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Introduction: Schizophrenia is one of the most severe mental disorders. Haloperidol and other first-generation antipsychotics are widely used for schizophrenia treatment, but have prominent side effects, primarily extrapyramidal symptoms (EPS). The EPS severity is highly variable and may be underlied by genetic factors.
Objectives: We performed a prospective study to test the association of DRD2/ANKK1 Taq1A polymorphism (rs18000497) and CYP2D6 phenotype, predicted from genotypes using 8 CYP2D6 alleles (*3, *4, *5, *6,*9, *10,*41, xN) with EPS severity during haloperidol treatment in schizophrenia spectrum disorders patients.
Methods: 57 inpatients with schizophrenia spectrum disorders (42,1% females; mean age - 46,7±11,8 y.o (M±SD) of European ancestry were enrolled in the study. Abnormal Involuntary Movement Scale (AIMS), Barnes Akathisia Rating Scale (BARS), Simpson-Angus Scale (SAS) were used to assess EPS on two timepoints: day 1 and day 21 of haloperidol treatment.
Results: TaqIA T-allele carriers in contrast to wild-type allele homozygous patients had higher scores of BARS (p=0.029) and SAS (p=0.024) on day 21. After stratification by CYP2D6 phenotype, these differences were observed only in extensive metabolizers (p=0.006 and p=0.001 respectively), although the CYP2D6 phenotype itself was not associated with EPS severity. The combined effect of TaqIA T allele with CYP2D6 extensive phenotype on BARS score on day 21 was confirmed by General Linear Model (p=0.013).
Conclusions: Our results show that minor TaqIA T-allele is associated with the severity of EPS after 3 weeks of haloperidol treatment only in CYP2D6 extensive metabolizers. That highlights the importance of using both pharmacokinetic and pharmacodynamic genetic markers in pharmacogenetic EPS risk assessment.

Disclosure: No significant relationships.
Keywords: Antipsychotics; Haloperidol; Pharmacogenetics

O154

Associations between genes methylation, postnatal risk factors and psychiatric symptoms in a clinical sample of children and adolescents: Preliminar results from the remind longitudinal study

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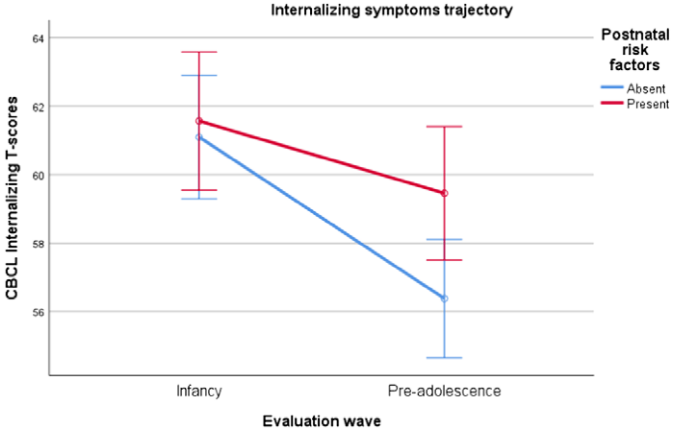
Introduction: Epigenetics hypothesizes a crucial link between postnatal risk factors, individual response to stress, DNA methylation and psychiatric symptomatology changes during life.
Objectives: We analyzed methylation within two gene exons: NR3C1 and SLC6A4, which are involved in responses to environmental stressors. We investigated the relationship between methylation, postnatal risk factors and psychopathology assessed by Child Behavior Checklist (CBCL) in our help-seeking sample evaluated in infancy (W1), preadolescence (W2) and adult life (W3).
Methods: Postnatal risk factors data were collected at W1 in 205 clinical subjects (156 M, 49 F; age=9,13±1,95). The CBCL scores were collected at W1 and W2 (W2 age=14,52±2,12). Data regarding methylation were collected at W2. At W3 we are also collecting clinical scores. A Spearman correlation coefficient was calculated between methylation percentage and clinical data at W2. The externalizing and internalizing trajectories were evaluated through repeated measure ANOVA with postnatal risk factors (presence/absence) as between-groups factor.
Results: Significant associations were found between methylation and internalizing and total clinical scores (Table 1). The rm-ANOVA results showed a significant interaction between the CBCL internalizing score and presence/absence of postnatal risk, with higher internalizing problems in subjects that were exposed to postnatal risk factors. This effect was significant at W2 but not at W1 (Figure 1).
Conclusions: Psychopathological symptoms trajectories could depend on epigenetics and early environmental risk factors. Further

Table 1

Spearman's rho

		SLC6A4 Gene Exon 1.1	SLC6A4 Gene Exon 1.18
Internalizing scale	Coefficient		,195**
	p value		0,005
Total scale	Coefficient	,149*	
	p value	0,033	

Figure 1
Internalizing symptoms trajectory



analyses will address a Linear Discriminant Analysis to proceed to a machine learning oriented approach.

Disclosure: No significant relationships.
Keywords: methylation; epigenetics; postnatal risk factors; psychopathology trajectories

O157

Epigenetic modulation in obsessive-compulsive disorder: Methylation and hydroxymethylation of the bdnf gene exon I promoter

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Introduction: Several evidence recognizes Brain Derived Neurotrophic Factor (BDNF) as a promising biomarker in the pathophysiology of psychiatric disorders, including Obsessive-Compulsive Disorder (OCD), considering the involvement of epigenetic regulation in BDNF altered expression.
Objectives: This study aims to investigate, in a sample of OCD patients, the epigenetic modulation in terms of levels of methylation and hydroxymethylation on the BDNF gene exon I promoter.
Methods: Fifty OCD patients, recruited from Psychiatry Unit 2, Sacco University Hospital in Milan and fifty healthy controls, comparable by age and gender. Saliva samples were collected by oral swab and epigenetic analysis were performed at the University of Teramo. Statistical analyses were performed with t test with Bonferroni correction.
Results: Data analysis showed a significant decrease in 5-methyl cytosine levels (5mC) (mean OCD: 1.221%; mean CTRL: 1.784%; $p < 0.001$) and a significant increase in 5-Hydroxy-methyl cytosine levels (5hmC) (mean OCD: 1.018%; mean CTRL: 0.527% $p< 0.0001$) in BDNF gene exon I promoter of OCD patients compared to controls. Regarding 5mC of site 3 and 5hmC of site 1 and 2 of the exon I promoter CpG islands, no statistical significance was found.
Conclusions: Present results showed significant differences in epigenetic modulation of BDNF gene, which might not be univocally interpreted. They could represent an intrinsic OCD characteristic or the effect of antidepressant drugs, assumed by all recruited patients. Further studies, comparing OCD subjects in treatment vs drug-free, are necessary to define BDNF epigenetic modulation role and its possible use as biomarker in the characterization of OCD.

Disclosure: No significant relationships.
Keywords: Molecular Neurobiology; genetics; Obsessive-Compulsive disorder; Neuroscience in Psychiatry

O159

WPA Global Guidelines for Telepsychiatry

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Introduction: The current pandemic has only confirmed the need for international collaboration and more extended use of telepsychiatry than before. Unfortunately, regulatory constraints and lack of standardization are posing significant barriers to the internationalization of telepsychiatry. A need for global guidelines and service standardizations is of utmost importance in this rapidly growing but not yet well-established field. By mastering telepsychiatry, the professionals also may enable the remote provision of other eMH approaches complementary to well-known, traditional service(s). However, first, one ought to become familiar with the basics of telepsychiatry. Globally standardized telepsychiatric service and uniform regulations are prerequisites for fruitful international cooperation.
Objectives: - to present the main objectives and messages of the WPA Global Guidelines for Telepsychiatry.
Methods: A structured review of the main challenges, innovations, and settings in the first Global Guidelines for Telepsychiatry, published by WPA.
Results: With proper preparation and thoughtful risk management, telepsychiatry can be an invaluable tool for allowing greater access to care. However, certain prerequisites must be fulfilled to achieve the desired goals. These prerequisites are e.g. choice of the technology, settings, patient/provider preferences as well as competencies and skills, all outlined in this document.
Conclusions: This WPA document may pave the way for the development of global regulations in order to break down the barriers of accessibility for both the professionals as well as for the patients worldwide. Further, it may help professionals in setting up a standardized telepsychiatry service(s) in addition to the existing mental health system(s).

Disclosure: I am the author of WPA Global Guidelines for Telepsychiatry but have no financial interest.
Keywords: International collaboration; WPA; Regulative issues; Telepsychiatry Global Guidelines

Intellectual disability

O160

Social orienting is reduced in williams syndrome

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