Background: Cognitive deficits are common in people with schizophrenia and have a negative impact on functioning. Cognitive Remediation (CR) is an effective approach to reduce the burden of cognitive difficulties; however, there are individual differences in therapy response. Previous research suggests that participants age may be a significant moderator of therapy efficacy but results are inconclusive. This study attempts to fill this gap by exploring how age may influence CR outcomes.

Methods: Data from ten trials from the NIMH Database of Cognitive Training and Remediation Studies (DoCTRS) were used. We considered the following therapy outcomes: Executive function as assessed by the Trail making test part B (TMTB), the Wisconsin Card Sorting Test (WCST) and Verbal fluency (FAS) scores. Working memory was assessed with the Letter-Number Span (LNS) and the Digit span. Symptoms were evaluated with the Positive, Negative and General scores from the Positive and Negative Syndrome Scale (PANSS). Functioning was assessed using the Heinrichs-Carpenter quality of life (HCQOL) scale. To evaluate the effect of age on outcomes we classified participants into under 40 and over 40 years old. We compared outcomes across age groups using mixed linear models.

Results: We considered data from 711 people with schizophrenia (407 received CR and 304 the control condition). For the under 40 group the average age was 29.26 (SD 6.83) while the average years spent in education was 12.11 (2.61). The over 40 group had a mean age of 40.09 (SD 6.09) and 12.11 (2.54) years of education.

We found a significant interaction between age and working memory and functioning improvement for the over 40 group. The younger group showed a larger effect of CR in term of general symptoms reduction. We did not find an effect of age on executive function, positive and negative symptom.

Discussion: The results indicate that CR may benefit people with schizophrenia in different way depending on their age. Age may represent a large number of complex factors and more work is needed in this area to better understand how individual characteristics and illness history may influence CR response. Work in this sense will help to reduce CR response heterogeneity and improve therapy personalisation.

T207. A REVIEW OF PREDICTORS OF RESPONSIVENESS TO CBT FOR PSYCHOSIS
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Background: Pharmacological and psychological intervention combined are proved to be more effective for treating psychosis than pharmacological treatment alone. Cognitive Behavioral Therapy for psychosis (CBTp) has been empirically supported as joint treatment providing a significant improvement in positive and negative symptoms, and functional outcomes for psychosis. However, rates of patient discontinuation in CBTp and occasional lack of improvement in symptoms show it is important to refine the identification of the individual characteristics related to better response to CBTp. This literature review aims to accomplish a comprehensive analysis of the evidence-based studies that have searched predictors in the last decades, focusing on individual factors that directly predicts responsiveness to CBTp, rather than therapist or treatment factors. The scope of knowledge gathered here intends to guide practical application of CBTp to people with psychosis that can benefit more from this intervention. Adaptations to improve the effectiveness of CBTp and gaps to be addressed in further research are also considered.

Methods: Thirty (30) studies (18 RCT) were included to determine which characteristics are relevant for a distinctive response to CBTp in people with schizophrenia and other psychotic disorders. The word “predictor” was used to discriminate pertinent studies. Articles were included if they reported in a population within a Psychosis Spectrum Disorder; reported on CBT or derived intervention; reported on individual predictors of outcome in CBT or derived therapy. Articles that reported on a high-risk psychosis population or on comorbidities with psychosis; reported non-individual predictors; were case studies or literature reviews; had a small sample; and had mixed interventions and did not report results specific to CBT were not included.

Results: Studies have shown divergences in methodology, focus on different domains and time-points of disorders outcome and great heterogeneity in results. There is strong evidence that greater clinical and cognitive insight, cognitive flexibility, greater positive symptom severity and less pronounced negative symptoms at baseline, shorter duration of psychosis, a greater number of hospitalization in the previous five years and pre-therapy coping styles can predict better outcome in CBTp, although their significance has varied between studies. While impairment in verbal memory was related to a shortage of improvement in symptoms and a greater likelihood to abandon of treatment before completion, most studies did not find neurocognitive functioning to be a predictor of outcome in CBTp.

Discussion: Further investigation is needed to determine the extent and validity of these predictors in different populations within the scope of psychosis. Professionals can benefit from the gathered knowledge, using these findings to better target CBTp and to focus early stages of intervention on developing patient’s abilities such as cognitive flexibility and insight, working memory, coping skills and clinical awareness in order to improve their receptiveness to therapy and successful outcome.

Future research should aim to replicate findings with larger and more diagnosis-comprehensive samples to enable generalization of the present results. Aspects such as personality traits, metacognition and sociodemographic characteristics require more thorough investigation to confirm their predictive value before being taken into consideration when selecting patient suitability to CBTp and similar interventions.

T208. LONGITUDINAL FEASIBILITY AND ACCEPTABILITY OF THE EXPRESS SMARTPHONE APP: RECRUITMENT, RETENTION AND PRELIMINARY FINDINGS
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Background: Relapse of schizophrenia is common, has profound, adverse consequences for patients and is costly to health services. Early signs interventions aim to use warning signs of deterioration to prevent full relapse. These interventions show promise but could be further developed. There is preliminary evidence that adding ‘basic symptoms’ to conventional early signs of relapse may improve relapse prediction. Basic symptoms are subtle, subclinical disturbances in one’s experience of oneself and the world that can include, for example, perceptual changes, mild subjective cognitive problems and decreased tolerance of stressors. This study aimed to evaluate the feasibility and acceptability of using the ExPRESS smartphone app to monitor both conventional early signs and basic symptoms as possible predictors of relapse.

Methods: Patients who had experienced a relapse of schizophrenia within the past year took part in a screening interview. Those with at least one basic symptom emerging prior to a previous relapse were eligible for the longitudinal feasibility study. Consenting participants were asked to use the ExPRESS smartphone app once a week for 6 months, answering questions on their experience of conventional early signs, basic symptoms and psychotic symptoms. When app responses indicated an increase in psychotic symptoms above a pre-defined threshold, the researcher conducted the PANSS positive symptoms interview over the phone to assess whether the symptom increase was indicative of relapse. At the end of the follow-up period, face-to-face qualitative interviews were conducted to explore participants’ experiences of using the phone app and reasons for study dropout.

Results: 82% (18/22) of those screened were eligible for the longitudinal feasibility study and consented to participate. Of these, 72% (13/18) completed at least half of the weekly phone app assessments, with two participants dropping out of the study without completing any assessments on the phone app. Two participants met pre-defined relapse criteria during the 6 month follow up period. Initial findings from sixteen qualitative interviews are discussed, including interviews with the two participants who met relapse criteria and two study drop-outs.

Abstracts for the Sixth Biennial SIRS Conference
T209. TESTING CORTICAL RTMS TARGETS TO IMPROVE PSYCHOMOTOR SLOWING IN SCHIZOPHRENIA AND MAJOR DEPRESSION IN A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED TRIAL

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Background: Psychomotor retardation is a frequent symptom of schizophrenia spectrum disorders and major depressive disorders, which hampers functional outcome. Neuroimaging studies have pointed to aberrant connectivity between cortical and subcortical components of the motor system in subjects with psychomotor retardation. Furthermore, increased neural activity was noted in premotor areas in subjects with severe motor inhibition. Interventional trials targeting aberrant brain function with noninvasive brain stimulation in this field are missing.

Methods: In a randomized, sham-controlled, double-blind clinical trial we test whether three different repetitive transcranial magnetic stimulation (rTMS) protocols may ameliorate psychomotor retardation after 15 daily sessions in patients with schizophrenia spectrum disorders and patients with major depressive disorder. Randomization is performed in parallel for both diagnoses. rTMS protocols include facilitatory stimulation (1 Hz) of the supplementary motor area (SMA), inhibitory stimulation (1 Hz) of the SMA, and sham stimulation of the occipital cortex. Assessments are performed at baseline and every five rTMS sessions. Motor retardation is assessed with wrist actigraphy and the Salpetriere Retardation Rating Scale (SRRS). The primary outcome variable is the proportion of responders per group, with SRRS score reduction of 30% from baseline. We apply the last observation carried forward method to the intention to treat population.

Results: The ongoing study has enrolled 24 patients (17 SZ, 7 MDD), and 15 patients completed the study. The proportion of responders differs significantly between groups (X2 = 7.7, p = 0.05) in favor of the inhibitory SMA stimulation (83%). Repeated measures ANOVA of SRRS in all participants significantly between groups (X2 = 7.7, p = 0.05) in favor of the inhibitory SMA stimulation. The primary outcome variable is the proportion of responders per group, with SRRS score reduction of 30% from baseline. We apply the last observation carried forward method to the intention to treat population.

Discussion: The results from this longitudinal feasibility study will inform the design of a well-powered definitive study prospectively examining the sensitivity and specificity of basic symptoms in predicting relapses of schizophrenia.