Investigating the Influence of Group Size on the Effectiveness of LEGO Based Therapy in Promoting Social Competence in Adolescents with Autism Spectrum Disorder and Mild Intellectual Disability

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<u>Abstract</u>

Aims: The effectiveness of LEGO® based therapy in promoting social competence in adolescents with autism spectrum disorder and mild intellectual disability was explored in a small-scale study with five students in 2017, with positive improvements reported for both social interaction and communication skills. A second study was conducted in 2018 with nine students to investigate the feasibility and potential impact of a larger group size on the programme's effectiveness in improving students' socialization and communication skills.

Methods: A single group study with pre- and post-test measures was conducted with nine adolescents aged 15 to 16 with ASD and Mild Intellectual Disability (MID). The students completed weekly 1-hour pull-out sessions of LEGO® based group therapy with either three or four facilitators for 10 weeks. Students' social interaction and communication skills were measured by facilitators in sessions with a self-constructed observational rating scale for social skills. Teachers' observations of the students' socialization and communication skills outside of LEGO® group sessions were scored with the Vineland Adaptive Behaviour Scale II: Socialization Domain (VABS II-SD) and a communication observation rating scale. Scores obtained pre- and post-programme were compared to measure the impact of LEGO® based therapy on students' social interaction and communication skills.

Results: Results obtained pre- and post-treatment for communication skills indicated improvements within LEGO® group sessions in 7 of 9 participants. No changes were observed in communication skills outside of sessions. Results obtained pre- and post-treatment for behavioural and problem-solving skills indicated improvements in 4 of 9 participants. A small increase in overall scores in Vineland-II: Socialisation Domain rated by teachers in 3 of 9 participants.

Discussion: LEGO® based therapy conducted with a larger group led to improvements in social skills within the group setting, but fewer improvements were noted for skills observed outside of sessions.

Keywords: LEGO® based therapy, Autism Spectrum Disorder, Mild Intellection Disability, social skills

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