PRIMA EDUCATIONE 2019

ANA PAULA ANTUNES ALVES

Fernando Pessoa University. Portugal
ORCID: https://orcid.org/0000-0003-0471-8370
anapaulaalves@ufp.edu.pt

Use of Dance/Movement Therapy Strategies in Children with Autism Spectrum Disorders as Facilitators of Creative Movement and Nonverbal Communication

Zastosowanie metod terapii tańcem/ruchem u dzieci z zaburzeniami ze spektrum autyzmu jako czynników ułatwiających kreatywny ruch i komunikację niewerbalną

SUMMARY

In the article there were presented the results of research conducted among the children with autism spectrum disorders (ASD), aged 4–7, in which there were used dance/movement therapy methods to promote creative movement and nonverbal communication. The research was based on works by different authors. They focused on the dynamics of development in childhood and dance/movement therapy in articulation with pedagogical methods for pupils with ASD. By observing and recording the sessions, it was possible to identify a qualitative evolution of nonverbal communication and creative movement in the participants. Based on the conducted research it was concluded that further studies using dance/movement therapy should be provided to identify and confirm the expansion and consistency of the evolution of creative movement.

Keywords: dance/movement therapy; autism spectrum disorder; creative movement; nonverbal communication

DOI: 10.17951/PE/2019.3.41-48

> When we think of body memory, we are sure that dance is written in our bodies and life, in our personal history.
> (Lobo, Navas 2003)

INTRODUCTION

Since the beginning of time, dance has been linked to human daily life as a cultural and creative manifestation. Different definitions and uses promote an activity that can be used for different purposes. Its use will depend on what we want to achieve: it contributes to emotional well-being – therapeutic goal (Sherborne 2001); it is an educational source – pedagogical objective (Sousa 2006); an object of pleasure – cultural and artistic objective (Sasportes 2006) or an instrument of communication and social interaction – social objective (Guerra 2013).

DANCE MOVEMENT THERAPY

Although dance has been used since the beginning of time and its functions may be considered therapeutic by the different peoples of the world – group dances that exorcise fears from one's mind (Gharasian 1999); dance of healers who ward off disease (Fleming 2003); tribal dances that reinforce group power (Shapiro, Shapiro 2002); ritual dances that foster group cohesion (Ghasarian 1999) – it was not until the 20th century that it began to be linked to therapeutic practices that use movement as a facilitator of interactions between the participant, the other and the group.

Based on research conducted in institutions related to mental illness and the results obtained, the pioneers of the use of dance as a form of therapy confirm in their works (Chace, after Chaiklin, Wengrower 2009; Meekums 2002) that this form of therapy is efficient and provide specialized training in Europe and the United States. Dance/movement therapy (DMT) is defined by the American Dance Therapy Association (ADTA) as "the psychotherapeutic use of movement to promote emotional, social, cognitive, and physical integration of the individual, for the purpose of improving health and well-being" (ADTA 2019).

Bonnie Meekums presents theoretical principles that support DMT and are essential to its understanding and characterization. He states that body and mind are in constant interaction and any movement will affect the functioning of the subject. For this author, the improvisation of movement allows the subject to experience different ways of being in a "container" and protective environment where the therapeutic relationship is mediated by nonverbal communication (Meekums 2002). According to Marian Chace's model (after Loman 2005) dance is communication and, in this sense, fulfills a basic need of the human being. Chace (Chaiklin 1975) presents four major domains:

- Body Action: which allows a broadening of body vocabulary and helps to express emotions,
- Symbolism: the universality of movement as nonverbal symbolic language that allows the creation of different interactions,
- Therapeutic Movement Relationship: reenactment of participant movement by facilitator contributing to self-acceptance by establishing levels of understanding of the action,
- Rhythmic Group Activity: rhythm as a therapeutic tool that facilitates group communication.

Rudolf Laban (1998) contributed, with his analysis of movement, to a recognition of emotions through body movements. According to him, each phase of movement, each shifting of body weight, each gesture of any part of the body reflects an aspect of our inner life. The different theoretical constructions linked to DMT will highlight the importance of this methodology as a facilitator of communication and creativity.

AUTISM SPECTRUM DISORDERS

Autism Spectrum Disorder (ASD) is one of the terms used to describe a set of behaviors manifesting in a heterogeneous population group and characterized by difficulties in social communication and interaction, and the presence of repetitive and restricted patterns of behavior, interests and activities (DSM-5, 2013). Individuals diagnosed with ASD manifest alterations in their development that may be associated with other difficulties such as epilepsy, sleep problems, eating problems, behavior and may also present situations of sensory hypersensitivity (Gillberg 2010).

CREATIVE MOVEMENT

Creative movement is a method deeply rooted in cognitive engagement since the entirety of the person is involved in the task. Research has indicated that the arts are "ideal for learning" (Sousa, after Lytwyn 2014). According to Helen Payne (2004), movement can be classified into three types: functional or instrumental (holding a glass), quantitative (running fast) and qualitative (expressing feelings/moods). Daniel Stern (2010) tells us about the concept of synchronization as a facilitator of communication between mother and baby which can be transferred to the movement between the child and the adult, in the situation of DMT. Andrew Meltzoff (2010) considers that adults are potentially social mirrors which will contribute to the development of the child's movement when recognizing the adult as similar to him/herself.

PEDAGOGICAL INTERVENTION IN ASD

International studies indicate the importance of clarifying the different approaches/intervention programs for ASD in order to allow for a more informed choice by families and staff (Hume et al. 2011; Charman 2010; Odom et al. 2011). Caroline Magyar (2011) suggests that intervention approaches/programs can be organized into developmental, behavioral, therapy-based and combined. In the specific case of this investigation, the intervention focused on DMT focusing on the expansion of nonverbal communication enhancing movements and the evolution of creative movement. The goal was to provide a space and time for interaction between the child and the adult in which it was possible to enhance nonverbal communication strategies using movement as a support for creativity.

METHODOLOGY

In this research we used a qualitative methodology with case study characteristics (Yin 2003). Observation was used because it is the most appropriate methodology when taking into account the study population. According to Catherine Marshall and Gretchen Rossman (2011), observation is a central tool in qualitative research. It is an important source of information in a case study, and plays an important role if it involves dynamics linked to interactions in different spaces than usual.

The purpose of this case study was to understand (using movement observation and recording techniques) the way in which each participant was evolving through the different sessions proposed in a setting space and in interaction with a participating adult. For this record, an observation grid was constructed from the concepts used by Rudolf Laban and F.C. Lawrence (1974) and Veronica Sherborne (2001).

PARTICIPANTS

Four children (3 boys and 1 girl) aged 4–7, who were diagnosed with autism spectrum disorder (DSM-5) by the Health and Psychology Services of the Development Consultation from the public hospital, took part in the study. The families signed an informed consent and gave permission for the sessions to be filmed for investigative purposes only. The sessions took place in a setting offered by a school in the participants' area of residence. The provided material related to DMT with children: handkerchiefs, cloths with different textures and colors, rugs, pillows, toys (cars, dolls, pieces of wood for construction), pencils, pens, sheets. All participants were assessed using the Vineland Adaptive Behavior Assessment Scale (Sparrow et al. 2005) which includes the areas of communication, autonomy, socialization, and motricity.

There were 32 sessions. They were all individual, lasted 30 minutes, and were conducted once a week for 8 months. The session had always the same structure: initial greeting, time to explore space and materials allowing the child to choose movements, time to interact with adults, then there were proposed movements that facilitated body awareness, and, finally, the session was closed.

DATA PROCESSING

Because of a qualitative nature of the study, the data processing was made by comparing the child's movement throughout the different sessions, in order to identify differences in a holistic perspective of the child's action. Based on the evaluation grid constructed we checked the evolution of the movement of each of the participants and established movement patterns and their dynamics. The grid contained different ways of looking at movement:

- use of space (kinesphere),
- shape of movement (open/closed; near/far),
- gesture amplitude (broad, contained),
- pace (fast, slow),
- qualities of movement (weight, time, space, fluency) (Laban 1998).

The video recording constituted a written aid to record the movements that were introduced in the observation grid. At the end, a map of each participant's movements and their evolution during the different sessions was made. The grids were given to the participants' families and their meaning was explained in order to contribute to a greater knowledge of their children's motor and creative activity.

FINDINGS

Working with children with ASD is time consuming, difficult to interpret and concerns the characteristics of ASD that are differently revealed in each participant. The interaction between the adult who proposes an action and the child who participates in it requires a dynamic of acceptance and adaptation in order to establish a bond that allows the construction of a jointly created relationship (Schmidt et al. 2019).

Throughout 32 sessions, it was possible to identify a qualitative evolution of movement in all participants, but in each of them the area of movement that evolved was different. There were micro momentary changes (Stern 2010) in all participants and some of them remained until the end of the research. There were changes in all participants, taking into account the qualities of the movement identified by Laban (1998):

Participant 1 (boy): At the beginning, the boy was walking and running without control. He did not pay attention to things around him. At the end of the sessions, he was able to stop, observe objects, and move in order to connect with the adult.

Participant 2 (girl): At the beginning, the girl was always sitting, without exploring space, she was constantly repeating phrases unrelated to the action. At the end of the sessions, she was able to explore the space and observe. She was seeking interaction with the adult by asking questions about the action.

Participant 3 (boy): First, the boy was focused on picking up the handkerchiefs as a binding object between him and other participants for most of the session time. At the end of the sessions, he used the cloths as a communication object covering the adult and himself.

Participant 4 (boy): At the beginning of the sessions, the boy was throwing the objects with force and running to fetch them. However, at the end of the sessions, he was able to play with an object without throwing it and he was paying attention to the adult.

CONCLUSIONS

The aim of this paper was to present the study based on the theory of space utilization (Laban 1998; Lobo, Navas 2003; Sherborne 2001) by children with ASD that may enhance the development of nonverbal communication and creative movement. Through a case study, we focus on the relation of limited space and objects that can be used in different ways, with different meanings (Stern 2010), and the use of strategies linked to DMT. The results obtained showed that there was a change in space exploration, a greater interaction with the adult, a greater externalization of emotions (embracing, looking at each other, drawing). It was possible to identify the development in these participants, but one cannot generalize, and it is necessary to undertake further research related to ASD patients as far as DMT and its implementation in education is concerned.

REFERENCES

ADTA (2019), *What Is Dance/Movement Therapy?*, https://adta.org/2014/11/08/what-is-dance-movement-therapy (access: 20.11.2019).

Chaiklin H. (ed.). (1975), *Marian Chace. Her Papers*. Columbia: American Dance Therapy Association.

Chaiklin S., Wengrower H. (2009), *The Art and Science of Dance Movement Therapy. Life is Dance*. London: Routledge.

Charman T. (2010), *Developmental Approaches to Understanding and Treating Autism*. Folia Phoniatrica et Logopaedica 62(4), **DOI: https://doi.org/10.1159/000314032**.

Fleming M. (2003), *Dorsem Nome. Pensar o Sofrimento*. Maia: Edições Afrontamento.

Ghasarian C. (1999), *Introdução ao estudo do Parentesco*. Lisboa: Terramar.

Gillberg C. (2010), *The ESSENCE in Child Psychiatry: Early Symptomatic Syndromes Eliciting Neurodevelopmental Clinical Examinations*. Research in Developmental Disabilities 31(6), **DOI: https://doi.org/10.1016/j.ridd.2010.06.002**.

Guerra R. (2013), *Develando la Danza*. Havana: ICAIC.

Hume K., Boyd B., McBee M., Coman D., Gutierrez A., …, Odom S. (2011), *Assessing Implementation of Comprehensive Treatment Models for Young Children with ASD: Reliability and Validity of Two Measures*. Research in Autism Spectrum Disorders 5(4), **DOI: https://doi.org/10.1016/j.rasd.2011.02.002**.

Laban R. (1998), *Mastery of Movement*. London: Northcote House.

Laban R., Lawrence F.C. (1974), *Effort. Economy of Human Movement*. Plymouth: Macdonald & Evans.

Lobo L., Navas C. (2003), *Teatro do Movimento*. Brasília: LGE Editora.

Loman S. (2005), *Dance/Movement Therapy*. In: C. Malchiodi (ed.), *Expressive Therapies*. New York: Guilford Press.

Lytwyn T. (2014), *Stimulating the Brain with Creative Movement in the Classroom*. Honors Theses. Paper 2523.

Magyar C.I. (2011), *Developing and Evaluating Educational Programs for Students with Autism*. Rochester: Springer.

Marshall C., Rossman G. (2011), *Designing Qualitative Research*. California: SAGE Publications.

Meekums B. (2002), *Dance Movement Therapy*. London: SAGE Publications.

Meltzoff A. (2010), *Imitación y otras mentes: la hipótesis "como yo" (M. Bordoni, trad.)*. In: D. Pérez, S. Español, L. Skidelsky, R. Minervino (Comps.), *Conceptos. Debates contemporáneos en filosofía y psicología*. Buenos Aires: Catálogos.

Odom S.L., Buysse V., Soukakou E. (2011), *Inclusion for Young Children with Disabilities: A Quarter Century of Research Perspectives*. Journal of Early Intervention 33(4), **DOI: https://doi.org/10.1177/1053815111430094**.

Payne H. (2004), *Danzaterapia e movimento creativo*. Oxon: Erickson.

Sasportes J. (2006), *A reflexão estética de Mallarmé a Cocteau* (2ª Edição Revista e Aumentada). Lisboa: INCM – Imprensa Nacional Casa da Moeda.

Schmidt N.B., Richey J.A., Zvolensky M.J., Maner J.K. (2009), *Exploring Human Freeze Responses to a Threat Stressor*. Journal of Behavioral Therapy and Experimental Psychiatry 39(3), **DOI: https://doi.org/10.1016/j.jbtep.2007.08.002**.

Shapiro S.B., Shapiro H.S. (2002). *Body Movements: Pedagogy, Politics, and Social Change*. Creskill: Hampton Press.

Sherborne V. (2001), *Developmental Movement for Children. Mainstream, Special Needs and Pre-School*. London: Worth Publishing.

Sousa D.A. (2006), *How the Brain Learns*. Thousand Oaks: Corwin Press.

Sparrow S.S., Cicchetti V.D., Balla A.D. (2005), *Vineland Adaptive Behavior Scales*. Circle Pines: American Guidance Service.

Stern D. (2010), *The Issue of Vitality*. Nordic Journal of Music Therapy 19(2), **DOI: https://doi.org/10.1080/08098131.2010.497634**.

Yin R. (2003), *Case Study Research: Design and Methods*. Thousand Oaks: SAGE Publications.

STRESZCZENIE

W artykule przedstawiono wyniki badań przeprowadzonych wśród dzieci z zaburzeniami ze spektrum autyzmu (ASD) w wieku 4–7 lat, w których zastosowano metody terapii tańcem/ruchem w celu promowania kreatywnego ruchu i komunikacji niewerbalnej. Badanie oparto na pracach różnych autorów, w tym odwołujących się do dynamiki rozwoju w dzieciństwie i terapii tańcem/ruchem w artykulacji metodami pedagogicznymi wprowadzonymi u uczniów z ASD. Obserwując i rejestrując sesje, można było zidentyfikować jakościową ewolucję niewerbalnej komunikacji i kreatywnego ruchu u uczestników. Na podstawie przeprowadzonych badań stwierdzono, że należy przeprowadzić dalsze badania z wykorzystaniem terapii tańcem/ruchem w celu zidentyfikowania i potwierdzenia ekspansji i spójności ewolucji ruchu twórczego.

Słowa kluczowe: terapia tańcem/ruchem; zaburzenie ze spektrum autyzmu; ruch twórczy; komunikacja niewerbalna