Methods: MEG was recorded (whole-head 306 channel Elekta Neuromag® TRIUX magnetometer system) in 35 nonclinical controls (18 male) while completing a novel explicit semantic association task. MEG data were continuously sampled at 1KHz (0.1Hz high pass filter). Following MaxFiltering, data was processed using MNE for Python. Data were filtered offline (40Hz lowpass) and epoched at -300ms to 800ms post- target stimulus onset. The largest peak was measured at sensor triplets at temporo-parietal sites in both hemispheres. High/low schizotypal samples were determined by a median split of the Oxford-Liverpool Inventory of Feelings and Experiences (cognitive disorganisation scale; high=17, low=18).
Results: Preliminary sensor level analyses demonstrated an N400m at temporo-parietal sites in response to both word and picture stimulus sets (with an earlier peak to pictures). Neither amplitude nor latency was significantly different between schizotypal samples, however a significant task x hemisphere x group interaction was found for N400m latency, $F(1.00,33.00) = 6.18$, $p<.02$.
Discussion: An N400m was confirmed in response to the novel lexical task. The earlier peak (~200ms) to picture stimuli suggests that pictorial semantic information may be processed more rapidly than lexical information. The significant schizotypal group latency interaction demonstrated that while individuals low in schizotypal traits process lexical stimuli first in the right hemisphere (followed by the left) and picture stimuli first in the left hemisphere (followed by the right), individuals high in schizotypal traits do not demonstrate hemispheric specificity/laterality according to stimulus type. The data is currently being analysed for (i) source localisation, (ii) deep source contributions (e.g., hippocampus), and (iii) de/synchronisation of neural oscillations (across six frequency bands; 1-8Hz, 8-30Hz, 30-50Hz, 70-120Hz, 120-200Hz, and 200-300Hz).

T64. SUBMISSION WITHDRAWN

T65. EVALUATING PATTERNS OF SEMANTIC AND EXECUTIVE DYSFUNCTION IN SCHIZOPHRENIA: A CLUSTER ANALYSIS APPROACH

Eric Tan*[,1], Denny Meyer[1], Erica Neill[2], Caroline Gurvich[4], Susan Rossell[3]
[1]Swinburne University; [2]University of Melbourne; [3]The Alfred Hospital and Monash University, Swinburne University

Background: Semantic and executive dysfunction are among the most prominent of the cognitive impairments in schizophrenia. Using a cluster analysis (CA) approach, the primacy of semantic and executive dysfunction and their relationship to psychopathology was examined in a two-step investigation.
Methods: In Study One, 76 schizophrenia/schizoaffective disorder (SZ) patients completed three semantic (category fluency productivity, category errors, Hopkins Verbal Learning Test) and three executive function (inhibition, switching, verbal fluency) measures. Three groups were predicted: semantic-dominant (SD), executive-dominant (ED) and mixed. In Study Two, 52 SZ patients and 48 healthy controls completed the MATRICS Consensus Cognitive Battery (MCCB) alongside the previous semantic/executive battery.
Results: For Study 1, the CA results confirmed the first two specific groups but revealed a third group unimpaired in both domains (UN). Positive and negative symptoms did not differ between all groups. For Study 2, the CA results confirmed the presence of the same three groups: SD, ED and UN. One-way ANOVAs confirmed that MCCB overall cognitive scores for UN group were significantly higher compared to the SD and ED groups, which did not differ from each other; however, all three clinical groups still performed significantly worse than healthy controls. Psychopathology again did not differ between the three clinical groups.
Discussion: The findings confirm semantic and executive dysfunction as two main areas of cognitive impairment in SZ while also affirming the presence of cognitively impaired patients without these two primary deficits. Symptomatology patterns do not appear to differ between cognitive impairment profiles, highlighting the complexity of symptomatology mechanisms and cognitive deficits being a discrete entity within the illness. These conclusions have implications for the nosology of schizophrenia and the delivery of cognition-based therapies.

T66. PSYCHOMETRIC VALIDATION OF A NOVEL PATIENT-REPORTED OUTCOME MEASURE FOR ASSESSING PATIENTS' SUBJECTIVE EXPERIENCE OF COGNITIVE IMPAIRMENT OF SCHIZOPHRENIA (PRECIS)

Raymond Rosen[1], Jeremiah Trudeau[2], Steven Silverstein[3], David Henderson[4], Adam Smith[5], David Walling[6], Miguel Garcia[2], Bethany Davis[7], Leonard Derogatis[8], Michael Sand*[,9]
[1]New England Research Institutes; [2]Boehringer Ingelheim Pharmaceuticals Inc.; [3]Rutgers University; [4]Boston University School of Medicine, Boston Medical Center; [5]Richmond Behavioral Associates; [6]CNS Network, Inc.; [7]Synexus; [8]Maryland Center for Sexual Health; [9]Boehringer Ingelheim Pharma GmbH & Co. KG

Background: We have previously described the development and content validity of a new patient-reported outcome measure (PRO) to assess patients' subjective experience of cognitive impairment in schizophrenia: The Patient-Reported Experience of Cognitive Impairment in Schizophrenia (PRECIS). Here we assess the psychometric properties of the PRECIS PRO in patients with schizophrenia and healthy age-matched controls with the aim of developing a revised version for use in clinical studies.
Methods: The PRECIS PRO is a 35-item scale comprising eight concept domains (memory, communication, control, planning, handling problems, attention, sharp thinking and overall experience), each with multiple individual items. PRECIS was administered to psychiatrically-healthy controls (single visit), and a subset of patients in a large, clinical trial assessing patients with schizophrenia on stable antipsychotic treatment (NCT02281773) at baseline and Weeks 6, 9 and 12. Analysis of the original 35-item PRECIS PRO included factor structure, factor analysis (FA), internal consistency, test-retest reliability and discriminant (known groups) validity testing. FA was performed on all pre-treatment scores in the patient group (n=410) and patients and controls combined (n=498). Individual items with less than adequate reliability or validity were then identified and eliminated or modified.
Results: Questionnaire responses were collected from 410 patients with schizophrenia and 88 healthy controls. The mean (standard deviation [SD]) total PRECIS score was significantly lower for healthy controls (1.39 [0.7]) compared with patients (2.06 [1.2]; $p<0.0001$), as was overall experience domain score (1.41 [0.7] vs 2.35 [1.3]; $p<0.0001$). For each domain of patient experience, PRECIS mean scores were also significantly lower for healthy controls compared to patients with schizophrenia. The mean differences between groups ranged from -0.94 (overall experience domain) to -0.52 (control domain; $p<0.0001$, all domains). Patients with schizophrenia had wider response distributions compared with controls, while the control group had marked "floor effects" across most items. Initial exploratory FA of the 35-item PRECIS PRO identified a 6-domain solution that accounted for 62% of total item variance, and Cronbach's alpha (0.959) indicated an extremely high level of internal consistency. Following analyses of the 35-item PRECIS PRO, a total of 11 items were eliminated based on pre-specified criteria (poor loading onto identified factors, marked floor effects in patient groups or <50% test-retest reliability). Confirmatory FA of the revised 24-item PRECIS PRO identified 1 primary domain (attention) and 3 secondary additional domains (memory, executive function, communication). An additional domain included items related to patient distress or bother related to cognitive impairment. There was a high level of internal consistency both for