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A life course perspective on familial and environmental risks for schizophrenia using a western Australian E-cohort

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Introduction Familial risk for psychosis may interact with environmental risk factors.

Objectives We are studying a large birth cohort of children of mothers with psychotic disorders, themselves at high risk of developing a psychotic illness, to understand the developmental aetiology of psychotic illness.

Aims Our aim is to examine whether exposure to environmental stressors in childhood, including timing of exposure, is a risk factor for psychotic illness, independent of familial liability. Specificity to maternal schizophrenia is explored.

Methods We used record-linkage across state-wide registers (midwives, psychiatric, child protection and mortality, among others) to identify 15,486 offspring born in Western Australia 1980–2001 to mothers with a lifetime history of psychotic illness (case children) and compared them with 452,459 offspring born in the same period to mothers with no known psychiatric history (comparison children).

Results A total of 4.1% of case children had developed a psychotic illness compared to 1.1% of comparison children. Exposure to environmental risk factors including obstetric complications, aboriginality, lower socioeconomic status, discontinuity in parenting and childhood abuse significantly increased risk of psychotic illness in offspring. Length and age at time of discontinuity in parenting impacted on risk. At the same time, case children were also significantly more likely than comparison children to be at risk of experiencing these adverse life events.

Conclusions Exposure to environmental stressors is associated with psychotic illness, and timing of exposure is important. However, children already at increased familial risk for psychotic illness are also at increased risk of experiencing these environmental stressors.

Disclosure of interest The authors have not supplied their declaration of competing interest.

http://dx.doi.org/10.1016/j.eurpsy.2016.01.868

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Treatment-resistant schizophrenia during life span : Epidemiology, outcomes and innovative M-Health treatments within M-RESIST Project

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Treatment-resistant symptoms of schizophrenia (TRS) complicate the clinical course of the illness, and a large proportion of patients do not reach functional recovery (Englisch and Zink, 2012). Out of the estimated 5 million people (0.2–2.6 %) suffering from psychotic disorders in the European Union, 30–50 % can be considered resistant to treatment, and 10–20 % ultra-resistant (Essock et al., 1996 ; Juarez-Reyes et al., 1995). The complexity of standard intervention within this population, along with the presence of persistent positive symptomatology, extensive periods of hospital care and greater risk of multi-morbidity, lead to a high degrees of suffering for the patients, family and social environment, and a high proportion of costs to the healthcare system (Kennedy et al., 2014).

At present, a uniform definition of treatment resistance in the pharmacotherapy of schizophrenia is not available (Suzuki et al., 2011), as well as generally recommendable evidence-based treatment methods (Dold and Leucht, 2014).

A recent systematic review on the topic showed that TRS is poorly a studied and understood condition, contrasted to its high prevalence, clinical importance and poor prognosis. There is lack of studies on epidemiology and risk factors of this disorder, as well as on outcomes and longitudinal course. Most of the available literature focuses on medication treatments, while very few examine efficacy of adjunctive therapeutic options (Seppala et al., in preparation).

Treatments based on information and communication technology (ICT) present novel possibilities to improve the outcomes of schizophrenia. Previous studies have indicated suitability and promising results of such intervention techniques (Granholm et al., 2012 ; Ben-Zeev et al., 2013). m-RESIST is an innovative project aimed to empower patients with resistant schizophrenia, to personalize treatment by integrating pharmacological and psychosocial approaches, and to further develop knowledge related to the illness using predictive models designed to exploit historical and real-time data based on environmental factors and treatment outcomes.

Disclosure of interest The author has not supplied his declaration of competing interest.

http://dx.doi.org/10.1016/j.eurpsy.2016.01.869

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Somatic comorbidity and its outcomes in schizophrenia during lifespan

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Background Studies mainly relied on hospital or case-control data have well documented that individuals with psychoses, and especially with schizophrenia have increased rates of physical illnesses. They have two to four-fold higher mortality risk, and about 10 to 25 years shorter life expectancy compared with the general population. The aim of this study is to evaluate the prevalence of physical illnesses in individuals with schizophrenia or with other psychoses and among people without psychoses until the age of 46 years using complete outpatient and inpatient data from birth cohort.

Methods The study is based on The Northern Finland 1966 Birth Cohort (NFBC, 1966), which is a population-based prospective cohort concerning 12.058 live-born children in 1966 in the provinces of Lapland and Oulu.

The study population consisted of 10,933 individuals, who were alive at the age of 16-years, and followed serially until the age of 46-years The study population was divided into three groups: those having schizophrenia (n = 228) and those with other psychoses (n = 240) while individuals without psychosis (n = 10,465)