



**THE EFFECTS OF SELECTED EDUCATIONAL GAMES WITH OR
WITHOUT BALL IN MORNING AND EVENING SHIFTS ON
HYPERACTIVITY DISORDER OF MALE ELEMENTARY
SCHOOL OF MIANDOAB TOWN, IRAN**

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Abstract:

Today, this is an undeniable truth that the children in lower ages not only need physical care but also need attention to all dimensions of their existence such as social, emotional, personal and intelligence development. The objective of present study is to examine the effects of selected educational games with and without ball on hyperactivity disorder of students. It is a semi-experimental study with control group. The statistical population and sample of present study includes all male students of elementary schools studying in region 1 of Miandoab Town studying during educational year of 2016-2017. As a result, 500 questionnaire forms are distributed and among the 300 returned formed, 60 individuals with highest levels of hyperactivity disorder are purposefully selected. The data-collection instrument of present study is Child Symptom Inventory developed based on Diagnostic and Statistical Manual (DSM) of Mental Disorders. The descriptive statistics of direction, frequency distribution, mean, standard deviation and the inferential statistic of independent t are used. The results show that educational games with and without balls in morning and evening shifts have significantly positive effects upon reduction of symptoms of hyperactivity disorder.

Keywords: educational game, with (out) ball, disorder, hyperactivity

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1. Introduction

The hyperactivity disorder refers to a case in which a child is excessively active and abnormally vibrant. The high mobility of these children creates problems for the child and his peers, parents, teachers and those around him. Due to the fact that a high percentage of addicts and those who quit education have the symptoms of hyperactivity in their childhood and because the hyperactive children are exposed to a high risk of conduct disorder, antisocial personality and drug abuse, the general awareness of these issues, especially parents and teacher, is highly significant in this regard. Attention Deficit Hyperactivity Disorder (ADHD) leads to a condition in which a child cannot sit down calmly and silently by focusing his attention to a certain subject. The hyperactive children are usually criticized and they make numerous problems for their parents in school and at home. The hyperactivity disorder is a set of behaviors highlighted by Inattention, distraction and continuous mobility [11]. Kaplan and Sadok (19995) stated that the main characteristics of these children are inattention and impulsive behaviors which often lead to failure in most of the cases [5]. To treat this disorder, different methods have been suggested none of which has proved to be effective for everybody. Among the treatment methods used against this disorder, some are more important and more beneficial than others such as medicinal treatment, behavioral therapy and cognitive-behavioral therapy.

John and Thomas (2002) found out that the children with hyperactivity disorder do not execute either one of movement parts as a functional unit and showed higher changes in regard to temporal compliance of the movement. In general, the children with this disorder emphasized visual feedback during movement to a higher extent. As a result, less mobility instability compared with peers was observed in regard to them [8]. Kim (2002) found out that Taekwondo and Karate are the most joyful games for this children while baseball is like a nightmare for them because of its need for high harmony between eyes and hands [9]. Weber et.al (2007) from Temple University examined the effects of high physical activity and sport on children with attention deficit hyperactivity disorder (ADHD) and concluded that heavy physical activity for this type of patients might control hyperactive patients' symptoms such as restlessness and excessive behavior up to 95 percent [11]. Bakhtiari (2008) examined the effects of educational games on hyperactivity and attention disorder of children in Aligodarz Town of Lorestan Province and suggested that there is a significant difference between educational games and attention disorder [3]. Today this disorder has drawn the attention of scientists and researchers due to different reasons. First, this order is the first or second common disorder of childhood or adolescence. It creates significant problems for students with such a disorder, affect their cognitive, emotional, social and familial function and influence their professional and

marital function during adulthood. Second, the etiology and treatment of this disorder has not been thoroughly done. Third, it seems that higher awareness and understanding of hyperactivity disorder contributes to better diagnosis of other disorders such as conduct disorder, oppositional defiance disorder and learning disabilities (Guilberg, 2003). Due to the fact that this order has relatively high prevalence in elementary grades and the males are more likely to have hyperactivity disorder than female students (i.e. up to four times) and the fact that there are significantly low number of studies on control and treatment of this disorder in Iran through medical and non-medicinal intervention because of side-effects and limitations of medicinal treatment, and because the increase of prevalence of this disorder has drawn the attention of domestic researchers, the present study aims to examine whether educational games with and without ball in morning and evening shifts have any significant effect upon reduction of hyperactivity disorder among male students of elementary grades studying in Miandoab Town or not.

2. Methodology

The present study is a semi-experimental one with control group. The statistical population and sample of present study included all male students of elementary schools studying in region 1 of Miandoab Town studying during educational year of 2015-2016. As a result, 500 questionnaire forms are distributed and among the 300 returned formed, 60 individuals with highest levels of hyperactivity disorder are purposefully selected. After doing the pretest, the subjects were randomly assigned to four teams each of which had ten members and a control group that included 20 individuals. The four groups had three weakly sessions of educational games with and without ball for 8 weeks. Before attaining the regular school classes, the subjects attended the exercise program during morning shift and for the evening shift; they attended the exercises after the end of official school classes under supervision of an expert coach. After 8 weeks, the subjects had a test. The data-collection instrument of present study is Child Symptom Inventory developed based on Diagnostic and Statistical Manual (DSM) of Mental Disorders. The descriptive statistics of direction, frequency distribution, mean, standard deviation and the inferential statistic of independent t are used.

3. Findings

As shown in the following table, the results clearly support the hypothesis that educational games with or without ball in morning shift have significant influence upon reduction of symptoms of hyperactivity disorder. In addition, in the follow-up test done in

1 month after the application of independent variable showed the reduction of symptoms of hyperactivity disorder. However, the educational games with ball in morning and evening shift had reportedly higher persistence compared with educational games without ball in morning and evening shift.

Table 1: Statistical Results of Different Groups

Variables	Group	Mean		SD		T.
		Pre-test	Post-test	Pre-test	Post-test	
Games with Ball in Morning		32.1	29.8	4.39	4.23	-5.11
Follow-up with Ball in Morning		32.1	29.7	4.39	4.05	-4.381
Games with Ball in Evening		31.9	30.1	4.22	4.01	-5.11
Follow-up with Ball in Evening		31.9	30.1	4.22	4.01	-4.381
Games without Ball in Morning		31.9	30.1	1.48	3.1	-5.11
Follow-up without Ball in Morning		31.9	29.7	3.65	2.94	-1.77
Games without Ball in Evening		30.8	29.7	3.65	3.1	-5.11
Follow-up without Ball in Evening		30.8	28.6	3.65	4.4	-1.77
Control Group		31.55	31.65	4.8	6.1	1.29

4. Discussion and Conclusion

Game is an instrument for strengthening mental, intellectual, social, and emotional faculties along with child health. Through playing, a child will learn to show what happens inside him resulting from his own stresses, disappointments, aggression and wanderings. As a result, his concentrated energy will be released to the surrounding environment. Piaget, Bruner and Ferbol suggested that children are active learners. Whitney suggested that game is fundamental and essential for emotional and social development of the child. Learning and playing are associated with each other. As the results of present study show, the educational games with and without ball in morning and evening shift have significant effects upon reduction of hyperactivity disorder. Madigan et.al (2003) examined the effect of massage therapy or physical therapy on children with attention deficit and hyperactivity disorder (ADHD) and concluded that massage therapy leads to reduction of symptoms of the disorder as verified from the parent's viewpoint (9). Therefore, exercise or educational games have significant association with hyperactivity disorder. In another study by Shepard (2002) in regard to mobility sequence of children with hyperactivity disorder, the results showed that the children who didn't receive medication and only attended reaction practices were able to improve their reaction interval and reduced the symptoms of their ADHD [10]. Firouzi (1994) examined the effects of physical activities and educational games on mental ability

and learning and found out those educational games and physical activities have significant effects on mental abilities of males and females [4]. Therefore, the results of above-mentioned studies match the findings of present study. Based on the results of previous studies and present paper, one could conclude that there is a significant association between hyperactivity disorder and educational games in morning and evening shifts. The role of an expert coach in exercise and proper selection of educational games for different age ranges of the children could significantly contribute to children with ADHD or other disorders. The knowledge level of physical training teachers should be enhanced and the personality of the students should be developed so as to make the latter group helpful members of the society. Therefore, it is suggested that the psychologists and specialists should recruit a physical training coach along with treatment methods to help in better improvement of children through exercise or educational games.

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