

with schizophrenia, were 3.6 for men and 4.3 for women. A recent epidemiological study (2015) of a US-cohort of 1,138,853 individuals with schizophrenia, 4,807,121 million years of follow-up and 74,003 deaths, all cause SMR was 3.7 for the total population: 3.3 for men and 4.3 for women. Life expectancy, the other side of the coin of increased SMR, in this study was reduced with 28.5 years. Studies in life expectancy, the other side of the coin of increased SMR, show a substantial, if not alarming reduced life expectancy. Israel with 12.5 years and Denmark–15 years for women and 20 years for men – reported the lowest reduction in life expectancy, while Arizona reported the highest reduction of 32 years. Progress in such diverse fields as genetics, neuro-imaging, early diagnosis of (ultra) high-risk populations, CBT and rehabilitation treatment, has not improved schizophrenia SMR or life expectancy. On the contrary, in far a trend is visible, the situation tends to worsen, not to improve. After going through the barriers for optimal somatic care, both patient and health care related, we will discuss options for improvement of the level of somatic health care, at the preventive and therapeutic level.

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### EV1230

#### **N-acetyl-cysteine in a double-blind randomized placebo-controlled trial: Towards biomarker guided treatment in early psychosis**

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**Purpose** Recent evidence points to a critical role of redox dysregulation induced oxidative stress in the pathophysiology of early phases of schizophrenia. An add-on trial with n-acetyl-cysteine (NAC) led to a reduction in negative symptoms in chronic schizophrenia patients. Aim of this study was to explore impact of addition of NAC to standard treatment in early psychosis (EP) patients.

**Methods** Double-blind, randomized, placebo-controlled trial of addition of NAC, 2700 mg daily, to antipsychotic treatment over 6 months. Monthly assessment of PANSS, GAF, SOFAS and antipsychotics treatment; quantification of brain glutathione levels (GSH<sub>mPFC</sub>) by <sup>1</sup>H-magnetic-resonance-spectroscopy and of blood cells glutathione (GSH<sub>BC</sub>) and glutathione peroxidase activity (GPx<sub>BC</sub>) as marker of oxidation status at the beginning and end of treatment.

**Results** Overall, 63 patients were included. Spectroscopy data showed that GSH<sub>mPFC</sub> increased by +23% in the NAC group, while it tended to decrease by –5% in the placebo group ( $P=0.005$ ). No significant difference between NAC and placebo was observed

on global changes in negative symptoms, positive symptoms or functional outcome. However, in patients with high-baseline oxidation status (GPx<sub>BC</sub>>22.3U/gHb), subgroup explorations revealed an improvement of positive symptoms over time compared to patients with low-baseline GPx ( $P=0.02$ ).

**Conclusions** While addition of NAC induced an increase of brain GSH, it had no impact on symptomatic and functional outcome in EP patients. However, in patients with high oxidation status, addition of NAC leads to significantly greater improvement in positive symptoms. Future studies on antioxidant interventions in EP should consider biomarker-guided treatment.

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

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### EV1231

#### **Peripersonal space and schizophrenia: Looking for the self boundaries**

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**Introduction** Peripersonal space has been defined as the area immediately surrounding the body in which interactions with a person or an object can occur. Larger peripersonal space may reflect discomfort in close interpersonal situation or cognitive deficit. Individuals with schizophrenia are more sensitive to social stimulation. The capacity to provide accurate judgments of peripersonal space boundaries depend on the capacity to create an organized and structured mental representation that integrates signals from different sensory modalities and brain regions.

**Objectives** We conducted a study on personal space in patients with schizophrenia using a paradigm that was not affected by emotional and social interference.

**Aims** We aimed to investigate the characteristics of personal space in patients with schizophrenia.

**Methods** We recruited 20 schizophrenic patients according to DSM-V criterion and 20 healthy volunteers, matched by gender and age. Schizophrenic symptoms were assessed using the Positive and Negative Syndrome Scale (PANSS). Participants performed the peripersonal space (PPS) task. Collected data underwent statistical analyses.

**Results** Schizophrenic patients demonstrate a stronger/weaker need for personal space, than the comparison group, depending on the score of negative and positive symptom, as assessed by using the PANSS even without emotional and social interference.

**Conclusions** Interpersonal interactions between the individual with schizophrenia and people in their immediate environment can lead to increased symptomatology. Social isolation is one of the most primary causes of poor quality of life in mental illnesses. Better understanding of the mechanisms for abnormal interactive behavior could provide significant valid guidelines for innovating intervention programs.

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