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ABSTRACT

Autism spectrum disorder is a neurological developmental disorder that significantly impairs social interaction, communication, and repetitive pattern of behaviour of individuals (American Psychiatric Association, 2013). Children with ASD demonstrate cognitive impairment like executive dysfunction which includes planning ability, cognitive flexibility (Hill, 2004). ASD children show deficits in memory, metacognitive abilities, knowledge of other people, recognition of emotion, self-knowledge, problem solving ability and deficits in attention (Williams, Goldstein, and Minshew, 2006). Children with autism spectrum disorder often shows deficits in social skill (interaction, communication, empathy, competency and social play).

The objectives of this study were to enhance cognitive and social skills of children with autism spectrum disorder, develop an intervention training module for improving cognitive and social skills of children with ASD, to ascertain its effectiveness, and also to assess the child's profile qualitatively to study the changes in cognitive and social skills. Both quantitative and qualitative results help to understand the consistencies in the results. A total of 20 children aged between 6-12 years who were already clinically diagnosed with autism spectrum disorder have been placed in this study. The children whose IQ was above 80 and mild level ASD were taken into consideration.

Various standardized tests were employed to assess intellectual functioning, level of autism spectrum disorder and cognitive and social skill of ASD children, namely non-verbal Raven's Coloured Progressive Matrices Test Intelligence test, Indian Scale for Assessment of Autism, and Cognitive and Social Skill Assessment of Children with Autism Spectrum Disorder.

The mixed research design (quasi-experimental single group pre-test and post-test design and case study approach) was used. The present study adopted the single group pre-test and post-test design and conducted testing twice, e.g., before and after the intervention. Accordingly, differences in changes from pre- to post-tests can be appropriately recognized in the intervention. A total of 20 intervention sessions were provided to children with ASD. The statistical analysis carried out to make baseline comparison of cognitive and social skill by applying sample paired t-test.

The result was found significant on all the domains of cognitive and social skills. Quantitative findings confirmed that after the conduction of training module, significant improvement was seen on cognitive and social skills in ASD children by administrating cognitive and social skill assessment test. Qualitative analysis found that some children showed determined difficulties like inappropriate language and poor attention concentration. To devise a detailed child's cognitive and social profile, facilitate collecting data regarding the level reached by the children after the intervention. This method was effective in evaluating the children's progress throughout the intervention. The use of a case study method was a strength of this study.

The overall intervention was recognized as effective as each task from the session activity progress sheet showed a statistically significant difference. However, intervention fidelity showed statistically significant differences between pre and post scores. Discussions have been made based on questions formulated. Analysis of the results showed the significant impact of the intervention on cognitive skills, namely, understanding, comprehension, application, synthesis, evaluation, conservation, planning, working memory, executive functioning, central coherence, and understanding cognitive mental state showed an increase in the test after the intervention. In the context of social skills, the intervention program, mainly social story and group-based social skills program, seemed to support the children with ASD to develop essential social interaction and social communication skills.

Therefore, the result showed a significant improvement in all the dimensions of social skills in favour of post-test scores. Throughout the intervention, children progressed was noticed. Children also improved their cognitive functioning, especially on Piaget based cognitive tasks. Improvement in social interaction and social communication, as demonstrated in this study, is essential. In terms of social interaction in collaboration of social play and making stories, the children could interact with others and interact with peers. Thus, a better understanding of the interaction with others may be a valuable contributor to their social involvement. In order to delivering intervention about the implementation and effectiveness of the intervention, parents were primarily reported that their child benefited after the intervention.

It is concluded that intervention training module is effective to improve cognitive and social skills. It can also reduce cognitive and social deficits in children with autism spectrum disorder.

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