**Using Social Stories and Differential Reinforcement to Increase Academic Functioning For an Adolescent with Autism Spectrum Disorder**

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**Objectives:** Social impairments are one of the core deficits of autism spectrum disorder (ASD), which can persist and sometimes worsen during adolescence. When adolescents with ASD struggle to communicate effectively with others, not only it impacts their peer relationships socially, but it can also impact their academic functioning with difficulties communicating with and getting support from teachers when they have academic challenges. Social stories are commonly used in school settings to help individuals with ASD improve their social functioning. Given its effectiveness, it is possible that skills coaching using social stories can also be effective in improving academic functioning for adolescents with ASD, especially during the COVID-19 pandemic when in-person school attendance was frequently interrupted. The current study examined the effectiveness of skills coaching to improve academic functioning of an adolescent with ASD, using adapted social stories and differential reinforcement strategies.

**Methods:** In this single-subject study, the participant was a 14-year-old female high school student diagnosed with ASD who was attending locally developed classes. Social engagement and withdrawal behaviours, as they relate to academic functioning, were operationally defined and revised for reliability for data collection. Frequency was used to accurately and reliably measure the behaviours. During intervention, social story was implemented once per day for 8 days at the beginning of the school period, targeting the specific social impairments that impacted the participant’s academic functioning. Differential reinforcement, based on preference assessments, was used on a fixed ratio schedule to encourage correct behaviours and generalize the skills. This study presented an A-B design which compared the baseline data to the intervention results to display the effectiveness of the treatment. The data was analyzed using percentage of data points exceeding the median to show effectiveness of the treatment. Intervention data was collected until it plateaued within 25% of the median to ensure reliability.

**Results:** The results displayed that there was a significant increase in social engagement and an 84% reduction in social withdrawal in academic functioning. Social withdrawal decreased from an average of 6.25 times a day to once per day. Social engagement increased from an average of 0 times per day to 2.75 timers per day. Qualitatively, it was observed that using a preference assessment with differential reinforcement was crucial and positively impacted the intervention results since the reinforcement chosen was meaningful to the participant and motivated them for behavioural changes in the beginning.

**Discussion/Conclusion and Implications:** One of the main limitations with this study is that it is a single subject design. As such, drawing conclusions regarding the results are preliminary. The results seem to highlight that adapting social stories to improve academic functioning can have positive impacts for individuals with ASD, particularly when combined with differential reinforcement. For practical implications, this study highlights that strategies that are commonly used in school settings with individuals with developmental disabilities, such as social stories, may be modified to address new areas of skill deficit and coaching. For future research, longer periods of data collection may further improve the validity of the results.

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