S126. THE RELATION OF THE PSYCHOSIS CONTINUUM WITH SCHIZOPHRENIA POLYGENIC RISK SCORE AND CANNABIS USE

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Background: There has been much debate about whether research into psychosis should be conducted using symptom dimensions as opposed to diagnostic categories. Indeed, dimensions, like categories, may be practical but arbitrary tools for research and clinical practice; hence, they should not be based on psychometric data only. The aim of this study was to externally validate empirically derived symptom dimensions using combined genetic and environmental data. Specifically, we examined the hypothesis that the continuous multivariate distribution of psychosis is a function of cannabis use and genetic liability to schizophrenia, as summarised by polygenic risk score (SZ-PRS).

Methods: As part of the European Network of National Schizophrenia Networks Studying Gene-Environment Interactions (EU-GEI) study, we analysed a large multinational sample of First Episode Psychosis patients (FEP) and population controls, with available genotype and psychopathology information. Using item response modelling in Mplus, we estimated a bifactor model of psychotic symptoms in FEP, and of psychotic experiences in controls. Using PRSice, we built SZ-PRS by weighting individuals’ risk variants by the log(odds ratio), where the odds ratio was extracted from the latest summary statistics of Psychiatric Genomic Consortium mega-analyses on schizophrenia. Finally, we used linear regression to test the combined associations of the positive symptom/experience dimensions with SZ-PRS and daily/current cannabis use, separately in FEP and controls, after covarying for 10 ancestry principal components, sex, age, and primary diagnosis.

Results: The continuous distribution of psychosis was represented by two bi-factor models composed of 1) in FEP, one general psychosis factor and five specific dimensions; 2) in controls, one general psychosis factor and three specific dimensions.

Linear regression modelling showed that in 617 FEP, both daily cannabis use (B=0.31; 95%CI 0.11 to 0.52; p=0.002) and SZ-PRS (B=0.22; 95%CI 0.04 to 0.39; p=0.014) were independently associated with the dimension of positive symptoms. Similar results were found in 979 population controls, with a positive association of both current use of cannabis (B=0.26; 95%CI 0.06 to 0.46; p=0.011) and SZ-PRS (B=0.13; 95%CI 0.02 to 0.25; p=0.022) with the dimension of psychotic experiences.

Discussion: We found two factors associated with the latent dimensional structure of psychosis. SZ risk variants and cannabis use independently map onto specific dimensions of positive symptoms, contributing to variation across the psychosis continuum. Our study supports the theory that psychotic experiences in the general population are biologically similar to clinical psychotic symptoms.
in both sexes. The decline in the survival curve was faster at the early years after the hospital discharge. Regarding the most prevalent diagnoses, 1,427 (31.0%) received the diagnoses of affective disorders (ICD-10 F30-F39), 1,045 (22.7%) had diagnosis of schizophrenia and other psychotic disorders (ICD-10 F20-F29), while 1,137 (24.7%) had substance use related disorders (ICD-10 F10-F19). One hundred and seventy eight (20.5%) inpatients died from unnatural causes, such as suicides, murders and accidents (ICD-10 V01-Y98). We highlight that 43 of them (4.1%) committed suicide (ICD-10 X60-X84) during the follow-up period. Taken together, the patient’s group with schizophrenia and those with substance use have a 1.66-fold increased risk of death compared to other mental disorders.

Discussion: The present study shows the impact of mental disorders on mortality in a Brazilian cohort followed for at least nine-year. We found higher mortality rates in Brazilian psychiatric patients when compared to rates in other countries: Finland: 23.9; France: 14; Netherlands: 22.2; New Zealand: 12.3; Norway: 17.1; United Kingdom: 16.2 and Italy: 6.5. Causes of natural death were more prevalent in our cohort. Notwithstanding, preventing unnatural causes of death is an important objective. Young men with mental disorders should be a priority group to be approached with health-directed preventive measures.

S128. IMPACT OF COMORBIDITIES ON SURVIVAL ESTIMATE FOR PATIENTS WITH MENTAL DISORDERS

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Background: A systematic review, including 203 studies, estimated that people with mental disorders have a mortality rate 2.2 times higher than the general population or control samples; the majority of these studies were conducted in developed countries. A possibility that underlies this excess mortality is that mental disorders increase the risk for communicable and non-communicable diseases and unintentional and intentional injuries. On the other hand, many health conditions increase the risk of mental disorders, and this comorbidity compromises the search for health care and may also impact survival estimates.

We investigated the main causes of mortality in patients with mental disorders and the most prevalent psychiatric diagnoses involved, as well as the impact of communicable and non-communicable comorbidities on the survival estimates of these patients in a Brazilian cohort.

Methods: We evaluated 3,011 patients hospitalized due to mental disorders, over 18 years old, included in a web-based system of mental health information (SISAM-13). The SISAM-13 database is composed, in addition to sociodemographic data, of comorbidities such as hypertension, diabetes, infectious disease, trauma, respiratory problems, sequelae of cerebrovascular accident and epilepsy. This cohort was registered between April 2011 and November 2016. Information on mortality was conducted in collaboration with the SEADE, the center of São Paulo State Government in production of socioeconomic and health data, and December 2016 was the final point of the survival time. Diagnosis and mortality cause were coded according to ICD-10. The Kaplan-Meier method was used to estimate the survival function. Differences between groups were assessed with the log-rank test.

Results: In total, 568 (26.2%) of valid cases presented comorbidities, and 124 patients (4.1%) died. The most prevalent causes of death were related to external causes (24.2%), and respiratory (17.7%), circulatory (11.3%) and digestive (8.1%) diseases. The presence of comorbidity decreased patients’ life expectancy: the median survival estimate for patients with comorbidities was 77.9 years (95% CI, 74.9 to 79.5 years), while for those without comorbidity was 80.8 years (95% CI, 78.9 to 83.2 years); X2(1) = 4.202; p = 0.040. The three most prevalent diagnoses were mental disorders due to substance use (40.7%), affective disorders (22.7%) and psychotic disorders (20.0%). The average survival estimate was lower among patients with substance use disorder (69.2 years; 95% CI, 66.4 to 72.0 years) compared to affective disorders (78.7 years; 95% CI, 76.6 to 80.8 years) and psychoses (80.3 years; 95% CI, 78.0 to 82.7 years); X2(2) = 30.807; p <0.001. No differences were observed in the interaction between the most prevalent diagnoses and presence of comorbidities.

Discussion: This study is the first of our knowledge to explore life estimates related to comorbidities and the most prevalent psychiatric diagnoses in patients living in a low- and middle-income country (LAMIC). In this sense, it was found that having comorbidity reduced life expectancy, independently of the psychiatric diagnosis; and among the most prevalent disorders, those related to psychoactive substance use presented the lowest life expectancy. These findings suggest the need for a comprehensive view of the psychiatric patient with comorbidities, as well as the urgency of public health policies directed at psychoactive substance users given the high prevalence and low life expectancy in this group of patients.

S129. REHOSPITALIZATION RATE IN PEOPLE WITH FIRST-EPISTODE PSYCHOSIS IN THE CZECH REPUBLIC: A REGISTER-BASED STUDY

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Background: Rehospitalization in a year after the first discharge for psychotic disorder is routinely considered as a principal health care outcome. However, there is a lack of data about the rehospitalization rate of people with first-episode psychosis in Central and Eastern Europe where the psychiatric care is predominantly based on inpatient care.

Methods: Data from nationwide register of inpatient hospitalizations were analysed. A retrospective analysis of first-ever admitted patients with psychosis (F2) according to ICD-10 in 2014 and younger than 60 years of age was conducted. Descriptive statistics aiming to identify the rehospitalization rate were performed.

Results: 1,963 patients with psychosis who were first admitted to psychiatric hospitalization in 2014 and discharged between 2014 and 2016 were identified. Of those, 480 (24.5 %) were readmitted in the first year after the first discharge. 101 (21.0%) of those were readmitted within 14 days, 144 (30.0%) within a month and 241 (50.2%) within a 3-month period after the first discharge. An average time between the first discharge and readmission was 124 days, the mean age of those readmitted was 33 years at the time of first admission.

Discussion: This register-based study confirms the existence of the revolving door phenomenon in people with first-episode psychosis in the Czech Republic. Each rehospitalization is a burden not only for a patient, as each hospitalization significantly worsens the overall prognosis, but for the whole psychiatric care system as well. Considering the rehospitalization rate in people with first-episode psychosis, more attention should be paid to the development of services which have a potential to lower the risk of rehospitalization such as early detection and early intervention services.