99 - THE RHYTHM AND DANCE AS PART OF THE PSYCHOMOTOR DEVELOPMENT PROCESS OF PEOPLE WITH DOWN SYNDROME: THE LABAN METHOD AS METHODOLOGICAL SUBSIDY

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INTRODUCTION

By thinking and organizing this research project it is highlighted: the rhythms and dance as contributions to the development of people with Down syndrome.

The neurological physical, psychological and social aspects of these people suffer from influences and limitations due to genetic characteristics, but the development of these aspects may, in part, be determined by the experiences they will have throughout their lives.

In this context, in an article on cognitive processes and brain plasticity in Down syndrome, Maria de Fatima Silva Caldeira and Andreia Cristina dos Santos Kleinhans discourse:

The brain plasticity is the term used to refer to the adaptive capacity of the central nervous system, the ability to modify their structural and functional organization. Property of the nervous system that allows the development of structural changes in response to experience and adaptation to changing conditions and repeated stimuli (Kandel, Schwartz, 2003; Kolb, Whishaw, 2002). The rehabilitation of brain-injured can promote reconnection of damaged neural circuits. The lower the injured area, the greater the tendency of an autonomous recovery, while a large lesion may cause a permanent loss of function. There are also potentially recoverable injuries; however, it requires precise treatment, maintaining adequate levels of stimuli (Kandel, Schwartz, 2003; Kolb, Whishaw, 2002). This rehabilitation is much higher in children than in adults (Gazzaniga, Heatherton, 2005).

In the same article, it is discussed the SD and plasticity:

A variety of lesions that affect individuals with Down syndrome influences the development and learning.There are significant differences depending on the development of education and the environment that these children are submitted since the earliest years of life. Generalizations about their learning ability may be erroneous. However, you can be in accordance with the relative constancy that appears in children with DS on the little initiative, difficulty to pay attention, distractibility, poor operation, as confirmed by studies of several authors previously reported (FLÓREZ; Troncoso, 1997; Escamilla, 1998; TRONCOSO; CERRO, 1999, FIDLER, 2005; MOELLER, 2006). Feuerstein (1980), Mantoan (1997), Vygotsky (1998) and others believe that cognitive development arises from the child's interaction with the environment. They suggest the environment as a mediator of learning, aiming at a significant development. Former researches, such as Coriat et al. (1968) have indicated that psychomotor stimulation positively influence the cognitive development of children with DS. The results showed that children of the control group with SD had an average IQ of 62 and children with Down syndrome who participated in the psychomotor activities had an average IQ of 82. For the authors, the environment can make the difference. Silva and Bolsanello (2000) investigated children with DS between four months and four years old who participated in stimulating activities, seeking to assess the cognitive constructions in the sensorimotor period. They point to a delay of one year to a year and a half in the children, even in stimulation. However, they indicate a child that until four years old had not been stimulated, since this child had not walked yet and had cognitive age of five months. The conclusions show that a well-structured stimulation may promote the development of children with SD, minimizing their difficulties and showing the possibility of plasticity. It is important to remember that family and environmental conditions are related to the development of the individual and the interactions experienced can promote the ability of the nervous system functions interactions in the experiences and environmental demands (FERRARI et al, 2001). This can be found in a study that relates motivation and competence in children with DS in school. This study found a high competence of children to solve everyday problems when the family and school environment is welcoming and promotes adequate stimulation of cognitive functions (NICCOLS; ATKINSON, Pepler, 2003).

From this assumption, it is understood that these people need to move, interact with the society and also have contact with various forms of physical activities, so that, to expand the range of possibilities that can collaborate with improvements in their development.

The physical culture, physical or motor is a broader culture, integrating the material and symbolic achievement of a specific society, involving physical exercise, gymnastics, recreation, dance, sports training and etc. (NEIRA, 2008).

It should be mentioned that the physical culture is determined by general culture while it may be its determinant, in a dialectical relationship between both. (BETTI, 1993). According to him, this can also be seen as an autonomous segment characterized by "domain of values and patterns of physical activity, in which we highlight the institutionalized activities such as sport, dance, game and exercise." (BETTI, 1993, p. 44).

And each of these events has a cultural identity, different meaning and significance in the culture in which they occur. (NEIRA, 2008).

In the context of physical culture, it can be emphasized that the dance becomes a facilitator, as a contribution in the psychomotor development of people with Down Syndrome, because it allows the individual to discover and know thier own body, their chances to move and also recognize that their body can become a means of exploring the world through movements and social interactions. (Laban, 1978).

In addition to enabling developments and contributing to the development of these individuals, the dance creates opportunities to express their feelings, build values, experience new situations to express themselves, develop creativity, communication and autonomy. The development of these aspects is essential for the formation of self-esteem that will allow these individuals to be active in society and increase confidence in their actions. (Laban, 1978).

This evolution takes place in several fields: as affective, cognitive, social and motor. Human beings are born "immersed in culture" and of course this will be a major influence in the development. Resulting from this conception, one of the main ideas of Vygotsky (2003) is the zone of proximal development, which is the distance between the actual developmental level and the proximal development, marked by the ability to solve problems with the help of a more experienced partner. It is in this area of development that learning will occur.

The role of the educator is to encourage this learning, serving as a mediator between the child and the world.

It is in the interactions within the collective relations with the other that the child will be able to build their own psychological conditions. (Vygotsky, 2003).

The psychomotricity according to experts who met in the 1st Brazilian Congress of Psychomotor Therapy in 1982, "is a science that aims at the study of human being through his body in movement, in his interactions with internal and external world." (Mello, 6th ed.)

Thus, it is thought that the practice of dance, associated with psychomotor, can be an excellent way to improve the development of these people.

In the research cited by Moreira (2000), in which he analyzed the effect of psychomotor stimulation in children with DS, it can be seen that the ones who had stimuli obtained a much better development than those who had no such stimuli.

GOALS

General:

Analyze and evaluate the contribution of a program consisting of rhythmic activities and dance to the psychomotor development of individuals with Down syndrome, from an educational perspective based on the methodology of Laban (1978).

Specific:

Assess and quantify improvements in psychomotor aspects of these children through the effective practice of dance.

Evaluate the dance as a means of working with children with Down syndrome.

Systematize a program of activities based on content of rhythm and dance for individuals with Down syndrome.

METHODOLOGY

The research is based on a longitudinal study of qualitative and quantitative approach, qualitative with respect to analysis of the records, verification and adjustment of activities and quantitative in the sense of pre and post intervention with the application of the EDM test.

In the qualitative according to Alves (1999) there are three basic features that distinguish it from quantitative research: Holistic view (understanding of interrelationships); inductive approach (categories emerge from the study context); naturalistic research (immersion of the researcher in the context studied with minimal intervention).

This depends on the following steps:

- The focus and design of the study must emerge through a process of induction;
- No theory selected "previously" is able to account for the specificity and comprehensiveness of the subject studied;

In the quantitative, the objectivity has its reference point on what is outside of us - the facts. In this context, we selected people with Down syndrome in school age, between 7 to 25 years, participants of the "Down Project: Incentives and Development in Action", which is developed with CPID (Centro de Promoção para Inclusão Digital, Educacional e Social) - FCT / UNESP - Presidente Prudente.

Procedures for data collection

The research project already considered by the Ethics Committee under the protocol 31/2011 EC predicted to collect data in four steps. For this work, three stages were completed, which are presented:

Step 1: Preparation of questions for interviews with the participant's parents. The interview had the purpose of knowing: the everyday and the development process of the participants. Respondents signed an informed consent; according to Resolution 196/96 of National Health

The questions were applied to the parents and addressed the following items: psychomotor development, language, education and sociability. The script was analysed by two judges experts in the field of special education in order to adapt this instrument to collect the proposed objectives.

Step 2: Application of the EDM test (Scale of motor development) for the intellectual disabled, proposed by Rosa Neto (2002), for the participants of the research, in order to evaluate the psychomotor aspects. The test consists of a very diverse set of evidence and graded difficulty, leading to the exploration of different sectors of development. The application allows the assessment the level of motor development, considering successes and failures, taking into account the standards set by the author of the scale. (Rosa Neto, 2002).

At first, we applied the motor test, it is a test that allows the measurement, in an individual, of a certain characteristic.

The results can be compared with those of other individuals.

The tests evaluated the motor control (telescope manual) global motor (coordination), balance (static posture), the body scheme (imitation posture, speed); spatial organization (perception of space), temporal organization (language, time frames); laterality (hands, eyes and feet).

In a second step, the motor test, which was found an advance or delay of the child's motor, according to the results obtained in the tests.

In a third instance, it was made a graphic reproduction of the results obtained in several tests of motor efficiency, which allows quick and easy comparison of different aspects of motor development, highlighting the strengths and weaknesses of the individual.

After studies, it can be seen that this form of testing is appropriate in children with Down syndrome, because it allows to know and evaluate the coordination to further develop a specific program of action. (Rosa Neto, 2002).

Step 3: After making the psychomotor assessment, there were 21 weekly sessions for an hour. The activities were made in the dance room of block III of FCT / UNESP - Presidente Prudente.

The interventions occurred through rhythm and dance classes, based on the methodology of Rudolf Laban (1978). This methodology presents practice based on student's reality, where there is no standardization of movements and the greater focus is on the potential to create individuals, therefore, it has an education and pedagogical propose of dance. Initial activities have focused on the development of rhythm, memory, and body language of individuals. Subsequently, the degree of difficulty of the activities was high, until they could express themselves through choreographic sequences.

Dance like psychomotor activity was chosen because it is a form of greater acceptance by the population and the artistic mastery of the researcher.

The people responsible for the participants signed a consent form, according to Resolution 196/96 of the National Health Committee, authorizing the assessments and interventions administered by the CPID and dancing hall block III of FCT / UNESP - Presidente Prudente.

In each class a report was made on the activities and how new features would be adapted so that the student could perform better in the following class. It was registered how the student produced in each class and if he was better or worse than the previous class, so it could be done a new adequacy for a particular student. It was recorded their strengths and weaknesses so that they could also be improved, so that at the end of the sessions it could be applied a new EDM test for comparison with pre and post intervention.

RESULTS AND DISCUSSIONS

The data presented below show the results of EDM tests of psychomotor condition of each participant in the following order: negative chronological age in years and months (y.m.); general motor quotient, fine motricity, global motricity, balance, body scheme, spatial organization, temporal organization. Where the quotient is obtained by General Motor's old division between general motor (obtained by adding the positive results obtained in the evidence motor expressed in months, where positive results are represented by the symbol 1, the negative by 0 and the partial by ½) and chronological age multiplied by 100. It can be seen that in all items, students are younger than their chronological age and they also have lags.

	Cron.Y.	G.M.Q	F.M.	G.M.	B.	B.S.	S.O	T.O.
D (male)	25 y.	32,55	11 years old	6 years old	9 years old	6 years old	11 years old	6 years old
J(female)	13 y . 2 m.	53,69	11 years old	8 years old	10 years old	5 years old	8 years old	2 years old
G (male)	8 y. e 10 m.	20,25	3 years old	2 years old	2 years old	3 years old	5 years old	2 years old
L(male)	14 y. e 4 m.	51	9 years old	8 years old	5 years old	5 years old	10 years old	5 years old
C(female)	20 y. e 9 m.	21,68	7 years old	2 years old	4 years old	4 years old	8 years old	2 years old
R(male)	18 y.	29,72	7 years old	4 years old	4 years old	3 years old	10 years old	5 years old

G.M.Q (general motor quotient), F.M. (fine motricity), G.M. (global motricity), B. (balance), B.S. (body scheme), S.O. (spatial organization), T.O. (temporal organization).

From the data obtained in the test, the researcher started the intervention with emphasis on the most affected areas of the individual, using the exercises proposed by Laban (1978).

For students D, J, G, L, C and R were given 21 (twenty one) sessions. At each session, were taught an average of 10 (ten) exercises, all referenced by Laban (1978), trying to accommodate the difficulties of each student. After four sessions, in the fifth session, it was repeated activities from previous sessions to check memory.

After some sessions the researcher could see that the exercises proposed by the methodology of Laban were efficient to according to the proposed psychomotor development, therefore it was decided to continue the same methodology, respecting the time of learning of each participant.

According to Garcia and Simon (s / d), the dance as an educational resource aims to develop rhythmic movements, coordination, control and harmony of motion, improve posture, stimulate the proprioceptors, the equilibrium reactions, creating basic and artistic skills.

In this context, Blascovi-Assisi (1991) reports that the body scheme is always explored in particular in the psychomotor development work carried out with people with Down syndrome, as an appropriate structure to a satisfactory development of other skills related to the psychomotricity area.

According to Fonseca (1995), the dance might contribute to the development of body awareness of people with Down syndrome, allowing appropriate development in relation with the environment, deepening the characteristics of dissociation between the scheme and the body image. The dance also contributes to the facilitation of movement, rehabilitation or reeducation of the gesture (CASTRO, 2005).

D Students (25 years old) and J (13 years old 2 months), for example, did not require any kind of stimulation to perform in class, only explaining the activities was enough for them to perform with great interest, doing their best. At the end of each intervention the researcher placed a song to perform the steps they learned in class as they chose, adapting them to the music. The two individuals performed the requested tasks with pleasure, ease and creativity.

In responses obtained with student G (8 years old and 10 months), perhaps due to the fact he was young, and the results obtained in the EDM test according to the classification of Rosa Neto (2002), low normal, meaning motor age of 2 (two) years old less than his chronological age; for the exercises application, it was necessary to explain them in a more playful way, such as games to get his attention. But at the end of the lesson, it was used the same dynamic class of the previous students, it was put a song for them to do the steps, adapting them to the music.

The student L (14 years old and 4 months), has less initiative and is slower in their responses, which did not prevent us to apply the same methodology offered to students D and J, and R.

With the C student (20 years old and 9 months), it was necessary to be emphatic and demanding in the way of teaching, because she showed lack of will and was undisciplined, but he understood the activities very well with their adequacy by Laban method (1978).

She was very communicative, but was afraid to carry out the activities because she was afraid of falling, as she was overweight for her age, so it was easier to fall.

As aulas foram dadas com as mesmas sequências de exercícios para todos, porém a maneira com que foram aplicadas se diferiu conforme a necessidade de cada um, pois além das personalidades distintas, a adaptação para que compreendessem as tarefas foram individualizadas.

To the R student (18 years old), it was enough only to teach sequences of exercises for him to accomplish, however,

his difficulty to coordinate was bigger than the others, therefore it was necessary to emphasize this area.

The classes were given with the same sequence of exercises for everybody, but the way they were applied varied according to the needs of each one, because besides the distinct personalities, the adaptation for them to understand the tasks were individualized.

Regarding the psychomotor skills, the difficulties of most students focused on balance, but during the classes the researcher worked extensively with all without exception, demonstrating a qualitative improvement of this capacity. With respect to the memory it was necessary the repetition of activities taught in previous sessions, which brought them a better fixation of the work routines.

CONCLUSION

It is urgent to investigate and systematize psychomotor resources, such as dance, which can be offered to people with Down syndrome, as another tool in the multilateral development of these individuals, thereby creating a program of teaching and learning in relation to the development of psychomotor and social aspects.

The students' difficulties with regard to balance, coordination, memorization have always been clear to those responsible for the project, but it is noticeable that the contribution of the results demonstrated, through rhythm and dance activities, administered by the method of Laban (1978), researchers have shown the developments, which signals the continuity of work and certainty that we can contribute qualitatively and quantitatively in the development of these individuals.

Finally, in the course of the sessions it was observed that the objective of the project was achieved, and participants responded adequately to appropriate stimuli and / or adapted, with the construction of new knowledge about this relationship which involves the insertion of a body culture of movement through the contents of rhythm and dance to psychomotor development of individuals with Down syndrome.

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THE RHYTHM AND DANCE AS PART OF THE PSYCHOMOTOR DEVELOPMENT PROCESS OF PEOPLE WITH DOWN SYNDROME: THE LABAN METHOD AS METHODOLOGICAL SUBSIDY

ABSTRACT:

This study aimed to analyze the contents of rhythm and dance as a teaching strategy for psychomotor stimulation of people with Down syndrome, stimulating and enabling new opportunities so that they could develop multilaterally. it was possible through the methodology of Laban. This methodology provides a practice based on student's reality, where there is no standardization of motion and the greater focus is on creating the potential of individuals, the dance could contribute to several aspects of development of each one as: balance, memory, coordination among others, making contributions in the psychomotor development and social inclusion of these people.

KEYWORDS: Down Syndrome; psychomotor; dance.

LE RYTHME ET LA DANSE DANS LE CADRE DU PROCESSUS DE DÉVELOPPEMENT PSYCHOMOTEUR DE PERSONNES TRISOMIQUES: LA MÉTHODE DE SUBVENTION COMME MÉTHODOLOGIQUES LABAN

RÉSUMÉ:

Le present travail a objetivé analiser les contenus du rythme et de la danse comme stratégie d'enseignement pour la stimulation psychomotrice des gens avec syndrome de Down, pour stimuler et possibilitter nouvelles opportunités, ainsi elles peuvent se développer multilatéralement. À travers de la méthodologie de Laban ce développement a eté possible. Cette méthodologie présente une pratique basée sur la réalité d'élève, dans laquelle il n'y a pas padronisation des mouvements et le plus grand aborde est le potential de création des individus, faisant la danse contribuer en plus aspects du développement, par example: équilibre, mémorisation, coordination etc. contribuant au développement psychomoteur ainsi comme pour l'inclusion sociale.

MOTS-CLÉS: Syndrome de Down, psychomotricité, danse.

EL RITMO Y LA DANZA COMO PARTE DEL PROCESO DE DESARROLLO PSICOMOTOR DE LAS PERSONAS CON SÍNDROME DE DOWN: EL METODO DE LA CONCESIÓN COMO METODOLÓGICA LABAN

RESUMEN:

Este estudio tuvo como objetivo analizar el contenido del ritmo y la danza como estrategia de enseñanza para la estimulación psicomotriz para personas con síndrome de Down por alentar y permitir nuevas oportunidades para que puedan desarrollar de manera multilateral. Fue a través de la metodología de Labán, que esto era posible. Que presenta una metodología práctica basada en la realidad del estudiante, donde no existe una estandarización de los movimientos y una mayor atención se centra en la creación potencial de los individuos, por lo que la danza puede contribuir a varios aspectos del desarrollo de cada uno de ellos como: el equilibrio, la memoria, la coordinación entre otras contribuciones, por lo que en el desarrollo psicomotor y la inclusión social de estas personas.

PALABRAS CLAVE: Síndrome de Down, psicomotricidad, danza.

O RÍTMO E A DANÇA COMO ELEMENTOS DO PROCESSO DE DESENVOLVIMENTO PSICOMOTOR DE PESSOAS COM SÍNDROME DE DOWN: O MÉTODO DE LABAN COMO SUBSÍDIO METODOLÓGICO

RESUMO:

O presente trabalho teve como objetivo analisar os conteúdos do ritmo e da dança como estratégia de ensino para a estimulação psicomotora de pessoas com Síndrome de Down, estimulando e possibilitando novas oportunidades para que as mesmas pudessem se desenvolver multilateralmente. Foi por meio da metodologia de Laban,que isso foi possível. Metodologia esta que apresenta uma prática baseada na realidade do aluno, onde não há padronização de movimentos e o maior enfoque é no potencial de criação dos indivíduos, fazendo com que a dança pudesse contribuir em vários aspectos do desenvolvimento de cada um como: equilíbrio, memorização ,coordenação entre outros, trazendo contribuições no desenvolvimento psicomotor bem como na inclusão social destas pessoas.

PALAVRAS CHAVE: Síndrome de Down; psicomotricidade; dança.