personality disorder. A range of clinical predictors, including anxiety, stress, sleep/circadian disturbance, and cognitive biases are being assessed as well.
Results: To date, a sample of N=73 participants have been recruited: N=49 (67%) met CHARMS criteria (CHARMS+) at baseline with N=24 (33%) allocations to the control group (CHARMS-). Of these, N=48 participants have been followed up to 6 months and a sample of N=35 has been followed up to 12 months. At 6 months, 32% of the CHARMS+ group have transitioned to a full-threshold mental disorder which increased to 37% at 12 month follow-up. 0% of the CHARMS- control group has transitioned.
Discussion: Our initial results indicate that the CHARMS criteria can be applied in the context of a youth mental health service and validly identify help-seeking young people at substantial risk of progressing to serious mental disorder over a short time frame (within 12 months). This study is the first to introduce and validate a set of clinical criteria to identify a broader 'at risk' patient population, and represents an important advance from the UHR for psychosis approach. It will foster understanding of risk factors and pathogenic mechanisms that drive the onset of severe mental disorder transdiagnostically and introduce a new case identification paradigm for the next generation of preventive intervention trials.

O11. Oral Session: Services and Other Interventions

O11.1. A RANDOMISED CONTROLLED TRIAL OF SMARTPHONE ACTIVE SYMPTOM MONITORING IN PSYCHOSIS

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Background: We developed a smartphone-based personalised technology to monitor symptoms in real time and showed good acceptability, reliability and validity for active remote monitoring of symptoms in previous published studies (www.clintouch.com). We report a randomised trial testing its efficacy in improving psychotic symptom control, and its potential as an early warning system for relapse when embedded into the ICT systems of mental health provider organisations, and as a tool for identifying new phenotypes for precision medicine.
Methods: Participants with SMI receive a semi-random beep 2–4 times per day on their smartphone app and answer 14 key symptom rating items using a touchscreen slider. Responses are uploaded wirelessly in real time to a central server and build into a graphical readout on the handset, allowing active symptom monitoring and attempts at self-management. We built this into an end-to-end system in two NHS Hospital Trusts (Manchester and South London) to stream data into electronic care records and enable detection by the clinical team of early signs of relapse in people with SMI when key symptoms exceeded a personalised severity threshold. We conducted an open randomised controlled trial of this active symptom monitoring (ASM) using the smartphone app compared to usual management with the aim of assessing: (i) acceptability of continuous monitoring over 3 months; (ii) impact of active self-monitoring on PANSS positive symptoms and Empowerment Rating Scale score assessed at 6 and 12 weeks; (iii) efficiency of detecting early warning signs of relapse. Eligible participants with a DSM5 diagnosis of schizophrenia and related disorders and a history of relapse within the previous two years were included from an early intervention team (early psychosis group) and a community team (chronic psychosis group).
Results: Of 181 eligible, 81 were randomised to either active symptom monitoring or management as usual. 90% stayed in the trial for 12 weeks. Of the 38 in the ASM arm who completed 12-week follow up, adherence defined as responding to >33% of alerts was 84%, >50% of alerts was 60%. At 12 weeks, ASM compared to usual management was associated with no difference on empowerment scale. PANSS positive subscale score showed a significant mean reduction in the ASM group over 12 weeks in the early psychosis group (n= 22, planned ANCOVA $p<0.02$), but no effect in the chronic psychosis group (n=19). Early warning sign alerts generated by the system occurred in 92% of cases and blind comparison with electronic case record data suggested good sensitivity and lower specificity, but with clear indications of how to adjust the gain of the system to improve future event-detection efficiency. Multivariate analyses pointed to the ability of the system to identify clinical subtypes.
Discussion: The active smartphone monitoring system is feasible and acceptable over three months in people with schizophrenia and related disorders. It was associated with psychotic symptom improvement in recent onset participants, supporting the notion of improved self-management. When built into clinical management workflows to enable personalised alerts of symptom deterioration, it was shown to have potential use in promoting earlier intervention for relapse.

O11.2. CHANGES IN PSYCHOPATHOLOGY PREDICT CHANGES IN WORKING ALLIANCE IN FIRST EPISODE PSYCHOSIS

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Background: The cooperative and dynamic relationship between patients and therapist known as Working Alliance, has in two meta-analysis shown to be an important factor for positive outcome in psychotherapy regardless the modality of therapy. Studies investigating the association between working alliance and outcome conducted in cohorts of patients with mental illness treated in a case manager setting has reported an association between a strong working alliance and reduced symptom severity, better social function, adherence to psycho-social treatment.
For this study, we used data from a trial testing the effect of five years of specialized early intervention (SEI) compared to two years of SEI for patients diagnosed with first episode of schizophrenia spectrum disorder. We aimed to study the effect of the intervention on the working alliance and the change in working alliance as a dynamic factor in the two treatment conditions from baseline to follow-up.
When extending specialized early intervention from two to five years' vs transferring to treatment as usual, we hypothesized a change in working alliance and psychopathology favoring the patient in the extended SEI group.
Methods: Participants were recruited from SEI teams (OPUS) in Denmark. All newly diagnosed within the schizophrenia spectrum (ICD-10, F2), age between 18 and 35. Participants were included 1 ½ year after initiation of SEI treatment (baseline) and followed up 5 years after initiation of treatment. At both assessments participants were examined with a comprehensive assessment battery including working alliance, psychopathology, social function, cognitive function, adherence to medication and client satisfaction. Assessors were blind to treatment allocation. The primary outcome, working alliance inventory (WAI), was assessed by self-assessment.
A change score was calculated by subtracting the baseline score from the follow-up score. Multivariable linear regression analyses were conducted, corrected for the baseline value of the independent and dependent variable.
Results: Of the 289 participants who attended the follow-up interview 258 (89%) had completed the WAI at baseline and follow-up. Participants who were randomized to prolonged SEI had a stable WA from baseline to follow-up, while participants who were randomized to TAU had a mean drop in WA over the same period.
Change in WA was associated with change in negative-, psychotic-, and disorganized symptoms dimension, and social function in the extended OPUS group. In the TAU group, we found that change in WA were negatively associated with change in cognitive function measured with BACS. In both