

treatment for memory disorders. Understanding how and what factors impact illness perception is a pivotal step in improving illness perception and ultimately narrowing the gap in health disparities and HS. Further work in a large demographically representative sample is needed on illness perception and how socioeconomic factors, ethnicity, and other mediators interact with its impact on HS for dementia-related symptoms.

**Categories:** Cognitive Neuroscience

**Keyword 1:** cognitive functioning

**Keyword 2:** memory complaints

**Keyword 3:** aging (normal)

**Correspondence:** Elizabeth Soto Taub Institute for Research in Alzheimer's Disease and the Aging Brain, The Gertrude H. Sergievsky Center, Department of Neurology, Columbia University es3983@cumc.columbia.edu

### 13 Money versus Feedback: Comparing Reward Types and Frequency on Cognitive Fatigue

Fareshte Erani<sup>1</sup>, Harrison Stoll<sup>1</sup>, Darshan Patel<sup>1</sup>, Maria T Schultheis<sup>1</sup>, John D Medaglia<sup>1,2</sup>

<sup>1</sup>Drexel University, Philadelphia, PA, USA.

<sup>2</sup>University of Pennsylvania, Philadelphia, PA, USA

**Objective:** Cognitive fatigue (CF) is a common, yet poorly understood symptom in neurological disorders (e.g., multiple sclerosis, Parkinson's disease, stroke). Studies show that reward plays a central role in CF. For instance, introducing or increasing reward often improves task performance. It is less clear, however, how reward affects subjective (self-reported) CF (SCF). This study examined the effect of reward type (monetary or performance feedback) and frequency (infrequent or frequent) on SF.

**Participants and Methods:** In an online between-subjects study, 400 participants completed a computerized cognitive switching task and were randomly grouped into one of the five possible groups based on reward condition: [1] infrequent monetary reward, [2] frequent monetary reward, [3] infrequent performance-feedback reward, [4] frequent performance feedback reward, and [5] a no-reward group. SCF was assessed using the Visual Analog

Scale of Fatigue (VAS-F) during the task. Mixed effects models were used to estimate the influence of reward type and frequency on task performance and SCF.

**Results:** We found that the monetary groups were significantly faster ( $p < .001$ ) compared to the feedback and no-reward groups, and that the frequent group was faster ( $p = .05$ ) compared to the infrequent group. Reward type and frequency did not have a significant effect on VAS-F scores. However, when we looked at each reward group, we found that the monetary-infrequent reward group was associated with a decrease in VAS-F scores on average compared to the no-reward group ( $p = .04$ ).

**Conclusions:** The type and frequency of reward influence aspects of task performance (response time but not accuracy). Findings suggest that money had a greater effect on response time and may decrease SCF in cognitively healthy individuals when provided infrequently. Future studies should examine how these findings translate to clinical populations. Continued work is needed to understand how and which specific behavioral reward manipulations reduce fatigue, which could eventually lead to improved assessment and our ability to target fatigue across clinical populations.

**Categories:** Cognitive Neuroscience

**Keyword 1:** cognitive control

**Keyword 2:** cognitive neuroscience

**Keyword 3:** fatigue

**Correspondence:** Fareshte Erani, Drexel University, fareshte.erani@gmail.com

### 14 Title: Design of a neuropsychological battery for the detection of cognitive deficits in asymptomatic patients with low-grade glioma: a pilot study

Greta Keller, María Agostina Carello, Vanina Banjsak, Noelia Egido, Ismael Luis Clandri, Ricardo Allegri, Andres Cervio, Lucia Crivelli Fleni, Capital Federal, Buenos aires, Argentina

**Objective:** Gliomas are a group of CNS neoplasms arising from neuroglial cells with various degrees of aggressiveness. Resection of brain tumors is complex to perform without neurological sequelae due to the diffuse nature of the tumors. This study aimed to design a neuropsychological battery to examine pre-