

directions were changed based on RAs knowledge of more appropriate wording). Test administration challenges included cultural factors (i.e., allowing for continuation of some tasks beyond time limits for rapport) and RA comfort level with administration of some tasks (e.g., trail making test). Scoring challenges included RAs tendency to score too strictly or leniently and confusion regarding specific scoring criteria.

At an initial VTC meeting, MS modeled test administration. Then RAs practiced the tests together. To reduce challenges including time difference, connectivity problems, language barriers, and comfort with testing/scoring, VTC training sessions were scheduled individually between MS and each RA. During these sessions, the RA 'tested' MS and received immediate feedback. Most sessions lasted approximately 90 minutes with one RA requiring a second session (i.e., sessions were tailored for individuals to obtain level of testing comfortability and competency). After each RA was 'cleared' by MS to start testing, RAs began testing and scoring. Following MS's review of several scored protocols, meetings took place in groups in order to improve scoring skills and increase consistency between RAs. Given the continued high degree in scoring variability, a third RA was hired with one of his main responsibilities being to double score all protocols.

**Conclusions:** Findings highlight important challenges and considerations for remotely training study personnel to administer neuropsychological measures (i.e., RAs in India and neuropsychologists in the USA). Important steps to reduce identified barriers included individualized training sessions, specific training in scoring, and open/ongoing communication channels.

**Categories:** Cross Cultural Neuropsychology/  
Clinical Cultural Neuroscience

**Keyword 1:** diversity

**Keyword 2:** assessment

**Keyword 3:** cross-cultural issues

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## 27 Examining the Relationship Between Spanish-English Bilingualism and Digit Span Performance

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**Objective:** Bilingualism has shown to have significant implications for neuropsychological assessment, namely, the Digit Span task. Moreover, bilingual individuals have been shown to exhibit both advantages and disadvantages on Digit Span; however, the relationship between bilingualism and performance on this subtest is poorly understood. This research aims to better understand how Hispanic Spanish-English bilinguals perform on this commonly administered working memory subtest.

**Participants and Methods:** Participants included 82 Hispanic Spanish-English bilinguals [Age:  $M=29.11$  ( $SD=6.369$ ); Education:  $M=15.68$  ( $SD=2.255$ ); 53.7% female]. The participants completed the Language and Social Background Questionnaire (LSBQ; composite factor scores) and the Wechsler Adult Intelligence Scale - Fourth Edition (WAIS-IV) Digit Span (raw scores) subtest via Zoom, an online video conferencing platform. A hierarchical multiple regression analysis was utilized to predict participants' Digit Span performance based on their LSBQ composite factor scores. Hierarchical multiple regression analyses were conducted using SPSS Version 27.

**Results:** LSBQ composite factor scores significantly predicted Digit Span Forward,  $F(3, 78) = 1.835$ ,  $p < 0.43$  ( $R^2 = .030$ ) and Longest Digit Span Forward,  $F(1, 78) = 4.02$ ,  $p < 0.48$  ( $R^2 = .041$ ) scores. LSBQ composite factor scores did not significantly predict Digit Span Backward,  $F(3, 78) = .344$ ,  $p = .941$ , Digit Span Sequencing,  $F(3, 78) = .598$ ,  $p = .731$ , Digit Span Total,  $F(3, 78) = .440$ ,  $p = 0.296$ , Longest Digit Span Backward,  $F(3, 78) = .510$ ,  $p = .666$ , or Longest Digit Span sequencing  $F(3, 78) = .200$ ,  $p = .751$  scores.

**Conclusions:** Results suggest that Hispanic Spanish-English bilinguals perform worse on Digit Span Forward and Longest Digit Span Forward as their bilingual experiences increase. However, bilingual experiences did not significantly predict Digit Span Backward, Digit Span Sequencing, Digit Span Total, Longest Digit Span Backward, or Longest Digit Span

Sequencing scores. The contrasts in Digit Span performance may be attributed to the different ways in which each condition of the subtest is cognitively processed. Therefore, clinicians and researchers should use caution when interpreting test data for Digit Span with Hispanic Spanish-English bilinguals.

**Categories:** Cross Cultural Neuropsychology/  
Clinical Cultural Neuroscience

**Keyword 1:** bilingualism/multilingualism

**Keyword 2:** working memory

**Keyword 3:** assessment

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## 28 Social Support, APOE Genotype, and Memory Associations in a Community-Based Sample of Older Adults in Texas

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**Objective:** The apolipoprotein E (APOE) gene has been identified as a major risk factor for the development of Alzheimer's disease in late life. Research has shown that APOE  $\epsilon 4$  allele carriers demonstrate poorer memory performance and accelerated cognitive decline relative to non-carriers, and there is a need to identify potential factors of resiliency against the negative effects of  $\epsilon 4$  on cognition. Social support may represent one potential mechanism given that higher levels of social support have been linked to better cognitive and functional outcomes in older adults. Thus, the current study sought to examine whether social support moderates the relationship between APOE  $\epsilon 4$  status and subjective and objective memory performance in a large community-based sample of Hispanic/Latino (H/L) and Non-Hispanic White (NHW) older adults residing in Texas.

**Participants and Methods:** Participants included 1,564 (H/L = 808, NHW = 756) older

adults (mean age =  $66.36 \pm 8.68$ ) without dementia that had enrolled in the Health and Aging Brain Study-Health Disparities. Participants completed study questionnaires and a comprehensive neuropsychological battery. Apolipoprotein  $\epsilon 4$  status ( $\epsilon 4$  carriers vs. non-carriers) was determined by possession of at least one  $\epsilon 4$  allele. Perceived social support was measured using the total score from the abbreviated 12-item version of the Interpersonal Support Evaluation List. Objective memory performance was assessed using a z-score composite of Story A and B from the Wechsler Memory Scale (WMS)-III and immediate and delayed recall trials from the Spanish-English Verbal Learning Test. Subjective memory was assessed using the total score from the Subject Memory Complaints Questionnaire. Race stratified multiple linear regression models, controlling for age, sex, and years of education, examined APOE  $\epsilon 4$  positivity x social support interactions on subjective and objective memory performance.

**Results:** There was a significant APOE  $\epsilon 4$  genotype x social support interaction on objective memory performance ( $\beta = -1.10$ ,  $p = 0.003$ ) in H/Ls such that higher levels of social support were associated with better memory performance in non- $\epsilon 4$  carriers ( $\beta = 0.14$ ,  $p < .001$ ), but not in  $\epsilon 4$  carriers ( $\beta = -0.13$ ,  $p = 0.9$ ). In contrast, no significant APOE  $\epsilon 4$  status x social support interaction was observed on subjective memory ( $\beta = -0.39$ ,  $p = 0.35$ ) in H/Ls. Finally, results revealed no significant APOE  $\epsilon 4$  genotype x social support interactions on subjective memory ( $\beta = 0.14$ ,  $p = 0.77$ ) or objective memory ( $\beta = 0.67$ ,  $p = 0.11$ ) performance in NHWs.

**Conclusions:** Findings revealed that social support did not mitigate against the negative effects of  $\epsilon 4$  on subjective and objective memory performance in H/Ls or NHWs. However, results demonstrate that higher levels of social support are associated with better objective, but not subjective memory performance in H/Ls without the  $\epsilon 4$  genotype. These findings suggest that social support may protect against cognitive decline and enhance cognitive reserve in non- $\epsilon 4$  carriers. Future studies should explore other potential factors of resiliency (e.g., diet, exercise) and examine the association between genetic risk and social support on neural markers (e.g., cortical thinning, hippocampal atrophy).