

1

Telomere length is associated with childhood trauma in patients with severe mental disorders

Monica Aas^a, Torbjørn Elvsåshagen^{a,b}, Lars T. Westlye^{a,c}, Tobias Kaufmann^a, Lavinia Athanasiu^a, Srdjan Djurovic^{d,e}, Ingrid Melle^a, Dennis van der Meer^a, Carmen Martin-Ruiz^f, Nils Eiel Steen^a, Ingrid Agartz^{a,g,h}, Ole A. Andreassen^a

^aNORMENT Centre for Psychosis Research, Institute of Clinical Medicine, University of Oslo, and Division of Mental Health and Addiction, Oslo University Hospital, Oslo, Norway

^bDepartment of Neurology, Oslo University Hospital, Oslo, Norway

^cDepartment of Psychology, University of Oslo, Oslo, Norway

^dDepartment of Medical Genetics, Oslo University Hospital, Oslo, Norway

^eNORMENT, KG Jebsen Centre for Psychosis Research, Department of Clinical Science, University of Bergen, Bergen, Norway

^fNIHR Newcastle Biomedical Research Centre & Unit, Ageing Research Laboratories, Institute of Neurosciences, Newcastle University, Campus for Ageing and Vitality, UK

^gDepartment of Psychiatric Research, Diakonhjemmet Hospital, Oslo, Norway

^hDepartment of Clinical Neuroscience, Centre for Psychiatric Research, Karolinska Institutet, Stockholm, Sweden

Background: Reduced Telomere Length (TL) and structural brain abnormalities have been reported in patients with Schizophrenia (SZ) and Bipolar Disorder (BD). Childhood traumatic events are more frequent in SZ and BD than in Healthy individuals (HC), and based on recent findings in healthy individuals could represent one important factor for TL and brain aberrations in patients. **Methods:** The study comprised 1,024 individuals (SZ [n=373]; BD [n=249], and HC [n=402]). TL was measured by polymerase chain reaction, and childhood trauma was assessed using the Childhood Trauma Questionnaire (CTQ). Diagnosis was obtained by the Structured Clinical Interview (SCID) for the Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV). FreeSurfer was used to obtain regional and global brain volumes from T1-weighted magnetic resonance imaging (MRI) brain scans. All analyses were adjusted for current age and sex. **Results:** Patients had on average shorter TL ($F=7.87$, $p=.005$, Cohen's $d=.17$) and reported more childhood trauma experiences than HC ($\chi^2=148.9$, $p<.001$). Patients with a history of childhood sexual, physical or emotional abuse had shorter TL relative to HC and to patients without a history of childhood abuse ($F=6.24$, $p=.01$, Cohen's $d=.16$). After adjusting for childhood abuse, no difference in TL was observed between patients and HC ($p=.27$). Our analyses revealed no significant associations between TL and clinical characteristics or brain morphometry. **Conclusions:** We demonstrated shorter TL in SZ and BD compared to HC and showed that TL was sensitive to childhood trauma experiences. Further studies are needed to identify the biological mechanisms of this relationship.

2

Social dreaming matrix and dream icons

Domenico Agresta

Pescara, Italy

This work represents a way to observe the imaginary in cancer patients using the principals of social dreaming matrix in psychotherapy and “dreams icons”. Social dreaming has the following characteristics: allows rapid access to the unconscious and the subliminal thinking of the system; it is easy to learn and apply; leads to unexpected discoveries; is based on the self-management of the participants; is oriented towards systems. In this sense, every dream is a metaphor and a communication used to connect the representation and the affects between the therapist and the patient. Dream icons are visual images of dreams, which represent and condense fundamental unconscious meanings. Peculiarity of the icon is to visually construct the object, or psychological theme, which represents and is its origin, since it has the same nature and substance. The Social Dreaming Matrix is used in specific settings to map the share matrix in witch therapists and clients work. The principal idea is to map the dreams icons that are generated into the field of work of the therapy. Because the cancer is a double the hypothesis is to create through the therapeutic relationship a way to represent it using dreams and metallization process. As the SDM creates a semantic space that is linked with the mind and the body space of the dreamers, this work in psycho-oncology could be a way to find the possible connection of the psychosomatic point of view of the work.

3

No evidence for particular association between HLA-haploidentical hematopoietic stem cell transplantation and psychological distress

Rie Akaho^a, Akiko Otsu^b, Aiko Igarashi^c, Yuko Aoki^b, Takaabu Takemura^d, Sayaka Kobayashi^{a,e}, Kazuteru Ohashi^c, Katsuji Nishimura^a

^aDepartment of Psychiatry, Tokyo Women's Medical University, Tokyo, Japan

^bDepartment of Psycho-Oncology, Tokyo Metropolitan Cancer and Infectious Disease Center, Komagome Hospital, Tokyo, Japan

^cDepartment of Hematology, Tokyo Metropolitan Cancer and Infectious Center, Komagome Hospital, Tokyo, Japan

^dDepartment of Psychology for Human Well-being, Faculty of Comprehensive Welfare, Tohoku Fukushi University, Sendai, Japan

^eDepartment of Psychiatry, Saitama Medical University Saitama Medical Center, Kawagoe, Japan

Background: The psychological distress experienced by patients scheduled for hematopoietic stem cell transplantation (HSCT) is of clinical concern. However, that experienced by patients scheduled for HLA-haploidentical HSCT (haplo-HSCT) vs. that of patients scheduled for other types of matched HSCT is unknown. We conducted a retrospective

maltreatment may contribute to the physical burden of patients with BD.

122 Interactive brains

Luciano Fadiga

Section of Human Physiology, University of Ferrara, Ferrara Italy and Center for Translational Neurophysiology, The Italian Institute of Technology, Ferrara, Italy

Today's neuroscience has something to say on the discussion about what makes us humans and how as humans, we do we interact with others. We consider ourselves as humans and thus as moral beings likely because of our capability to represent the future. This capability to make long-distance predictions could be the result of the evolution of a linguistic and symbolic brain, from sensorimotor regions of our phylogenetic ancestors, predictive in nature, originally implicated in action programming and others' actions understanding, dealing with grammars and syntaxes and computationally trained by the interaction with the others. Evidence in favor of the hypothesis that interactive, communicative, linguistic and symbolic capabilities may have evolved from such a sensorimotor brain will be provided. A sensorimotor brain still surviving under the conscious one and which, differently to the latter, always says the truth.

123 Too low or too high psychological well-being as risk factor for binge drinking in 14 years old students: a multivariate logistic regression study

Luana Fantini, Sara Gostoli, Sara Casadei, Veronica A. De Angelis, Chiara Rafanelli

Department of Psychology, University of Bologna, Bologna, Italy

Background: Binge Drinking (BD) represents an important psychosocial problem especially in people with an age ranging from 15 to 29 years old. Limited research regards the predictive role of psychosocial factors on BD, such as depression and anxiety, and mainly among middle/late adolescents and young adults. No studies investigated the influence of impaired (both too high and too low) levels of psychological well-being on BD among young adolescents. **Methods:** A total of 1,687 adolescents (53.2% males) attending the first year of high school (mean age=14.24±0.624 years old) completed an anonymous self-report questionnaire including ad hoc questions and validated measures on BD, cannabis use, lifestyle, allostatic overload (PsychoSocial Index), subclinical psychological distress (Symptom Questionnaire), psychological well-being (Psychological Well-being Scales) and problem-solving (Problem Solving Inventory, Form B). **Results:** Binge drinkers represented 16.7% of the sample. Some indexes related to stress and distress (higher number of stressful life events, absence of allostatic overload, higher somatization, hostility and lower anxiety), well-being (higher autonomy and positive relations, lower personal growth, purpose in life and self-acceptance) and problem-solving (avoidant problem-solving style) were associated to a greater risk of BD. **Conclusions:** BD represents

a relevant problem already in early adolescence. These new findings on impairments in well-being could represent the potential target of longitudinal studies aimed to implement specific preventive intervention among young adolescents. Well-being therapy might be suitable for improving well-being in this population, as indicated in pilot studies with other specific targets and carried on different populations.

124 Risky levels of biomarkers associated with minor depression and demoralization among patients with a first episode of acute coronary syndrome

Luana Fantini, Sara Gostoli, Chiara Rafanelli

Department of Psychology, University of Bologna, Bologna, Italy

Background: Little is known about the relationship between cardiac-risk related blood parameters (e.g. Hb, lipid profile, homocysteine, D-dimer), stress related hormones (cortisol, epinephrine, norepinephrine), inflammation biomarkers (fibrinogen, C-reactive protein) and subclinical depressive syndromes (minor depression and demoralization) among patients with Acute Coronary Syndrome (ACS). **Methods:** A total of 100 patients (69% males; 40-84 years old) with a first episode of acute myocardial infarction or unstable angina and at least a psychiatric (i.e. major/minor depression, dysthymia) and/or a psychosomatic diagnosis (i.e., demoralization) were enrolled. χ^2 test was carried out to evaluate the associations between risky levels of blood parameters, stress and inflammation biomarkers, and psychiatric (based on Structured Clinical Interview for DSM-IV) and psychosomatic diagnoses (based on Diagnostic Criteria for Psychosomatic Research) considering their presence/absence before the hospitalization. **Results:** Demoralization, minor depression and major depression were diagnosed in 90%, 56% and 18% of the sample, respectively. Risky levels of homocysteine and d-dimer were associated with current minor depression. Risky values of HDL cholesterol were mainly found in demoralized patients with a positive anamnesis of demoralization as well, whereas those of urinary cortisol in patients with both demoralization and/or minor depression with a positive history of minor depression. Finally, risky levels of epinephrine were associated with current major depression. **Conclusions:** This study highlights the usefulness of a clinimetric approach considering the longitudinal course of subclinical depression. In addition, not only clinical but also subclinical depressive conditions are associated with biological changes that allow the identification of subgroups of patients at greater risk.

125 The neuroplasticity of the self in the psychotherapeutic relationship

Marina Farinelli

Clinical Psychology Service, 'Villa Bellombra' Rehabilitation Hospital, Bologna, Italy

Background: The self is a complex concept that has long been discussed in philosophy, psychology and psychoanalysis.