RESILIENCE BETWEEN SALUTOGENESIS AND PATHOGENESIS: 
AN IMPORTANT CONCEPT IN CREATIVE PERSONALIZED 
PSYCHOPHARMACOTHERAPY

Zihnet Selimbašić & Mevludin Hasanović

1Department of Psychiatry, University Clinical Center Tuzla, Tuzla, Bosnia and Herzegovina
2Faculty of Medicine, University of Tuzla, Tuzla, Bosnia and Herzegovina

SUMMARY
Resilience is a complex multidimensional psychobiological concept that researchers define differently depending on the context of their research and theoretical orientation. Resilience indicates the ability of a child or adolescent (person) to adequately deal with problems, to continue to improve, grow and develop, and to successfully adapt to a new situation, regardless of the threats and challenges that characterize the environment. Salutogenesis is a sociomedical concept that focuses on factors that support human health and feelings of satisfaction, rather than on factors that cause disease. Through the salutogenic model, through the sense of coherence as a basic concept and a central resource, through generalized and specific resources of resilience, a person manages to preserve his physical and mental health even in the most difficult life circumstances. Promoting salutogenesis and the search for health factors, not diseases, in the study of children and young people and the importance of the salutogenic health model in times of wars, economic crises, social change, major changes on the planet can be a significant goal of treatment.

Key words: resilience – salutogenesis – pathogenesis - creative personalized psychopharmacotherapy

INTRODUCTION
Health is a basic human right and the most important social goal is a very important resource of the individual and society (Tornikroft & Tansela 2011). Modern health orientation implies the improvement of health and the fight against disease, while research is aimed at better operationalization of the concept of health, in order to more accurately measure the positive health and quality of life of individuals and communities (Kaličanin 2002, Jakovljević 2015, 2016, 2018). There are different models of today’s understanding of mental health such as: mental health as psychological well-being, mental health as subjective well-being, mental health as social well-being, and mental health as mental health syndrome (Ryff 1989, Diener et al. 1997, Keyes 1998, Keyes & Lopez 2002).

RESILIENCE
Resilience is a complex process in which an individual demonstrates positive adaptation, when under difficulty or trauma, which is necessary for understanding salutogenesis and pathogenesis in response to mechanisms towards healing (Jakovljević & Borovečki 2018). The ability of an individual to adequately deal with problems and to continue to improve, grow and develop a successful adaptation to the new situation, regardless of the threats and challenges that characterize the individual’s environment (Masten et al. 1990, Garmezy 1991). The developmental understanding of resilience considers adaptive functioning as a process that takes place in the context of long-lasting and significant adverse circumstances or adversities, while the resilient outcome is discussed when there are acute and time-limited stressors (Mancini & Bonanno 2010). A resilient person has biological strength and endurance which does not mean that an individual will solve all problems, but that he will deal with them (Antonovsky 1987). Resilience is not a trait that an individual has or does not have but a dynamic process that can change over time and with a change of circumstances (Cicchetti 1998, Simon et al. 2005). The latest approaches in the prevention and improvement of mental health and school psychology are evident in resilience research through attention to protective factors and biopsychosocial processes that contribute to the “healthy” adaptation of children in the face of many adverse life circumstances.

GENERALIZED AND SPECIFIC RESILIENCE RESOURCES
Antonovsky defines generalized resistance resources as any characteristic of an individual, group, or environment that helps him cope with the tension caused by various stressors.

Generalized resources of resilience are classified into eight groups: physical, biochemical, material, cognitive, emotional, assessments and attitudes, interpersonal-relational, and macro sociocultural (Antonovsky 1979).

Material generalized resilience resources are related to material resources, money, housing, adequate footwear, clothing, etc. whose resilience effects can be direct and facilitating the overcoming of stressors (Antonovsky 1979). More favorable material conditions contribute to greater resistance to stressful events and are an important source of coping with stress, but also indirect, expressed through the acquisition of other resources.
with the help of material resources (Lazarus & Folkman 1984). Antonovsky (1979) includes in the cognitive and emotionally generalized resources of resilience the knowledge that an individual acquires during his education and ego identity. Antonovski considers ego identity to be a very important generalizer of resource of resilience because ego identity refers to the image of oneself, and the sense of coherence to the image of one's world, which includes the Self. Generalized resilience resources labeled as assessments and attitudes refer to coping strategies, which Antonovsky (1979) defines as a general action plan taken by an individual to overcome stressors and believes that any coping strategy should include: rationality, flexibility, and foresight. In addition to generalized resilience resources, Antonovsky believes that there are other resources important for an individual's position on the health-disease continuum and calls them specific resilience resources. Important specific resources of resilience include: self-esteem, cultural values, tradition, intelligence, and outlook on life, healthy behavior (Linström & Eriksson 2006). Antonovsky develops a construct of a sense of family coherence analogous to a sense of coherence, with the proviso that in a sense of family coherence children and young people need to understand, master, and find their meaning in the family. With the individual sense of coherence, the focus is on the environment that surrounds the child and the adolescent, and with the family sense of coherence, the focus is on the family as a system and understanding of the family. A sense of family coherence represents the overall relationship a child or adolescent has with his or her family and the meaning of family life. Antonovsky (1987) points out that the feeling of family coherence is the most important factor in the development, i.e., shaping the sense of coherence of its members, especially in childhood and adolescence. The sense of family coherence plays an important role in the development of the family and its functioning (Antonovsky & Sourani 1988), it is an important health resource (Eriksson & Lindström 2007), a resource for overcoming the stress of family members (Antonovsky & Sourani 1988). Sagieva and Antonovsky (1992) consider a good sense of family coherence to be good, and even better predictor of an individual's adjustment than an individual's sense of coherence.

**SALUTOGENESIS, COHERENCE**

Salutogenesis is a sociomedical concept that focuses on factors that support human health and a sense of satisfaction, rather than on factors that cause disease. The word salutogenesis derives from the Latin ‘salus’ or ‘satis’ which means health, and the Greek ‘genesis’ which means origin. Promoting salutogenesis and the search for health factors, not disease, in the study of children and adolescents and the importance that the salutogenic model of health in times of wars, economic crises, social change, major changes on the planet has or may have in preserving and improving health (Antonovsky 1984). In the psychological field, salutogenesis is related to building a sense of harmony and coherence, a sense of what connects everything that exists. Only when we find meaning in the details as well as the broader aspects of this world can we find meaning in life. How is this achieved? Antonovsky (1996) answers this question that the child must reach a satisfactory worldview through education. Salutogenesis and placebo response are associated with resistance resources (Jakovljević 2017b). Antonovsky formulates three concepts by which he tries to explain how a person manages to preserve his health (physical and mental) even in the most difficult life circumstances, such as the loss of loved ones, wars, poverty, social crises through a salutogenic model, through a sense of coherence concept and central resource) and through generalized and specific resources of resilience (numerous resiliences). The essence of the salutogenic model of health, the central variable and the basic resource of an individual is a sense of coherence, which is also considered a good indicator of positive mental health of physical, mental, and social well-being (Eriksson et al. 2007, Togari et al. 2007).

Adolescence requires a new form of adaptation of the individual to the environment that surrounds him, for the newly formed form of adaptation to separate the behavior characteristic of childhood from the behavior of an adult (Muuss 2006). Many of the mental health problems during adolescence are just symptoms of adolescents' struggle for separation and individualization (Ainsworth 1989). In the general population of adolescents, as stated, adolescence is marked by storms and numerous conflicts in 10-20% of young people, while in others changes occur without major problems and disorders (Douvan & Adelson 1958). Although the most important period for the development of a sense of coherence is childhood, in adolescence the sense of coherence is reinforced or reconstructed where it was weakened. Whether the sense of coherence will be reconstructed and strengthened or not depends on life experiences in adolescence, interaction with siblings, parents and then on certain characteristics, functioning and structure of the family (Sagy & Antonovsky 2000, Honkinen et al. 2008, Eriksson et al. Lindström 2007). During adolescence, the development of a sense of coherence largely depends on sociological factors through several cultural directions in modern society. Antonovsky (1979, 1987) speaks of a weak, medium, and strong sense of coherence, emphasizing that individuals who have a strong sense of coherence are more resistant to stress, more persistent in meeting various requirements, have a better chance of successfully coping with stress caused by stressors, and impairment of their health and vice versa. Children and adolescents, ie people with a stronger sense of cohe-
rence more often choose adequate resources to deal with stressors, are more willing to change their behavior if the solution they have chosen is not adequate to get out of a stressful situation. They are more prone to behaviors that aim to improve health. An adolescent with a strong sense of coherence solves developmental tasks more successfully, has the ability to progress despite various stressors in life, and has a better sense of wholeness toward himself, others, and the community (Mosley-Hänninen 2009).

PATHOGENESIS, HETEROSTASIS, ALLOSTASIS

Pathogenesis is aimed at preventing or suppressing disease-causing factors, their management or elimination, emphasizing the importance of homeostasis, where disturbance of homeostasis is considered a disease, while salutogenesis is aimed at preserving and improving health factors, creating and improving physical, mental and social well-being (Becker et al. 2010). In the salutogenic model, health is treated as a two-way process that moves in the direction of health (well-being, peace, tranquility, and life) or disease (disorders, breakdown of the organism, restlessness, and death). Health is understood as a continuous process that provides an opportunity to better understand the role of health promotion, prevention, recognition and use of resources, individual capacity, health education, sociocultural conditions in which the individual grows up, society as a whole, organizing various intervention and prevention programs (Eriksson & Lindström 2008). The principle highlighted in salutogenesis is heterostasis (hetero - different), adaptability, and the power of transformation required when facing different conditions and overcoming conflict to create homeostasis. Allostasis is the ability to achieve stability through constant change, and its primary systems are the hypothalamic-pituitary-adrenal axis (HPA-axis), the sympathoadrenal, and the immune system. This concept of "maintaining stability through constant change" is called allostatic.

Allostasis is an adaptive process during which the organism purposefully directs its energy resources in order to preserve stability even beyond narrow homeostatic limits. In the model of stress (stressor-perception-activation of the CNS-a-physiological reaction), allostasis is maintained by the same mediators involved in the stress response, and if these mediators are prolonged or permanently active, the so-called "Allostatic state". The condition of allostasis is reversible, and if it is repeated or lasts for a long time, it represents an allostatic load for the organism, which can ultimately lead to disease (McEwan 1998). Salutogenesis takes a different view. She asks: how can I learn to cope with various life circumstances and at the same time achieve inner flexibility? How do I deal with frustration and stress and still maintain the stability and integrity of character?

CREATIVE PSYCHOPHARMACOTHERAPY OF CHILDREN AND YOUTH: AN IMPORTANT CONCEPT IN CREATIVE PERSONALIZED PSYCHOPHARMACOTHERAPY

Like adult psychiatry, child and adolescent psychiatry are intriguing scientific disciplines about which there are many myths and misconceptions, which has a negative impact on the results of treatment in everyday practice. The use of drugs in child and adolescent psychopharmacotherapy has been the subject of much criticism, attacks, and controversy. Establishing a correct picture of child and adolescent psychiatry, psychopharmacotherapy in the developmental period, and the possibilities of treating mental disorders from the earliest period, as well as improving mental health and coping with traumatic stresses can significantly contribute to the greater success of modern medicine.

Child and adolescent psychiatrists, as well as primary care physicians and family physicians, can, by timely, rational, and creative use of psychopharmaceuticals, help a large number of children and young people at the first symptoms and signs of mental suffering and thus prevent severe psychiatric disorders or alleviate clinical pictures, and shorten the course of mental suffering in this period and later in adulthood. Often, the minimum of timely professional assistance is more important than the maximum of subspecialist assistance that is provided with a delay (Jakovljević 2016).

In psychopharmacotherapy in children and young people, in addition to a good knowledge of the characteristics of the child and adolescent and the individual drug, we must take into account a number of specifics related to that age. Child psychopharmacotherapy, due to the specifics related to the growth and development of the child, has a different impact on individual stages of development. The influence of exogenous often non-medical factors, and the insufficient number of studies on it and the insufficient knowledge of the influence of long-term therapies on biological and psychological development, require additional education of professionals and acquaintance with the benefits and possible harmful effects (Kocijan-Hercigonja 2002).

The concept of resilience provides both children and adolescents with a framework for understanding the different ways in which people cope with difficulties. Many authors state that strengths include support for social networks, the ability to coherently view previous adverse life events, find meaning and motivation in life, possession of social skills that allow control over life events, a favorable self-image, sense of humor, etc. (Rutter 1999).

The goal of creative psychopharmacotherapy in children and young people, as in adults, is to enable the patient to control his illness, to be proactive, assertive, and to take control of his life in which there will be
much more love, power, freedom, happiness and meaning. Changing the narrative of the illness through which the person explains the causes, origin, and outcome of the illness plays an important role in raising personal recovery. Creating a therapeutic relationship occupies the most important place and through therapeutic communication we work to achieve a favorable emotional, cognitive and behavioral effect in children and youth by acting on feelings, thoughts, self-experience, experience of the world, illness, and health, directing them in a positive direction. Therefore, creative psychopharmacotherapy in children and adolescents is a combination of rational psychopharmacotherapy and positive psychology that enables and encourages the development of a therapeutic relationship and a proactive attitude. In this way, a partnership is created by the child and adolescent becoming an active participant and partner in treatment (Jakovljević 2016, 2021).

Resilience as a bridge between salutogenesis and pathogenesis occupies a significant place in creative psychopharmacotherapy because it helps to establish harmony, coherence, development of therapeutic relationship, change the narrative of the disorder, proactive attitude towards the disease (Jakovljević 2017, 2018).

EXPERIENCES FROM BOSNIA AND HERZEGOVINA

The war in Bosnia and Herzegovina (1992-1995) had severe consequences for the overall health and psychosocial health of children and youth (Hasanović et al. 2005, 2006, 2011a, Hasanović 2011, 2012a,b). An example of strengthening resilience as an important resource in preserving the mental health of children and youth, and in preventing the psychosocial consequences caused by war trauma are the activities we undertook to empower children and youth during the war in Bosnia and Herzegovina and the postwar period through psychosocial programs and interventions. We organized and implemented psychosocial interventions in various conditions (refugee camps, schools) with the aim of detraumatizing children through supportive, educational, and therapeutic groups in the form of workshops in refugee centers (Selimbašić 1997). NGOs in the Tuzla Canton (Wings of Hope, Save the Children, Horizons, NPA-Norwegian People's Aid, Amica, Vive Women, etc.) participated in strengthening the psychological resilience of children and adolescents, relying on the existing health care system. (psychiatry and health centers). The most effective prevention of stress reactions and post-traumatic stress disorder (PTSD) in children stems from a broad-based approach to teaching children life skills that will help them cope with difficulties and trauma. Through crisis interventions, we rely on a strength-based approach that children have. Going through individual trauma, collective trauma is also processed in order to interrupt the continuity of its pathogenic influence and transgenerational transmission of trauma. Initially, the main tasks are to provide basic living needs, and for children, the main need is to be with their family and/or an effort to reunite with their family. Children possess adaptive powers and show a sense of just or unjust, good and evil. It is necessary to define a model of coping that children show to be as active as possible in meeting their basic needs (instrumental coping), and in expressing their thoughts (expressive coping) (Brennen et al. 2010).

Children in this act create a sense of meaning of what is happening and get a direct answer to those questions. Creating a safe environment is the main goal of protection, then meeting basic needs, physical presence, allowing the expression of feelings, trust, establishing a routine, involving parents, family. It is not enough to help a child, because the whole family needs help. The involvement of parents, schools, clinics, and other service organizations increases the effectiveness of treatment. Preventing the recurrence and mitigating the psychological effects of trauma is an increasingly important goal. The goal is not just repair, but integration and return to optimal functioning. The focus is not only on high-risk groups, but on all children and on improving their coping and resilience skills. These children are socially competent, with positive self-confidence and problem-solving skills. They can function independently, but will also seek help appropriately. They become confidential, capable, and caring people. This is best achieved in the context of a caring relationship in which they are expected to “be the best they can be”, to allow them to participate in daily life activities and to contribute to their environment in a significant way. Implementation was nurtured by implementing programs in schools, youth centers, life skills training, and family education (Hasanović et al. 2011, 2021, Hasanović 2021). The model included programs implemented in schools, parental education and family support, peer activities, and other community resources. Through these programs, resilience and upgrading to the strengths available to the child are nurtured. The benefits are not only for the individual and the family, but for the whole community. These programs have had value in preventing the long-term consequences of trauma. Empowerment of children and mothers represented a significant "social capital" in preventing the consequences of losses and refugees (Selimbašić 2009).

Psychosocial interventions were conducted by psychiatrists, psychologists, pedagogues, teachers as helpers in primary schools. By looking at the most important and significant risk factors, people have pointed out the potential causes that can contribute to the problem, and by considering the consequences of the importance of encouraging resilience as a possible response to stress and trauma. Children covered by psychosocial interventions in later life did not develop mental health disorders, related to competencies in school...
and social functioning (Selimbašić 2012). Children who were not included in psychosocial interventions in the critical period during and immediately after the war showed behavioral disorders, emotional difficulties, propensity to delinquent behavior, and propensity to use psychoactive substances (Hasanović et al. 2012, Selimbašić 2017).

Through resilience models, children and young people can mitigate the negative consequences and adapt well despite exposure to stress. In school-age, through skills, skills of overcoming stressful situations are developed, social skills, skills of self-control, self-esteem are developed, and through learning educational patterns, respect for others is developed, and empathy is developed through learning about humanitarian work and the like.

CONCLUSION

In times of wars, economic crises, social change, great changes on the planet, resilience, promoting salutogenesis, and the search for health factors, not diseases, have or can be of great importance in preserving and improving health. Individual resilience between salutogenesis and pathogenesis in creative psychopharmacotherapy helps to establish harmony, coherence, development of therapeutic relationship, change of narrative of the disorder, and a proactive attitude towards the disease. Strengthening resilience and embracing the salutogenic model in science and practice would be useful in all areas of health care and health promotion that would result in positive health for children and youth. Due to the specifics related to the growth and development of the child, different impacts on certain stages of development, additional education of professionals from child and adolescent psychopharmacotherapy would be a significant contribution to the concept of personalized approach and creative psychopharmacotherapy.

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Mevluudin Hasanović: made substantial contributions to conception and design, collection of data, participated in revising the article and gave final approval of the version to be submitted.

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Correspondence:
Professor Zihnet Selimbašić, MD, PhD
Department of Psychiatry, University Clinical Center Tuzla
Ul. Rate Dugonjica bb, 75 000 Tuzla, Bosnia and Herzegovina
E-mail: selimbas@gmail.com

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