

Repetitive Behaviors and Play Skills: A Secondary Data Analysis of Children with Autism Spectrum Disorders in their Classroom Environment

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Introduction

- Repetitive behaviors are a core diagnostic feature of young children with ASD
- Children with ASD display a higher frequency and longer duration of repetitive behaviors¹
- Preschool children with ASD demonstrate lower levels of functional and symbolic play²
- Children with ASD engage in a unique set of occupations³

Research Questions

- What is the relationship between repetitive behaviors and play skills in preschool children with ASD?
- Is severity of repetitive behaviors a predictor of play skills?

Methods

- Conducted a secondary analysis of data from the SPA^a and ADOS^b collected as part of the ASAP intervention project
 - Covariate: MSEL (cognition)
- Participants included 58 preschool children from NC between the ages of 3 and 5 with an ASD diagnosis
- Determined normality of the variables
- Utilized Pearson correlations and a univariate general linear model to examine relationships between variables

Table 1. Descriptive Statistics

Variable	Mean	SD	Range
Severity of Repetitive Behaviors	7.52	1.71	1 - 10
Total Play Skills	43.97	19.49	9 - 82
Functional Play Skills	20.07	8.84	0 - 33
Symbolic Play Skills	14.90	11.98	0 - 44
MSEL	52.93	9.49	49 - 99

Note. MSEL = Mullen Scales of Early Learning

a. SPA: Structured Play Assessment

b. ADOS: Autism Diagnostic Observation Schedule

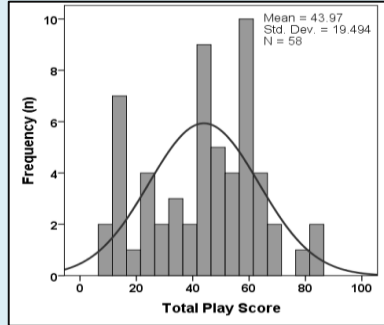


Figure 1. Histogram of total play score

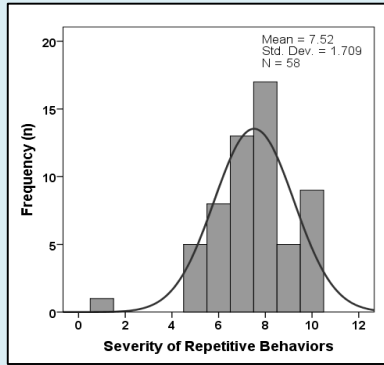


Figure 2. Histogram of repetitive behaviors

Results

- The relationship between repetitive behaviors and functional play skills showed a non-significant trend ($F(1,57) = 3.18, p < .10$)
- There was not a statistically significant relationship between repetitive behaviors and total play skills ($F(1,57) = 1.45, p > .05$).

Table 2. Correlations

	1	2	3	4	5
1. Severity of Repetitive Behaviors	--	-.240	-.299*	-.170	-.118
2. Total Play Skills	-.240	--	.913**	.954**	.424**
3. Functional Play Skills	-.299*	.913**	--	.748**	.340**
4. Symbolic Play Skills	-.170	.954**	.748**	--	.438**
5. MSEL	-.118	.424**	.340**	.438**	--

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Discussion and Implications

- Findings support previous research that children with ASD who engage more frequently in repetitive behaviors are less likely to engage in play activities²
- Interventions for children with ASD should address the holistic occupation of play, rather than seek to mitigate effects of repetitive behaviors

References

1. Harrop, C., McConachie, H., Emsley, R., Leadbitter, K., & Green, J. (2014). Restricted and repetitive behaviors in autism spectrum disorders and typical development: Cross-sectional and longitudinal comparisons. *Journal of Autism and Developmental Disorders, 44*(5), 1207–1219.
2. Honey, E., Leekam, S., Turner, M., & McConachie, H. (2007). Repetitive behaviour and play in typically developing children and children with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 37*(6), 1107–1115.
3. Spitzer, S. L. (2003). With and without words: Exploring occupation in relation to young children with autism. *Journal of Occupational Science, 10*(2), 67-79.



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