

Aims To present preliminary findings from the EUGEI European Network of National Schizophrenia Networks Studying Gene Environment Interactions study.

Methods Population based FEP incidence/case control study. Comparison of the incidence rate of FEP and of the distribution of several risk factors (e.g. substance abuse, neighborhood deprivation, urbanicity and trauma) in natives and migrants in different countries across Europe.

Results Preliminary results of the EUGEI study will be discussed in comparison with previous evidences.

Conclusion The EUGEI study allows a deeper understanding of the excess of FEP found among migrants in Europe.

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

Further reading

European Network of National Networks studying Gene-Environment Interactions in Schizophrenia (EU-GEI), van Os J, Rutten BP, et al. Identifying gene-environment interactions in schizophrenia: contemporary challenges for integrated, large-scale investigations. *Schizophr Bull.* 2014 Jul;40(4):729–36.

Tarricone I, Boydell J, Kokona A, Triolo F, Gamberini L, Sutti E, Marchetta M, Menchetti M, Di Forti M, Murray RM, Morgan C, Berardi D. Risk of psychosis and internal migration: Results from the Bologna First Episode Psychosis study. *Schizophr Res.* 2016 May;173(1-2):90–3.

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Workshop: Treatment-resistant schizophrenia: Epidemiology, clinical course and innovative treatments, with special reference to m-RESIST project

W047

Definition, epidemiology, clinical course and outcomes in treatment-resistant schizophrenia

J. Seppälä^{1,2,*}, J. Miettunen^{1,3,4}, E. Jääskeläinen^{1,4}, M. Isohanni^{1,4,5}, A. Seppälä¹, H. Koponen⁶, M.R.G. M.-Resist Group⁷

¹ University of Oulu, center for life course health research, Oulu, Finland

² Carea - Kymenlaakso social and health services, psychiatric services, Kotka, Finland

³ University of Oulu, research unit for clinical neuroscience-department of psychiatry, Oulu, Finland

⁴ Oulu university hospital and university of Oulu, medical research center, Oulu, Finland

⁵ Oulu university hospital, department of psychiatry, Oulu, Finland

⁶ University of Helsinki and Helsinki university hospital, psychiatry, Helsinki, Finland

⁷ TIC SALUT foundation, TIC SALUT foundation, Mataro, Spain

* Corresponding author.

Based on a systematic review on TRS 285 studies were included regarding definitions of TRS ($n = 11$), genetics (18), brain structure and functioning (18), cognition (8), other neurobiological studies (16), medication (158), psychotherapy and cognitive rehabilitation (12), electroconvulsive therapy (ECT) and repetitive transcranial magnetic stimulation (rTMS) (15), prognosis (21), and other miscellaneous studies (8). Definitions of TRS varied notably. TRS was associated with 3 to 11-fold higher healthcare costs than schizophrenia in general. One-fifth to one-third of all patients with

schizophrenia were considered to be resistant to treatment. Based on limited evidence of genetics, brain structure and functioning and cognition, TRS may present as a different disorder with different etiology compared to non-TRS. Clozapine, olanzapine, risperidone, ECT and cognitive-behavioral therapy have shown effectiveness, although the number of studies and quality of research on interventions is limited. About 40% to 70% of TRS patients had an unfavorable prognosis. Younger age, living in a rural or less urban area, primary education level, more psychiatric hospital treatment days in the year before first schizophrenia diagnosis, inpatient at first schizophrenia diagnosis, paranoid subtype, comorbid personality disorder and previous suicide attempt may be risk factors associated with TRS.

TRS is a poorly defined, studied and understood condition. To create a framework of knowledge for TRS, as a basis to develop innovative studies on treatment, there is a need for a consensus on the definition of TRS. Prospective long-term prognostic and novel treatment intervention studies are needed [1].

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

Reference

[1] Seppälä A, et al. *Psychiatria Fennica* 2016.

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W048

Emerging sensor-based m-health interventions in the assessment of psychotic symptoms

M. Bulgheroni

Ab.Acus srl, R&D, Milan, Italy

This speech aims to overview ongoing research trends on the integration of mobile health and sensors based behavioral analysis in therapeutics programs for subjects with mental health symptoms or disorders. The variety of easily acquirable personal data by smartphones and wearables in a transparent and unobtrusive way, offers the opportunity to describe the person in terms of his/her lifestyle and behavior at physical, cognitive and environmental level. An appropriate management of these data may initiate a new line in healthcare management characterized by tailored and timely interventions. However, despite the huge amount of data that could be acquired, an effective contribution of such information to the improvement of the quality of care in mental health is still not sufficiently explored. The sensors and data which have been used in studies on mental status include accelerometer, gyroscope, GPS, microphone, calls, messages, screen, apps usage, environmental light, heart rate, skin conductance, and temperature. The primary outcomes build on correlations between sensor data and mental health status/severity of symptoms. These data are provided from studies on bipolar disorders and depression, using validated clinical scales (Patient Health Questionnaire-9; Hamilton Rating Scale for Depression; Young Mania Rating Scale; Center for Epidemiologic Studies Depression Scale; etc.).

m-RESIST consortium is fully aware of the importance to describe behavioral patterns of patients with schizophrenia that could be used to setup remotely based therapeutic tool. m-RESIST is setting up a framework for the creation of a Clinical Decision Support System based on a mobile therapeutic intervention for treatment-resistant schizophrenia.

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