Background: Patients are clamoring for more personalized and closer clinical attention (Bonet et al. 2018). To this end, we developed RemindCare app. The app conducts daily and weekly assessments and this information is used to prevent relapses, to improve the therapeutic alliance and it is automatically included at the electronic clinical record of the hospital. Moreover, patients can contact clinicians by an ‘Urgent Consultation Request’ (UCR), which is answered by a phone call in a period of 24-48h. This app was introduced in clinical practice in October 2018. Since then, 81 patients met criteria for inclusion and 57/81 (71%) started using the app. The aim of this study is to analyze the efficacy of this UCR to determine if this function can improve the real-world treatment of patients with early psychosis.

Methods: RemindCare app, is offered as an extra-service to the usual psychiatric care of patients in an Early Psychosis Program (EPP) at the Clinic Hospital of Valencia, Spain (Bonet et al. 2019). No remuneration is offered to any patient or clinician to use the app. Data of 57 patients diagnosed with a psychotic disorder was analyzed: the 26.3% (15/57) used the UCR (UCR group) and the 73.7% (42/57) did not (Non-UCR group). Mean age of the sample was 31.5 (SD=9.3), 56.1% were male, 87.7% Caucasian and 82.5% were single. Mean years of illness was 3.5 (SD=2.8), CGI mean 4.1 (SD=0.9), GAF mean 60.5 (SD=12.3) and PANSS mean 56.6 (SD=12.2).

Results: Mean of months using the app was 8.4 (SD=4.5), 38.6% (22/57) of patients used the app for more than a year (12–13 months) and mean of engagement was 84.3 (SD=18.9). No significant differences were found between UCR and Non-UCR group in terms of demographic and clinical characteristics. However, there was a difference between groups in terms of engagement to the app (x²= 6.3, p=0.04). The 93.3% of the UCR group had a percentage of engagement to the app between 81–100% compared to the 66.7% in the Non-UCR group and the number of visits to the Urgent Care Units (UCU) was also higher in the UCR group (x²= 4.4, p=0.03). Additionally, only the 13.3% (2/15) of patients used the UCR for a psychotic symptom’s aggravation, the 33.3% (3/15) used it to inform of anxiety and another 33.3% (3/15) to change the clinical alliance. Moreover, the 66.7% (4/6) of patients who attended to UCU had previously made an UCR and they went to the UCU before that period of 24-48h of clinical response ended. Finally, there were no differences in terms of hospital admissions (x²= 1.1, p=0.3) and psychotic relapses (x²= 0.08, p=0.8) between groups. However, patients who stopped using the app had more relapses than patients who continued using it (x²= 15.3, p<0.000).

Discussion: To our knowledge, this is the first e-Health intervention systematically introduced in clinical practice. Rates of acceptance and engagement are high (71%; 84.3%) and nearly 40% of the sample is using the app for more than a year. Mean of engagement with the app, was extremely high among patients who used the UCR (93.3%; engagement between 81–100%) and although this UCR service was the most required in our previous survey (Bonet et al. 2018), these preliminary results suggest that the use of this alarm is not related to psychotic relapse detection. However, patients who use RemindCare app had less relapses than the ones who discontinue its use, which highlights the efficacy of the app. This, along with the high engagement and the positive feedback received, suggests that an improvement in real-world treatment of patients with early psychosis may be found in upcoming analysis.

S115. EVALUATION OF THE CLINICAL UTILITY OF SYMPTOM DIMENSIONS ON LONG-TERM CLINICAL AND FUNCTIONAL OUTCOMES IN FIRST EPISODE PSYCHOSIS

Ege Bor1, Diego Quattrone2, Victoria Rodriguez1, Luis Alameda1, Sinan Guloksuz2, Robin Murray1
1King’s College London, Institute of Psychiatry; 2MRC Social, Genetic & Developmental Psychiatry Centre, Institute of Psychiatry, Psychology & Neuroscience, King’s College London, UK; 3Institute of Psychiatry, Psychology & Neuroscience, King’s College London; 4MHeNs, Maastricht University; 5Institute of Psychiatry, King’s College, London

Background: Current clinical utility of diagnostic categories in patients with psychosis is in debate. Alternatively, symptom-based dimensional approaches are suggested, but research on their utility and longitudinal stability is at its early phases, showing lack of consistencies. The aims of this prospective study are: 1) to test the stability of structure of symptom dimensions in first episode psychosis patients; 2) to explore the utility of symptom dimensions in predicting clinical and functional outcomes.

Methods: This study included a total of 208 with first episode of psychosis-spectrum disorders aged 18–65 years who presented to psychiatric services in South London, recruited as part of the Genetics and Psychosis Outcome (GAP) case-control study and EU-GEI multicentre case-control study. A subsample of 114 patients were traced after a mean of 6.3 years. Psychopathology was assessed at baseline and at follow-up using OPCRIT and tested with bifactor model, encompassing one general psychiatric dimension and five specific symptom dimensions (positive, negative, disorganisation, mania and depression). Follow up measures on functional outcome (assessed with GAF scale) and clinical outcomes (number and total length of hospitalisations) were derived from clinical records. Predictor role of baseline symptom dimensions was tested by multiple linear regression to predict global functioning; and by negative binomial regression for length of hospitalisation and number of hospital admissions.

Results: Factor loadings of disorganisation dimension were most likely to change longitudinally while loadings of positive dimension were most stable. Regarding dimension stability over time, all positive, disorganised and depressive symptoms significantly improved over time while manic and negative symptoms did not significantly differ. In terms of prediction of outcome, baseline manic symptoms were associated with reduced risk of hospitalisation (adj OR 1.56; 95% CI 1.01–2.38), reduced length of hospitalisation (adj IRR= 0.73; 95% CI 0.56–0.95) and better global functioning (β=5.21; 95% CI 2.46–7.95) at follow up. Similarly, depressive symptoms were associated with reduced length of hospitalisation (adj IRR= 0.77; CI 0.61–0.97). On the other hand, baseline positive symptoms were associated with increased risk of hospitalisation (adj OR 1.93; 95% CI 1.25–2.96). No other significant associations were found between the rest of symptom dimensions and outcomes.

Discussion: This study provides new evidence on the longitudinal stability of bifactor model of psychosis and, shows that all except manic and negative symptoms significantly improved over time. Whereas affective symptoms (including mania and depression) were associated with good prognosis, positive symptoms seem to predict poor clinical outcomes. The particular and different influence of affective and psychotic symptoms on long-term functional and clinical outcomes may have therapeutic implications and support the potential clinical utility of incorporating symptom-based approach in further outcome research.

S116. PRAGMATIC COMPREHENSION IN SCHIZOPHRENIA: A SYSTEMATIC REVIEW AND META-ANALYSIS

Alberto Parola3,1, Roberto Aimonetto2, Francesca M. Bosco3
1Center for Cognitive Science, University of Turin; 2University of Turin; 3University of Turin, and Institute of Neurosciences of Turin

Background: Individuals with schizophrenia (SCZ) frequently show a severe and widespread impairment in the communicative-pragmatic domain. They exhibit difficulties in the comprehension of a wide range of
communicative-pragmatic expressions, such as indirect speech acts (ISA), irony, metaphors, proverb and idioms. Communicative disorders play an important role in the in the social impairment experienced by these patients, and they are frequently associated with functional and social outcome. However, results of previous studies showed large variation across different samples, communicative phenomena and type of pragmatic task investigated. As a result, the state of the evidence for communicative difficulties in SCZ is not completely clear. We performed a systematic review of previous literature assessing pragmatic comprehension in schizophrenia, and a meta-analysis of the evidence. The aim of the meta-analysis was to: 1) investigate differences in pragmatic comprehension between individuals with SCZ and HC 2) compare differences in pragmatic comprehension across different phenomena, i.e. irony, figurative language (FL), idioms, proverbs and metaphors), and ISA.

**Methods:** We used the “PRISMA Statement” guidelines for transparent reporting of a systematic review, and the study was preregistered on Prospero Register of Systematic Review. We performed a systematic literature search on the following database: PsychInfo, Pubmed and Google Scholar. 1 2020 Congress of the Schizophrenia International Research Society Selection of the studies was conducted according to the following inclusion criteria: (a) empirical study, (b) quantitative measures of pragmatic comprehension of participants with SCZ, (c) sample including at least two individuals with SCZ (d) inclusion of a comparison group. Finally, 37 studies were identified as eligible for inclusion, and among these 27 studies provided enough data to be included in the meta-analysis. We used mixed effects regression models for each relevant pragmatic phenomena, i.e. FL, irony and ISA, to calculate summary effect sizes (Cohen’s d).

**Results:** The results showed significant meta-analytic effects of schizophrenia in pragmatic comprehension of FL (22 studies, d: -1.74, 95% CIs: -2.49 -0.93, p < .001), irony (12 studies, d: -1.42, 95% CIs: -2.3 -0.5, p = .001), and ISA (3 studies, d: -1.37, 95% CIs: -1.9 -0.8, p < .001). The standardized effect sizes were large, thus indicating that individual with SCZ have serious difficulties in the comprehension of the different communicative expressions compared to healthy individuals. The heterogeneity between studies was significant (FL: Q(32) =245.1, p < .0001, and ISA: Q(3) = 25.2, p < .0001). The rank correlation test indicated evidence for publication bias for figurative language (Kendall’s tau (K) = -0.35, p < 0.001), while was not significant for irony and ISA (Irony: K = -0.33, p = 0.13, ISA: K = -1.00, p = 0.08).

**Discussion:** Overall, we found that individuals with SCZ showed clear difficulties in the comprehension of different pragmatic expression, i.e. FL, irony and ISA, compared to healthy controls. This result is in line with previous studies indicating pragmatic impairment as a core deficit in schizophrenia. The effects were large for all the pragmatic phenomena, with figurative expressions showing the largest effect followed by irony and ISA. However, we reported the presence of publication bias for studies investigating figurative language expressions. Heterogeneity between studies was large and significant for all the three phenomena, thus suggesting a large variablity across studies in the characteristic of the tasks used to investigate pragmatic ability, and in the characteristics of the experimental samples assessed.

**Background:** Research is increasingly pointing toward the need for a dimensional, rather than categorical, conceptualization of psychopathology. This is particularly true within the literature on psychosis and related disorders. Taking a dimensional approach to conceptualizing psychosis requires deconstructing its components in assessment. The Rorschach Performance Assessment System (R-PAS) contains meta-analytically supported scales with international norms that are used to categorically rate signs of disordered thinking and perceptions in individuals’ responses to the Rorschach inkblots. Recently, a new dimensionalized set of scales called the Scales of Problematic Communication and Thinking (SPCT) have been developed for R-PAS with three main components: Disturbed and Confusing Communication, Illogical Verbal Justification, and Incongruous Perceptual Combinations.

Research also suggests that linguistic measures of speech cohesion can be used to successfully predict conversion to psychosis in clinical high-risk patients and may be more related to stable neurocognitive deficits than clinical measures of disorganized speech. Coh-Metrix, an automated speech analysis software, provides over 100 specific measures of linguistic cohesion, such as connectivity, syntax simplicity, and referential cohesion. The purpose of this presentation is twofold: (a) to report recent findings showing the SPCT provides incremental validity over the traditional R-PAS measure of disordered thinking in predicting clinician ratings of disorganized thinking on the PANSS and (b) to determine if Coh-Metrix measures of linguistic cohesion provide incremental validity to SPCT ratings in predicting these PANSS ratings.

**Methods:** R-PAS protocols from a maximum-security inpatient forensic hospital (N = 91) aged 19 to 80 years (M=40) and predominantly male (89%) were coded for thinking and perceptual disturbances using the R-PAS traditional measure of disordered thinking and the 6-point dimensional SPCT measure. The patients’ primary clinician provided PANSS ratings. Protocols will be coded for speech cohesion using 15 indices from the automated speech analysis software Coh-Metrix, which were chosen based on a literature review.

**Results:** Interrater reliability was excellent for the SPCT ratings (ICC = 0.97) and good for the PANSS clinician ratings (ICC = 0.71). In a previous study, SPCT ratings showed significant associations with the clinician ratings of disorganized thinking on the PANSS (r = 0.42, p < 0.01, N = 90); hierarchical regression analyses demonstrated incremental validity over the traditional R-PAS measure of disordered thinking (ΔR = 0.28, p < 0.01). Using hierarchical regression analyses, the Coh-Metrix indices of cohesion are predicted to provide incremental validity to the SPCT ratings.

**Discussion:** The SPCT shows promise as a reliable and valid dimensionalized measure for assessing the continuum of clear thinking to psychosis-level disturbances. The measures of linguistic cohesion provided by Coh-Metrix have the potential to offer clinicians a quick, efficient, and objective method for assessing disorganized thinking. The R-PAS international norms are currently being coded for SPCT and, if Coh-Metrix measures provide incremental validity, will be coded for these measures as well. Using these measures in combination with SPCT ratings can provide clinicians with a clearer understanding of this significant component of psychosis.

---

**S117. DOES ADDING AUTOMATED ANALYSIS OF SPEECH COHESION TO DIMENSIONALIZED R-PAS COGNITIVE CODES IMPROVE OUR ABILITY TO ASSESS DISORGANIZED THINKING?**

Noelle Warfford*,1, Gregory J. Meyer1, Emily T. O’Gorman1, Joshua J. Eblin1, Joni L. Mihura1

1University of Toledo; 1Center for Forensic Psychiatry MI

**S118. TRANSDIAGNOSTIC SYMPTOM DIMENSIONS OF PSYCHOSIS AND THE PREDICTIVE ROLE OF PREMORBID ADJUSTMENT AND COGNITIVE CHARACTERISTICS IN THE MULTINATIONAL EU-GEI STUDY**

Laura Ferraro*,1, Diego Quattrocone**,1, Caterina La Cascia1, Giada Tripoli1, Fabio Seminerio1, Crocettarachele Sartorio1, Paolo Marino1, Peter B. Jones2, Craig Morgan2, Jim van Os1, Ulrich