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Introduction: Few studies have investigated the level of planning of pregnancy among women with mental disorder and associated risk factors.

Objectives: The purpose of this study was to determine the associated factors to UP and psychopathological consequences.

Methods: A cross sectional study was conducted at the Perinatal Mental Health Unit of the Hospital Clínic in Barcelona. The total sample comprised 675 consecutive pregnant women with diagnosis of mental disorder (DSM-IV criteria), seen between January 2006 and December 2018. Clinical, psychometric and socio-demographic variables were collected at the first visit. Pregnancy planning was assessed by a question "Was this pregnancy planned?" with three possible answers: 1) Yes, it was planned and has been well received; 2) No, it was not planned but it has been well received; and 3) No, it was an accident. Response 1 was coded as "planned pregnancy" and responses 2 and 3 as "Unplanned Pregnancy".

Results: 38.4% of the sample had an UP. Younger age, lower levels of education, Latin-American population, multiparity, financial problems and poor relationship with the partner were associated with UP in women with mental disorder. The mean EPDS and STAI scores and the presence of self-harming thoughts were significantly higher in women with UP.

Conclusions: UP was associated with more depressive and anxious symptoms and more self-harming thoughts. It is necessary to promote reproductive health care for women with mental disorders and to take into account their reproductive life plan, especially in those with risk factors described.

Disclosure: No significant relationships.

Keywords: unplanned pregnancy; risk factors; self-harm; perinatal mental health

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EPP0655

EEG alpha band functional connectivity and network structure mark hub overload in Mild Cognitive Impairment during memory maintenance

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Introduction: While decreased alpha-band functional connectivity (FC) and changes in network topology have been reported in Alzheimer's disease, it is not yet entirely known whether these

differences mark cognitive decline in the early stages of the disease.

Objectives: Our study aimed to analyze EEG FC and network differences in the alpha frequency band during visuospatial memory maintenance between Mild Cognitive Impairment (MCI) patients and healthy elderly with subjective memory complaints.

Methods: FC and network structure of 17 MCI patients and 20 control participants were studied with 128-channel EEG during a visuospatial memory task. FC was measured by amplitude envelope correlation with leakage correction (AEC-c), while network analysis was performed by applying the Minimum Spanning Tree approach.

Results: Increasing memory load enhanced the mean alpha-band FC in the control group. In contrast to that, after an initial increase, the MCI group showed significantly ($p<0.05$) diminished FC in the highest memory load condition. Mean alpha AEC-c correlated significantly with the size and mean diffusivity of medial temporal lobe structures in the entire sample. The network analysis revealed a rerouted network in the MCI group with a more centralized topology and a more unequal traffic load distribution compared to the control group.

Conclusions: Alpha-band FC correlates with cognitive load-related modulation, with medial temporal lobe atrophy, and with the disruption of hippocampal fiber integrity in the earliest stages of cognitive decline. The more integrated network topology of the MCI group is in line with the "hub overload and failure" framework and might be part of a compensatory mechanism.

Disclosure: No significant relationships.

Keywords: Network Analysis; functional connectivity; EEG; mild cognitive impairment

EPP0656

Deficient Multisensory Integration with concomitant resting-state connectivity in adult ADHD

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Introduction: ADHD patients often report that they are being flooded by sensory impressions. Studies investigating sensory processing show hypersensitivity for sensory inputs across the senses. While studying unimodal signal-processing is relevant and well-suited in a controlled laboratory environment, our daily interaction with our environment does not occur merely unimodal. A complex interplay of the senses is necessary to form a unified percept. In order to achieve this, the unimodal sensory modalities are bound together in a process called multisensory integration (MI).

Objectives: In the current study we investigate MI in an adult ADHD sample accompanied by resting-state functional magnetic resonance imaging (RS-fMRI).

Methods: Twenty-five ADHD patients and twenty-four healthy controls were recruited. MI was examined using the McGurk effect, where - in case of successful MI - incongruent speech-like phonemes between visual and auditory modality are leading to a

perception of a new phoneme. Mann-Whitney-U test was applied to assess statistical differences between groups. Resting-state functional MRI was acquired to realize a seed-to-voxel analysis
Results: Susceptibility to MCGurk was significantly lowered for ADHD patients ($ADHD_{Mdn}: 5.83\%$, $Controls_{Mdn}: 44.2\%$, $U= 160.5$, $p=0.022$, $r=-0.34$). When ADHD patients integrated phonemes, reaction times were significantly longer ($ADHD_{Mdn}: 1260$ ms, $Controls_{Mdn}: 582$ ms, $U=41.0$, $p<.000$, $r= -0.56$). Seeded medio temporal gyrus was negatively associated in functional connectivity to primary auditory cortex, inferior frontal gyrus, precentral gyrus, and fusiform gyrus.

Conclusions: MI seems to be deficient for ADHD patients for stimuli that need late attentional allocation. This finding is supported for higher functional connectivity from unimodal sensory areas to polymodal, MI convergence zones for complex stimuli.

Disclosure: No significant relationships.

Keywords: adult ADHD; Resting-state fMRI; multisensory Integration

EPP0657

Increased spectral power of theta rhythm is not associated with decreased supragranular thickness in first-episode schizophrenia

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Introduction: Schizophrenia is associated with disturbances in neurophysiological processes. However, the relation of EEG and ERP parameters to structural supragranular cortical abnormalities, observed in schizophrenia, remains unclear.

Objectives: The purpose was to characterize EEG and ERP disturbances and their relationship to changes occurring in supragranular cortical layers in subjects with schizophrenia.

Methods: 43 first-episode schizophrenia (FES) male patients and 43 matched healthy controls (HC) underwent background EEG and standard two-tones oddball ERP recording and structural MRI at 3T Philips scanner. MRI images were processed via FreeSurfer and MATLAB to derive two markers specific to supragranular thickness change: gyral-sulcal thickness differences (GSTD) and gyral-sulcal intrinsic curvature differences on pial surface (GSCD) (github.com/kwagstyl/schizophrenia_gyral_sulcal).

Results: Theta rhythm spectral power was increased in FES while P300 amplitudes and latencies, N100 (to non-targets) amplitudes, alpha rhythm spectral power were not altered compared to HC. GSCD measures were increased in temporal, parietal and occipital cortices, whereas both GSTD and GSCD were increased in the right frontal cortex in FES. No correlations between altered EEG and supragranular thickness markers survived correction for multiple comparisons.

Conclusions: Presumably, theta rhythm has a widespread circuit of generators, including the cortical ones. However, we have not found

correlations between EEG and supragranular markers in FES. Considering an absence of correlations between theta and hippocampal volumes (Lebedeva et al., 2020), a speculative interpretation is that the neurophysiological disturbances may be associated with a more complex patterns of more localized structural and functional impairments.

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Keywords: MRI; schizophrénie; Theta rhythm; Supragranular thinning

EPP0659

Non-pharmacological treatment of psychiatric disorders in a nationwide population

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Introduction: Non-pharmacological treatment like psychotherapy is associated with less side effects than pharmacological treatment and is often considered first-line treatment towards psychiatric disorders. The extent and variation of psychotherapy treatment offered in Danish psychiatric clinics over time has not previously been studied.

Objectives: To examine the nationwide use of psychotherapy treatment during 2001-2020 in individuals assigned with a psychiatric disorder diagnosis at Danish psychiatric clinics.

Methods: All Danish individuals aged ≥ 3 years, who were registered with 1) a psychiatric disorder diagnosis (F10-F99) or 2) had a first psychotherapy treatment during the study period 1 January 2001 to 31 December 2020, were identified in the Danish National Patient Registry.

Results: A total of 120,916 (27 %) study participants received psychotherapy treatment during the study period, most commonly individual psychotherapy (65 %) followed by group therapy (25 %). Adults (≥ 18 years) were more likely to receive therapy (34 %) than children and adolescents aged 3-17 years (15 %). The proportion of treated patients was highest among women (67 %) compared with men (33 %). The median age at first psychotherapy was 25 years (ranging from 19 to 33). 59 % of patients receiving psychotherapy had filled a psychotropic prescription within one year prior to therapy onset, particularly antidepressants (44 %) and antipsychotics (22 %).

Conclusions: The use of psychotherapy for treatment of psychiatric disorders is limited among Danish patients, although national clinical guidelines recommend it as first-line treatment of common conditions such as depressive, anxiety and obsessive-compulsive disorders.

Disclosure: No significant relationships.

Keywords: Psychotherapy; nationwide population; register; psychiatric disorders