analysis (i.e. different age groups, varied cytokine measurement methods, medication treated or naïve, and presence of psychiatric comorbidities) and meta-regression analysis (variables including patients' sex ratio, age, age at symptom onset, illness duration, scores of Y-BOCS, family history of psychiatric disorders, and BMI).
Results: 17 original studies (13, 13, 10, 5, 4, 3, 2 studies for IL-6, TNF-α, IL-1β, IL-10, IL-2, IL-4, and IFN-γ, respectively), 573 patients (mean age, 25.2; 50.3% female) and 498 healthy controls (HC; mean age, 25.3; 51.4% female) were included. The results showed that the levels of combined pro- or anti-inflammatory cytokines and each signle cytokine were not significantly different between OCD patients and HC (all P>0.05), with significant heterogeneities in all analyses (I^2 from 79.1% to 91.7%). We did not find between-group differences in cytokine levels in all subgroup analyses. Meta-regression analysis suggested that age at onset (P=0.0003) and family history (P=0.0062) might be the source of heterogeneity in TNF-α level. Sensitivity analysis confirmed that all results were stable, except for IL-4 where different cytokine measurement methods may be the contributing factor. Egger test did not find publication bias.
Conclusions: Our study showed no difference in cytokine levels between OCD patients and HC, but age at onset and family history may affect TNF-α level. Confounding factors such as age at onset, family history, and cytokine measurement methods should be controlled in future studies to further explore the immune mechanism of OCD.

Disclosure of Interest: None Declared

Post-Traumatic Stress Disorder

O0007

Exploring predictors of Treatment Attendance in Patients with PTSD and Comorbid Personality Disorders: Secondary Analysis of a Randomized Controlled Trial

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Introduction: Posttraumatic stress disorder (PTSD) and personality disorders (PD) often co-occur and treatment dropout remains a challenging problem for both disorders. The literature on predictors of treatment dropout is highly mixed and few reliable predictors have been identified for both PTSD and PD treatments separately, let alone for concurrent PTSD and PD treatment.
Objectives: The aim of the present study was to identify predictors of treatment attendance among a wide range of variables in patients with PTSD and comorbid PD who received trauma-focused treatment with and without concurrent PD treatment.
Methods: Data were used from the prediction and outcome study in comorbid PTSD and personality disorders (PROSPER), a study consisting of two randomized clinical trials (RCT) testing the effectiveness of trauma-focused treatment (eye movement desensitization and reprocessing or imagery rescripting) with versus without concurrent PD treatment (dialectical behavior therapy or group schema therapy). 256 patients with PTSD and comorbid personality disorder participated in the study. The potential predictors included demographic (e.g. work status), patient severity (e.g. PTSD severity), patient-therapist (e.g. working alliance) and therapist (e.g. therapist experience) variables. The ordinal outcome variable was treatment attendance (0, 1-7, 8-11, 12+ trauma-focused treatment sessions). Relevant predictors were identified by a series of ordinal regression analyses (threshold for inclusion p < .10). Relevant predictors were then entered together in a final ordinal regression model. Multiple imputation was used to handle missing data.
Results: The final model included ten predictor variables and provided a good fit for the data (pooled $R^2_{Nagelkerke}$ = .29). Higher education level (OR = 1.22, p = .009), self-rated PTSD severity (OR = 1.04, p = .036) and working alliance (OR = 1.72, p = .047) were associated with a larger number of attended sessions. Higher levels of inadequate social support from a friend (OR = 0.90, p = .042) and being randomized in the concurrent treatment condition (OR = 0.52, p = .022) were associated with a smaller number of attended sessions.
Conclusions: In terms of treatment attendance rates, the results suggest that trauma-focused treatment is preferred over concurrent trauma-focused and personality disorder treatment for patients presenting with PTSD and PD. Clinicians should further be aware of the risk of lower treatment attendance for patients with a lower educational background and those reporting inadequate social support. Enhancing working alliance may protect against early treatment termination. Finally, patients with higher levels of PTSD severity at baseline may need a larger number of treatment sessions.

Disclosure of Interest: None Declared

Psychophysiology

O0009

Assessment of Cognitive Performance and Psychophysiological Signals in Mental Patients by a Novel Method

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Introduction: Mental disorders often manifest broad cognitive deficits that detrimentally affect daily functioning. Stress indicated by heart rate variability (HRV) has been linked to these cognitive functions.

Objectives: We aimed to develop a new method to assess cognitive performance and simultaneous measurement of psychophysiological signals related to stress and relaxation levels.
Methods: 20 adult patients with mental disorders in a rehabilitation program were recruited along with 21 healthy volunteers. A test protocol was carried out with a purpose-developed computerized psychophysiological device. The protocol consisted of a relaxation period; digitized questionnaires on pathological distress (GHQ) and sense of coherence (SOC); gamified cognitive tasks to assess working memory, attention, and decision-making; and a final relaxation period. Acute stress was assessed by heart rate variability measured by a wireless ECG sensor. The inter-beat interval's root mean square of successive differences (RMSSD) was calculated as an inverse stress measure. Relaxation levels were assessed by the relative power of the alpha frequency band measured by a commercial 4-channel EEG headband. Stress and relaxation levels were compared to the first relaxation period as a baseline.
Results: Patients scored worse than the reference group both regarding distress (d=7, p=0.004) and sense of coherence (d=-8, p=0.047). The cognitive performance of patients was significantly lower (p<0.001) than the reference group for all tasks.
RMSSD at baseline tended to be lower for patients (d=-12.69, p=0.098), reflecting a higher level of physiological stress; 61% of patients started at an elevated stress level compared to 25% of the reference group. In addition, relative alpha levels at baseline were also lower (d=-5.8%, p=0.007) for patients.
Compared to baseline, RMSSD decreased on average to 94% during cognitive assessments in patients and decreased to 91% by the end of the final relaxation. RMSSD decreased to 76% in the reference group and reached a final value of 78% of the baseline. Alpha levels slightly increased among patients during the tasks (103.4%) and then returned close to baseline (99.1%). For the reference group, alpha decreased during the tasks (95.5%) and then slightly increased (97.3%).
Conclusions: Patients displayed heightened distress, reduced sense of coherence, and inferior cognitive scores compared to controls. While starting with higher stress, patients exhibited less elevation in stress during tasks, coupled with alterations in alpha levels, suggesting diminished engagement or focus. Our innovative method could aid in the diagnostics of cognitive performance in mental patients after further measurements for validation.

Disclosure of Interest: None Declared

Precision Psychiatry

O0010

Association between escitalopram dose personalisation based on quantification of drug plasma levels and the outcome of escitalopram treatment

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Introduction: Given the negative impact of anxiety and depression on society and the shortage of new antidepressants, it is of paramount importance to make the best use of available treatment options. Therapeutic drug monitoring (TDM) in escitalopram treatment can potentially be clinically useful, as underexposed patients show reduced efficacy of escitalopram treatment and as adverse drug reactions (ADRs) of escitalopram are dose-dependent.
Objectives: This prospective cohort study aimed to investigate whether escitalopram treatment efficacy or safety are associated with escitalopram dose adjustment based on TDM readouts.
Methods: 89 included patients aged between 15 and 65 years who suffered from depression were enrolled in the study before starting treatment with escitalopram. Patients were assessed one day before starting treatment with the recommended dose of 10 mg/day escitalopram (baseline, visit 0) and at follow-up after four and eight weeks. Dose adjustment at four-week follow-up was based on the measured escitalopram plasma level two weeks after treatment initiation; patients who required dose increase to 15 or 20 mg/day comprised comparator group, patients who did not required dose increase comprised control group, while patients who did not reach optimal exposure at eight-week follow-up were characterized as non-compliers. Treatment efficacy was approximated by the relative change on the Hamilton Depression Rating Scale (HAMD), while safety was approximated based on the changes on the Scandinavian UKU side effect rating scale and ECG readouts. Changes in HAMD, UKU score and QTc interval were compared between groups by one-way ANOVA or chi-square tests.
Results: Compared to baseline, significant reductions in HAMD scores of 36% (95%CI, 30%-43%) and 53% (95%CI, 47%-60%) were observed at four- and eight-week follow-up, respectively; however, there were no significant differences between groups (p > 0.1). In the groups adjusted to 15 and 20 mg, 15/26 and 19/33 patients, respectively, reported adverse effects, compared with 6/17 patients in the control group and 6/13 in the non-complier group (p>0.1). A significant mean QTc prolongation of 6.40 ms (95%CI, 3.27-9.53) was observed between the baseline and eight-week follow-up (p=0.0013), without significant differences in QTc interval prolongation between groups (p > 0.1).
Conclusions: Escitalopram dose adjustment resulted in optimal drug exposure and solid treatment response in the majority of patients; however, no differences in efficacy were found between the patients who required dose adjustments, the ones who did not, and the ones who ultimately did not achieve optimal exposure. In addition, the selective increase of the dose to the patients who did not reach optimal drug exposure on the recommended dose of