

Results: Most publications were made in 2020. The United Kingdom, the United States, Canada, and Australia have the highest number of publications, citations, and international cooperation. Additionally, “mental health” is one of the most used keywords in the studies.

Conclusions: The findings show the importance of empowering nurses working in this field, especially in determining the needs related to mental health services for refugees. The increased migration rates and the growing need for refugee health care highlighted the importance of investment in nursing research within this field. Nurses and researchers should aim to establish partnerships and share best practices with the leading countries. Furthermore, nurses require specialized training to competently evaluate and provide nursing care and mental health services to this vulnerable population. Policymakers must prioritize international collaboration, equitable healthcare, and the integration of mental health services within healthcare systems to improve refugee health and reduce barriers between them and health services.

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Neuroimaging

EPV0615

Reduced resting-state gamma-band power correlate with unaltered glutamate + glutamine levels in patients at clinical-high risk of psychosis

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Introduction: There is growing evidence of excitation / inhibition (E/I) balance abnormalities in schizophrenia, which might be associated with abnormal gamma frequency oscillations and glutamate concentrations. However, to the best of our knowledge, only one multimodal study have examined such associations between EEG and metabolite characteristics in patients at clinical-high risk of psychosis (CHR) so far.

Objectives: We aimed to investigate potential associations between GLX (glutamate + glutamine) levels and resting-state gamma-band power in CHR individuals and healthy controls (HC).

Methods: Twenty right-handed male patients (16-27 years, mean age 19.9 ± 2.7) fulfilling CHR criteria and 19 healthy male controls (16-27 years, mean age 21.6 ± 3.6) underwent resting-state EEG (16 leads; 10–20 system) and MR spectroscopy at 3T MRI scanner with voxels of $30 \times 30 \times 30$ mm located in left and right medial prefrontal cortex. Spectral analysis with estimation of gamma-band power (30-45 Hz) were conducted. MEGA-PRESS acquisitions were analyzed with jMRUi (ver. 5.1 Alpha), levels of GLX were calculated as a ratios to creatine + phosphocreatine (GLX/Cr). Gamma-band (30-45 Hz) spectral power and GLX/Cr were compared between groups. Correlations between EEG and metabolite

data were analyzed with regression model including age and chlorpromazine equivalents as covariates.

Results: Compared to healthy controls, patients showed reduced spectral gamma-band power in 6 leads (Table). No alterations in GLX/Cr were detected. Positive correlations between altered gamma-power in all leads (except Cz) and GLX/Cr in left medial prefrontal cortex were revealed in CHR (F3: $r=0.51$, $p=0.006$; F8: $r=0.54$, $p=0.004$; C3: $r=0.37$, $p=0.037$; Pz: $r=0.51$, $p=0.039$; P4: $r=0.56$, $p=0.009$). No correlations in HC group were found. Chlorpromazine equivalents did not correlate with GLX/Cr of gamma power in CHR group.

Table. Results of between-group comparisons corrected for multiple comparisons

Lead	CHR Mean \pm SD	HC Mean \pm SD	p-value	F	Cohen's d	Cohen's d CI 95%
F3	0.97 \pm 0.62	1.4 \pm 0.64	0.0097	7.2	-0.69	-1.22 -0.16
F8	0.84 \pm 0.61	1.45 \pm 1.03	0.0072	7.8	-0.71	-1.24 -0.19
C3	0.97 \pm 0.55	1.44 \pm 0.64	0.0026	9.9	-0.79	-1.32 -0.27
Cz	1.03 \pm 0.61	1.42 \pm 0.52	0.0074	7.7	-0.70	-1.22 -0.18
Pz	1.17 \pm 0.7	1.62 \pm 0.63	0.0098	7.1	-0.68	-1.2 -0.16
P4	1.04 \pm 0.66	1.53 \pm 0.66	0.0051	8.5	-0.74	-1.27 -0.22

Conclusions: The findings suggest that clinical-high risk of psychosis is associated with widespread alterations in resting-state gamma-band power. Positive correlations of such alterations with GLX/Cr and absence of such correlations in HC group are presumably indicative of disturbances in the excitation / inhibition balance in CHR individuals.

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Widespread cortical and subcortical gray matter loss and an increase of globus pallidus volume in treatment-resistant schizophrenia

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Introduction: It is still being discussed whether treatment-resistant schizophrenia (TRS) is a biological subtype which differs from non-treatment-resistant schizophrenia or is it a more severe condition that affects brain worse than non-treatment-resistant schizophrenia. However, there are few and heterogeneous studies and the etiology of TRS remains quite unclear.

Objectives: This study aimed to explore cortical and subcortical morphometric characteristics in TRS patients and its associations with the clinical features. The pilot stage comprises the comparison to the mentally healthy subjects.

Methods: 21 right-handed male patients (mean age 28.99 ± 8.08 years) fulfilling TRS criteria and 21 matched healthy controls