Objectives: The primary objective of this research is to explore the existentialist understanding of psychopathology, particularly focusing on Sartre's contributions to making psychopathological experiences comprehensible.

Methods: Narrative review of relevant literature.

Results: The findings highlight that psychopathological conditions often arise when individuals are alienated from their own projects of being. These conditions are shaped by personal histories, societal structures, and choices made in "bad faith" (self-deception). Past events, such as family dynamics, social oppression, and traumatic experiences, play a critical role in shaping the individual's choices and actions. Sartre argues that when individuals distance themselves from their authentic desires and intentions they experience existential alienation, which manifests as psychopathology. A key result is the understanding that psychopathology should not be seen as a mere malfunction of the brain, as suggested by the biomedical model. Rather, it is a comprehensible event in the subject's individual and social history. The deviation from an authentic life project is central to understanding the origin of psychological disorders.

Conclusions: Sartre's existentialist framework offers significant contributions to the field of psychopathology by making psychological suffering comprehensible through the lens of personal freedom and choice. The rejection of a purely biomedical or deterministic approach allows for a more nuanced understanding of the individual's psychological struggles as part of their broader life context. Psychopathology is thus seen as a breakdown in the relationship between the subject's life project and their historical or existential situation, where the individual either chooses to distance themselves from their authentic self or is forced to do so by external contingencies. Sartre advocates for a "reciprocal" clinical relationship that recognizes the patient's subjectivity, transforming the clinical space into one of genuine listening and understanding. This existentialist clinical model focuses on the subject-in-situation.

Disclosure of Interest: None Declared

Psychophysiology

EPP317

Transdiagnostic investigation of schizophrenia and autism spectrum: Heart rate variability changes during rest, relaxation, and cognitive tasks

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Introduction: Autism spectrum disorder (ASD) and schizophrenia (SCH) are distinct diagnoses. However, they share common features such as high heritability, neurodevelopmental origins, and difficulties in social communication. Despite this, the etiology and precise pathophysiology of both conditions remain unclear, and no biomarker can definitively distinguish between them. In addition to higher-level cognitive and social-communication skills, autonomic regulation capacity is crucial for emotional regulation in social situations, which has been shown to differ in ASD and SCH according to the literature.

Objectives: Our study, part of a larger research project, aimed to explore autonomic regulation in ASD and SCH by investigating heart rate (HR) and heart rate variability (HRV) as key markers of autonomic nervous system functioning. We measured these parameters during rest, relaxation (body scan), and cognitive tasks to assess changes in autonomic regulation capacity across different conditions.

Methods: Participants underwent an electrocardiogram (ECG) recording during a longer EEG experiment. We analyzed heart rate and HRV data from 114 participants (N_{ASD}= 38, N_{SCH}= 37, and N_{NTP}= 39), with a particular focus on the RMSSD parameter as a key marker of parasympathetic regulation. We hypothesized that HRV would be lower in ASD and SCH groups compared to neurotypical controls (NTP), with the differences between groups diminishing during tasks. The experimental setup avoided additional stressors outside of the social context of the study.

Results: As hypothesized, we found significant differences in RMSSD between groups during the initial resting state (eyes open $F(2,111)$=6.314, p=0.003, $\eta p2$=0.102, eyes closed (EC): $F(2,98)$=6.800, p=0.002, $\eta p2$=0.122). Although HRV was nominally lower in the ASD group (EC: M_{ASD}= 26.10), only the SCH group (EC: M_{SCH}= 19.77) showed a significant difference from the NTP group (EC: M_{NTP}= 32.78) based on post hoc comparisons. Contrary to expectations, HRV did not significantly change in the SCH and NTP groups during tasks. However, in the ASD group, HRV increased after body scan relaxation and, notably, during cognitive tasks (group main effect in repeated measures ANOVA: $F(2,105)$=6.068, p=0.003). This suggests that the structured nature of the task may have a calming effect, observable in autonomic regulation.

Conclusions: Our findings indicate distinct autonomic regulation patterns in ASD and SCH, with structured situations potentially having a calming effect, particularly in individuals with ASD. In the next phase of our research, we will systematically examine the relationship between electrophysiological parameters and key symptoms such as attachment insecurity, mentalization deficits, disorganization, and the severity of clinical symptoms, all of which have significant implications for clinical conditions and everyday functioning.

Disclosure of Interest: None Declared

EPP319

Objective Measures of Stress: Association of Speech Features and Cortisol

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Introduction: Stress is a physiological and psychological response that contributes to the development and worsening of psychiatric

disorders such as depression and anxiety. Objective stress measurement is crucial in psychiatric settings, as stress affects the onset and progression of these conditions. Reliable data can improve diagnosis, treatment, and management. Speech analysis offers a non-invasive way to assess stress, as stress-induced physiological changes can influence features like pitch, jitter, and speaking rate.

Objectives: This study aims to explore whether automatic speech analysis can serve as an objective stress measure by examining the relationship between speech features and cortisol levels during an acute stressor.

Methods: Participants were recruited at the Department of Psychiatry, University of Frankfurt, Germany. Cortisol levels were measured in saliva before (T0) and 20 minutes after (T1) a stress-inducing or control task. Participants immersed their hand in cold or warm water while being observed via video, then completed a speech task by reading 16 standardized sentences before and after the task. Various speech features, including frequency, energy, and spectral characteristics, were analyzed in relation to cortisol levels. Correlations and mixed-effects models were calculated.

Results: A total of 52 participants (n=28 stress, n=24 control) read 1040 sentences across T0 and T1. Cortisol levels increased in both sexes in the stress condition compared to the control (Figure 1). Vocal tremor showed a strong positive correlation with cortisol at T0 and a strong negative at T1 regardless of condition. The harmonic-to-noise ratio had no correlation at T0 but displayed a negative one at T1. Pitch range showed no initial correlation but was strongly negative post-stress. Mixed-effects models revealed significant interactions between time point and group for features like number of pauses and loudness standard deviation (p=.036 and p<.001, respectively). Loudness rate was significantly associated with time point (p<.001). In the linear mixed-effects model, an interaction effect was observed between time point and group for the harmonics-to-noise ratio, with a significant decrease in the stress condition (p<.001).

Image 1:
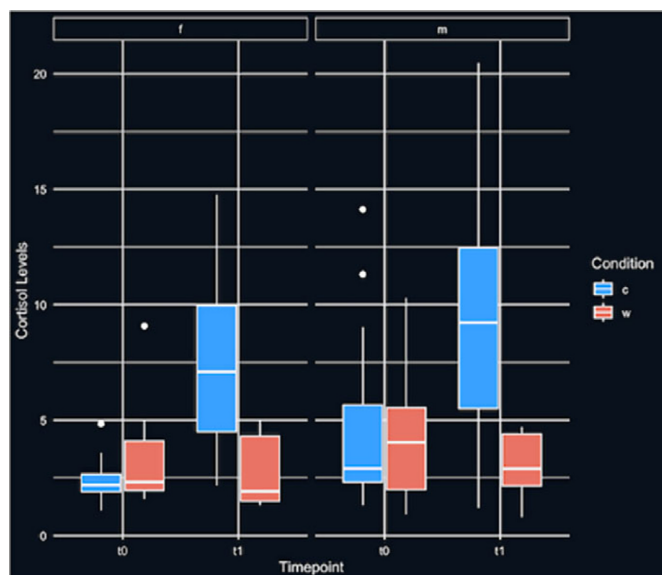
Conclusions: This study supports speech analysis as a potential objective stress measure. Findings suggest that features like vocal tremor and pitch range are sensitive to acute stress, indicating that speech analysis could provide a non-invasive, real-time tool for assessing stress in psychiatric settings, offering an alternative to traditional self-report methods.

Disclosure of Interest: None Declared

EPP320

Adrenal gland volume measurement in depressed patients

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Introduction: Prior studies have shown contradicting results regarding adrenal gland volume (AGV) in depressed patients, with some reporting significant enlargement and others not.

Objectives: The aim of this study was to retrospectively compare CT image segmentations of the adrenal glands in patients with depression to a control group with stringent exclusion criteria to minimize confounding factors.

Methods: We included patients diagnosed with depression (ICD-10: F32/33) who underwent abdominal CT imaging between 2012 and 2022 and did not have any other psychiatric disorders. Diagnoses that could potentially influence AGV were excluded. The resulting 31 depressed patients were compared to a matching control group of 31 patients without depression. The AGV was manually segmented in thin-sliced reconstructions (≤1 mm).

Results: Total AGV in the depressed group was 6.78 (5.19-7.56) cm^3 compared to 6.90 (5.54-10.05) cm^3 in the control group. There was no significant difference in AGV between the two groups after adjusting for age, height, and weight. A positive correlation was observed between AGV and height (r=0.41, p<0.001) and weight (r=0.52, p<0.001). Males showed significantly larger AGV than females (p≤0.001), and left AGV was significantly larger than right AGV (p<0.001). Patients within the depressed group who underwent imaging after a suicide attempt showed larger total AGV compared to the control group, though not statistically significant.

Conclusions: AGV is not increased in the well-selected cohort of depressed patients in this study, which contrasts with some previous reports in literature. Further multi-centric studies are required to identify potentially influencing factors such as attempted suicide.

Disclosure of Interest: None Declared