rated by parents, remain stable across the childhood period. Importantly, low power may have contributed to the lack of observed age effects. Longitudinal research would be beneficial to capture patterns that may emerge in adolescence or adulthood.

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59 Preliminary Findings of Semantic Interference in Learning and Memory Processes in Manifest Huntington's Disease

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Objective: To explore the usefulness of the Lowenstein-Acevedo Scales for Semantic Interference and Learning (LASSI-L) [Crocco et al, 2013], a novel memory-based cognitive stress test capitalizing on semantic interference, in Huntington's Disease (HD).
Participants and Methods: 12 healthy adults (HA) and 14 individuals with manifest HD were administered the LASSI-L as part of an annual research visit with the UCSD Huntington's Disease Clinical Research Center (HDCRC.) Participants in each group were well matched with regard to age and education. Individuals with manifest HD had an average MoCA score of 26, total functional capacity score of 10, and total motor score of 21 suggesting that they were in the early stages of HD. The LASSI-L examines different types of semantic interference that occur in the learning/encoding process. There are free and cued recall trials for two lists of semantically related words with certain trials specific to different aspects of semantic interference including proactive, retroactive, and failure to recover from proactive interference. T-tests for all recall trials and number of intrusions for each trial were conducted between HA and those with HD to examine whether HD renders one more prone to semantic interference in both encoding and retrieval memory processes.
Results: Individuals with HD recalled fewer words on average than HA across all recall trials except for the initial free recall of the first word list. HD individuals recalled significantly fewer (~1.5) words during the initial ($t=-2.8$, $p=.005$, Cohen's $d=2.7$) and secondary ($t=-2.9$, $p=.003$, Cohen's $d=2.6$) cued recall trials from the words on the first list. Individuals with HD also recalled significantly fewer words on initial free recall ($t=-2.9$, $p=.003$, Cohen's $d=2.6$) and cued recall trials of the second list, with the initial cued recall ($t=-2.8$, $p=.005$, Cohen's $d=3.1$) sensitive to proactive semantic interference and the second cued recall ($t=-3.3$, $p=.001$, Cohen's $d=2.6$) sensitive to failure to recover from proactive semantic interference. In addition, individuals with HD also recalled significantly fewer (~2.2) words on delayed cued recall of the first list, a measure of retroactive semantic interference, than HA ($t=-4.8$, $p<.001$, Cohen's $d=2.4$). Lastly, individuals with HD recalled fewer (~4.1) words than HA on delayed free recall of both word lists ($t=-3.5$, $p<.001$, Cohen's $d=5.9$). The groups did not differ significantly with regard to number of total intrusions per trial.
Conclusions: Overall, our study supports the usefulness of the LASSI-L for neuropsychological assessment of HD in clinical and research settings. In comparison to a demographically similar group of HA, individuals with manifest HD showed significant differences in frontally mediated retrieval processes as well as semantic interference processes that affect efficient encoding of novel information.

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