	9,23	1,4204	8	7,7801	0	32	
CMC	1	68,50	2,3492	71	12,8674	37	90	0,0554
	2	76,47	2,6526	76,5	14,5288	37	107	
AR	1	68,97	2,6852	67,5	14,7075	46	100	0,0058
	2	78,53	2,1897	82	11,9935	49	94	

At the statistical analysis of values for speed of perception (VP), statistically significant differences were observed between the two times ($p < 0.05$). As we can see in Table above, marked with yellow, the values of this indicator have changed to a considerable extent between the two moments of time.

In the statistical analysis of the values for self-regulation (AR), statistically very significant differences were observed between the two times.



The figure above shows the graphical illustration of the values of the PSI test indicators at T1 (initial testing) and at Time 2 (final testing). We can observe the statistically significant increase in the self-regulation indicator (AR).

Conclusions of the preliminary study

The obtained results emphasize the importance of using psychological tests to detect the level of stress in order to decrease its intensity and to raise well-being awareness.

Based on the results obtained, we conclude that students need a specially designed intervention program that will reduce the accumulated stress.

The results obtained from the tests performed by the application of the tests: R. Bandler and Jacobson, EMAS, MA, AP2, AD, PDE and PSI allow us to conclude that the hypotheses advanced in the preliminary research are validated, which gives us the possibility to continue the research.

PART III.

PERSONAL RESEARCH ON REDUCING STRESS VARIATIONS AND IMPROVING SCHOOL PERFORMANCE IN STUDENTS

CHAPTER 9. OPERATIONAL DESIGN OF RESEARCH

Research hypothesis and objectives

Our hypothesis is based on the results obtained in the preliminary study, and can be formulated as follows:

It is assumed that the implementation of a relaxation program - composed of specific dance movements - would have the following effects on the research subjects:

• improving dysfunctional negative emotions: stress, anxiety or sadness, by achieving better coherences between brain, heart and nervous system

• improving school results and optimizing behavior

• increasing positive emotions: self-confidence, self-esteem

• increasing the capacity for attention and concentration

The main objective of our experimental research is to investigate the level of stress and psychological discomfort in students aged 13-14 years, through the tests and instruments used / applied, reducing the stress level, normalizing the self-esteem, improving the motivational parameters and increasing the resistance to stress.

Detailed intervention program

We chose to build an intervention program based on specific movements taken from the dance elements. This program will contain exercises similar to those in the preliminary study but will have a higher degree of difficulty.

Quantitatively, the program will reasonably contain several elements of rhythmic gymnastics, in an attempt to produce a favorable impact as pronounced and visible in the research results.

In elaborating the complexity of the intervention program, the students' personal program as well as their age and physical preparation were taken into account. Any risk of overloading children was removed, and a special emphasis was placed on monitoring the atmosphere created during exercise. The safety and good disposition of the children was permanently ensured.

These intervention programs consist of a sequence of movements that involve both balance and arching exercises and models of body wave structures.

Music composition by Nikos Ignatiadis "Triumph" in slow tempo (12x8) Timpi. I scored 12 x8 for technical reasons, but the exercises, each one will be executed at least by 4x8 on the main directions, repeating laterally 2 times.

During the exercises, we insisted on:

- the correct position of the body and head

- on the correct holding of the hands on the bar

- moving the body from one position to another correctly

Exercises for learning the rhythm: small balancing exercises with the upper arms, imitating the trees, on the rhythm of the percussion, photo 58 and lateral bending of the trunk on the rhythm of the percussion. Movements with the upper arms, in the circle with the raising and lowering of the arms forwards or backwards pronouncing the syllables “hu-hu”, “ha-ha” and the execution of the movements.

Exercises for learning the tempo, are done by moving, which takes place in a circle respecting the rhythm. The tempo is slightly increased and shouts like "hu-hu-hu-hu" and "ha-ha-ha-ha" are made. The stop is made very briefly at one time and at a certain time by stopping the percussion and completing the move with a picture.

These exercises aim to reduce and eliminate tension. For example, moving across the width of the room and imitating an attack, going to battle as if meeting an animal in the forest.

4. Exercises for spatial-temporal orientation: free movement through the room with the pronouncement of syllables and reaching colleagues with palms - contact, palms - palms with a colleague, at a known signal (Fig. 122). Creative dance courses for boys and girls between 4 and 6 years. Improvisation games, we work dance technique, psychomotor skills and ballet, jazz and contemporary steps.

5. Awareness of work in pairs through exercises in pairs with movement through the room and with the opposite movements in the frontal plane

6. Exercises that also help to develop creativity, work in larger groups with moving around the room in opposite directions. Everyone tries to work synchronously and imitates a captain, who stands in front, pronouncing the syllables "houaa - houaaa" and the response of the others with "ciaca-ciaca -cea".

We mention that above, are only described few of the exercises used. The details can be found in the doctoral work.

Research organization

In this phase of our research we applied the methods of stress reduction and dedicated tools. We started to implement the intervention plan.

The two lots (control and experimental) were tested at one year interval (initial testing and final testing).

During this time, the experimental group (30 students) was regularly subjected (twice weekly) to the dance.

The control group (30 students), did not benefit from the dance, but only from the physical education and sports hours themselves, and they were tested in the two recording moments (the initial phase and the final phase), with the same devices used. in the case of the experimental group. Both groups were tested with the tests: ASSI (Self-esteem), SPM (Motivational Persistence), and the EmWave2 assessment tool.

Group II (experiment) benefited from training through dance, specific dance steps, especially compounds.

Generally speaking, experimental research is the verification of a causal hypothesis, which associates a variable independent of a dependent one. The dependent variable is that variable on which other variables act, so it is influenced by these (Rotariu, 2016). The independent variable is the one that explains the changes produced in its interaction with the other variables, thus the researcher can interpret the changes in the dependent variable. (Ibid).

A major advantage of experimental research is the use of the control group, which has the role of ensuring that the effects of the experiment are clearly caused by the independent variable and not by other variables (Creswell, 2003).

The classic experiment includes an experimental group (target group) and a control group. More complex experiments include several experimental groups and one control group, or no control group. The control group is that group that lacks any kind of experimental manipulation, is left in its natural environment and evolution, without any intervention through independent variables. It is an individual case of an experiment group, the value of the independent variable being zero.

In shaping the experiment, it is very important to ensure that the various groups are equivalent according to several important indicators, so that the changes resulting from the action or the manipulation of the independent variable can be controlled. This equality between groups must be maintained throughout the entire experiment, which means that certain conditions are ensured:

1. The participants of the control group and of the experimental group must be sampled of the same type, in our case all of them are students from George Barițiu National College, both boys and girls, students equally divided in both groups.

2. Participants from both groups will be tested within the same time frame. This condition was also ensured in our study.

3. The external conditions, instruments, techniques and manner of testing of the groups will be similar, so that all the technical aspects related to the objectives and purposes of the research, the instruments and the experimental process itself will be identical in the groups included in the experiment (control and experiment), with the difference that the independent variable will act on the target group, which will not appear in the control one. In our research, the instruments, the conditions and the technical aspects were identical, and the independent variable was the application of the intervention program regularly for a year of the target group, and the control group was treated and advised in the classical way.

After the two tests (at the beginning and at the end of the program) followed the interpretation of the results, comparing the data assimilated to the two batches, analyzing, discussing them through the prism of the theories and formulating the results.

Finally, the general conclusions of the research project were elaborated, the own contribution added and the proposals with references to possible improvements related to the topic.

Research methods and evaluation tools

In our experimental research we aimed to study the details and dynamics of self-esteem scores, motivational persistence dimensions scores, and stress indicators.

The tests and questionnaires applied were:

- The SPM (Motivational Persistence Scale) questionnaire

- ASSI questionnaire (self-assessment, self-esteem, infatuation)

The evaluation tool: EmWave2 technology

CHAPTER 10. STATISTICAL ANALYSIS AND INTERPRETATION OF THE EXPERIMENTAL RESEARCH RESULTS

Statistical analysis of the items of the SPM questionnaire

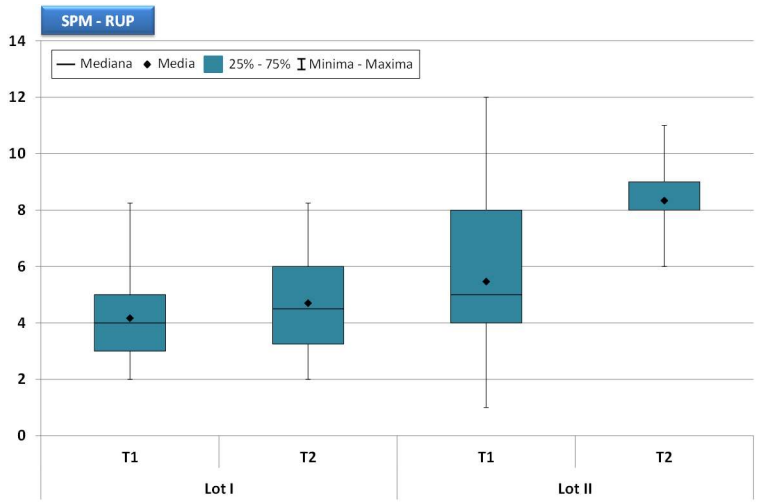
The Motivational Persistence Scale of the studied groups and the statistical significance

Ind	Time	Lot	Mediate	ES	Median	DS	Min	Max	*Statistical significance (p)* I-II	T1-T2	
PM	T1	I	3,63	0,2935	3	1,6078	2	8	0,6237	Lot I	< 0,0001
		II	4,07	0,4095	3,5	2,2427	1	9			
	T2	I	4,50	0,3023	4	1,6557	2	8	< 0,0001	Lot II	< 0,0001
		II	7,13	0,2570	7	1,4077	5	10			
LTPP	T1	I	4,27	0,3320	4	1,8182	1	7	0,9786	Lot I	< 0,0001
		II	4,37	0,3968	4	2,1732	1	9			
	T2	I	5,00	0,2537	5	1,3896	3	7	< 0,0001	Lot II	< 0,0001
		II	7,33	0,2507	7	1,3730	4	10			
CPP	T1	I	4,53	0,3207	4	1,7564	2	8	0,8163	Lot I	< 0,0001
		II	4,60	0,3444	4	1,8864	1	8			
	T2	I	5,30	0,3000	5	1,6432	3	9	< 0,0001	Lot II	< 0,0001
		II	7,97	0,1825	8	0,9994	6	10			
RUP	T1	I	4,17	0,3036	4	1,6626	2	8	0,0254	Lot I	0,0005
		II	5,47	0,4617	5	2,5289	1	10			
	T2	I	4,70	0,3395	4,5	1,8597	2	8	< 0,0001	Lot II	< 0,0001
		II	8,33	0,2266	8	1,2411	6	10			

In the statistical analysis of the values for the pursuit of long-term goals (LTPP - Long Term Purposes Pursuing), for the unpaired samples, statistically significant differences were observed between the two groups ($p < 0.001$) at the final test (T2). This result indicates that the experimental group, marked in yellow in Table 8., significantly improved its long-term goal tracking (LTTP). In the statistical analysis for paired samples, statistically significant differences were observed between the two time points in both group I and group II ($p < 0.001$). Compared to the situation from the beginning, at the end of the experiment the figures show that the members of the groups have significantly improved their own performances related to this indicator.

In the statistical analysis of the values of the motivational persistence score (PM) granted on the basis of the three previous items, for the unpaired samples, statistically significant differences were observed between the two groups ($p < 0.001$) at the final test (T2). The results show that the

experimental group improved to a much greater extent the score of motivational persistence (PM). The PM score at the final test was 4.5 in the control group, while the PM score at the final test in the experimental group was 7.13, as can be seen with purple in the table above. In the statistical analysis for paired samples, between the two moments of time were observed statistically significant significant differences in both group I and group II ($p < 0.001$), resulting that our intervention had a major impact on this indicator and individually.



We observe a significant improvement in the experimental group at the final testing.

Conclusions of the SPM questionnaire results

Our intervention plan had a major beneficial impact on almost all indicators of the SPM questionnaire. In most cases, the experimental group not only improved its measured values compared to the control group but also improved its individual values of the scores at the initial testing compared to the final testing.

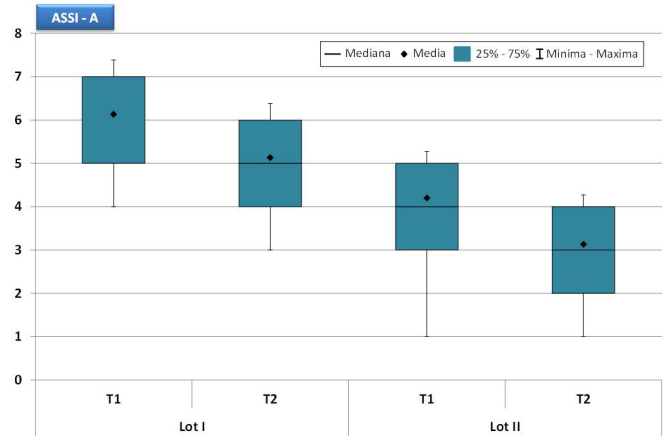
Results of the ASSI questionnaire

The ASSI questionnaire for the studied groups and the statistical significance

Ind	Time	Lot	Mediate	ES	Median	DS	Min	Max	*Statistical significance (p)* I-II		TI-TII
A	T1	I	6,13	0,2743	5	1,5025	4	9	< 0,0001	Lot I	< 0,0001
		II	4,20	0,3159	4	1,7301	1	9			
	T2	I	5,13	0,2701	5	1,4794	3	8	< 0,0001	Lot II	0,032
		II	3,13	0,2826	3	1,5477	1	7			
I	T1	I	6,50	0,1962	6	1,0748	4	9	0,0669	Lot I	< 0,0001
		II	**7,07**	0,2534	7	1,3880	3	10			
	T2	I	7,47	0,1777	7	0,9732	5	9	< 0,0001		< 0,0001

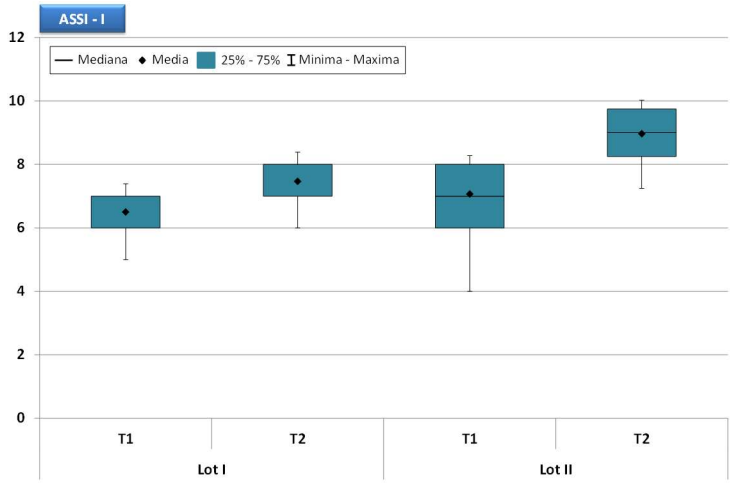
		II	**8,97**	0,1477	9	0,8087	7	10		**Lot II**	
SN	**T1**	**I**	6,57	0,2943	7	1,6121	3	10	**0,0032**	**Lot I**	**< 0,0001**
		II	**7,87**	0,2945	8	1,6132	3	10			
	T2	**I**	7,57	0,2783	8	1,5241	4	10	**< 0,0001**	**Lot II**	**< 0,0001**
		II	**9,47**	0,1244	10	0,6814	8	10			

In the statistical analysis of the values for self-depreciation (A), for unpaired samples, statistically significant differences were observed between the two groups ($p < 0.001$) at both time points studied. In the statistical analysis for paired samples, statistically significant differences were observed between the two time points in both group I and group II ($p < 0.001$). Thus, we observe a significant decrease in this value, marked in green in Table 10, which means that our intervention was useful to the experimental group in reducing their sense of self-depreciation, thus improving their self-esteem.



Relationship between the (ASSI) test of (A) self-depreciation at T1 and T2

As we can see in the table above, in the statistical analysis of the values for infatuation (I) for unpaired samples, statistically significant differences were observed between the two groups ($p < 0.001$) in the final test (T2). In the statistical analysis for paired samples, between the two time points were observed statistically significant differences in group I ($p < 0.001$) and statistically significant differences in group II ($p < 0.05$). We note with interest these results as it shows us that the level of childbirth has increased significantly in both groups.



At statistical analysis of the values for self-esteem (SN) for unpaired samples between the two groups, very statistically significant differences were observed in the initial test (T1) ($p < 0.01$) and statistically significant significant differences in the final test (T2) ($p < 0.001$). In the statistical analysis for paired samples, statistically significant differences were observed between the two time points in both group I and group II ($p < 0.001$).

Thus, we find that self-esteem has improved in both groups, as expected if we measured low values for the self-depreciation item (A), but it is worth noting that in the experimental group at the final testing (T2) the differences are much more significant.

Conclusions of the ASSI questionnaire

Similar to the results obtained in the SPM test, the figures of the results of the ASSI questionnaire are more than encouraging as it shows us that our intervention program has had a positive influence in improving the studied indicators. Subjects increased their self-esteem and self-esteem scores and decreased self-depreciation values. Given these results, we conclude that up to now our hypotheses are confirmed by validating the tests used and the intervention program, which has largely achieved its desired impact.

Correlations between ASSI-SPM tests

Statistical analysis of the correlation between the values of the ASSI and SPM test items, showed:

• for the correlation between A (ASSI) and the SPM items - a weak / null correlation with all indicators in both groups at both time points

• for the correlation between I (ASSI) and the SPM items - a weak / null correlation with all indicators in both groups at both time points

• for the correlation between SN (ASSI) and SPM items

o in group I - an acceptable and similar correlation with the PM at the final test (T2) and weak / null correlations with the rest of the indicators at both time points

o in group II - an acceptable and same-sense correlation with the OR at initial testing (T1) and weak / null correlations with the rest of the indicators at both time points.

Statistical correlation analysis between the values of the ASSI - SPM items

Indicators		**Time 1**				**Time 2**			
		Lot I		**Lot II**		**Lot I**		**Lot II**	
A -	**PM**	-0,1799	*	-0,0689	*	-0,1228	*	-0,0062	*
	LTPP	-0,0805	*	-0,1759	*	0,0886	*	0,1462	*
	CPP	0,0252	*	0,0676	*	0,0932	*	0,1020	*
	RUP	0,0273	*	-0,0772	*	0,1835	*	0,2125	*
I -	**PM**	0,0246	*	0,0534	*	-0,1071	*	-0,0757	*
	LTPP	0,1748	*	-0,0394	*	0,0085	*	-0,1611	*
	CPP	0,0558	*	-0,0259	*	0,1429	*	-0,1452	*
	RUP	-0,0156	*	0,0554	*	-0,1341	*	0,1941	*
SN -	**PM**	0,2500	*	0,2400	*	0,3828	**	0,0360	*
	LTPP	-0,0225	*	0,1884	*	-0,0785	*	0,0590	*
	CPP	0,0880	*	0,2353	*	0,1066	*	0,1644	*
	RUP	-0,0296	*	0,2635	**	-0,0636	*	0,2012	*

In the table above we focus on the most important values, for example, in Lot II (experiment) at the initial testing (T1) we have the value of the correlation between (A) self-depreciation and (RUP) recall of unattained purposes (recurrence of unattained purposes) , in Lot II (experiment) the initial testing (T1) -0, 0772 and in the final testing (T2) we have the value of 0, 2125, which means that our dance intervention programs on music were well understood and performed by the subjects.

Within the relationship between (SN) self-esteem and (RUP) the recall of unmet goals, at T1 at Lot 1 it started from a value of -0.0296 and reached a value of -0.03636 which means we have a negative correlation and the value of unattended goals decreased which means that our subjects with whom I only did hours of aerobic and music gymnastics had a decrease in (RUP), which is appreciated but this decrease is smaller than in the experimental group where I applied the classical dance complex, contemporary dance and modern dance.

The results of the evaluation using EmWave technology2

EmWave2 technology can help reduce stress in students, normalize self-esteem, improve motivational parameters as well as increase stress resistance. In our experimental research, we sought to find out how a dynamic dance program could influence these parameters in students. Consistency ratios: L - Low (Low)

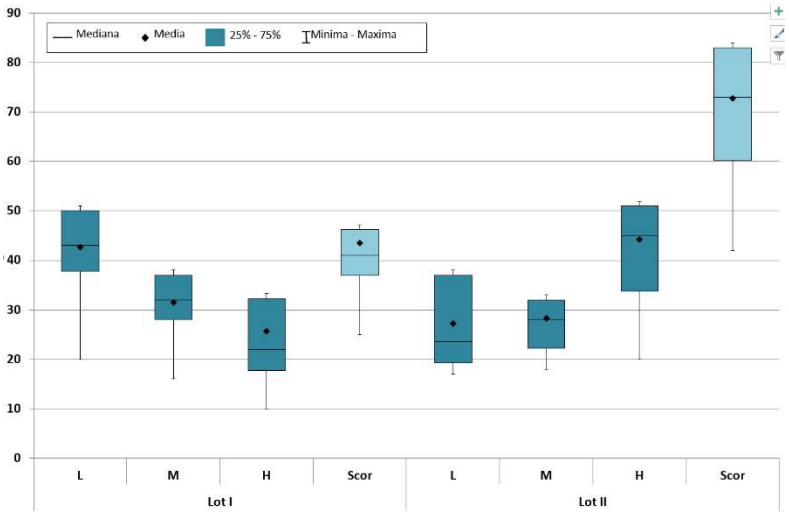
M - Medium level, H - High level

EmWave2 test for the studied groups and the statistical significance

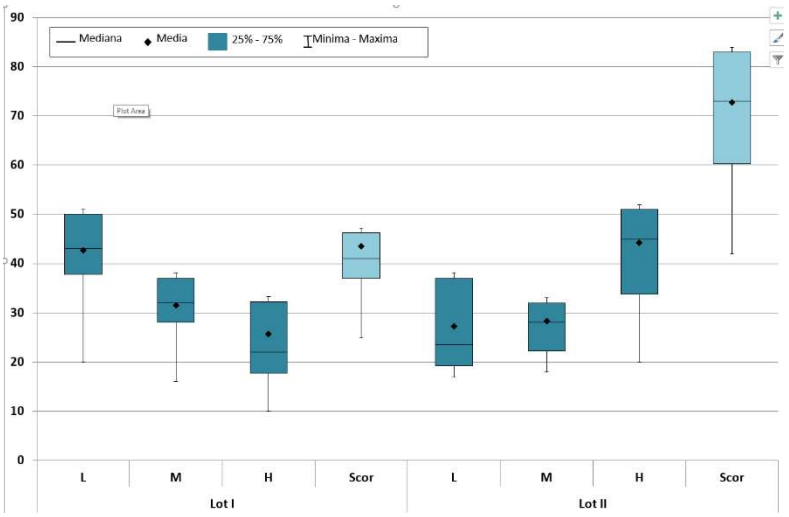
Lot	Roherence ratio	Time	Mediate	ES	*Statistical significance (p)*
I	L	T1 T2	48,80 42,73	2,00 1,84	< 0,0001
	M	T1 T2	27,63 31,50	0,99 1,15	0,0007
	H	T1 T2	23,90 25,70	2,41 2,01	0,0606
	Time (sec)	T1 T2	312,30 511,30	0,61 0,66	< 0,0001
	Score	T1 T2	42,20 43,53	3,00 2,46	0,4045
	HR medium	T1 T2	71,33 70,07	0,71 0,38	0,0431
II	L	T1 T2	37,73 27,23	2,26 1,71	< 0,0001
	M	T1 T2	25,43 28,23	0,96 1,21	0,0384
	H	T1 T2	36,83 44,20	2,69 2,23	< 0,0001
	Time (sec)	T1 T2	310,03 510,03	0,71 0,71	< 0,0001
	Score	T1 T2	64,07 72,73	3,65 3,00	< 0,0001
	HR medium	T1 T2	71,93 70,93	0,62 0,37	0,0431

We can see in the table above statistically significant differences between the two time points for the L and M levels in group I, marked with blue and yellow respectively.

For group II, statistically significant differences were observed between the two time points for the sample time and statistically significant differences between the two time points for the test score.



EmWave2 test in the studied groups - levels and score at T1



EmWave2 test in the studied groups - levels and score at T2

Comparing the groups, we can see that the experimental group has higher H (high) values, and the distribution of these values is narrower - the group is more uniform comparing with the control group.

Conclusions of the EmWave2 technology test

In the light of the data obtained from these tests we can conclude that dance can indeed have positive and measurable effects on the body as well as the psychic aspect. The EmWave2 test is not only a relaxation tool successfully used throughout the world, but it has also been able to

provide us with concrete data on changing mind-emotion-heart coherences. We could see how, following the implementation of an intervention program, the heart rate is optimized, a state of coherence is created between the brain, heart and nervous system. All these changes will ultimately lead to the release of the stress organism.

The conclusions of the experimental research and the implementation of the intervention program

Analyzing the specially created dance program, the results of the measurements and their significance, as well as the changes that occurred in the subjects of the experimental group, we reach the following conclusions:

- The incorporation of elements or a short dance program in the pupils' school program represented a progress in the trajectory of the development of mental, emotional capacities and not least in reducing the stress felt.

- the fact that before preparing the intervention program I made a thorough documentation of the specialized literature represented a great advantage, but the final decision on the choice of the most suitable dance elements was influenced also by the opinion and experience of the student teachers and by the personal opinion and preference of the subjects

- the results obtained from the measurements show significant improvements and statistically improvements for most of the indicators studied in the experimental research. With this in mind, we can conclude that our research has been successfully completed and the hypotheses formulated have been largely confirmed.

CHAPTER 11. GENERAL CONCLUSIONS, DISCUSSIONS, ELEMENTS OF ORIGINALITY AND LIMITS OF RESEARCH

General conclusions of the experimental research

Our research started from the premise that the students of the general classes could benefit from an alternative method of stress reduction, which would optimize a wide range of psychological parameters. The need for this intervention as well as the research methods were validated in our preliminary study.

In order to reach our goal - based on previous research that has shown the beneficial effects of dance therapy - we have chosen to build an intervention program made up of specific elements of dance, and to test whether the students of the experimental group succeed in reducing them. the level of stress felt.

The results showed major changes for the better, and confirmed that positive interventions such as self-confidence and self-esteem increased following the intervention. Increased attention and concentration capacity was also confirmed.

The hypothesis aimed at ameliorating dysfunctional negative emotions: stress, anxiety, was confirmed and coordination was also improved.

As we could see when disseminating the results, in the test items applied in the present study, we recorded statistically significant results in the vast majority of cases, for example:

At the results of the R. Bandler Relaxation tests, statistically significant differences were observed between the two times ($p < 0.05$), so we were able to conclude that the subjects were able to reduce their psychic tensions by more efficient muscle relaxation.

When analyzing the emotional distress profile (PDE), statistically significant differences were observed between the two times ($p < 0.001$), thus measuring a considerable difference in improving the subjective dimension of negative perceptions.

In the profile drawn with the help of the AP2 test (perception of attention and the spirit of observation), significant statistical improvements between the two moments of time were realized ($p < 0.001$), a very significant result considering the importance of attention and the spirit of observation in cognitive learning.

In the statistical analysis of the items in the PSI (Psychological Screening Inventory) test, the figures showed that the intervention plan had a beneficial impact on the speed of perception (VP) and self-regulation (AR), the differences between the two moments of time being statistically very significant .

Good correlations were also observed between the values of the AP2 tests (attention perception and the spirit of observation) and the MA (focus of attention), or good correlation between CMC (motor coordination) and AR (self-regulation) in the PSI (Psychological Screening Inventory) test.

At the Motivational Persistence Scale (SPM), statistically significant differences were observed for all the items targeted: Long Term Purposes Pursuing (LTPP), Current Purposes Pursuing (CPP), Missing Purpose Reminder (OR - recurrence) of unattained purposes), the motivational persistence score (PM), the results showing significant improvements and improvements in the vast majority of cases.

The ASSI questionnaire showed us that as the self-esteem (SN) increases, the values of self-depreciation (A) decrease, and the tests with EmWave2 technology confirmed the positive influence of the intervention program by observing the optimization of the heart rate and the creation of a better coherence between brain, heart and nervous system.

We conclude, therefore, that our experimental research ended successfully and enriched us with important information and statistics regarding the use of dance for therapeutic purposes in children aged 13-14 years.

Our hypotheses have been confirmed in the vast majority of cases, and given this aspect we can state that the implementation of a dance program, with the purpose of relaxation, during the physical education hours of the students, has the potential to reduce stress and improve the state. their general psychology.

It is confirmed the hypothesis that stress indicators (such as anxiety, emotional distress, etc.) are dependent variables, that is, they can be influenced (altered) by an external relaxation stimulus such as dancing. It is known that stress can be reduced in several ways, for example if the stress-causing element or factor is identified and removed. However, our study shows that reducing stress and regaining well-being can also be achieved by adding a relaxation element in the subjects program. This result is all the more useful since in many cases, especially in children, it cannot be identified, or most often the stress trigger factor cannot be removed. In these situations, dance for the purpose of relaxation may be an alternative method for reducing general stress, regaining inner balance and regaining well-being.

Discussions

A study by American researchers to examine self-esteem showed that those who dance swing regularly have a higher self-esteem than those who do not dance (Ruzansky & al., 2018).

Another study, conducted in 2012 showed that obese patients took part in a dance program, and the results showed a significant improvement in the quality of life related to health, body awareness, mental representations related to body image. but also of self-esteem. Dance allowed patients to re-establish their somatic and psychic awareness of their body image (Muller-Pinget & al., 2012).

Verbal communication can be difficult for children and even more difficult for aggressive ones. A 2014 study investigated how art therapy can reduce anger and improve self-esteem in children aged 7-11. 30 children participated in the study, and anger and self-esteem were measured with the help of instruments: Cooper Smith Self-esteem Inventory and Nelson & Finch Inventory of Anger. After the 10-week period, the experimental group showed a significant reduction in anger and a considerable improvement in self-esteem. The results suggest that art therapy can reduce anger and improve self-esteem (Alavinezhad & al., 2014).

Through EmWave2, it has been shown to improve several aspects of cognitive functioning and improve behavior. The results suggest that the intervention offers a psychology-based program to improve cognitive functioning in children with ADHD and in school environment behavior (Lloyd A., Brett D., 2010).

We therefore observe the multitude of areas of the human physicist and psychic that can be improved by practicing dance for therapeutic purposes.

Elements of originality

Our results are similar to those presented above but also show that a dance program could easily be integrated into the students' physical education schedule so as to ensure a sustained, sustained effect. The sustainability of the beneficial impact of dance practice in the form of therapy has not yet been studied, but it is conceivable that with the removal of the independent variable, its positive effects will decrease over time. Unlike the other studies, our intervention program has been carried out for a long period of one year, being welcomed and well tolerated by the members of the experimental group, thus showing that the official introduction of such a program in the physical education hours in the general schools maybe a beneficial and feasible plan.

The limits of research

One very exciting aspect of the study was that we did not encounter significant limitations in the course of our research. However, we cannot exclude the fact that during a year there were a few rare occasions when some members of the control group or the experimental group were absent from the sports time.

Another aspect is the fact that not all students have succeeded in performing the specific dance elements present in the intervention program, the movements leaving room for improvement in certain subjects, but we consider that this aspect does not influence the results obtained as the surroundings and the atmosphere created with the occasion of dance and music was ensured, thus giving the possibility of psychic improvement, the objectives that were targeted in our research.