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Effect of Group Exercise Program on Social Skills and Bone Mineral Density in Children with Autism

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ABSTRACT

Background: The complex developmental disease known as autism spectrum disorder (ASD) is marked by impaired social interaction, communication, in addition to decreased bone mineral density (BMD). Physical therapy can be one of the complementary therapies for autistic children.

Purpose of the Study: To inspect the efficacy of group exercise program on social skills and BMD in children with ASD.

Patients and Methods: Thirty children diagnosed with mild ASD were included. They were randomized into two groups. Group A (control) was given calcium supplement, vitamin D, and speech therapy. Group B (study) was given the same program of the control group A in addition to group exercise program, which was conducted for 60 minutes, three sessions per week. All participants in both groups underwent treatment program for successive three months. They were assessed by The Autism Social Skills Profile (ASSP) and dual-energy X-ray absorptiometry (DEXA) pre and post intervention.



Results: The study group experienced a significant rise in ASSP after treatment in comparison with before treatment, whereas the control group didn't show any significant change. The study group and control group experienced a significant rise in BMD after treatment in comparison with before treatment. The study group exhibited a statistically significant enhancement in comparison with the control group across all assessed variables after treatment.

Conclusion: From the findings of the study, it can be concluded that the group exercise program has beneficial impacts on improving social interaction and BMD in children suffering from ASD.

Keywords: Autism spectrum disorder, Bone mineral density, Group exercise, Social skills.