

Synopsis for EU-GEI Publication

Synopsis no.: S2.52
Preliminary title: Poor premorbid adjustment in first-episode-psychosis: the differential role of selected risk factors (parental age, familiarity for mental disorders, childhood trauma, bullying and cannabis use) on childhood and adolescence functioning
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Publication category: 2. Publications from work from a single Work Package
Working and writing group: Sarah Tosato, Chiara Bonetto, Mirella Ruggeri, Craig Morgan, others
Work Packages involved: WP2
Partners involved from whom candidate co-authors (<i>additional to working and writing group</i>) should be nominated:
Objectives (scientific background, hypothesis, methods, and expected results): Background: Psychosis is considered a neurodevelopmental disorder, due to the interaction between genetic and environmental risk factors, leading to altered brain development. Poor adjustment in childhood and adolescence may be a marker of vulnerability to psychosis (Arango et al., 2014) or a manifestation of the underlying processes of the neurodevelopmental disturbances related to psychosis (Cuesta et al., 2015). First-episode psychosis (FEP) people with a history of childhood trauma (CT) may also present poor premorbid adjustment (Conus et al, 2010), specifically in social functioning in early (Stain et al, 2014; Alameda et al, 2015) and late adolescence (Stain et al, 2014), which therefore predates the onset of the illness. Moreover, FEP patients endorsing cannabis use have better premorbid social functioning (Carr et al., 2009; Larsen et al., 2006, Compton et al, 2011) and poorer premorbid academic functioning (Carr et al., 2009; Larsen et al., 2006; Petersen et al., 2007; Ringen et al., 2008) than those have not. Finally, a relationship between a better premorbid social adjustment and an earlier age of onset (Goldberg et al., 2011; Larsen et al., 2004) has been found. The relationship between other risks factors for psychosis as paternal age (Weiser et al, 2019) or familiarity and premorbid adjustment has not been studied. Even the importance of premorbid adjustment as precursor to psychosis, to date no study has so far disentangle which risk factors for psychosis predict poor adjustment in both childhood and adolescence. Hypothesis: This study aims to develop and analyse complex relationships among multiple variables, the selected risk factors (parental age, familiarity for mental disorders, sex, physical/emotional trauma, bullying and cannabis use) and the premorbid adjustment. We take in account bullying since it has been negatively associated with academic performance. Specifically, we'll simultaneously disentangle which risk factors predict poor childhood functioning and which one predict poor adolescence functioning and the effect of childhood adjustment on adolescence adjustment.

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Methods:

WP2 case-control data (N= 1000 cases and N= 1000 controls) will be used to test these hypotheses. Clinical data have been collected by a set of standardized instruments. In details, childhood adversities (death of a parent, separation from a parent, physical, sexual, emotional abuse, neglect) have been assessed using the CECA and CTQ; Premorbid adjustment by PAS, Bullying by a schedule ad hoc; cannabis use by Cannabis Experience Questionnaire, family history of psychosis by FIGS. We collected paternal age.

Data needed for the study:

- MRC socio demographic (age, gender, level of education, ethnicity)
- PAS
- CECA-Q
- CTQ
- GAF
- Cannabis experiences questionnaire
- Paternal age
- Family Interview for Genetic Studies (familiarity for psychosis)
- Bullying
- IQ
- Diagnosis
- Site EU-GEI

Plan for statistical analysis (overall strategy):

After exploring the data by parametric tests (Chi-square, t-test, ANOVA, Pearson's coefficients), we'll use Structural Equation Modelling (SEM), a powerful multivariate analysis technique, to model and express interrelationships among the aforementioned risk factors and childhood/adolescence premorbid adjustment. SEM is a set of statistical methods that allow to test hypotheses based on multiple constructs that may be indirectly or directly related. It is distinguished from other types of analyses in its ability to examine many relationships simultaneously. We'll explore the correlational pattern by ranging from analysis of simple relationships between variables to complex analyses involving latent constructs. All analyses will be performed by Stata 13.0.

Other analyses/methods: none

Involvement of external Parties (non EU-GEI): Prof Paola Dazzan, IoPPN

IPR check:

Timeframe: 6 months to draft the first manuscript

Additional comments:

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