A Study on the Effectiveness of Physical Exercises on Decreasing the Stereotypical Behaviors of Autistic Children

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Introduction: Autism disorder includes classic autism, Asperger's syndrome, Rett disorder, childhood disintegrative disorder, and pervasive developmental disorders, while its main characteristics include deficiency in communication skills, stereotypical behaviors and considerable deficiency in social interactions. One of the behavioral problems seen with various degrees among autistic children is the stereotypical behaviors. A great deal of research has addressed the effectiveness of physical exercises on decreasing the behavioral problems, including stereotypical behaviors of autistic children; however, in all of them, the simultaneous effects of several interventional methods have been examined, while it has not been specified whether betterment of problems has been solely due to physical exercises or the interaction of this method with other methods.

Objectives: With regard to the limitations of the previous studies, this research attempts to clarify whether physical exercises are effective upon the improvement of stereotypical behaviors in autistic children.

Method: This study has used the single-subject design. The research population comprises of all male students aged 7–11 who suffer autism and attend special schools in Tehran during the academic year 2012–2013. The subjects are three school boys between 7 and 11 years old who suffer autism and have enrolled in a special institute called “Adalat” and have received educational and rehabilitative services during the academic year 2012–2013. The data-collecting tool in this research is the systematic observation. With regard to the nature of the target behaviors, which have a clear outset and end, the method of recording the frequency of the behavioral events was chosen, following which the teacher/researcher recorded the incidents of target behaviors during a 2-minute period.

Results: After ten treatment sessions, the frequency of stereotypical behaviors decreased in the first and third subjects. As for the subject 2, the results showed that his stereotypical behavior (purposeless walking) had decreased and increased without any specific order, the reason for which seems to be the similarity of the physical exercise selected in this study with the subject's stereotypical behavior.

Conclusion: The current research indicates the contribution of physical exercises to the decrease in the stereotypical behaviors of autistic children. Since one of the common disorders in these children is their stereotypical behaviors, it seems necessary to adopt appropriate approaches in their treatment and rehabilitation.

Keywords: autism disorder, stereotypical behavior, physical exercises