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Introduction: Early life stress (ELS) associates with unfavourable outcome in Major depressive disorder (MDD) and treatment-resistant depression (TRD). Trauma-focused psychotherapy benefits TRD patients exposed to ELS. Epigenetic processes are altered in stress-related disorders, but few studies show epigenetic signatures associated with trauma.

Objectives: We performed an epigenome-wide association study (EWAS) to explore the relation between methylation changes in TRD patients characterized for recent and ELS and trauma-focused psychotherapy outcomes.

Methods: Thirty TRD patients participated. They underwent psychotherapy, from which 12 cognitive behavioural therapy and 18 Eye Movement Desensitization and Reprocessing (EMDR). We used validated interviews and questionnaires for symptom evaluation and stress exposure. Patients were evaluated at T0 (baseline), T8 (end of psychotherapy), T12 (follow-up) and T26. Methylation was profiled with Illumina Infinium EPIC array for T0, T8 and T12. Methylation levels were quantified after quality control and normalization using ChAMP R package. We tested the association between B-values for each CpG site (each probe set) and each phenotype/condition using a linear model approach (with paired values) as implemented in the Limma R package. P-values were adjusted using Benjamini & Hochberg method. Probe sets were considered significant with an adjusted p-value $q \leq 0.05$. CpG site annotation was performed using IlluminaHumanMethylationEPICanno.ilm10b2.hg19 R package (hg19 genome reference).

Results: Association analyses between baseline methylation levels and emotional abuse resulted in two significant probe sets annotated in *SLCO4A1* ($p=1,72E-08$; $q=0,008$), involved in sodium independent transmembrane substrate transport, and *GPNMB* ($p=1,53E-07$; $q=0,022$), involved in cell differentiation. Associations between baseline methylation levels and physical abuse resulted in one significant probe set annotated in *DDIT4L* ($p=4,77E-08$; $q=0,035$), involved in cell growth.

In longitudinal analyses, association between T0-T8 methylation levels and response at T8 resulted in two significant probe sets annotated in *PLEKHB1* ($p=3,54E-08$; $q=0,013$), involved in cell differentiation, and *NUDT4P2* ($p=1,34E-07$; $q=0,032$). Longitudinal T12-T0 EWAS analyses in patients undergoing EMDR resulted in 44 significant probe sets annotated in genes, highlighting *MAD1L1* ($p=6,28E-07$; $q=0,035$), involved in cell division, and *TNFAIP3* ($p=3,00E-06$; $q=0,045$), which regulates immunity.

Conclusions: We identified epigenetic signatures of ELS in TRD patients, suggesting that ELS may modulate the intensity of epigenetic alterations. Longitudinal methylation analyses along psychotherapy showed significant genes in relation to response, especially for patients undergoing EMDR. Some genes are associated with post-traumatic stress disorder (*MAD1L1*) and anxiety disorders and MDD (*TNFAIP3*).

Disclosure of Interest: None Declared

O0111

Effects of cognitive rehabilitation interventions on non-central nervous system cancer survivors: A meta-analysis

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Introduction: Cancer treatments can have a detrimental impact on cancer survivors' cognitive function. Cognitive rehabilitation is considered the first-line intervention to address cognitive difficulties of cancer survivors. Nevertheless, its efficacy remains unclear.

Objectives: This meta-analysis aimed to understand the effects of cognitive rehabilitation in non-central system (non-CNS) cancer survivors, through the assessment of the overall efficacy on subjective cognitive outcomes.

Methods: This meta-analysis was conducted according to the Preferred Reporting Items for Systematic Review and Meta-Analysis statement. An electronic search on the databases PubMed, Scopus, and Web of Science was conducted in May 2021, considering the past 15 years, by two independent authors. Studies were eligible if they included cancer survivors (excluding CNS cancers) who were exposed to cognitive rehabilitation interventions, in which the subjective cognitive effects were measured through self-report questionnaires. The quality of studies was assessed using the Cochrane Risk of Bias Tool for Randomized Trials. The effect size was the standardized mean difference in the cognitive assessment, between baseline and post-intervention. Statistical heterogeneity was assessed using I^2 Statistic. Publication bias was evaluated with Egger's test. $P < 0.05$ was considered statistically significant. The meta-analysis was performed using R software.

Results: Among 14 studies, with 1115 cancer survivors, one study included a pediatric population, other young adult survivors, and the remaining adult population. The most used scale for measuring cognitive changes was the Functional Assessment of Cancer Therapy-Cognitive Function (FACT-Cog) and, as recommended, the Perceived Cognitive Impairments (PCI) subscale was used as the primary measure of subjective cognitive function. Results indicated beneficial effects following cognitive rehabilitation, with an overall standard mean difference between pre- and post-treatment of 3.4447, with CI95% [1.5543; 5.3350], p -value < 0.0004 . The subgroup analysis between the measures of cognitive outcomes showed that the heterogeneity is Group=Other 0.00% (I^2) and for the Group=FACT-Cog PCI is 86% (I^2). Analyzing the FACT-Cog PCI, the CI95% [-2.93; 6.43] includes 0, meaning that the overall effect in this subgroup is non-significant. The meta-analysis does not demonstrate publication bias (p -value of the Egger test=0.3220).

Conclusions: Improvement of cognitive function in non-CNS survivors throughout cognitive rehabilitation appears to be effective. The findings of this meta-analysis can help inform clinical practice and assist practitioners in recommending and developing

interventions of cognitive rehabilitation and deciding how to evaluate them. Further research is required to strengthen this evidence.

Disclosure of Interest: None Declared

O0112

““Why shouldn’t I expect things from life?” – what people with lived experience from psychosis highlight as important to their personally defined long-term recovery process”

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Introduction: Many people with lived experience from psychosis recover and thrive, contrary to the common stigmatizing belief that they will be chronic “patients”. But there are several ways to understand recovery, one is as a subjective process best explored through qualitative interviews with people who have recovered from psychosis. However, there is a need for more qualitative interview studies exploring what has been important for long-term subjective recovery for people with lived experience from psychosis outside of treatment. Exploring themes that are novel than previous research will have important clinical implications.

Objectives: This study aims to qualitatively explore what people with lived experience from psychosis believe has been the most important to attain and sustain their long-term personally defined recovery.

Methods: Qualitative interviews with 20 individuals participating in two follow-up-studies (TOP and TIPS-study) 10 and years 20 years after first treatment for a psychotic disorder (schizophrenia- or bipolar spectrum), respectively. All participants were in either clinical recovery (symptom remission and adequate functioning) or personal recovery (self-rated questionnaire) or both. Interviews were analyzed with thematic analysis in group meetings between the PhD-candidate, the main supervisor, a professor emerita in qualitative method and a co-researcher with lived experience from bipolar disorder.

Results: Participants defined recovery differently, but: “understanding myself”, “stable symptoms” and “finding the life that is right for you” were of the most common definitions. Tentatively, five main themes appear to be the most salient contributions to recovery: 1. Balance stress management with taking risks and following personal goals. 2. Accepting experience/“owning your story” in order to strategically disclose and manage stigma. 3. Taking agency over own recovery and mastery of everyday life. 4. Social support is crucial, but should change over time depending on need. 5. Feeling a sense of belonging to society does not need to entail “normality”.

Conclusions: Recovery was defined differently by each participant, but common themes across participants highlight that appropriate risk-taking, accepting your experience/owning your story, sense of

agency, social support and inclusion are important to long-term recovery in psychosis.

Disclosure of Interest: None Declared

O0113

Accelerated repetitive transcranial magnetic stimulation (ATMS) vs standard repetitive transcranial magnetic stimulation (RTMS) in the treatment of major depressive episodes. preliminary data of a randomized, single-blind, controlled trial

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Introduction: Major Depressive Disorder is a frequent and disabling condition. More than 20% of patients do not respond to pharmacotherapy alone, so there is the need to find alternative strategies in order to potentiate the drugs. Therapeutic alternatives include repetitive Transcranial Magnetic Stimulation (rTMS), which has shown an antidepressant effect in the last decades.

Objectives: Comparison of the efficacy of accelerated repetitive Transcranial Magnetic Stimulation (aTMS) treatment (4 sessions/day for 5 days) with the standard rTMS protocol treatment (1 session/day for 4 weeks), using the FDA-approved parameters.

Methods: 33 patients affected by Major Depressive Episodes treated with either Fluvoxamine or Venlafaxine were enrolled. Patients were randomly assigned to the two protocol groups: standard rTMS protocol (15 patients) and aTMS protocol (18 patients). In the standard protocol, patients received 1 rTMS session/day for 4 weeks, while in the aTMS protocol they received 4 rTMS sessions/day for 5 days. Symptomatology improvement was evaluated through MADRS, BDI-II and SSI rating scales administered on day: 0, 1, 2, 3, 4, 5, 14, 21, 28, 56. The study is single-blind, since the clinical rater was unaware of the treatment protocol group. Response and remission rates were calculated, defined respectively as a reduction $\geq 50\%$ in the MADRS score and a MADRS score < 10 .

Results: The analysis was carried out on 32 patients (18 in the aTMS group and 14 in the rTMS group). ANOVA for repeated measures shows a statistically significant difference in the MADRS scores on day 5 ($p=0.001$) and on day 56 ($p=0.037$). Regarding the BDI-II evaluation, the differences were not fully statistically significant on day 5 and not significant on day 56. No statistically significant differences between the two protocols were observed in the SSI assessment. The aTMS and rTMS response rates were respectively 84.6% vs 45.5% on day 28 ($p=0.043$) and 92.3% vs 45.5% on day 56 ($p=0.012$). The aTMS and rTMS group remission rates were respectively 76.9% vs 18.2% on day 28 ($p=0.004$) and 69.2% vs 36.4% on day 56 ($p=0.107$). Concerning side effects, no statistically significant differences were observed between the two groups.

Conclusions: Treatment with aTMS seems faster and more effective than treatment with standard rTMS in improving the clinical condition in patients with Major Depressive Episodes, allowing to treat patients in just 5 days instead of 4-6 weeks, without impacting on side effects and tolerability.

Disclosure of Interest: None Declared