TITLE: The Relationship between Years of Education and Types of Errors Observed in List Learning in Older Adults

AUTHORS: Jocelyn Diaz, Cynthia Funes, Cherita Clendinen, & Dr. Robin Morris

FACULTY SPONSOR: Dr. Robin Morris, Department of Psychology

Introduction: The California Verbal Learning Test (CVLT-II) is a wordlist learning task used to assess the process of learning in older adults suspected of having cognitive deficits. One unique feature of the CVLT-II is that it allows us to assess the types of errors that people make, which in turn helps us differentiate the type of cognitive deficits they have. For example, adults with Huntington’s disease display a higher number of repetition errors compared with individuals who have Parkinson’s disease. However, there has been a lack of research on how education influences the types of errors that can occur during the CVLT-II.

Purpose: Attributing the number of errors a client makes to cognitive deficiencies without knowing the impact of low education on error rates may lead to an incorrect diagnosis. The purpose of this study was to look at whether years of education in cognitively healthy older individuals impact the number of errors they make.

Method: 16 older adults (60 and older) were included in this analysis. The CVLT-II, among other cognitive tasks, was administered to participants. Individuals were also asked questions about their age, medical history, and educational background, including years of education and highest degree earned.

Results: Two types of errors within the CVLT-II, which include repetition and intrusion errors, were correlated with years of education. The findings were that years of education negatively correlated with repetition errors (p<0.5), whereas there was no significant relationship between years of education and intrusion errors.

Conclusion: The results of the study demonstrated that participants with fewer years of education made more repetition errors than those who had completed more years of study.

Recommendations: The literature has indicated that types of errors may indicate an existing cognitive deficiency. However, it may be useful to take years of education into account when observing the types of errors that individuals make.