analyses of sleep quality and clinical improvement included participants with three PSQI rating timepoints over 6–7 months of CSC (n=38). Overall PSQI ratings did not change significantly over time. BAI and BDI-II scores significantly decreased over time, indicating subjective clinical improvement with treatment. There was a trend for positive correlations among PSQI, and BAI and BDI-II scores. When stratified by improvement, those rated ‘much improved’ group greater reduction of PSQI scores.

Discussion: We found that improved sleep quality was present in participants who experienced much global clinical improvement over 6 months of CSC. In addition, better sleep quality correlated with reduced depression and anxiety symptoms. Though these findings do not address direction of causality, our findings indicate that improving sleep quality should be a specific focus in treatment of early psychosis. Further analysis will be conducted to investigate the relationship between sleep and clinical improvement using other clinical measures, such as symptom severity, and the dataset will be expanded to include data through the end of 2017.

Background: Phenomenological research indicates that disturbance of the basic sense of self may be a core phenotypic marker of schizophrenia spectrum disorders. Basic self-disturbance refers to a disruption of the sense of first-person perspective and self-presence that is associated with a variety of anomalous subjective experiences. Recent cross-sectional and prospective pilot studies provided preliminary support for the notion that SD may provide a means of further “closing in” on individuals truly at high-risk for psychosis, particularly of schizophrenia spectrum disorders (SSD). The goal of this study was to replicate and extend these pilot findings by examining the long-term persistence of SD and the degree to which their level in adolescence predicts SSD seven years later in young adulthood.

Methods: The 7-year stability of SD and their association with later in adulthood were explored in a sample of 40 young adults. SD was assessed with the Examination of Anomalous Self-Experience (EASE), prodromal symptoms and syndromes were assessed with the Structured Interview for Prodromal Syndromes (SIPS), present and lifetime diagnoses of schizophrenia-spectrum and other co-morbid disorders were assessed with the Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS) in adolescence and the Operational Criteria (OPCRIT) checklist for psychotic and affective illness in young adulthood, level of distress with the Mood and Anxiety States Questionnaire (MASQ), and psychosocial functioning with the Strength and Difficulties Questionnaire (SDQ).

Results: Forty young adults (Mean age=23.7, S.D.=1.3) out of the 82 who had participated seven years earlier in a study on the association between SD and attenuated psychosis symptoms (APS) were available and agreed to participate in the 1-year follow-up (Mean=1.4, S.D.=0.8). There were no significant differences between those who were available and those who lost for the follow-up assessment on any of the major socio-demographic or clinical variables at baseline. Eight (20%) of the 40 participants in the present study met diagnostic criteria for an SSD (2 Schizophrenia, three non-organic psychiatric disorder, and three schizotypal personality disorder). The total EASE score was slightly higher in young adulthood compared to seven years earlier. However, this can reflect a difference in the administration method of the EASE between the two occasions. Consistent with our first hypothesis, the correlation between the total EASE score at baseline and 7-year follow-up was moderate and significant (r=0.59, p<0.001). Similarly, consistent with our second hypothesis, SD at baseline was a significant predictor of an SSD diagnosis in young adulthood.

Discussion: These results provide further support for the temporal stability of SD over time. Also, they provide further support for the notion that SD is a phenotypic indicator of risk for SSD.

F218. REAL-TIME ASSESSMENT OF AUDITORY HALLUCINATIONS USING A SMARTPHONE APPLICATION; RESULTS FROM A PILOT STUDY

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Background: A challenge in current research on auditory hallucinations (AHs) is that the assessment of symptom dimensions largely depends on structured interview scales, such as the PANSS, PSYRATS etc. In order to collect more ecologically valid data, we developed a smartphone app that can be used by patients to report on their experience in real-time, i.e. when the voices are actually present. The aim of this study was to investigate feasibility of the app and whether it can provide new phenomenological information on the temporal fluctuations of AHs in adolescent patients with early-onset schizophrenia (EOS).

Methods: Using the experience sampling method, one adolescent EOS patient used the app for a period of 16 days, during which the patient received random reminders five times per day, to answer questions on five dimensions relevant to AHs: Control (no – full), Content (negative – positive), Localization (outside head – inside head), Intensity (yelling – whispering), and Influence (not troublesome – very troublesome). The answers were registered on visual analog scales (VASs) implemented in the app.

Results: The patient responded to the notifications in 87% of the cases and in addition completed the questions 15 times on own initiative. In 73% of all responses, the patient indicated to experience AHs at the time of response. The results from the VASs showed that AH-dimensions are not stable but fluctuate over time. Several AH-dimensions were significantly correlated (p < .01) with each other: Influence correlated with Content (r = -.71), Intensity (r = -.37), and Control (r = -.76), whereas Content correlated with Intensity (r = .39) and Control (r = .57). showed several correlations a negative correlation with content of however, only localization (voices coming from outside - inside the head) correlated significantly with the number of days in use. In addition, the participant reported more internal voices over the course of 16 days (p < .01; r = .36) and later hours of the day (p < .05; r = .22).

Discussion: The app captures the ebb-and-flow of AVHs and provides a unique profile of symptom severity and interrelationship between AH-dimensions. Such information has potential relevance for patient-tailored intervention.

F219. NOVEL OBJECTIVE ASSESSMENT OF ACTIVITY ENGAGEMENT IN SCHIZOPHRENIA USING WIRELESS MOTION CAPTURE

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Background: Amotivation and reduced engagement in goal-directed activities are prominent features of schizophrenia. Previous investigations of patients’ engagement in activities have largely relied on accounts of...
daily living activities rather than objective task-based measures. The current study used wireless motion capture in an open-field setting to evaluate activity preference when individuals are provided an explicit choice between an active engagement option versus a passive engagement option.

**Methods:** Twenty stable adult outpatients with schizophrenia and twenty matched healthy controls completed the Activity Preference Task, in which participants play a physical motion-based video game (active engagement) or watch a film (passive engagement) for fifteen minutes. No incentive was associated with either activity, and participants could engage in either activity at any time. Duration of engagement on the active option and number of switches between activity options were computed as the primary task outcome measures using objective motion data. Participants' behaviour during active engagement was further quantified by computation of physical intensity (average hand speed) and persistence (tendency for sustained continuous engagement). Clinical assessments of positive and negative symptoms, apathy, cognition, depression, medication side-effects, motor ability, and community functioning were also administered.

**Results:** Schizophrenia participants' duration, intensity, and persistence of active engagement were correlated with apathy (r=0.72–0.79, p<0.01) and community functioning (r=0.50–0.67, p<0.05). Although no significant group differences were detected in the individual comparisons of task measures, exploratory cluster analysis based on the two primary task measures identified three clusters of individuals with distinct profiles of engagement intensity (F(2,36)=9.141, p<0.001) and persistence (F(2,36)=13.954, p<0.001), and clinical apathy (F(2,37)=4.183, p=0.023). Further, there were significant diagnostic group by cluster assignment interaction effects for engagement intensity (F(2,33)=4.551, p=0.018) and apathy (F(2,34)=3.445, p=0.043) that highlighted substantial behavioural heterogeneity specific to schizophrenia; these interaction effects appeared to be driven primarily by a subgroup of patients who exhibited reduced engagement and increased apathy compared to individuals in other clusters as well as within-cluster healthy control counterparts.

**Discussion:** The Activity Preference Task provides a means of quantifying activity engagement in schizophrenia, which may be particularly valuable given the lack of objective assessments that measure non-incentivized, intrinsically motivated behaviours. Our initial findings suggest that patients with schizophrenia as a group are equally inclined as healthy individuals towards actively engaging activities when presented an explicit choice, but provision of such opportunities may be insufficient for amotivated patients to initiate and maintain engagement in functional behaviours.

**F220. THREAT ANTICIPATION AND NEGATIVE AFFECT IN EARLY PSYCHOSIS**

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**Background:** Increasingly, evidence points to the involvement of cognitive and affective processes in psychotic disorders. To determine the interplay of mechanisms involved in the development and maintenance of psychosis, these pathways must be studied in different stages of psychosis, such as early psychosis. Previous research, however, mostly uses cross-sectional data, and there remains a need to extend research to include timeseries and longitudinal models to investigate the direction of the relationship between these processes and psychotic experiences.