

Research on the Intervention Program of Dance Therapy on the Joint Attention of Children with Autism

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Abstract: In recent years, with the development of the concept of Autism Spectrum Disorder (ASD) and the exploration of related research, it has been found that the common attention of autistic children is regarded as the core defect. As a kind of psychotherapy, dance therapy can mainly promote the integration of emotion, cognition and the sociality of autistic children through the media of "body/movement". This paper is made with the main aims in improving the common attention of autistic children to study the intervention program of dancing therapy.

Keywords: dance therapy, children with autism spectrum disorder, joint attention

1. Introduction

Dance Therapy, also known as Dance Movement Therapy (DMT), originated in Europe with upsurge in the United States. As the international authority of dance therapy, American Dance Therapy Association (ADTA) considers dance therapy to be a kind of psychotherapy that uses movement to promote the emotional, physical, cognitive and social integration of individuals. The UK defines dance therapy as "the creative participation of people in therapeutic processes through the therapeutic use of movement and dance to promote the t integration of heir emotion, cognition, physique and sociality as a whole".

The German Dance Therapy Association considers dance therapy to be a creative and body-oriented psychotherapy. [1] It can be seen that people's consensus is that dance therapy should be defined in the field of psychological therapy, emphasizing the integration of emotion, cognition, body and society through dance or movement, and it is very important to use the relationship between body and therapy in the whole treatment process in a creative manner, which makes full use of creative non-verbal communication, and it is conducive for the therapist to expanding the channels of communication with the patient, and facilitating the effective and rapid establishment of therapeutic relationships (kinesthetic empathy) through the medium of body and movement. As a result, it is the most critical step in formal psychotherapy. The dances and movements involved in dance therapy are not required to emphasize specific movement norms and difficulties, instead more attention should be given to spontaneous and real movements and inner feelings of people's bodies. All people with vital emotions are likely to gain beneficial benefits through participating in the process of dance therapy.[2]

2. Autistic children and joint attention

Children with Autistic Spectrum Disorder, also known as autistic children or children with autism, are those who have deficits in social interaction and interpersonal communication, as well as fixation and repetition in behavior and interests. Children with ASD fall into the category of children with generalized developmental Disorder.[3]

Children with autism spectrum disorder can be divided into low, medium and three different degrees of dysfunction. Children with low functioning autism spectrum disorder refer to children with severe intellectual retardation, prestress disorder, emotional disorder and social disorder. Children with moderate functioning autism spectrum disorder are those whose intellectual development is some way beyond their chronological age. Although such children have certain speech ability and self-care ability, they still have many deficiencies in social communication with retardant language development. High-functioning autism spectrum disorders in children refers to that the mental development level and its actual age are equal, in the field of individual intelligence development even more than the actual age of children. In some areas, the intellectual development of children even exceeds their actual age. Although there is no lag or even abnormal in the intellectual development of high-functioning autistic children, they are still deficiency in social and linguistic communication, and their speeches fail to form meaningful cohesion[3].

In May 2013, *The Diagnostic and Statistical Manual of Mental Disorders (Fifth Edition)* revised by the American Psychiatric Association (APA) proposed that the core symptoms of autism spectrum disorders are deficits in social

communication and social interaction with characteristics of narrow and repetitive stereotyped behaviors and interests. [4] Both social communication and social interaction skills, as well as individual behaviors and interests, are related to common attention in children's development. Joint attention refers to the behavior that children can share interesting things and experiences with others and pay attention to an object or thing together with others by coordinating their eyes and movements.[5] Common children develop the capacity for joint attention around 10 months after birth (or even earlier), while children with autism spectrum disorders have few features of joint attention behavior. In particular, children with low functioning autism spectrum disorder have serious deficits in joint attention and strong social nature, which affect the development of language, cognition, communication, social and other fields. It affects the development of language cognition, communication, social interaction and other fields. How to improve the common attention of autistic children is an urgent task facing special education workers.

3. Research program of dance therapy intervention

Dance/movement activities may be one of the best ways to improve the perception of the world (reception, reaction, and response experiences) of children with the autism spectrum. The dance and movement involved in dance therapy do not pay emphasis on specific movement standard skills and difficulty, but instead, more attentions were given to people's spontaneous real movements and inner feelings, such as walking, talking, and even pure rest and breathing. For children with autism, their body shape, body function and physical quality are weaker than those of ordinary children, and their body muscle tension is prone to be too large or too small with poor balance ability. Therefore, as a therapist, it is necessary to lower the requirements and standards to see what the client can do, rather than what he cannot do.

In terms of the visitors, the therapists should find and solve the problems through looking at nonverbal communication patterns in children with autism spectrum disorders. They are encouraged to become aware of their own bodies and the bodies of others, pushing them to overcome cognitive barriers and meet their need for body language self-expression. In this process, new demands and new psychological functions are generated. Therefore, in order to have better intervention effects, therapists need to make efforts when making dancing programs from the following aspects.

3.1 Understand visitors from different aspects for better initial assessment

The dance therapist needs to know the history, diagnosis, treatment and other professional diagnosis of the autistic child by referring to the case. Through interviews with parents, teachers, partners, etc., the therapists should understand the present and future needs of the child and his/her parents for therapy. The most important task is to conduct a preliminary assessment of the client with various elements of the dance/movement area before the development of the dance program. Which include movement ability, cognitive ability, language ability, social behavior ability and dance ability.

3.2 Clarify the staged treatment goals and follow the step-by-step principle

The ultimate goal for children with ASD is to develop social interaction and interest, reduce stereotypical behavior, improve response to sensory stimuli and motor coordination, and improve self-care in daily life through dance or movement therapy. The therapist sets therapeutic goals based on an initial assessment of the client. Therapeutic goals are not achieved overnight, which are, instead, divided into several processes such as short-term procedure, medium-term procedure and long-term procedure. Long term goals are achieved after multiple medium-term procedure, and medium-term goals are achieved after multiple short term goals. Short-term goals were achieved through multiple dance/movement activity interventions. Each process takes time and interaction between therapist and client to achieve.

3.3 Different from person to person, choose the appropriate treatment method in a variety of ways

Different theoretical schools of western dance therapy have constructed different therapeutic methods, which mainly include mental exercise therapy (imitation, supports and encouraging self-expression, cultivating leadership, rhythm synchronous technology), gestalt therapy (comfort touch, exaggeration, strengthening the consciousness of first-person technology), Jung dance therapy (free imagination, mirror reflection, improvisation, Real action exploration and other technologies), empiric therapy (relax, concentrating body parts, verbal language, free association, etc.), creative dance therapy, and several commonly used therapies (empowerment, desire to explore, improvisation and response, etc.). As a therapist, the plan should be made according to the functional level of children with autism spectrum disorder, and different treatment methods should be changed regularly for training. According to the current physical and mental disorders and related abilities of children with autism, their preferred learning methods should be used to enhance the learning effect.

3.4 Pay attention to the unity of home and school, and emphasize the structured training process

Home is another important place for intervention. Attention should be paid to the combination and cooperation between

families and schools, and parents of autistic children should become partners and participants in dance therapy. When parents can apply their dance therapy intervention to the daily life of children with autism, they are an important interveners for children with autism. The therapist should invite parents to participate in each dance/movement training to understand the learning situation and specific treatment methods, so that parents can understand and master the principles and practical strategies of training, so that parents can continue to consolidate and generalize the common attention of children in the family.

Structured training should be adopted in the training process. Since autistic children are defected in basic communication, cognition, language and perception, most children with autism feel that familiar preferred movements bring them a sense of safety and comfort, so they are reluctant to try new movements. In order to enable them to receive dance therapy training in a structured environment, therapists should apply the concept of structuration to the corresponding level of reception from the aspects of environmental structuration, visual structuration and conventional structuration. Adopting a fixed teaching environment and explicit curriculum can effectively reduce the novelty of the environment and reduce the sensitivity and maladaptation of autistic children to the environment or irrelevant things, thus ensuring the effective implementation of intervention.

4. Design of dancing therapy program for autistic children's joint attention

This paper will take A child with autism from a special school in Nanjing as the individual case. The first dance therapy program was developed for child A's joint attention and initial assessment.

Basic condition of the individual case	eye contact. The child has contact when needing help often cries at school, and l	A 6-year-old child A, male, has moderately functional autism, and he rarely made responds as being called with no ye contact. The child has minimal functional communication with people and will hold the adult's hand without eye ontact when needing help. Besides, they are troubled with prominent problems in emotion and behavior. The child often cries at school, and has aggressive behavior against others or himself. He likes playing with rubber bands with the stereotypical action of rubbing rubber bands with his fingers.	
Therapeutic objective	Long-term objectives (Phase 3)	The child can show interest in the stimuli of surrounding scenes, sounds, movements or sensory activities; The child is able to smile in response to being called and can look at someone for about 20 seconds; Children can have spontaneous behavior for pointing, and they can point fingers at the desired objects; To control emotional outbursts with your breath.	
	Medium-term objectives (Phase 2)	1. Cultivation of self-awareness; 2. Most children can respond when called, and they can make eye contact for up to 10 seconds; 3. Responsive pointing behavior, pointing fingers to interested people or things under the hints of others; 4. Being able to express emotions physically or verbally.	
	Short -term objectives (Phase 1)	To establish trusting relationship with child A; When the child is called, he/her can make occasional respond and make eye contact with others for about 5 seconds; Eye contact when required; Knowing more about their own body and like to dance with their body movement.	
Therapy phases	The first phase		
Time of therapy	,	September 1, 2021 to December 1, 2021	
The first time (September 1, 2021)			
Therapeutic goa	Building trust; Through the assistance of other people's body language, children can be attracted to the joint attention; The ability to respond to a teacher's call; The children can easily imitate the teacher's actions.		
Form of therapy	Individualized treatment		
Therapeutic method	Psychokinesis therapy. Jungian dance therapy. Creative dance therapy.		
Preparations	Music: "Shake Hands", "Fire-worm", "Song of the Five Senses", "Goodbye" Instrumental music: tambourine Props: Colorful balloons		
Preparations	Instrumental music: tambourine		

- 1. Warm-up (15 minutes)
- (1) Warm-up game. The therapist prepares several colorful balloons and asks child A to choose his/her favorite color. When the balloon floated in the air, the children touched the balloon with different parts of the body to generate physical warm-up, and the therapist could take this opportunity to create empathic connection with A.
- generate physical warm-up, and the therapist could take this opportunity to create empathic connection with A.

 (2) Training on breathing. After the warm-up, the therapist invited child A to sit face to face and play the music of Fire-worm to relax the individuals slowly. The students were guided to carry out breathing training and they were required to have regular exhaling and inhaling exercises, so that the students could hear the difference between themselves and the teacher as much as possible. During the exhaling process, the students were assisted to maintain and deepen their breathing with the sound of "huhu" and "ha", which could relax the body with excessive tension or numbness. When child A is found with respond, we should praise and affirm in time, such as you are great. We should support and encourage children to express themselves and enhance their self-confidence.
- or numbness. When child A is found with respond, we should praise and affirm in time, such as you are great. We should support and encourage children to express themselves and enhance their self-confidence.

 (3) Training of greeting among teachers and students. When the music "Shake hands" is played, The therapist smiled at child A and guided him to nod, shake hands and embrace (If child A is unresponsive or uncooperative, the therapist can actively mirror child A's movements). After establishing A trust relationship, the therapist will slowly conduct other steps to guide child A to imitate his/her own movements. If there is bad emotional behavior reaction in the individual case, the music will be stopped and the music will continue after the bad emotion disappears.
- 2. Theme based activities (20 minutes)

Rhythm: Song of the Five Senses

- (1) Experiencing rhythm training. The therapist walks up to the child, claps his hands and asks the child to do the same. Using the comfort touch technique, the therapist gently raises his/her shiny arms and slaps his hands, teaching him to understand the demands of the movement and giving him a sense of security and rhythm while slapping his/her hands. Then the therapist guided Liangliang to stomp his feet vigorously to follow the rhythm of the music by using the real motion exploration technology, and paid close attention to Liangliang from the beginning to the end, giving her support like a mother's comfort.
- of the music by using the real motion exploration technology, and paid close attention to Liangliang from the beginning to the end, giving her support like a mother's comfort.

 (2) Quality training of perceptual movement. The therapist clapped hands with the child each other. More strong rhythms are added, beckoning the child to follow the pace and beat of the music as the therapist raises her/his voice and says. "This is my hand, and that's your hand." (The main technique used here is gestalt movement therapy for enhancing first person consciousness). This coordinated approach can be successful in getting children's attention. When the child responds to the therapist's actions, this will be the beginning of the readjust of emotional feedback and the formation of greater cognitive feedback.
- (3) Training of body. The therapist points his/her index finger at his nose and says, "This is my nose", then touches child A's nose with his finger and says: "This is your nose," which is used to bring the therapist closer to the client by touching the eyes, mouth, ears, shoulders, stomach, butt, knees and other body parts in the same way, in order to train the autistic children's joint attention.

Taining of rhythmic dance "Song of five Senses". The therapist asks in a nursery rhyme: Where's the nose? To guide child A to come out with his/her fingers and sing: "Nose is here" and other body parts and so on. During the whole process, child A should be reminded to look into the eyes of the therapist and strengthen the training of attention. After getting familiar with the action, music can be played. With the assistance of the therapist, child A can imitate rhythmic combination. As long as child A show attention or response with movement, it should be recognized in time. Positive reinforcement can be used to give children favorite food or toys as rewards.

3. Sharing and communication (5 minutes)

- (1) What is the current mood of the individual case? How is the feeling of the body? (If the individual does not want to respond or speak, the therapist can take out the emoticon card prepared beforehand instead) to find ways to guide the individuals to actively respond and stimulate attention.

 (2) The parents of the individual case were invited to participate in the training, dancing impromptu in the
- (2) The parents of the individual case were invited to participate in the training, dancing impromptu in the background of music, and asking questions: Where are mom's eyes? To guide the individual to interact with mom to enable children to know where the Mom's eyes are. The therapist can assist the individuals to touch the mother's eyes with their hands, and so on, so that the individual can master the training objectives and training methods, and continue the intensive training at home.
- (3) Ask the individual which part he/her likes most, he/her can understand and accept his emotions in this process to help him stabilize his/her emotions and strengthen his correct behaviors

4. Bidding farewell to each other (5 minutes)

Rhythm: Goodbye. Singing and dancing with waving and hugging the children goodbye. They are guided to go out of the classroom by the therapist. (In the next training, unchanged songs for children and rhythms were adopted to bid farewell to children, making intervention activities warm. Besides, a structured concept of class and rest time were established.)

5. Conclusion

At present, dance therapy is not well developed in China, which is still in a stage of research and development. However, there is bright prospects for development with large space in development. It is believed that with the attention and focus on special education, dance therapy must, as a result, be able to be deep-rooted in the Chinese soil, and the therapist should be open-minded with flexibility. The therapists should probe their own unique courses and training schemes in practice.

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Therapeutic procedures