Discussion: Our study shows that akathisia is a prevalent side effect in a clinically relevant sample of patients with acute phase psychosis treated with atypical antipsychotics. The prevalence of antipsychotic associated akathisia ranges widely across studies due to, among others, methodological heterogeneities and varieties in measurement tools. In our study, akathisia was significantly associated with both depression and suicidality. The finding of a significant correlation between akathisia and suicidality supports a previous finding that even a mild to moderate experience of akathisia in first episode patients had an increase in the likelihood to be suicidal. We found no relationship with agitation in our study. As akathisia may go unrecognized in clinical practice and may contribute to medication noncompliance, systematic assessment for symptoms of akathisia is warranted.

Conclusion: Akathisia is still a prevalent phenomenon in a substantial proportion of patients treated with atypical antipsychotics. Special attention is called for regarding the association towards suicidality.

M48. IS METABOLIC SYNDROME RELATED TO COGNITIVE PERFORMANCE IN PATIENTS WITH SCHIZOPHRENIA? RESULTS FROM A DOUBLE-BLIND, ACTIVE-CONTROLLED, LURASIDONE STUDY

Katsuhiko Hagi1, Tamadhi Nosaka1, Andrei Pikalov2
1Sumitomo Dainippon Pharma; 2Sunovion Pharmaceuticals, Inc.

Background: Schizophrenia is associated with cognitive dysfunction as well as cardiovascular disease (CVD). A central risk factor for CVD is the metabolic syndrome (MetS), which is of special concern in schizophrenia. The prevalence of MetS in U.S. patients with schizophrenia is higher versus general population (32.5% versus 23%). The prevalence of MetS and diabetes mellitus (DM) in those with schizophrenia double that of the general population. Adverse events of some antipsychotics used to treat schizophrenia include weight gain, obesity and other MetS complications, particularly abnormal glucose and lipid metabolism. Patients with schizophrenia have low rates of treatment for MetS and its components. Furthermore, components of MetS are risk factors for cognitive impairment and dementia in the general population. Cognitive impairment is a hallmark feature of schizophrenia, and the level of community functioning is strongly correlated with the degree of cognitive impairment. Given the importance of cognitive impairment in schizophrenia, the potential role of MetS in contributing to cognitive dysfunction is important. The objective of this post-hoc analysis was to examine cross-sectional relationships between metabolic syndrome and cognitive performance in patients with schizophrenia treated with lurasidone or quetiapine XR for 6-weeks.

Methods: This post hoc analysis utilized data from 6-week, double-blind, placebo-controlled trial of patients with an acute exacerbation of schizophrenia who were randomized to fixed, once-daily oral doses of lurasidone 80 mg (LUR 80, n=125), lurasidone 160 mg (LUR 160, n=121), quetiapine XR 600 mg (QRX, n=120) and placebo (PBO, n=122). Patients with metabolic syndrome (MetS) at baseline were identified based on the National Cholesterol Education Program – Adult Treatment Panel III criteria (NCEP-ATP-III). Cognitive performance and functional capacity were assessed by the CogState computerized cognitive battery at baseline and 6 weeks.

Results: In the acute 6-week period, LUR160 was significantly superior on the cognitive composite score to PBO (p<0.05, d=0.37), while LUR 80 and QXR did not separate from PBO in the evaluable sample analysis (excluding subjects with non-evaluable composite Z-scores; n=267). A total of 45/267 (16.9%) patients met criteria for MetS. Treatment of patients with MetS group with LUR 160 (vs placebo) was associated with significantly greater week 6 improvement in the cognitive composite score (p<0.05, d=1.15), while LUR 80 and QXR did not separate from PBO.

In the group without MetS, LUR dose groups and QXR did not differ from PBO in the CogState composite score.

In the analysis of cognitive domain scores, LUR 80 was significantly superior to PBO on working memory in the group with MetS (p<0.05, d=1.01) and reasoning/problem solving in the group without MetS (p<0.05, d=0.46).

LUR 160 was significantly superior to PBO on processing speed in the group with MetS (p<0.05, d=1.20), reasoning/problem solving (p<0.05, d=0.45) and social cognition (p<0.05, d=0.46) in the group without MetS.

Discussion: Patients with MetS responded to treatment with lurasidone with significantly improved CogState composite and domain scores. No improvement on cognition was seen in patients with MetS treated with QXR. Evaluation of potential for MetS and improvements in cognition should be important elements in the algorithm of optimization of treatment in patients with schizophrenia.

M49. BEHAVIOURAL SOCIAL COGNITION IN SCHIZOPHRENIA SPECTRUM DISORDERS IN COMPARISON TO AUTISM SPECTRUM DISORDER: A SYSTEMATIC REVIEW AND META-ANALYSIS

Lindsay Oliver1, Iska Moxon-Emre1, Aristotle Voinakes2, Stephanie Ameis3
1Centre for Addiction and Mental Health; 2Centre for Addiction and Mental Health; University of Toronto

Background: Schizophrenia spectrum disorders (SSDs) and autism spectrum disorder (ASD) both feature social cognitive deficits, which are highly debilitating. These include lower-level processes (e.g. emotion recognition), thought to be suberved by a frontoparietal mirroring network, and higher-level mentalizing processes (e.g. theory of mind), involving cortical midline and lateral temporal brain regions. Across both disorders, impairments in social cognition persist over time, drive disability, and predict functional outcome. Overlapping symptoms in SSDs and ASD have long been recognized, particularly in the realm of social deficits. However, despite some studies including both individuals with SSDs and ASD showing similar levels of social cognitive impairment, including lower-level and higher-level deficits, results are mixed. Thus, our objective was to determine based on the extant literature how deficits in social cognition diverge or overlap between individuals with SSDs and ASD by conducting a systematic review and meta-analysis of studies directly comparing these groups on behavioural social cognitive measures.

Methods: Literature searches were conducted in MEDLINE, Embase, PsyCINFO, and Web of Science to identify articles that utilized behavioural measures to assess social cognition in both SSD and ASD samples. Of 3682 articles identified, 28 met all inclusion criteria. Across the accepted articles, lower-level (e.g. facial and/or context-embedded emotion recognition) and higher-level (e.g. intention understanding, perspective taking) social cognitive measures were identified, and random-effects meta-analyses were conducted for each category. A separate meta-analysis was also conducted for the Reading the Mind in the Eyes test given that it was the most commonly used social cognitive metric. Effect sizes were estimated using Hedges’ g. Homogeneity of effects and publication bias were also assessed for each meta-analysis.

Results: A significant difference in lower-level social cognitive performance was found between individuals with SSDs and ASD, with the SSD group performing better than the ASD group (Hedges’ g = 0.30, 95% CI [0.05, 0.56], p = .018). In contrast, there was no significant difference in
higher-level social cognitive performance between SSD and ASD groups (Hedges’ g = -0.14, 95% CI [-0.52, 0.24], p = .46). Similarly, the Reading in the Eyes test meta-analysis revealed no significant difference in effect sizes between disorders (Hedges’ g = 0.24, 95% CI [-0.07, 0.55], p = .14). Effect size distributions were significantly heterogeneous in all three cases (all p < .001).

Discussion: Based on meta-analyses of the extant literature, both shared and differential social cognitive deficits may be present between individuals with SSDs and ASD. Though no differences were detected between SSD and ASD groups on higher-level social cognitive tasks or the Reading the Mind in the Eyes test, lower-level social cognitive deficits were found to be more severe in individuals with ASD than SSDs. Notably, the majority of studies included in the meta-analyses had small sample sizes, and heterogeneity of effect sizes was apparent. Thus, studies including larger sample sizes and validated measures of social cognition in conjunction with other methodologies are needed to substantiate these results, and better understand the shared and unique behavioural underpinnings and associated neural circuit abnormalities underlying social cognitive deficits in SSDs and ASD.

M50. THE PERSIAN VERSION OF THE SCREEN FOR COGNITIVE IMPAIRMENT IN PSYCHIATRY (SCIP-P) AS A VALID SCREENING TOOL FOR COGNITIVE IMPAIRMENT IN SCHIZOPHRENIA

galin shrizad1, Juana Gomez Benito1, Georgina Guilera1, Emilio Rojo2, Oscar Pino2

1 University of Barcelona; 2 Benito Menini CASM

Background: The Screen for Cognitive Impairment in Psychiatry (SCIP; Purdon, 2005) is a screening tool of cognitive impairment that includes measures of verbal learning (immediate and delayed), working memory, verbal fluency, and psychomotor speed. The test has three alternative forms that require less than 15 minutes to complete.

The main objective of this preliminary study was to examine the Persian version of SCIP as a screening tool for cognitive dysfunction in schizophrenia.

Methods: Reliability and validity data were collected from a sample of 98 patients diagnosed with schizophrenia who completed three alternate forms of the Persian translations of the SCIP within a three-week period separated by a one-week delay.

Results: This study presents the first results of the Persian version of the SCIP in a sample of patients diagnosed with schizophrenia and compares the results with those derived from the English and Spanish versions.

Discussion: The SCIP-P scores were reliable and valid for the detection of cognitive impairment in schizophrenia. Analyses confirmed that the three forms of the SCIP-P are equivalent and may prove useful for the rapid screening during routine clinical evaluation of schizophrenia.

M51. EFFICACY OF “PRAGMACOM TRAINING” IN SCHIZOPHRENIA: A RCT ON A NOVEL PRAGMATIC INTERVENTION

Giulia Agostoni1, Elisabetta Tonini1, Mariachiara Buonocore1, Margherita Bechi1, Maria Paola Silvestri1, Jacopo Sapienza1, Federico Rescio1, Roberto Cavallaro1, Valentina Bambini2, Marta Bosia1

1 Vita-Salute San Raffaele University; 2 Center for Neurocognition, Epistemology and theoretical Syntax (NEtS), University School for Advanced Studies IUSS; 3 IRCCS San Raffaele Scientific Institute

Background: A pragmatic disruption is observed in several clinical conditions and especially in schizophrenia. It is estimated that over 75% of patients affected by schizophrenia present a pervasive and wide impairment of pragmatic abilities, encompassing both comprehension and production abilities, thus confirming the hypothesis of a wide Pragmatic Language Disorder in schizophrenia. More specifically, the comprehension of figurative languages, such as metaphors, idioms, and irony, is the most compromised domain in schizophrenia.

Poor pragmatics has a relevant impact on daily functioning, by contributing to social isolation and lower quality of life. Only few pragmatic treatments have been developed and tested in schizophrenia, focusing only on specific pragmatic features and without using a Randomized Controlled Trial (RCT) design.

This study aimed at investigating the efficacy of PragmaCom Training (PT), a novel 12-weeks intervention specifically developed to enhance pragmatics in schizophrenia.

Methods: 30 patients with schizophrenia, according to DSM 5, were randomly assigned to PT to an active control group (ACG). All patients were assessed for global pragmatics with the Assessment of Pragmatic Abilities and Cognitive Substrates test, APACS, metaphor comprehension (Physical and Mental Metaphors task, PMM), executive functions (Brief Assessment of Cognition in Schizophrenia, Tower of London score, BACS), abstract thinking (Positive and Negative Syndrome Scale for Schizophrenia, N5 score, PANSS), and daily functioning (Quality of Life Scale, QLS).

To quantify the magnitude of changes after the PT, effect sizes were estimated using Cohen’s d (Cohen, 1988) for APACS, PMM, PANSS N5 Score, and QLS only in PT Group. The effect of PT in enhancing pragmatic abilities, the abstract thinking and daily functioning was tested between groups by means of several ANCOVAs, entering post-training measures as dependent variables, measures at the baseline and executive functions as covariates, and treatment (PT vs ACG) as grouping variables.

Results: Patients treated with PT showed small to medium-large effect-sizes in global pragmatics (0.25), metaphors comprehension (0.72), functioning (0.23), and abstract thinking (0.18). ANCOVAs revealed a significant effect of PT in enhancing global pragmatic abilities (F=5.4, p=.03), metaphor comprehension (F=8.94, p=.007) and abstract thinking (F=8.1, p=.01). No significant effect was found for functioning.

Discussion: This is the first study using a RCT design to test the efficacy of a pragmatic training. PT is a novel training specifically developed to target the pragmatic impairments that characterize schizophrenia. This study confirms the efficacy of PT in improving multiple domains, encompassing global pragmatics, the comprehension of figurative language, and abstract thinking in schizophrenia. Impact on functioning is also expected. However, in line with literature, it is likely to occur at later time points, since it requires the chance to apply the enhanced abilities in ecological contexts.

M52. VOICES IN THE HEAD: AUDITORY VERBAL HALLUCINATIONS (AVH) IN HEALTHY INDIVIDUALS

Lisa Goller1, Michael Schwartze1, Ana Pinheiro2, Sonja Kotz1

1 Maastricht University; 2 University of Lisbon

Background: Auditory verbal hallucinations (AVH) are conscious sensory experiences occurring in the absence of external stimulation. AVH are experienced by 75% of individuals diagnosed with schizophrenia and can manifest in other neuropsychiatric disorders. However, AVH are also reported amongst healthy individuals. This implies that hearing voices is not necessarily linked to psychopathology. Amongst voice hearers, the likelihood of AVH seems to reflect individual differences in hallucination proneness (HP). The HP construct allows placing individuals on a psychosis-cumulative continuum ranging from non-clinical to clinical experiences. Clinical voice hearers tend to misattribute internal events to external sources (externalization bias). Specifically, they seem to experience altered sensory feedback in response to self-initiated stimuli: Although more predictable, clinical voice hearers show similar, neurophysiological responses in reaction to self-initiated vs. externally presented stimuli. EEG studies