Diagnosing dementia in the Arctic: translating tools and developing and validating an algorithm for assessment of impaired cognitive function in Greenland Inuit

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Published in:
European Psychiatry

DOI (link to publication from Publisher):
10.1192/j.eurpsy.2022.459

Publication date:
2022

Document Version
Publisher's PDF, also known as Version of record

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doi: 10.1192/j.eurpsy.2022.458

Introduction: Traumatic brain injury (TBI) may alter dementia progression, although co-occurring neuropsychiatric symptoms (NPS) have received less attention. The mild behavioral impairment (MBI) construct relates NPS to underlying neural circuit disruptions, representing an important area of inquiry regarding TBI and dementia.
Objectives: (1) to examine the influence of prior TBI history (preceding study enrollment) on MBI incidence in all-cause dementia (prior to dementia diagnosis, i.e. MBI's original definition) and (2) to utilize MBI domains as a construct for examining the influence of TBI on related NPS across the course of dementia onset and progression.
Methods: Using National Alzheimer's Coordinating Center data, individuals progressing from normal cognition to all-cause dementia over 7.6±3.0 years were studied to estimate MBI incidence and symptom domains in 124 participants with prior TBI history compared to 822 without.
Results: Moderate-severe TBI was associated with the social inappropriateness MBI domain ($OR_{adj.}$=4.034; p=0.024) prior to dementia onset, and the abnormal perception/thought content domain looking across dementia progression ($HR_{adj.}$=3.703, p=0.005). TBI (all severities) was associated with the decreased motivation domain looking throughout dementia progression ($HR_{adj.}$=1.546,p=0.014).
Conclusions: TBI history is associated with particular MBI domains prior to onset and throughout progression of dementia. Understanding TBI's impact on inter-related NPS may help elucidate underlying neuropathology.

Disclosure: No significant relationships.
Keywords: Dementia; neurodegeneration; traumatic brain injury; mild behavioral impairment

EPP0141

Diagnosing dementia in the Arctic: translating tools and developing and validating an algorithm for assessment of impaired cognitive function in Greenland Inuit

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doi: 10.1192/j.eurpsy.2022.459

Introduction: The ageing Arctic populations raise the need for work-up of cognitive function that reflects language and cultural understandings.
Objectives: To translate and evaluate tools for work-up of cognitive impairment in Greenland.
Methods: Step A: An expert panel was established to select tools suitable for the work-up of cognitive impairment at three different settings in Greenland. Step B: Tools were translated in a multiple-step process of independent translations with back-translation and adaptations by two independent translators and two Greenlandic physicians. Step C: a testing and validation process of the tools at three locations: the national hospital in the capital city; regional hospital in a town; health care centre in a small town.
Results: Tools selected were Mini-Cog and RUDAS. Participants for testing of tools were 43 of 61 invited, of which six had dementia. RUDAS and Mini-Cog scores were associated ($p < 0.001$). The smoothed AUC was 0.87 (95%-CI, 0.65–0.95) for Mini-Cog and 0.90 (95%-CI, 0.76–0.97) for RUDAS. The sensitivity of Mini-Cog with a cut-off at ≤3 was 83.3%, and specificity was 62.2%. For RUDAS with a cut-off at ≤23, these were 100% and 75.7%, respectively.
Conclusions: Requested tools have been translated for assessing cognitive function in the native Arctic setting. Small town residents with a Mini-Cog score of 3 or lower should be referred to a regional hospital for RUDAS, and a score of 23 or less should cause referral to the national hospital for a full work-up of cognitive function.

Disclosure: No significant relationships.
Keywords: mini-cog; Dementia; RUDAS; cognitive function

EPP0142

Which residual symptoms predict relapse after successful electroconvulsive therapy for late-life depression?

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doi: 10.1192/j.eurpsy.2022.460

Introduction: *Introduction*: Residual depressive symptoms are common after a successful acute treatment of late-life depression (LLD), and their presence predicts increased risk of relapse. While electroconvulsive therapy (ECT) is the most effective treatment for LLD, little is known about which particular symptoms remain and impact long-term outcome after a successful acute ECT course.
Objectives: *Objectives*: We aimed to assess the association between specific residual depressive symptoms after an effective acute ECT course for LLD and relapse at six-month follow-up.
Methods: *Methods*: In this prospective cohort study, including 110 patients aged 55 years and older with LLD, information about relapse was collected six months after the acute ECT course. Relapse was defined as a Montgomery-Åsberg Depression Rating Scale (MADRS) score >15, hospital admission or restart of ECT. We used multivariable stepwise logistic regression models including the scores on the 10 individual MADRS items at the end of the acute ECT course to predict relapse.
Results: *Results*: Of the 80 responders with available six-month follow-up data, 29 patients (36.25%) had suffered relapse. Higher scores on the MADRS items 'reduced sleep' (odds ratio (OR)=2.03,