

about the effect of CPM on SCH treatment outcome is sparse. The present study explored the gender-dependent differences in the prevalence, and age of onset of CPM between SCH and the general population (GEP), as well as the effect of CPM on hospital readmission in patients with SCH.

**Methods:** This cross-sectional study was nested within the larger frame of a prospective cohort study conducted at Psychiatric Hospital "Sveti Ivan", Croatia. Data were collected for a consecutive sample of 136 (49 female and 87 male) patients diagnosed with SCH (ICD-10) and 861 (467 female and 394 male) participants from the general population. The primary outcome was the prevalence of CPM. A secondary outcome was the number of psychiatric readmissions since diagnosis.

**Results:** In the total sample we observed the significant difference in CPM prevalence between SCH and GEP in the youngest age group, <35 years old ( $p=0.006$ ). Among the male participants <35 years old, there were no significant differences in the prevalence of CPM between SCH (25%) and GEP (15%) ( $p=0.216$ ). However, among the female participants <35 years old, the difference was significant and clinically relevant ( $p=0.002$ ). Prevalence of CPM was 50% in SCH patients, and 14% in GEP. After the adjustment for age, sex, a number of psychiatric comorbidities and duration of SCH, the number of physical illness comorbidities was significantly associated with the number of previous psychiatric hospital readmission. (multivariate, robust regression;  $B=0.98$ ;  $\beta=0.24$ ;  $p=0.022$ ). Approximately, the number of rehospitalizations increases for one with each chronic physical illness.

**Discussion:** This study identified gender differences in the prevalence of CPM in SCH patients, and the significant association of CPM with psychiatric hospital readmission. Higher physical morbidity points to a substantial disadvantage of female patients early in the course of illness. Understanding the nature and biological basis of gender-determined differences in risk and outcome of CPM might help to identify new therapeutic targets, allow more individualized treatment, and facilitate better risk prediction and application of healthcare resources.

#### F98. HYPOVITAMINOSIS D IN SCHIZOPHRENIA: ASSOCIATED CARDIOVASCULAR RISK

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**Background:** Vitamin D modulate the course of many neurologic diseases and conditions. Moreover, the prevalence of vitamin D deficiency might be higher in psychiatric patients, in particular with schizophrenia.

Likewise, there is an inverse relationship between vitamin D levels and several cardiovascular risk factors, including the metabolic syndrome, that patients with schizophrenia are predisposed to develop. It is within this framework that this study aims to explore the relationship between vitamin D levels in a cohort of Tunisian patients with schizophrenia and to determine the cardiovascular risk according to whether they had hypovitaminosis D or not.

**Methods:** A cross-sectional and retrospective descriptive study was conducted at the "F" psychiatry department at the Razi Hospital, Manouba over a twelve-month period from June 1st, 2015 to May 31st, 2016, including 80 patients with schizophrenia in period of clinical remission. The evaluation focused on anthropometric parameters and cardiovascular risk factors. A dosage of vitamin D was performed.

**Results:** The patients had an average age of 42.5 years and 70% were male. 25 patients had metabolic syndrome. 49% of patients had vitamin D insufficiency and 51% had vitamin D deficiency. Vitamin D levels had not been affected by the clinical characteristics of the disease. However, there was no significant association between vitamin D levels and metabolic syndrome. A significant negative correlation was found between the total sum of the various cardiovascular risk factors and the vitamin D deficiency ( $p < 0.001$ ).

**Discussion:** In our study, all patients had vitamin D levels below the recommended levels. 25 patients (31%) met the criteria for metabolic syndrome.

All our patients had at least one cardiovascular risk factor. The majority (33% and 27%) had respectively three or four FRCV. 10% had more than five concurrent FRCVs. This result has been described in many studies. Indeed, in patients with schizophrenia, the cardiometabolic risk seems to increase continuously. Several European studies have reported a prevalence of metabolic syndrome ranging from 28% to 37% in patients with schizophrenia. Higher rates of 43% and 46% were reported respectively in the United States and Canada. Moreover, with schizophrenia have an increased risk of sudden death and are 2 to 4 times more likely to die prematurely compared to the general population. These results have been explained with a multicausal model focusing on genetics, lifestyle, smoking, diet and sedentary behavior as well as by the side effects of antipsychotics known to induce weight gain and aggravate symptoms. risk factors for cardiometabolic disease, although studies in naïve patients reflect various abnormalities early on. However, several studies confirm that certain metabolic abnormalities may occur in schizophrenic patients naive to any antipsychotic treatment. This result is consistent with current literature data that highlight increased metabolic and cardiovascular risk in vitamin D deficiency. Indeed, in the general population, vitamin D deficiency is an important risk factor for cardiometabolic disease. The majority of cohort studies have reported an increase in the incidence of cardiovascular disease in people with low vitamin D levels.

#### F99. FIRST EPISODE PSYCHOSIS PATIENTS WHO USED CANNABIS DEVELOP THEIR ILLNESS AT A SIGNIFICANTLY YOUNGER AGE THAN THOSE WHO NEVER USED CONSISTENTLY ACROSS EUROPE AND BRAZIL

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**Background:** Patients presenting to psychiatric services with their first episode of psychosis (FEP) report higher rates of previous cannabis use than the general population (Donoghue et al., 2011; Myles, Myles and Large, 2016). Evidence suggested that patients suffering from psychosis with a history of cannabis use have an earlier age of onset of psychosis (AOP) than those who never used it (Di Forti et al., 2013).

We aim to investigate if the reported association between use of cannabis and AOP is consistent across different countries, once having taken into account different patterns of cannabis use (i.e. frequency of use and age at first use).

**Methods:** We analysed data on patterns of lifetime cannabis use and AOP from FEP=1,149 (61.7% males) from 5 European countries and Brazil part of the European network of national schizophrenia networks studying European Gene-Environment-Interaction (EUGEI) study.

Patients met ICD-10 criteria for psychosis, ascertained by using OPCRIT (McGuffin et al., 1991).

The CEQmv (Di Forti et al., 2009) further modified for the EUGEI study, was used to collect data on lifetime frequency of cannabis use (never used/ used at least once but less than daily/ everyday use) and age at first use in years (then dichotomized according to mean age at first use  $\leq 15$  years or  $\geq 16$  years).

We used two ANOVAs: age of onset was used as the outcome variable and frequency of cannabis use and age of first use were respectively entered as independent predictors, along with country, gender and self-ascribed ethnicity.

**Results:** 63.3% of our sample used cannabis at least once in lifetime. Among those who used cannabis in their lifetime, mean age at first use was 16.8 years ( $sd=4.6$ ) and median age was 16 years, 42.3% tried first time cannabis at 15 years or before, 57.7% at 16 years or older.

Patients who smoked cannabis on a recreational basis (mean age 29.0; contrast=5.8, CI 95% 4.3, 7.2,  $p<0.001$ ) and on a daily basis (mean age 26.6; contrast=2.4, CI 95% 0.9, 3.9,  $p=0.001$ ) had lower age of onset than not users patients (mean age 34.8) across all countries, once have taken into account gender and ethnicity

Only, those who started using cannabis  $\leq 15$  years had an earlier age of onset (25.5 years) than those who started at their 16 years or later (29.5 years), ( $F(1,683)=37.3$ ,  $p<0.001$ ). This relationship was the same across different countries ( $p=0.968$ ), and independently influenced by ethnicity ( $F(5, 683)=2.3$ ,  $p=0.03$ ) but not by gender ( $p=0.057$ ).

**Discussion:** Our results suggest a generalizable across country and specific effect of frequency of use and early age at first cannabis use on significantly anticipate age of psychosis onset in First episode Psychosis patients.

### F100. FACTOR STRUCTURE OF THE CANNABIS EXPERIENCES QUESTIONNAIRE IN A FIRST-EPIISODE PSYCHOSIS SAMPLE

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**Background:** The Cannabis Experiences Questionnaire (CEQ) was developed to measure the subjective experiences of cannabis use both during and after intoxication. Despite the need to better understand the nature of the complex and significant relationship between cannabis use and early psychosis, this questionnaire has rarely been used in individuals with first-episode psychosis.

**Methods:** We conducted a set of factor analyses using CEQ data from 194 first-episode psychosis patients who used cannabis, in order to uncover the underlying factor structure of the questionnaire and thus the overarching types of psychological experiences during/after using cannabis in young people with psychotic disorders.

**Results:** Confirmatory factor analyses were performed on the 2 full-scale CEQ factor structures identified in the literature and neither model fit the data within acceptable levels. Using all 56 CEQ items, an exploratory factor analysis (EFA) model was fit with an oblique rotation. Models with 3, 4, and 5 factors were further explored to identify underlying factors. The final 4-factor EFA model provided the best fit. It included 47 items (3 items had multiple loadings and 6 items did not load on any factor), with names given, based on item composition, as follows: Factor 1 (Distortions of Reality and Self-Perception) included 18 items ( $\alpha = 0.89$ ), Factor 2 (Euphoria Effects) included 16 items ( $\alpha = 0.89$ ), Factor 3 (Slowing and Amotivational Effects) included 7 items ( $\alpha = 0.81$ ), and Factor 4 (Anxiety and Paranoia Effects) included 6 items ( $\alpha = 0.79$ ).

**Discussion:** Our derived factor structure differed from those stemming from previous EFAs using different samples (eg, healthy individuals with varying degrees of schizotypy). The inconsistency might be best explained by the different populations sampled, ranging from healthy individuals who have smoked cannabis at least once to individuals with schizophrenia who smoked it regularly. Specifically, differences could be related to variations in how cannabis affects healthy individuals as well as those with schizotypy, as opposed to those with emerging or frank psychosis. Elucidating the underlying factor structure of the CEQ in first-episode psychosis samples could help researchers move towards a deeper understanding of the types of experiences associated with cannabis intoxication among young adults with first-episode psychosis and could inform the development of programs designed to reduce use, improve the course of illness, and possibly delay or prevent the onset of psychotic symptoms in those at risk.

### F101. CANNABIS USE AND HEPATIC STEATOSIS IN PSYCHOSIS: RESULTS FROM A 3-YEAR LONGITUDINAL STUDY

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**Background:** Metabolic alterations are common in patients suffering from psychosis. The rise in glycemic lipids may be related to and observed increased in the prevalence of hepatic steatosis measured by the Fatty Liver Index. However, we have recently reported a probable protective effect of cannabis smoking on weight gain and related metabolic alterations in a sample of patients drug-naïve suffering from a first episode of psychosis. We aimed to explore the effect of cannabis smoking on hepatic steatosis in a sample of first-episode non-affective psychosis patients.

**Methods:** Anthropometric measurements, glycemic and lipid parameters, and liver steatosis index (FLI), were obtained at baseline and after 3 years of having initiated treatment. Patients were divided into two groups depending on self-reported cannabis use (cannabis users and non-users).

**Results:** Cannabis users presented at baseline lower FLI ( $F=4.26$ ,  $p=0.040$ ) than non-users. These differences were also observed after 3 years of treatment ( $F=6.61$ ,  $p=0.011$ ).

**Discussion:** Our results support the hypothesis that cannabis has a protective effect against hepatic steatosis. However, before being transferred to clinical practice, this study should be replicated, using larger samples.

### F102. CHANGE IN PATTERNS OF CANNABIS AND OTHER SUBSTANCE USE OVER TIME IN EARLY PSYCHOSIS- EXAMINING THE EFFECT OF DEVELOPMENT OF PSYCHOSIS

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**Background:** Understanding how the onset of psychosis affects patterns of substance use would inform the development of effective interventions. To date no study has compared substance misuse patterns over a life-course to a comparable control group to determine how patients who develop psychosis modify substance misuse patterns.

**Methods:** In a well-characterised clinical cohort of patients with psychotic disorders ( $n=257$ ) we compared frequency of use of most common substances before and after development of psychotic disorder using a within subjects design. Using a between-subjects design we compared patients who had ever used cannabis ( $n=194$ ) to a control non-clinical cohort of cannabis users ( $n=1055$ ) over comparable periods in life, accounting for the effects of age, gender, other substance use and location.

**Results:** Patients reduced frequency of consumption of cannabis, alcohol, cocaine and ecstasy ( $p<=0.001$ , all comparisons) but not tobacco or crack cocaine. Since adolescence, compared to controls, patients were more likely to reduce cannabis frequency (OR 2.3,  $p<0.001$ ) and less likely to have increased cannabis frequency (OR 0.2,  $p<0.001$ ). Patients with psychosis were more likely to have used heavily earlier, with a greater proportion using cannabis more than once weekly, using more potent forms of