

The Effects of Rhythm and Dance Games on Aggression in Students with Mild Mental Disabilities

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Abstract

The aim of this study is to examine the effects of rhythm and dance on the aggression levels of students with mild mental disabilities. The sample group of the study consists of 40 students with mild mental disability, 20 of whom are in the experimental group and 20 in the control group, who continue their education in schools affiliated with the Kilis Provincial Directorate of National Education. Buss-Perry's (1992) aggression scale was applied as pre-test and post-test to both groups, and rhythm and dance training was given to the experimental group for 2 hours, 2 days a week for 8 weeks. In the analysis of the data obtained, frequency and percentage analysis were performed by using the SPSS 22.0 program, and dependent and independent t-test was used in the analysis of the pre-test and post-test data. No significant results were obtained in the pre-test scores of the experimental and control groups ($p > 0.05$). In the evaluation made between the experimental group and the control group, a significant result was reached in the post-test scores in favor of the experimental group ($p < 0.05$). In conclusion, based on the data obtained, we can say that rhythm and dance games positively reduce the aggression levels of children with mild mental disabilities.

Keywords: rhythm and dance, mild mental disability, aggression

1. Introduction

Sport is a phenomenon frequently used in education and therapy for disabled individuals to act in harmony with society. Sports help people with disabilities reach the targeted level. It is observed that people with disabilities show significant positive attitudes and behaviors in their families and immediate environments in sports competitions they participate. Continuing their lives and training with sports within a plan helps people with disabilities feel healthier, act independently, increase their joy of life, gain self-confidence and change their perspectives on life (Ercal et al., 2014). The health benefits of physical activity include that it is an important tool for children, and especially children with disabilities, to be successful and happy (Gür et al., 2017).

Rhythm and dance training, which is one of the important components of sports, is important in many ways for individuals with disabilities. Rhythm and dance training not only contributes to the development of motor, cognitive and social aspects of individuals with disabilities, but also provides a recreational activity. In the teaching of sports branches, the rhythm of the movements is important in controlling the skills to be acquired (Sayın Bilgin, 2002). Factors such as music, clapping, and tempo provide the development and reinforcement of the rhythm feature in the movements (Sayın, 2011).

Dance is included in the physical education course curriculum in various models such as folk dance, creative dance, social dances, movement training, and rhythm training. The presence of dance education in education programs contributes to children's gaining dance experience in accordance with their developmental period (Purcell, 1994).

Mentally disabled individuals are among the most common disability group in society. Some of the mentally disabled children are physically similar to normal individuals and do not fall behind normal individuals in terms of abilities. Mentally disabled children can be successful in sports just like their peers (Güven, 1986). Many mentally disabled children have more physical strength than normal individuals. When unsupervised and released, these children may show their strength and energies by displaying aggressive behavior toward other children (Kınalı, 2003).

Aggression and anger levels are arduous to cope with in individuals with intellectual disabilities. It is observed that individuals have tantrums and become aggressive, especially because they cannot express themselves comfortably. However, these issues are not sufficiently included in studies (Şipal, 2010). It is aimed to reduce these behaviors of children with mild mental disabilities, who are prone to aggressive behaviors, through rhythm and dance, and to make them feel calmer, happier, and more confident.

2. Material and Method

2.1 Study Group

A total of 40 students with mild mental disabilities, 24 male and 16 female, who continue their education in schools affiliated with the National Education Directorate of Kilis province, participated in the study. Two groups were formed with 20 people in the experimental group and 20 people in the control group. The age range of the experimental and control groups varies between 12 and 14 years of age.

2.2 Procedure

Personal information form and aggression scale were applied as pre-test to the determined experimental group and control group, and rhythm and dance training was given to the experimental group for 8 weeks, 2 days a week, 2 hours each. No training was given to the control group. After 8 weeks were completed, the aggression scale was reapplied to both groups and the result was reached.

2.3 Data Collection Tools

As data collection tools, “personal information form” was used to determine students’ demographic information, and “Buss-Perry’s aggression scale” was used to determine aggression levels.

2.4 Personal Information Form

A personal information form consisting of 3 questions in total, asking the age, gender, and grade of the students, was created, and applied.

2.5 Buss-Perry’s Aggression Scale

The scale developed by Buss-Perry (1992) consists of 4 sub-dimensions and 29 items in total. Later, the scale, which was updated by Buss and Warren (2000), was increased to 34 items and 5 sub-dimensions. A review of the literature shows that the 29-item and 4 sub-dimension forms of the scale are used commonly in studies. It was adapted to Turkish by Madran (2013) and its validity and reliability study was conducted. The scale is in 5-point Likert-type consists of “I strongly disagree (1), I disagree (2), I am undecided (3), I agree (4), I strongly agree (5)”. Two items (items 9 and 16) in the scale are reverse-coded items. Items measuring physical aggression, one of the sub-dimensions of the BPAS, are items numbered 13, 8, 2, 11, 25, 16, 29, 22, 23; items measuring verbal aggression sub-dimension are items numbered 27, 6, 21, 14, 4; items measuring hostility sub-dimension are items numbered 20, 24, 3, 26, 10, 15, 7, 17; the items measuring the anger sub-dimension are items numbered 19, 28, 1, 18, 9, 23, 12. Aggression levels are evaluated based on the points obtained from the scale. A score of 58 and below indicates a low level, 59–110 indicates a medium level, and a score of 111 and above indicates a high level of aggression.

2.6 Data Analysis

The SPSS 22.0 program was used to analyze the data obtained from the study. Results were presented as percentage (%), frequency mean, and standard deviation. A t-test was used in the pre-test and post-test comparisons. In our study, the Cronbach Alpha internal consistency coefficient of the BPAS was found to be 0.81 for all items.

3. Findings

Table 1. Distribution of personal information of students with mild mental disabilities

Variable	Sub-dimension	Experimental Group		Control Group	
		f	%	f	%
Gender	Male	12	60	12	60
	Female	8	40	8	40
Age	12	6	30	8	40
	13	6	30	6	30
	14	8	40	6	30
Grade	6	6	30	8	40
	7	6	30	6	30
	8	8	40	6	30

As shown in the gender variable of the mild mental disability group in Table 1, the majority (60%) of the participants consists of males.

Table 2. Pre-test–post-test paired-samples t-test results of the aggression scale sub-dimensions in students with mild mental disability control group

Sub-dimensions	Pre-Test	sd	Post-Test	sd	t	p
	x		x			
Physical Aggression	3.51	.438	3.61	.159	-.625	.548
Hostility	3.57	.472	3.86	.190	-1.758	.113
Anger	3.57	.343	3.74	.314	-1.406	.193
Verbal Aggression	3.80	.524	3.76	.408	.190	.853

Table 2 shows that the mean scores of the pre-test and post-test in the aggression scale sub-dimensions of the control group are close to each other and there is no significant result ($p > 0.05$).

Table 3. Pre-test–post-test paired-samples t-test results of the aggression scale sub-dimensions in the students with mild mental disability experimental group

Sub-dimensions	Pre-Test	sd	Post-Test	sd	t	p
	x		x			
Physical Aggression	3.30	.561	2.60	.724	2.646	.027
Hostility	3.40	.573	2.91	.770	1.663	.131
Anger	3.04	.387	2.55	.561	2.153	.060
Verbal Aggression	3.44	.616	2.06	.389	5.129	.001

As shown in Table 3, a significant result was obtained in the physical aggression ($t = 2.646$ $p < 0.05$) and verbal aggression ($t = 5.129$ $p < 0.05$) pre-test and post-test results in the aggression scale sub-dimensions of the experimental group with mild mental disability. It is seen that the pre-test scores are high and there is a significant decrease in the post-test scores. It was concluded that rhythm and dance training reduced aggression from high to moderate levels in individuals with mild mental disabilities.

Table 4. Aggression scale sub-dimensions of students with mild mental disability control group and experimental group pre-test–post-test paired-samples t-test results

Variable	Pre-Test	sd	Post-Test	sd	t	p
	x		x			
Control Group	3.71	.304	3.78	.162	-.748	.473
Experimental Group	3.39	.355	2.54	.283	5.646	.000

According to the total scores of the aggression scale shown in Table 4, it was concluded that the pre-test and post-test scores of the control group were close to each other; however, the aggression levels of the experimental group that received rhythm training decreased significantly ($p < 0.05$).

4. Discussion and Conclusion

In this study, we applied rhythm and dance, which are used to describe feelings, thoughts, events, and rituals from past to present, to students with mild mental disabilities. We examined the effects on the aggression levels of children with mild mental disabilities by making use of the phenomena which are contained within the rhythm and dance games, such as aesthetics, elegance, self-expression, social communication skills.

In this part of the study, which was conducted to determine the effect of rhythm and dance games on aggression in students with mild mental disabilities, the findings obtained in the light of the research questions were interpreted and compared with similar studies.

In this study we conducted, the majority (60%) of students with mild mental disabilities are males. According to the sub-dimensions of aggression scale control group pre-test and post-test paired-samples t-test results, it was found that the pre-test and post-test mean scores of the control group in the aggression scale sub-dimensions of physical aggression, hostility, anger, and verbal aggression were close to each other and we observed that there

is no significant result ($p > 0.05$).

According to the results of the pre- and post-test paired samples t-test of the experiment group in the aggression scale sub-dimensions, a significant result was found in the pre-test and post-test results in physical aggression ($t = 2.646$ $p < .05$) and verbal aggression ($t = 5.129$ $p < .05$) sub-dimensions of the aggression scale. It is seen that the pre-test scores are high and there is a significant decrease in the post-test scores. It was concluded that rhythm and dance training reduced aggression from high to moderate levels in individuals with mild mental disabilities.

When we examine the studies supporting our study, Saldana's (2016) study supporting this inference reports that students with learning difficulties develop socially, culturally, and linguistically through music, painting, and dance. In their study examining the role of music education and choral work in the socialization of mentally disabled students, Atılgan and Ördəkçi (2015) emphasized that students exhibit positive behaviors toward their environment. A qualitative study conducted by Karaca et al. (2017) evaluating the importance of group music activities in developing friendships in mentally disabled individuals, they found that mentally disabled individuals who have received music training exhibit calmer attitudes toward their environment. In Sakarkaya's (2019) study examining the effect of music training on the socialization levels of students with mild mental disabilities, they emphasized that it is effective in reducing the negative behaviors of individuals with mild mental disabilities in the 10–13 age group.

The physical, social, and psychological benefits of rhythm and dance are accepted by all scientists. Thanks to rhythm and dance, children's muscle development and motor skills develop better. The physical development of the majority of mentally disabled children is slower than their peers due to the lack of necessary body movements. Rhythm and Dance contribute to educable and teachable mentally disabled children's learning of how to use their bodies, and also positively affect their social, and psychological development.

In our study we conducted, according to the aggression scale control group and experimental group total score pre-test and post-test paired-samples t-test results of students with mild mental disabilities, the aggression scale total scores show that the pre-test and post-test scores of the control group are close to each other; however, it was concluded that the aggression levels of the experimental group who received rhythm training decreased significantly ($p < 0.05$).

There are many studies on children with mild mental disabilities around the world. Among them, physical education and sports are of great importance. Rhythm and dance games, which are one of the physical education and sports activities, contribute to the socialization of individuals with mild mental disabilities, helping them to control their anger and reduce physical and verbal aggression.

In Aslan's (2017) study comparing exercise and sportive game programs pre-test and post-test anger status in mentally disabled children, they emphasized that sport minimizes anger formation in mentally disabled children and helps to control anger, however, anger levels do not change. In the study conducted by Resul (2012) on educable mentally disabled children in the 10–19 age group, it was determined that the anger states of mentally disabled children engaged in sports decreased.

In conclusion, when we examined the effects of rhythm and dance on aggression levels in children with mild mental disabilities, it was concluded that rhythm and dance training reduced aggression from high to moderate in children with mild mental disabilities.

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