identified strong correlations between the BNSS total score and NFS as well as strong correlations between the avolition/apathy and expressive deficit factors of the BNSS and the PANSS scales. (Kirkpatrick, 2011) The provided equations offer a useful tool allowing researchers and clinicians to easily convert the data between the instruments for reasons such as pooling data from multiple trials using one of the instruments, to allow interpretation of results within the context of previously conducted research, etc. as well as offer a framework for risk based monitoring to identify data deviating from the expected relationship and allow for a targeted exploration of the causes for such a disagreement. The data used for analysis included not only subjects with predominantly negative symptoms but as well acutely psychotic subjects as well as subjects in stable conditions allowing therefore to generalize the results across the majorities of schizophrenia subjects. This post-hoc analysis is exploratory. We plan to further explore the potential utility of equations addressing the relationships among schizophrenia measures of symptom severity in an iterative manner with larger datasets.

T57. EFFECTS OF 0.5MS AND 1.5MS PULSE-WIDTHS ON CARDIOVASCULAR FUNCTION IN SCHIZOPHRENIA PATIENTS RECEIVING ELECTROCONVULSIVE THERAPY
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Background: Electroconvulsive therapy (ECT) has been shown to have a profound effect on cardiovascular functions. The initial parasympathetic response, followed by the sympathetic surge and the second parasympathetic peak characterize a typical ECT session and in patients with pre-existing cardiac disorders, this ‘roller-coaster ride’ of autonomic discharges can drastically increase morbidity and mortality; albeit such incidences are rare nowadays with the advances in medical technology. While laterality and stimulus dose (in terms of milliampere-milliseconds, mA*ms) are known to affect cardiovascular response, the effect of pulse-width (PW) on the latter has not been explored. Compared to 1.5-millisecond (ms) stimulus pulse trains, trains with 0.5ms PW last 3 times longer for equivalent stimulus charges, other parameters remaining constant. This would translate to greater initial parasympathetic response duration, and the implications of such occurrences for cardiovascualar well-being are largely unknown.

Methods: Seventy-one consecutive consenting adults (M=33, F=38; mean age 30.87 ± 9.59 years, mean duration of illness 89.68 ± 77.98 months) patients, with a diagnosis of Schizophrenia, were randomly assigned to receive bilateral ECT with either 0.5ms (n=35) or 1.5ms (n=36) PW stimulus; after obtaining institutional ethical-committee’s approval. Seizure threshold was determined during the first session. Rate-Pressure product (RPP: pulse*systolic blood-pressure) was calculated during the second ECT session, in which stimulus was administered at 1.5–2 times the threshold for the two groups, at 5 time points (RPP1-5, viz. pre-anaesthesia, during anaesthesia, during convulsive motor seizure, 1 and 2 minutes post seizure, respectively). They were compared between the groups using independent-sample t-test. At baseline, the patients were assessed on PANSS for psychopathology.

Results: Two groups did not differ on socio-demographic and clinical characteristics at baseline. Mean administered dose of anaesthetic agent and muscle relaxant were comparable. While the mean seizure threshold and mean charge administered at 2nd ECT were significantly lower in the 0.5 ms group, they were otherwise comparable on mean duration of seizure (motor and EEG), and the RPPs at all 5 time-points. Both Max.RPP (18102.84 ± 4477.4 mmHg/min in 0.5ms, 17935.33 ± 3598.5 mmHg/min, p=0.864) and Max.RPP-RPP2 (5010.58 ± 2893.3 mmHg/min in 0.5ms, 5811.2 ± 4270.9 mmHg/min in 1.5ms, p=0.389) were comparable between the two groups.

Discussion: The characteristic sequence of cardiac events unfolding in an ECT session comprises of a temporary asystole during the administration of the stimulus, followed by an increase in blood pressure and pulse rate during clonic phase, and another slowing of heart rate at the end of motor seizure. The stimulus train duration in 0.5ms group lasts 3 times longer than in 1.5ms group for an equivalent amount of charge, thus increasing the asystole duration and theoretically altering subsequent autonomic responses. However, the groups failed to demonstrate any significant effects of these alterations in terms of altered cardiac activity implying that such alterations might not be clinically relevant. It is well known that briefer PWs cause lesser cognitive side-effects, are more efficient in eliciting seizures. Present analysis shows that the two PWs of 0.5ms and 1.5ms might have similar effects on cardiovascular function, at least in otherwise-healthy adult schizophrenia patients, for similar anaesthetic agents, even if the train with 0.5ms PW lasts for double the time as with 1.5ms PW.

T58. SARCASTIC COMPREHENSION AS A SOCIAL COGNITION MEASURE IN SCHIZOPHRENIA – A SYSTEMATIC LITERATURE SEARCH AND META-ANALYSIS ON THE USE OF THE TASIT
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Background: Social cognition tasks with higher ecologically validity could be helpful both as an outcome measure for training and for social cognition impairment in schizophrenia. The comprehension of sarcasm and irony is a candidate for a valid, replicable task.

Methods: Tests and paradigms as well as studies in schizophrenia are available in English, Dutch, German, Italian, Greek, Japanese and other languages. The Awareness of Social Inference Test (TASIT) (McDonald et al., J head trauma rehabil 2003,) is currently the by far most applied paradigm. Here, we present a systematic literature review and meta-analysis on application of these paradigms in patients with schizophrenia.

Results: 25 studies with data from n=2185 patients with schizophrenia and n=1474 controls used the TASIT. This exceeds the numbers for other irony comprehension paradigms. Separate meta-analyses were calculated for the “sarcasm-enriched” and “sarcasm-minimal” subtests with data from 5 different English language studies. In both subtests, patients with schizophrenia showed significant impairment. Non-English translations of the TASIT show a comparable picture. Longitudinal data are available from 4 studies. Studies in high risk populations showed mixed results, however the TASIT is included in longitudinal cohort studies such as NAPLS-2.

Discussion: We discuss differences with other task such as paradigms without prosodic or face information or the available fMRI investigations.

T59. VIRTUAL REALITY ASSESSMENT OF FUNCTIONAL CAPACITY IN EARLY SCHIZOPHRENIA: ASSOCIATIONS WITH NEUROCOGNITION, FUNCTIONAL CAPACITY PERFORMANCE, AND DAILY FUNCTIONING
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Background: Research using virtual reality assessment of functional capacity has shown promise as a reliable and valid way to assess treatment response in patients with established schizophrenia. There has been little work on virtual reality based assessments of functional capacity for...
patients in the early phase of schizophrenia. We examined whether virtual reality based assessment methods reveal functional capacity deficits in young patients and relevant relationships with established measures of neurocognition, functional capacity performance, and daily functioning. 

Methods: The sample consisted of UCLA Aftercare Research Program patients (n=42) who were diagnosed by trained raters administering the SCID and who met criteria for schizophrenia, schizoaffective disorder, or schizophreniform disorder, and screened normal control subjects (n=13). Patients were within 2 years of their first psychotic episode upon clinic entry, were an average of 23.2 years old, and had an average of 12.9 years of education. The Virtual Reality Functional Capacity Assessment Tool (VRFCAT) was the computer-based measure of functional capacity. We used the MATRICS Consensus Cognitive Battery (MCCB) as an objective measure of neurocognition and the UCSD Performance-Based Skills Assessment (UPSA) to assess functional capacity performance. The Global Functioning Scale; Role and Social, and the Role Functioning Scale were used to assess work and school performance, familial interactions, and social functioning.

Results: We were able to confirm that the deficit in functional capacity performance measured using VRFCAT is present in the early course of schizophrenia in that the patients were slower and committed more errors (M=830.41) as compared with normal controls (M=716.84; t=3.0, p<.01). Virtual reality based assessment of functional capacity was correlated with objective measures of neurocognition (MCCB Overall Composite), r=-.71, p<.01, standard approaches to functional capacity assessment (UPSA), r=-.66, p<.01, work and school functioning (r=-.52, p<.01), and level of social relationships (r=-.43, p<.03), but not familial relationships (r=.03, p=.87). Interestingly, neither neurocognition (MCCB) nor functional capacity performance (UPSA) were correlated with the level of familial relationships.

Discussion: We extend previous findings in that even patients in the early course of schizophrenia showed virtual reality based functional capacity performance deficits when compared with normal control subjects. Virtual reality based performance was correlated with neurocognition, suggesting that it may be sensitive to changes in cognition. Furthermore, correlations with everyday work/school and social functioning indicate promise as a primary measure to index change in functioning in response to treatment. Interestingly, none of our measures of functional capacity or neurocognition were correlated with familial relationships indicating that the determinates of family interactions might be driven by factors other than cognitive capacities.

T60. HEALTH LITERACY IN PEOPLE WITH SCHIZOPHRENIA ATTENDING COMMUNITY MENTAL HEALTH CLINICS

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Background: Health literacy (HL) has been defined as the degree to which individuals possess the capacity to obtain, process, understand and utilize basic health information. For people with schizophrenia, important aspects of their HL include the ability to understand information about their illness and treatment, taking medications correctly, and interacting with clinicians. Schizophrenia is associated with lower levels of education, which has been found to negatively impact on HL. Further, schizophrenia is often associated with cognitive impairment, but the relationship between HL and cognitive function in this patient population is not known.

Studies of HL in people with physical disorders have demonstrated that people with poor HL have poorer outcomes, with greater morbidity and mortality. There has been very little research into HL in schizophrenia, although it may be expected that those with poor HL might have more difficulty managing their illness and interacting with clinical services.

Methods: The sample consisted of UCLA Aftercare Research Program patients (n=42) who were diagnosed by trained raters administering the SCID and who met criteria for schizophrenia, schizoaffective disorder, or schizophreniform disorder, and screened normal control subjects (n=13). Patients were within 2 years of their first psychotic episode upon clinic entry, were an average of 23.2 years old, and had an average of 12.9 years of education. The Virtual Reality Functional Capacity Assessment Tool (VRFCAT) was the computer-based measure of functional capacity. We used the MATRICS Consensus Cognitive Battery (MCCB) as an objective measure of neurocognition and the UCSD Performance-Based Skills Assessment (UPSA) to assess functional capacity performance. The Global Functioning Scale; Role and Social, and the Role Functioning Scale were used to assess work and school performance, familial interactions, and social functioning.

Results: We were able to confirm that the deficit in functional capacity performance measured using VRFCAT is present in the early course of schizophrenia in that the patients were slower and committed more errors (M=830.41) as compared with normal controls (M=716.84; t=3.0, p<.01). Virtual reality based assessment of functional capacity was correlated with objective measures of neurocognition (MCCB Overall Composite), r=-.71, p<.01, standard approaches to functional capacity assessment (UPSA), r=-.66, p<.01, work and school functioning (r=-.52, p<.01), and level of social relationships (r=-.43, p<.03), but not familial relationships (r=.03, p=.87). Interestingly, neither neurocognition (MCCB) nor functional capacity performance (UPSA) were correlated with the level of familial relationships.

Discussion: We extend previous findings in that even patients in the early course of schizophrenia showed virtual reality based functional capacity performance deficits when compared with normal control subjects. Virtual reality based performance was correlated with neurocognition, suggesting that it may be sensitive to changes in cognition. Furthermore, correlations with everyday work/school and social functioning indicate promise as a primary measure to index change in functioning in response to treatment. Interestingly, none of our measures of functional capacity or neurocognition were correlated with familial relationships indicating that the determinates of family interactions might be driven by factors other than cognitive capacities.

T61. ANTISACCADE AND MEMORY GUIDED SACCADIC PERFORMANCE ACROSS THE SCHIZOPHRENIA CONTINUUM

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Background: Saccadic (ocular motor) deficits are one of the most replicated findings in schizophrenia. However, less research has been conducted investigating the broader schizophrenia continuum. Recent research suggests that the personality characteristics and symptoms observed in schizophrenia lie on a continuum with subclinical symptoms, known as schizotypy, observed in the non-clinical population. Schizotypy is considered a suitable model for investigating schizophrenia as it mirrors the symptoms, albeit in a more subtle manner. As saccadic deficits are a