Comparing the Use of the Automatized Sequences Task to the Rey-15 Item Test with an Inpatient Adolescent Population

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Introduction

In adult populations, performance validity indicators are well established, as they are efficient and can be a standalone to measure effort. There less known about the validity of effort testing with adolescents, especially when conducting neuropsychological evaluations on an inpatient unit. The use of objective measuring performance validity tests (PVTs) helps aid the clinician in detecting suspected effort better than clinical judgement alone and failure on a PVT indicates performance across ability-based tests. In using the Rey 15-Item it helps detect noncredible effort and feigned memory impairment (Lezak, 1983). The Rey-15 has been found to be effective PVT for adults and adolescents (Green et al., 2013). The Automatized Sequences Task is well known in its sensitivity with adolescents. To our knowledge there is one other study who examined the use of Automatized Sequences Task on an inpatient unit, however, this was with children aged 5 to 12 years old (Ku et al., 2020). The purpose of this study sought to: 1) examine the base rate of suboptimal effort for adolescents in a psychiatric inpatient unit; and 2) compare the sensitivity and specificity of the Automatized Sequences Task and the Rey-15 among adolescents on a psychiatric inpatient unit.

Methods

Participants for this study were adolescents referred to a brief neuropsychological assessment on while admitted to an inpatient unit. They ranged in age from 13 to 19. The administration of the Rey-15 Item Test and Automatized Sequences Task was part of the standard battery for assessments. This study examined the performance of adolescents admitted to an inpatient psychiatric unit on the Automatized Sequences Task (AST) (aged 13-19; n = 74) and Rey-15 Item Test (aged 13-19; n = 74).

Results

The average score on the Rey-15 was 13.36 (*SD= 2.6)* with all but two participants receiving a passing score of a 9 out 15. 86.5% of the adolescent passed the AST (*M* = .86; SD = .34) and 97.5% of adolescents passed the Rey-15 (*M* = 13.6 items correct, SD = 2.64). On Automatized Sequences Task, response length and pass rates aged 13 -19 varied by subtest. See figure one for the differences in average completion lengths for each subtest and total time of the task. Of the adolescents aged 13-19 who were administered PVTs all adolescents who passed the AST also passed the Rey-15.

Figure #1

Report

REY-15		Alphabet	Counting 1-20	Days of the Week	Months of the Year	Total Time
Fail	Mean	16.1	11.7	5.2	12.9	45.9
	Std. Deviation	2.76	3.20	2.50	8.59	17.06
	Median	16.1	11.7	5.2	12.9	45.9
Pass	Mean	8.2	7.0	3.8	7.9	27.4
	Std. Deviation	3.87	3.29	1.74	5.49	10.00
	Median	7.3	6.0	3.2	6.0	24.7
Total	Mean	8.4	7.2	3.9	8.0	27.9
	Std. Deviation	4.04	3.36	1.76	5.57	10.51
	Median	7.7	6.0	3.2	6.0	25.5

Conclusions

To our knowledge this is the first study to examine the Rey-15 and Automatized Sequences Task within adolescent psychiatric unit. Performance on both PVTs demonstrated the helpfulness in measuring effort with adolescents on an inpatient unit. The current study demonstrated the usefulness of PVTs on an adolescent inpatient unit for determining inadequate effort. Further research is needed to determine whether the adolescents who performed below recommended cutoffs on AST reflects genuine suboptimal effort, cognitive difficulties with these adolescents, and/or other factors. Additionally, future studies can examine the AST compared to other PVTs.

Resources

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