way to model multi-day learning on these subtests to evaluate their potential associations with Alzheimer's disease biomarkers.

---

85 Smartwatch reminders support prospective memory in Korsakoff's syndrome

Erik Oudman[1,2], Beth Lloyd[1,2,3], Sterre Smits[1,2], Mareike Altgassen[4], Albert Postma[1,2]
[1]Utrecht University, Helmholtz Institute, Utrecht, Netherlands. [2]Korsakoff Expertise Center Slingedael, Lelie Zorggroep, Rotterdam, Netherlands. [3]Leiden University, Leiden, Netherlands. [4]University of Mainz, Mainz, Germany

Objective: Korsakoff's syndrome (KS) is a neuropsychiatric disorder, caused by malnutrition. Central to KS are severe amnesia and executive dysfunctions. KS patients often fail to remember future intentions (prospective memory),and rely heavily on external support by caregivers. Recently, specialized smartwatches have been developed to support prospective memory verbally and by displaying pictures of future events. We investigated the benefit of a smartwatch and smartphone compared to no aid in supporting time accuracy and the ability to carry out future intentions in one case study. In three subsequent case studies, we investigated the possible benefits of a smartwatch aid for prospective memory (PM) compared to verbal in-person reminders.
Participants and Methods: In the first case study, one high-functioning KS patient with a WAIS IQ of 127 points, performed a total of 36 novel prospective memory tasks in three conditions (smartwatch, smartphone and no-aid).
In the second case series, three KS patients with average IQ performed 30 everyday PM tasks in two conditions (smartwatch, in-person).

Two dependent variables were indexed in both studies: PM time accuracy (in minutes), this was calculated as minutes difference from the assigned time, and precision of the PM task (correct or incorrect).
Results: In the first study, time accuracy was improved with a smartwatch compared to a smartphone and no-aid condition. Furthermore, the smartwatch and smartphone conditions were more effective than no aid in assisting memory for task content. In the second study, both the smartwatch and in-person instructions were equally effective in supporting prospective memory tasks.
Conclusions: Since prospective memory is compromised in KS, patients require assistance throughout the day in performing everyday and non-everyday tasks. The results of our case studies suggest that a smartwatch that gives specific verbal and visual reminders can be particularly helpful in supporting prospective memory for KS patients. Giving in-person instructions was equally effective as the use of this smartwatch, highlighting the possibility to support KS patients with less intensive everyday coaching. Together, these results are promising in applying smartwatches clinically to support prospective memory.

---

86 Influence of Psychosocial Coronavirus Pandemic Stressors on Neuropsychological Functioning

Hannah M Lovato, Beatrice V Armijo, Lara H Heflin
New Mexico Highlands University, Las Vegas, NM, USA

Objective: The objective of this study was to examine whether novel pandemic-related stressors have any effect on cognitive functioning. This study aimed to examine whether the overall number of pandemic-related

stressors, and whether stressor type, are associated with cognitive problems. The coronavirus pandemic, and societal changes to prevent and respond to it, have created novel stressors, including unemployment, social isolation, and health risks. While prior research has focused on the physical and psychological consequences of these stressors, these stressors may also be associated with cognitive impairments. Individuals who have been infected with SARS-CoV-2 and individuals who experience chronic stress are at risk for cognitive impairments, however, research has not yet examined whether pandemic-related stressors not specifically related to infection but to the experience of the pandemic overall, are associated with cognitive deficits. This study evaluated whether pandemic-related psychosocial stressors (financial, health, role/responsibility, and social) were related to cognitive functioning. We hypothesized that individuals with a higher number of pandemic-related stressors will perform worse on cognitive domains of attention, memory, and executive functions, than those with fewer stressors.

Participants and Methods: An online survey recruited participants (N=19), of whom 89.5% were female, and the average age was 34 years (SD=15.7), to complete an online neuropsychological battery. Participants first completed questionnaires on the coronavirus pandemic, demographic characteristics, and completed the BDI-II and the BAI. An online neuropsychological battery was administered to participants over Zoom consisting of various neuropsychological tests, including the RAVLT, story memory, digit span, FAS, animal fluency, a go-no/go task, the Stroop, and the NAART-R.

Results: A majority of participants (89.5%) experienced one or more coronavirus pandemic stressors, with only two participants reporting no coronavirus stressors. A majority of participants experienced at least one social stressor (57.9%), role/responsibility stressor (63.2%), and health stressor (52.6%), with financial stressors (47.4%) experienced by just fewer than half of participants. Pearson's correlations showed significant negative correlations between stressors and performance on several neuropsychological tests. Specifically, social, health, and total stressors were associated with significantly poorer performance on digit span backwards and trials of the RAVLT (i.e., Trials 1-5, delayed recall, recognition) (ps<.05). Social stressors, health stressors, and total pandemic stressors were significantly associated with poorer performance on measures of working memory, processing speed, verbal learning, and verbal memory.

Conclusions: While small sample size limits the power and generalizability of these findings, this study highlights the need to investigate the cognitive effects of pandemic-related stressors. An expanded coronavirus questionnaire would be beneficial as the current questionnaire may have not captured all stressors of the pandemic, or level of severity, that could potentially contribute to changes in neuropsychological function. Pandemic-related stressors have spread into many areas of everyday life and the consequences that have stemmed from these stressors seem to play a negative role on the general wellbeing of individuals and also show an effect on psychological and neuropsychological functioning. This study illustrates the need for an expanded response to health crises, as the negative results of this pandemic have not been solely affecting physical health.

Categories: Teleneuropsychology/ Technology
Keyword 1: neuropsychological assessment
Keyword 2: executive functions
Keyword 3: teleneuropsychology
Correspondence: Hannah Lovato, New Mexico Highlands University, hlovato4@live.nmhu.edu

---

87 Virtual Driving Relates to Real-World Risky Driving

Kathryn N Devlin, Molly Split, Jocelyn Ang, Sophia Lopes, Aleksandar Gonevski, Oluwatoniloba Ogunkoya, Tasmia Hasan, Maria Schultheis
Drexel University, Philadelphia, PA, USA

Objective: Driving is a cognitively demanding activity commonly affected by brain injury and illness. Accurate driving assessment is essential for reducing risk, optimizing independence, and informing driving-related interventions. Virtual reality driving simulation (VRDS) enables safe, sensitive, objective, and standardized measurement of driving abilities. VRDS has been validated in relation to self-reports and driver records. However, self-reports are subjective, and driver records include only major events (collisions, violations). Video telematics platforms can measure naturalistic driving in a