## Exploring the Relationship between Socioeconomic Disadvantage and Functional Cognition

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## INTRODUCTION

#### Area Deprivation Index (ADI)

- A tool which ranks socioeconomic disadvantage based on geographic location<sup>1</sup>
- Scores are based on residents' income, education, employment, housing quality, and poverty measures included in United States census data<sup>2</sup>

#### **Functional Cognition**

- The ability to manage everyday IADL challenges, and assessments have been shown to identify risk of IADL impairment<sup>3,4,5,6</sup>
- Studies find that performance-based tests of functional cognition are superior predictors of real-world functioning and community independence<sup>4,5</sup>

#### PURPOSE

The purpose of this study is to explore the relationship between socioeconomic disadvantage and the functional cognitive ability of community-dwelling older adults.

## METHODS

#### **Design and Participants**

Cross sectional sample of 82 participants over the age of 55 living independently in the community was analyzed in this exploratory descriptive study

#### Measures

Menu Task (MT) Medication Transfer Screen-Revised (MTSR) Weekly Calendar Planning Activity (WCPA) Performance Assessment of Self-Care Skills (PASS)

#### Analyses

- Descriptive statistics and frequency distributions (Table 1)
- ADI score distribution (Figure 1)
- Stepwise multiple regression assessing the contribution of ADI scores to functional cognitive measures while controlling for age, education, and number of chronic diseases (Table 2)















### RESULTS





#### Table 2. Regression Analysis Summary for ADI and Education Level Predicting Functional Cognition Assessment Scores

	ADI				Age (Covariate)				Education Level (Covariate)				Number of Chronic Diseases (Covariate)				Overall Model		
	β	SE	t	р	β	SE	t	р	β	SE	t	р	β	SE	t	р	F(df, df)	р	R2
MT	-0.03	0.01	2.09	.04	-0.04	-	0.35	.73	0.17	0.06	2.76	.007	-0.02	-	0.17	.87	F(2, 78) = 7.37	.001	.16
MTSR	0.02	-	0.15	.88	-0.02	-	0.23	.82	0.09	0.03	3.31	.001	-0.05	-	0.51	.61	F(1, 79) = 10.95	.001	.12
WCPA	-0.17	-	1.53	.13	-0.11	-	0.97	.33	0.26	0.10	2.69	.009	-0.16	-	1.43	.16	F(1, 75) = 7.23	.009	.30
PASS — Shopping	-0.02	-	0.16	.87	0.17	0.06	2.66	.009	-0.49	0.14	3.54	.001	0.09	-	0.89	.38	F(2, 77) = 8.51	.000	.18
PASS - neckbook	0.03	-	0.29	.77	0.15	-	1.38	.17	-0.32	0.11	2.80	.006	0.17	-	1.59	.12	F(1, 76) = 7.84	.006	.09

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SCHOOL OF EDUCATION

## CONCLUSIONS

- Education significantly predicted scores on the MT, MTSR, the number of accurate appointments on the WCPA, and the number of cues required to complete the Checkbook Balancing task of the PASS.
- Education and age collectively predicted the number of cues required to complete the PASS – Shopping.

## **IMPLICATIONS FOR PRACTICE**

- vs. auditory comprehension
- The instructions that we think are straight
- cognition that is sensitive to ADI
- reliance on government assistance

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• The ADI accounted for a small but significant percent of the variance of the scores on the MT

 Possible difference in reading comprehension forward and easy to understand may not be • Menu may be picking up on a type of functional Addressing functional cognitive disparities has the potential to improve the health and safety of community members, and thus may decrease hospital admission rates, healthcare costs, and