

Resilience is a multidisciplinary concept of growing research and clinical interest, investigated in both general and treatment populations. Given the increasing occurrence of global stressful and traumatic events, in no small part due to recent medical (i.e., COVID-19 pandemic) and political/military developments around the world, a strong focus has been placed on the promotion of resilience within individuals as well as societies. Having in mind that stressful and traumatic experiences can lead to significant individual mental and somatic health problems and societal disturbances, teaching and promoting resilience could better prepare future generations for coping with inevitable stress. Resilience, being a broader interdisciplinary phenomenon, is explored within various fields of expertise: genetics, neurobiology, clinical and personality psychology, psychiatry, sociology and global politics, as well as religion. Clinical psychologists and psychiatrists are especially interested in resilience-based protective factors that could partly save individuals from developing mental disorders following stress and trauma, such as anxiety, depression and PTSD. Several standardized psychometric instruments have been developed in order to objectively measure one's level of psychological resilience, and even more are currently in initial phases of development. Here we summarize some of the important perspectives and research findings, particularly from the perspective of personality psychology in terms of the Cloninger's model of temperament and character. We also suggest ways in which promotion of resilience might help avoid some of the individuals' stress-related psychological suffering and facilitate more tolerable and emphatic society. Because resilience is a process that can be explored via numerous perspectives, from molecular to spiritual, future theoretical and empirical work has a giant task of integrating resilience- and psych trauma-focused literature into a coherent model useful both for clinicians and policy-makers.

**Key words:** Resilience, psych trauma, global mental health, stress, personality

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## NEW CHALLENGES – FETAL ORIGINS OF MENTAL DISORDERS

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Fetal brain development requires appropriate combination of both genetic/epigenetic and environmental factors. Dysregulation of intrauterine environment may result in disturbances in fetal brain development which may be critical for different mental disorders (ADHD, autism, anxiety, bipolar disorder, depression, schizophrenia, and substance abuse) over the lifespan.

The fetus lives in a stimulating matrix of motion as well as tactile, chemical and auditory sensory information, and it is exposed to hundreds of specific and patterned stimuli each day. The structure and function of brain are shaped by these stimuli. It is now known that the fetus can identify, respond and remember for a relatively long-time stimuli experienced during the prenatal period. Higher order sensory perception begins in fetal life when functional thalamocortical connections are present enabling fetal awareness of noxious stimuli. Fetus is capable of action, planing and learning. Fetal movements are reflecting development of the brain but at the same time they are stimulating the brain to develop. As we have few years ago developed KANET test, we've been able to study motor function which undoubtedly reflects development of diverse cognitive sensory and motor systems. The face is the mirror of the brain, many expressions can be depicted during fetal life which are proving that fetal life in utero is very dramatic and rich in different experiences. With a recent development of 4D sonography we indirectly proved that old Chinese medicine is right in belief that they are 10 months older than the rest of the world.

It will be illustrated how fetus who may develop communication or some other psychiatric disorders which are even now recognized prenatally. Obviously, we are entering the field of antenatal psychiatry, however we have to go long way to understand all the fetal behavioral parameters which we are now able to visualize. We are however quite aware that to visualize does not mean to understand.

**Key words:** Fetal brain, 4D sonography, predisposition, epigenetics, postnatal mental disorders

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## IMPACT OF MULTIMORBIDITY ON TREATMENT OUTCOMES OF SCHIZOPHRENIA AND MDD

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There is an extremely small number of studies on the influence of physical comorbidities on the outcome of treatment of patients with psychotic disorders. The results indicate a connection with a worse treatment outcome, a higher frequency of relapse and rehospitalization, and a worse quality of life. (Filipčić *et al.*, 2016; Filipčić *et al.*, 2017; Gervaix *et al.*, 2018). It seems that multimorbidity (>2 physical diseases) is significantly associated with psychiatric rehospitalizations (Filipčić *et al.* 2017). Based on the above, it is clear that for the successful treatment of patients with psychotic disorders, it is necessary to improve the prevention of modifying risk factors, early recognition and timely and assertive treatment of physical illness from the first appearance of psychotic symptoms.

There is significant evidence of the effectiveness of pharmacological and behavioral interventions in the prevention of modifiable risk factors in patients. What is missing in improving the physical health of patients with schizophrenia is the integration of multimodal interventions that include pharmacological, behavioral, somatic and social approaches into daily clinical practice. It is necessary to prioritize primary and secondary prevention in daily clinical practice, through regular screenings, health promotion programs, and reduction of cardiometabolic risks.

The first pharmacological and behavioral intervention program in the Republic of Croatia was established in 2015 at the Sveti Ivan Psychiatric Clinic under the auspices of the Center for Integrative Psychiatry (CIP). CIP is a multimodal model of integration of pharmacological, behavioral, somatic and social intervention for patients with mental disorders whose primary goal is to reduce the morbidity and mortality of patients through the prevention of modifying risk factors, early recognition and interventions, and assertive treatment of physical comorbidities.

Secondary goals are to speed up resocialization and rehabilitation through social rehabilitation programs, increase the quality of life and work productivity of patients. The goal is also to raise awareness and educate patients, their families and healthcare workers about the mentioned problems, through the implementation of educational and preventive programs, workshops and expert meetings and their implementation in everyday clinical practice.

It is significant that prevention and early intervention in maintaining the health of patients suffering from psychiatric disorders leads to a reduction in treatment costs for the Croatian health system and society as a whole. The national strategy and clinical guidelines for the prevention and treatment of physical diseases in people with mental illness also aim to improve the health and quality of life of patients and reduce premature mortality.

**Key words:** Multimorbidity, schizophrenia, behavioral interventions

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## IF PERSONALIZED MEDICINE IS THE FUTURE GOAL- CAN GENETICS OF STRESS RELATED DISORDERS PROVIDE A KEY?

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**Introduction:** Stress related disorders nowadays are seen as biological disorders, this is a view proposed recently—not more than two decades ago. The trigger for this question probably was based on the clinical observation that people can suffer same trauma intensity and duration but still not all develop symptoms of PTSD. Genetic research has yielded with more knowledge and data but key answers useable for clinical practice are still lacking. The formation of psychiatric genomic consortia has given a new insight into genome-wide association studies with promising results for PTSD, as well. We have understood until now that research of this area is complicated and big samples and phenotype narrowing is the major consideration to be kept in mind. With this article we would like to give an overview on the current findings of posttraumatic stress disorder genetics, critically overview the clinical usage and give insight into a new area of research by investigating the oxytocin transporter receptor gene, as a promising target.

**Methods:** Five centers have been included with three target groups that have been exposed to war