

# MOVING TOWARD INTEGRATION: GROUP DANCE/MOVEMENT THERAPY WITH CHILDREN IN ANGER AND ANXIETY

Anahita Khodabakhshi Koolaee (1)

Mehrnoosh Sabzian (2)

Davood Tagvaei (3)

(1) Department of counseling, Islamic Azad university, Science and Research branch of Arak, Arak, Iran

(2) Department of psychology, Islamic Azad university, Science and Research branch of Arak, Arak, Iran

(3) Department of psychology, Islamic Azad university, Science and Research branch of Arak, Arak, Iran

## Correspondence:

Anahita Khodabakhshi Koolaee

Department of counseling, Islamic Azad university, Science and Research branch of Arak, Arak, Iran

Email: [anna\\_khodabakhshi@yahoo.com](mailto:anna_khodabakhshi@yahoo.com)

## Background

The American Dance Therapy Association defines dance/movement therapy as the “psychotherapeutic use of movement to further the emotional, cognitive, physical, and social integration of the individual” (1). American Dance Movement therapy points out the benefits of DMT as “There is a variety of goals and techniques and activities used in individual and group DMT sessions, including; movement behavior, Expressive, communicative, and adaptive behaviors are all considered for group and individual treatment. Body movement, as the core component of dance, simultaneously provides the means of assessment and the mode of intervention for dance/movement therapy. DMT is useful for mental health, rehabilitation, medical, educational, and forensic settings, and in nursing homes, day care centers, disease prevention, health promotion programs and in private practice. DMT is effective for individuals with developmental, medical, social, physical, and psychological impairments. In addition, DMT is used with people of all ages, races, and ethnic backgrounds in individual, couples, family, and group therapy formats”(1). Schmais (1985) looked at factors within group dance/movement therapy that elicit positive change, growth, and health in its participants. Factors that can be seen in typical group dance therapy sessions include synchrony, expression, rhythm, vitalization, integration, group cohesion, education, and symbolism (2). There have been bodies of researches done to examine the effects of Dance/ Movement therapy for children. For example, Leventhal discussed DMT for the special needs child. DMT could be beneficial indirectly for Special children and create a new chance for them to learn new skills and modify their patterned behaviors (3). In addition, Shennum (1987) found out that the

## Abstract

**Background:** Dance/ movement therapy (DMT) is defined as the “psychotherapeutic use of movement as a process that furthers the individual’s emotional, cognitive, social, and physical integration”. DMT can elicit positive change, growth, and health among adults and children.

**Objective:** The purpose of this study was to examine the effect of Dance/Movement Therapy (DMT) in decreasing levels of aggression and anxiety among children ages 6-7 years old enrolled at four private pre-school centers in Tehran, Iran in 2013.

**Method:** The design of this study was Quasi-experimental pre-post test with control group. Thirty children were selected by random method from four private pre-schools in Tehran. Then, 15 children were randomly assigned to the experimental group and 15 other children were elected for the control group. The dependent variables, aggression, and anxiety were measured twice throughout the 10-week study. Ten one-hour group DMT sessions were given as the interventions for the experimental group. For gathering data we used Children’s Inventory of Anger (ChIA) and Spence Children’s Anxiety Scale (SCAS). Data was analyzed by Analysis of Covariance (ANCOVA).

**Results:** There was a significant difference in aggression and anxiety scores between the two groups of participants. The experimental group showed lower incidence aggression and anxiety after DMT intervention.

**Conclusion:** The findings of this research suggest DMT can be beneficial for all children with Anger and Anxiety. In addition, DMT can provide a sense of safety, self-awareness, other or people mindfulness, and mental health for children.

**Key words:** Dance/movement Therapy (DMT), Aggression, Anxiety, Pre-school children

children who received DMT sessions had lower levels of emotional unresponsiveness and negative acting out (4). Throughout the literature review there have been implications that Dance/Movement Therapy (DMT) has an impact on mental health of children who present with various issues, including severe trauma (5), depression, attention deficit hyperactive disorder (ADHD), conduct disorder, as well as psychosis, anxiety, and post-traumatic stress resulting from physical and sexual abuse (6 & 7). DMT was also found to have impact on children in struggle with communication and motor skills (8), victims and children who were soldiers and torture survivors (9 & 10). DMT education for clinical staff examined by Lundy & McGuffin (11) has been shown to have a positive effect on therapeutic holding with children in an in-patient setting. Capello argues the effect of dance/movement therapy in reviews of cross-cultural study by literature; the literature implies it has influenced children's development issues surrounding differences in child rearing and children who have been survivors of war and torture (12).

Dance/Movement Therapy has been used as a tool to address aggression and empathy; the curriculums have been utilized in public schools as a preventative measure (13 & 14), in a multi-cultural school setting (15), and in a residential treatment program for emotionally and behaviorally disturbed children with histories of abuse and/or neglect (4).

In some countries around the world, dance/movement therapy brings a new opportunity for therapeutic and education methods for clinicians and staff (Capello, 2008). In Iran Dance/Movement Therapy is not approved as a formal therapeutic adjunct or the curriculum in school settings. While, in Iran some private pre-schools are using DMT for helping children with hyperactive behaviors.

## Objective

In this study, we examine the effect of Dance/ Movement Therapy (DMT) as a new adjunctive therapy to help children with aggression and anxiety in Tehran in 2013.

## Method

### 1. Participants and plan:

The design of this study was Quasi-experimental pre-post test with control group. Thirty (6-7 years old) children were selected by random method from four private pre-schools in Tehran by 2013. Then, 15 children were randomly assigned to the experimental group and 15 children were elected for the control group. The dependent variables, aggression, and anxiety were measured twice throughout the 10-week study. Ten one-hour group DMT sessions were given as the interventions to the experimental group. The DMT sessions were described in Table 1.

For Children to be eligible for this study they must

- 1) Have been between the ages of 6-7 years old
- 2) Have been identified by their primary therapist to address continuous serious aggressive behaviors and anxiety
- 3) They have not suffered severe physical disability
- 4) Carry a diagnosis of at least one of the following: Attention Deficit Hyperactive Disorder (ADHD), Oppositional Defiant Disorder (ODD), Anxiety Disorder, or Learning Disorder NOS
- 5) They have normal IQ
- 6) Be assigned to the identified pre-school centers in Tehran

### Subject Exclusion Criteria

Children may not be enrolled in this study if they

- 1) Were not enrolled at the identified pre-schools
- 2) Were not assigned to the designated classroom
- 3) Were younger than 6 years old or older than 7 years old at any time from the onset of the study to the end of data collection.
- 4) Carried a diagnosis on the Autism spectrum, Pervasive Developmental Disorder (Asperger's Syndrome, Childhood Disintegrative Disorder, or Rett's Syndrome), or Mental Retardation may not participate in the study.
- 5) They suffered severe physical disability.

### 2. Measurement:

Participants responded to two questionnaires including; Children's Inventory of Anger (ChIA), and Spence Children Anxiety Scale (SCAS).

### Children Inventory of Anger (ChIA):

The Children's Inventory of Anger is a 40-item child self-report rated from 1 (no anger) to 4 (extreme anger) for children 6-16 years old. This questionnaire made by Nelson and Finch (1993) and was reviewed in 2000. Children are asked to evaluate their response to potentially provoking events (e.g, "someone cuts in front of you in a lunch line"). Although the Children's Inventory of Anger has not been used in studies of parent management training, it has demonstrated sensitivity to change in psychosocial interventions with children (Nelson and Finch, 2000). The ChIA includes subtests and scores in the following areas: Frustration, Physical Aggression, Peer Relationships, Authority Relations, and Inconsistent Responding Validity Index. The test-retest reliability was Pearson's product-moment correlation coefficient ( $r = 0.63$  to  $0.90$ ) and internal consistency was good ( $\alpha = 0.96$ ) (16). Validity for the measure is supported in its correlation with peer ratings of anger (17).

Table 1: Dance/movement therapy sessions

Session 1	Create the integration in time and space	Trainer sang a song and when she stopped the song, children stopped and were quiet.
Session 2	Reinforcement collaboration	Trainer sang a rhythmic song with cooperation contents and children tried to imagination and repeated the movements of song.
Session 3	Body boundaries	Trainer asked children to shake hands, and feet and then circle and stop in his/her place.
Session 4	Enforcement Concentration	Trainer asked children to listen to music and try to create new movements
Session 5	Increasing Auditory	Trainer asked children to imagine birds are flying in sky and then try to fly like birds openly and feel a sense of freedom
Session 6	Body reactions	Trainer sang a song and asked children to stop with the arms and feet open and then close without taking somebody's place
Session 7	Increasing the creations	Trainer asked the children to listen to the music and create their own movements after the music stopped; children can continue the movement.
Session 8	Reinforcement memories	Trainer asked one child to dance with music. then stopped the music and asked other children to repeat her/his movements.
Session 9	Rhythms for relaxation	Trainer asked children to lie down in the ground and listen to calm music and breathe deeply.
Session 10	Cohesion	The trainer asked children to sit down on the ground and shake their hands like sea waves.

- Trainer ended every session with snacks and talking about the session.
- All sessions were performed by Dance/Movement trainer.

In Iran Children Inventory of Anger was translated to Persian by researchers in this study and the test-retest reliability was Pearson's product-moment correlation coefficient ( $r = 0.65$  to  $0.75$ ) and internal consistency was good ( $\alpha = 0.86$ ).

### Spence Children's Anxiety Scale (SCAS):

The Spence Children's Anxiety Scale created by Spence (1998) is a self-report measure of Anxiety originally developed to examine anxiety symptoms in children aged 8-12 years. The SCAS consists of 44 items, 38 of which assess specific anxiety symptoms relating to six sub-scales, namely social phobia, separation anxiety, panic attack/agoraphobia, obsessive-compulsive disorder, generalized anxiety and physical injury fears. The remaining six items serve as positive "filler items" in an effort to reduce negative response bias. Respondents are asked to indicate frequency with which each symptom occurs on a four-point scale ranging from Never (scored 0) to Always (scored 3). A total SCAS score was obtained by Sum scores of the 38-anxiety

symptom items. Previous studies have demonstrated high internal consistency, high concurrent validity with other measures of child and adolescent anxiety, and adequate test-retest reliability for total score ( $r = 0.92$ )(18). In Iran SCAS was translated to Persian by Mosavi et al (2007) with adequate test-retest reliability for total score ( $r = 0.89$ ) (19).

### 3. Procedure, statistical methods, and code of ethics:

Participants answered all of the questionnaires independently under supervision of interviewers and parents filled out with informed consent.

When participants were selected, researchers were told the aim of the study to children and their parents and asked the children to answer the questionnaires. For filling out the questionnaire, reviewers read the questions one by one and marked the questionnaire, because children could read and write independently.



The data gathered from research was analyzed by Descriptive statistical methods including; Mean, Standard deviation, and percent frequency. In addition, inferential statistical methods like, Analysis of Covariance (ANCOVA) implemented for research. Data was analyzed by SPSS statistical package version 18.

## Results

Table 2, shows the difference between mean score of Children Inventory of Anger (ChIA) overall score in the two groups with ANCOVA. Results of the Children Inventory of Anger (ChIA) is shown in Table 2. Dance / Movement Therapy (DMT) intervention in the treatment group decreased the level of Anger ( $68.20 \pm 13.23$  vs.  $96.23 \pm 16.02$ ;  $p=0.0001$ ).

The results showed no significant differences between the mean ChIA in pre-test scores. Rather, differences in the mean scores of the ChIA in the two groups were significant after intervention ( $p=0.0001$ ), as confirmed by ANCOVA ( $p=0.0001$ ; Table 2).

Results of the Spence Children Anxiety Scale (SCAC) presented in Table 3. Dance / Movement Therapy (DMT) intervention in the treatment group decreased the level of Anxiety ( $58.20 \pm 8.58$  vs.  $69.72 \pm 7.075$ ;  $p=0.0001$ ).

## Discussion

The present research shows that Dance/Movement Therapy has a beneficial effect in children with Anger and Anxiety. The DMT sessions can reduce the levels of aggression among pre-school children. This result was consistent with the previous study, as an example; Lanzillo (14) found that DMT decreased the level of aggression and increased the empathy in children. In addition, Lanzillo cited that DMT could be used as curriculum in schools to improve the social skills and empathy in children and prevented behavioral problems in children. Furthermore, Hervey and Kornblum (13) implemented the mixed-method of Dance/ Movement therapy for children at-risk. Results showed that behavioral problems had dramatically reduced in children. In addition, in 2004, Koshland and Wittaker evaluated the peace through the Dance/ Movement therapy (DMT) program, created by Lynn Koshland. The program was designed for violence prevention with multi-cultural elementary school students. The results revealed that the levels of aggression, and disruptive behaviors had decreased, while, self-control among children who received the DMT intervention had improved (15).

Caf, Krofic & Tacing (1997) examined the use of creative movement and dance on children with struggles with communication and self- awareness and expression of their feelings. They found that the movement and dance could be helpful for children participating in the research. Teachers reported that children became more expressive of their feelings and more active (8).

There are several activities and modules applied in individual and group Dance/movement therapy (DMT) sessions, including Role-playing, the use of imaginative play, and structured and non-structured movements (14).

As Leventhal (1980) noted Dance/ Movement Therapy (DMT) can indirectly teach. The Children are participating in DMT activities; they are more receptive to learning new skills and changed their behaviors (3).

In conclusion DMT sessions can be beneficial for all ages from children to aged people. DMT can improve positive coping skills, impulse control, and self- esteem; bring social support and interactions, self-awareness, improve body language, body boundaries, in addition, to building empathy and ability to form healthy relationships with others (14). DMT is used in Iran as an informal program in pre-schools but researchers suggest that DMT and Rhythmic Movements can be seen as a new curriculum program for creating a new chance for children to explore their own life through movements.

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Table 2: Differences between mean score of Children Inventory of Anger (ChIA) overall score in the two groups with ANCOVA

Group	N	Mean±SD	f-test	P value
Pre-test Experimental	15	97.46 (15.69)	3.202	0.20
Control	15	97.00 (16.14)		
Post-test Experimental	15	68.20 (13.23)	57.421	0.0001*
Control	15	96.23(16.02)		

Abbreviations: SD, Standard Deviation; f, F-test

Table 3: Differences between mean score of Spence Children Anxiety Scale (SCAS) overall score in the two groups with ANCOVA

Group	N	Mean±SD	f-test	P value
Pre-test Experimental	15	70.27 (10.09)	4.202	0.27
Control	15	71.05 (9.02)		
Post-test Experimental	15	58.20 (8.85)	61.432	0.0001*
Control	15	69.72 (7.075)		

Abbreviations: SD, Standard Deviation; f, F-test

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