

POSTRAUMATIC STRESS DISORDERS (PTSD) FROM DIFFERENT PERSPECTIVES: A TRANSDISCIPLINARY INTEGRATIVE APPROACH

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SUMMARY

Background: Psychotraumatization continues to be a pervasive aspect of life in the 21st century all over the world so we should better understand psychological trauma and PTSD for the sake of prevention and healing.

Method: We have made an overview of available literature on PTSD to identify explanatory models, hypotheses and theories.

Results: In this paper we describe our transdisciplinary multiperspective integrative model of PTSD based on the seven perspective explanatory approach, on the fifth discipline, the art and practice of the learning organization as well as on the method of multiple working hypotheses. Trauma vulnerability, strengths, resilience and posttraumatic growth are key concepts that enable an integration of the distinct perspectives into a coherent transdisciplinary multiperspective explanatory and treatment model of PTSD.

Conclusion: PTSD is a complex highly disabling and suffering disorder where the past is always present in people haunted by the dread frozen in memory of the traumatic events. However, PTSD also represents an opportunity for psychological and spiritual growth due to the human ability to adapt and thrive despite experiencing adversity and tough times.

Key words: PTSD – multiperspective model – vulnerability - strengths – resilience - posttraumatic growth

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INTRODUCTION

Psychotraumatization continues to be a pervasive aspect of life in the 21st century all over the world. PTSD and other trauma related disorders are highly prevalent and disabling, the source of huge suffering, commonly associated with other mental disorders and somatic diseases, and growing the public health burden (Stein et al. 2011). Now more than ever, we have an urgent need to better understand psychotraumatization processes and PTSD for the sake of prevention as well as effective treatment (Allen 2005). After the wars in former Yugoslavia, PTSD from the Cinderella diagnosis became the most popular and beneficial diagnosis in Croatia, raising a lot of important questions. According to data of the Croatian Ministry for Defenders, 16,115 of 501.666 war veterans have had PTSD diagnosis with additional 5,848 war veterans with diagnoses of the PTSD and some somatic disease (personal communication). In Vietnam veterans was found a lifetime prevalence of 30% and, on average approximately 19 years postwar, a current prevalence rate of 15% (Kulka et al. 1990, see Schuetzwohl et al. 1999). It seems quite clear that this PTSD diagnosis inflation indicates an important role of the social and political factors in definition of the boundaries between normal and abnormal. According to Wessely (2003) „whether or not there was ever a real 'epidemic' of psychiatric disorder in the returning service personnel is moot“. It seems that the true origins of PTSD inflation lie in post-war Croatia, and not the war itself as it was the case with Vietnam veterans (see Wessely 2003). The post-war

disappointment, frustration and embitterment in the form of posttraumatic embitterment syndrome (see Linden et al. 2007) may be frequently recognized in Croatian war veterans officially diagnosed with PTSD. The post-war economic and political climate with rising unemployment rates and loss of social security has fostered a sense of disappointment, personal injury, embitterment and grievance as well as demand for reparation/compensation.

There has been a great debate about core issues in defining PTSD with disagreements about the nature of stressful events that act sufficiently traumatic to precipitate PTSD, with different views on the characteristic symptoms that follow exposure to traumatic stress and their subjective meaning, with different ideas about how best to prevent and treat PTSD and with different proposals about what kind of compensation should be given to the individuals by society.

Critics of PTSD concept have been claiming that 1. people always had reactions to danger, abuse, torture and life-threatening events and there is no need to pathologize it; 2. PTSD is not a legitimate syndrome and science-based diagnosis but a political construct created by feminist and veteran special interest groups; 3. it serves a litigious rather than a clinical purpose, because the explicit trauma-related diagnosis has opened the door to a multitude of frivolous lawsuits and disability claims in which the financial stakes are enormous; 4. verbal reports of both traumatic exposure and PTSD symptoms are unreliable; 5. traumatic memories are not valid and reliable; 6. the diagnosis is a European American culture-bound syndrome that has no

applicability within traditional cultures; 7. it needlessly pathologizes the normal distress experienced due to abuse, torture and life-threatening events, 8. PTSD concept is a barrier to recovery, 9. PTSD concept force-loses meaning and personal growth (Shepard 2005, Friedman et al. 2007).

MULTIDIMENSIONAL AND MULTI-INTERPRETABLE PHENOMENA

To paraphrase a dictum of the nineteenth-century philosopher William Whewell, it is easy to generate true statements about PTSD, but who could define PTSD. PTSD is a multi-interpretable phenomenon and can be explained from various, but mutually complementary, theoretical and conceptual perspectives. Each perspective has a different internal logic, specific and distinct, but equally plausible interpretation as well as different useful treatment implications (Jakovljević 2008).

The disease/illness perspective

"The good physician will treat the disease, but the great physician will treat the patient." (William Osler)

This perspective works in psychiatry just as it does in somatic medicine (see Jakovljević 2007). It implies there is something fundamentally different from normal state and function and is not just a variation in degree (Tyner & Steinberg 1998). The disease/illness perspective rests on a logic that captures brain/mind abnormalities and includes this conceptual triad: clinical syndrome, pathological condition of brain/mind and etiopathogenesis. The implication for practice is that disease/illness is to be prevented or cured (McHugh & Slavney 1998).

PTSD can be considered as disease, illness and sickness. The medical model in terms of biological psychiatry defines PTSD as a mental disorder resulting from damages to a function and structure of the brain. This perspective focuses on identifying symptoms of the disease linking PTSD symptoms to specific pathophysiological process involved, and prescribing specific treatment. By searching for biological markers of PTSD, biological psychiatry attempts to define this disorder as a „real“ medical condition. Treatment usually does not demand attention to the whole person and includes medications with neuropsychosactive actions.

Specific structural and functional changes have been reported in the brain of patients with PTSD. According to some opinions the symptoms of PTSD fundamentally reflect an impairment of the right brain that is dominant in inhibitory control (Schoore 2002). PTSD pathogenesis has been devised to be related to de-evolution of right brain limbic circuits and to trauma-induced excessive pruning of the right brain circuits (see Schoore 2002). Some studies showed that the right hippocampal volume was reduced by 8% among Vietnam veterans (see Bremner 1999, van der Kolk 2004). Dysfunctional

frontal-subcortical systems and altered functional activity of the orbitofrontal cortex, anterior cingulate, and amygdala have been described in patients with PTSD (see Schoore 2002). According to Yehuda (2002), individuals in whom PTSD develops have attenuated increases in cortisol levels in the immediate aftermath of a traumatic event, which may be related to prior exposure to a traumatic event or other risk factors. They have also stronger activation of the sympathetic nervous system. Patients with PTSD have lower resting HRV (heart rate variability) which suggests increased sympathetic and decreased parasympathetic activity (see van der Kolk 2004).

The medical model in terms of psychodynamic psychiatry defines PTSD as an illness that is a subjective and interpersonal manifestation of disorder which has to do with meaning. Illness is a problem of the whole person, not of a single organ or organ system and is therefore subjectively defined. Fear overconditioning, loss of stimulus discrimination and arousal regulation, progressive neural sensitisation and overconsolidation of traumatic memory mediate PTSD development. PTSD reflects the malfunction of a harm avoidance mechanism that normally uses past experiences to escape actual or future dangers, hazards and damage (Bruene 2008). Treatment demands attention to the whole person and includes various forms of neuropsychotherapy and EMDR (eye movement desensitization and reprocessing). The assumption that disease captures the essence of illness is erroneous (disease without illness, and illness without disease). In clinical practice PTSD manifests as both illness and disease.

The medical model in terms of social psychiatry defines PTSD as a sickness that represents community and health authority attitude. The attitudes of community or wider society „shape what individual victims feel has been done to them, and shape the vocabulary they use to describe this, whether or how they seek help, and their expectations of recovery (Summerfield 2005). More than any other mental disorder, PTSD has a political valence that influences how medicine, psychiatry and society view the construct and response to patients who carry the diagnosis (Frueh et al. 2005). From this perspective it is crucial to prevent secondary gain and adoption of a chronic sick role (Herbert & Sasgeman 2005).

There is some truth in the Shepard's claim that „modern biological models of PTSD perfectly reflect the atomized, de-socialized, individualistic, consumerist ethos of the twenty-first-century United States, the biochemical sense of self which now pervades popular culture, and the power of the pharmaceutical industry in modern medicine (Shepard 2005). However, on the other side, it is a clear fact that traumatic and life-threatening situations mobilize numerous neuropsychophysiological systems to respond to potential threats and challenges. Hyperactivation, dysregulation and disbalance of these systems may lead to neurotoxicity and

pathogenetic peri- and/or post-traumatic neuropsychophysiological processes with damages to neuroplasticity and function and structure of the brain. In traumatic situations neurons can be literally „excited to death“ resulting in organic brain changes. The fundamental problem in PTSD is a fixation on trauma and damage of the self-regulatory systems which are unable to distinguish relevant from irrelevant stimuli and to restore the organism to its pretrauma state (van der Kolk 2004). The trauma re-experiencing or intrusive memories of it, emotional numbing or the avoidance of stimuli associated with the trauma, and increased autonomic arousal that formed PTSD diagnosis, which are normal responses to abnormal situation and traumatic stress, may due to traumatic imprinting and trauma fixation become associated with loss of stimulus discrimination and arousal regulation, hypersensitization, overconditioning, hemispheric lateralization, limbic kindling and paroxysmal experience disintegration, stress-hormones and neurotransmitter dysbalance, neurodysplasticity and massive mind-body systems dysregulation.

The dimensional perspective

"It is more important to know what kind of a patient has a disease than what kind of a disease a patient has" (William Osler). „For an optimist every difficulty is a challenge, for a pessimist every challenge is a difficulty“ (Winston Churchill).

This perspective shifts from the biological determinism to the appreciation of meaning in human behavior and personhood and personality assessment in health and illness. Dimensional perspective relates to what or who someone is, to their personality with vulnerability and resilience and specific way of being in the world. The vulnerability-resilience or stress-diathesis model rests on the fact that some individuals are more vulnerable to mental distress and it includes the next conceptual triad: potential deficits in personality functioning, distress or provocation and non-adaptive or maladaptive response. At the most extreme vulnerability end of the continuum range, a small life stress is enough to result in a disorder whereas at the resilient end of the continuum range, a great deal of distress will be necessary before PTSD or some other mental disorder develops. The dimensional perspective explains possible PTSD differentiation on subsyndromal PTSD, PTSD, complex PTSD, and psychotic PTSD. Individuals with partial PTSD exhibit significantly less number and severity of symptoms and lower functional impairment and disability than those with full syndrome (Friedman 2011). Treatment is focused on helping patients to use personality resources and strengths to increase their well-being and restore resilience so that they can cope with stress more successfully.

The cause of PTSD may be related to the way how individuals interpret the meaning of an event. It is very important to distinguish a potentially traumatic event from an individual's reaction to that event. A

psychotrauma carries its pathological force through the meaning the event has for the individual so that whatever a person regards as highly threatening or distressful counts as a traumatic event (McNally 2011). According to the dimensional perspective „health“ and „illness“ are two ends of a one-dimensional continuum, while PTSD is in between. It can be both a chance for a personal growth and a suffering road to many mental and somatic disorders. The focus in contemporary psychiatry is still on the pathological dimension while a tendency to approach PTSD in terms of challenges, opportunities and posttraumatic growth is of recent date.

After traumatic stress PTSD appears from a complex interaction of the three groups of factors: 1. „risk“ or „vulnerability factors“ which enhance the likelihood of PTSD, 2. „protective factors“ that enhance the likelihood of recovery from trauma and stress, and 3. „generative or creativity factors“ which increase revelatory learning, resource acquisition and development, accentuating personal growth. In this light PTSD may be derived from personal dispositions (diathesis) and stressful life circumstances (stress-diathesis model). Personality weakness (vulnerability), risky traits and low resilience have been shown to account directly for PTSD patterns. Vulnerability is defined as the potential for loss or for casualty when exposed to a hazard or threat (Ahmed 2007). When personal appraisal overestimates threat, external and internal vulnerability factors are more likely to contribute to the PTSD genesis than the properties of the traumatic event itself.

Resilience can be defined as an ability to recover quickly from change, threats, trauma, misfortune, tragedy, or illness. Generally speaking, resilience refers to the ability to withstand stressful challenges and retain or regain normal functioning (Foy et al. 2011). According to some opinion, resilience can be defined as „the force that drives a person to grow through adversity and disruptions“ (Richardson 2002). It is a facility of the body and mind to regenerate and resist when faced with disorder, illness, disease or disruption. Resilience also requires a beneficent relationship between the traumatized individual and the larger social and physical environment. The body and mind starts responding when faced with a threat or a challenge. In many cases body and mind succeed in restoring the balance, but often they need outside intervention.

Resilience and posttraumatic growth are two related, but distinct phenomena so that highly resilient individuals may even experience less posttraumatic growth (Tedeschi & McNally 2011). The severity of PTSD in some patients positively correlates with the degree of posttraumatic growth. Trauma may require exposed individuals to reconfigure shattered belief systems, disengage from unreachable goals, and revise their life narratives what is associated with personal growth (Tedeschi & McNally 2012). Posttraumatic personal growth may be palliative providing comfort in the face of trauma and constructive generating positive

personality transformation. Posttraumatic pseudogrowth is associated with denial of trauma suffering or self-deception. Real posttraumatic growth is associated with wisdom, investment in life and life satisfaction, orientation toward the future, and a sense of purpose in life as well as related to 1. authentic and enduring involvement in significant life activities, such as work, family life, or community service; 2. dependable ways of relating warmly to others, such as tolerance, empathy, trust, and genuineness, 3. the ability of emotional regulation, self-acceptance and emotional security; 4. realistic perception and positive world appraisal; 5. problem-solving centeredness; 6. self-awareness with insight and humor; and 7. a positive unifying philosophy of life, allowing comprehension and integration of new goals and values (see Cloninger 2012, Sheldon 2012).

The cognitive-axiological perspective

*“All that we are is the result of our thoughts“ (Buddha).
“We are what we think. All that we are arises with our thoughts. With our thoughts we make the world“ (The Dhammapada).
“Men are not disturbed by things but by the views they take of them“ (Epictetus).*

This perspective focuses on what someone is thinking about, perceives and learns about or assesses as valuable, i.e. which ideas and values in life should be followed. All that we are is a result of our thoughts and knowledge of ourselves and the world. What we think of us, that it is which determines or indicates our fate so all psychological stressors are cognitively mediated. From *the cognitive perspective* pathological behavior leading to PTSD is associated with dysfunctional and conflicting cognitive strategies, misinterpretations and misrepresentations. The proximal cause of PTSD may be related to the explanatory style how an individual interprets the meaning of what happens to he/she and how he/she explains both positive and negative events (McNally 2005, Reivich et al. 2011). Pessimists tend to attribute the causes of negative events to permanent, uncontrollable, and pervasive factors, while conversely, optimists tend to attribute the causes of negative events to temporary, changeable, and specific factors (Reivich et al. 2011). Much of PTSD may be created by errors or biases in thinking such as catastrophic thinking because our thoughts are important determinants of our actions. A negative cognitive style with deficit for retrieval of positive memories contributes to PTSD development and severity. When wrong, negative, catastrophic, self-limiting and self-defeating thoughts are corrected, health can be established again. Post-trauma cognitive reframing may foster moving forward with life. Viewing traumatic stress and negative life events in the same time as challenges, turning points, or opportunities for growth creates a more positive frame of mind. It does not mean neither ignoring dysfunctional difficulties nor discounting suffering and pain. One should be very careful when encouraging the expectation of personal growth in patients with PTSD or in trauma victims

because it may be counterproductive and result in an experience of shame or guilt.

From *the axiological perspective*, PTSD can be explained on the account of choosing the wrong life, social and spiritual values, but the question remains as to how much it entails a voluntary and conscious decision in comparison to subconscious autoprogramming. Exposure to traumatic experiences often leads to thinking and asking about meaning, values and purpose within a personal and collective sense. Traumatic events commonly challenge one's core life values and beliefs about safety, self-worth and the meaning of life. Individuals who are unable to resolve challenges to their moral and value beliefs might find themselves in a state of demoralization, disillusionment, nonsense and social alienation. Demoralization associated with negative thinking and characterized by feelings of helplessness, hopelessness, subjective incompetence, and a loss of mastery and control, was found to be a very common syndrome in PTSD.

According to some opinions, PTSD results from „the shattering of basic assumptions“ that people have about themselves and their world that is a consequence of „information shock“ (see Orr et al. 2004). Beliefs, thoughts, attributions, cognitive schemas and general attitudes structure meaning of life events and influence emotional arousal. Regarding PTSD, four cognitive or belief aspects have been recognized as fundamental: 1. an appraisal of an event that is dangerous and harmful, 2. general beliefs about personal vulnerability; 3. unsuccessful attempts to assign appropriate meaning to the event; and 4. beliefs about lack of control by the individual (Bowman & Yehuda 2004). It seems that belief rigidity as well as specific negative beliefs constitute cognitive risks for PTSD. Albert Ellis's ABC (adversity-belief-consequence model) may help individuals with PTSD to distinguish activating event, their beliefs about activating event, and the emotional and behavioral consequences of those thoughts and take control over their thoughts and behavior (Reivich et al. 2011).

The art of living, in hard and traumatic life situations, is to reveal their true meaning, values and the purpose of life. Simply said, life places tasks before us, sometimes very painful ones, at other time incredibly difficult ones. The purpose of something dreadful happening to us is that something better in the future will happen. The good that comes from all bad things happening to us means that it helps us to achieve our best, our essence. According to M. Kirchenbaum (2004), there are ten reasons why something happens to us: 1. to have a sense of belonging and to feel truly good in our world as though we were home; 2. to completely accept ourselves; 3. to understand that we can liberate the fear that hinder us; 4. to gain the ability to forgive; 5. to recognize our true talents; 6. to discover true love; 7. to become stronger; 8. to learn to take pleasure in life and enjoy life; 9. to learn how to live with the feeling that

we have a specific mission or vocation and purpose in life; 10. to truly become good people. The purpose of our life does not consist solely in self-achievement, but also in autotranscendence or outdoing ourselves.

The behavioural perspective

“... Pay attention to your actions, because they become habits. Pay attention to your habits, because they become your character. Pay attention to your character, because it is your fate”. (Talmud). “We are what we repeatedly do” (Aristotle).

While the perspective of disease/illness refers to what the patient has, dimensional to what the patient is, the cognitive perspective to what and how the patients think, value and respect, the behavioral perspective focuses on what and how the patient does. From this perspective PTSD is fundamentally a disorder of reactivity which manifests itself as characteristic maladaptive behavior during interactions with the interpersonal or physical environment (Friedman 2011). The maladaptive preoccupation with concerns about personal and family safety, anxiety, irritability and pervasive and uncontrollable sense of threats and danger may be explained by classic fear conditioning. The traumatic (unconditioned) stimulus automatically evokes the post-traumatic (unconditioned) emotional response (fear, helplessness and/or horror) and/or dissociation. Conditioned stimuli which are reminders of the experienced traumatic event evoke similar conditioned emotional response, dissociation and flash-backs as well as fear-induced avoidance and protective behaviors. The trauma re-experiencing symptoms can be a consequence of the primacy of traumatic over non-traumatic memory as a pathological exaggeration of an adaptive response to remember as much as possible about traumatic events in order to avoid similar threats and dangers in the future (Friedman 2011). Trauma focused cognitive-behavioral therapy (CBT) with emotion-regulation training sessions shows significant effectiveness.

Likewise dimensions of disease and personality, stressful life events and behavior can also be studied at the level of brain imaging and neuroanatomy, neurochemistry, neuropsychophysiology, neuropsychoneuroendocrinology, etc. At this level distinctions between the disease perspective, the dimensional perspective, the cognitive and the behavior perspective become overlapping. It seems that PTSD primarily reflects the pathology of learning mechanisms which normally use past experience for better adaptation and improving harm avoidance abilities. Conscious and unconscious re-experiencing past traumatic situations and avoidance behavior represent the core processes which lost their adaptive value in PTSD. Instead, they give way to phylogenetically primitive fear reactions as agitation/aggression, freezing and dissociative states (Bruene 2008). Intrusive thoughts and memories in PTSD are perceived as uncontrollable, and usually are associated with autonomic hyperarousal, hypervigilance, and

persistent feelings of impending danger and threats. PTSD patients are unable to disentangle past, present and future threat scenarios in that they re-experience in the present „the past terror frozen in their memory“. At the neuropsychophysiological level PTSD reflects the hyperactivity or dysfunction of the security vigilance/ alarm system with false alarms activations. Hyperactivity of the security alarm system is associated with chronic up regulation of the hypothalamic-pituitary-adrenal (HPA) axis, which in turn, impairs integration of traumatic experiences and appropriate memory consolidation (van der Kolk 2004, Bruene 2008). As the amygdala is hyperactivated during recollection of traumatic events, normal threat evaluation is impaired due to the loss of proper stimulus discrimination between important and non-important stimuli as potential source of threat. The connections between the prefrontal cortex (PFC) and amygdala, which play a significant role in the capacity to regulate negative emotions and, particularly to shorten the duration of negative affect once it arises, seem to be impaired (van der Kolk 2004). The hippocampus, which plays an important role in context-dependent and declarative memory as well as in emotion regulation, and which has the high density of glucocorticoid receptors is reduced in patients with PTSD (van der Kolk 2004). Individuals with hippocampal damage are prone to display emotional behavior in inappropriate contexts what is the case with PTSD patients who are unable to modulate emotional responses in a context-appropriate manner (see van der Kolk 2004). A pattern of general disinhibition in cognitive and behavioral domains was reported in veterans with PTSD (van der Kolk 2004). Even more, the communication between right („emotional“) and left („rational“) brain was reported to be functionally impaired in PTSD, such that traumatic memories may be experienced as ego-alien (Bruene 2008). PTSD may be the consequence of coincidental reinforcement of different behaviors, regardless of genetic predisposition, and related to combination of unconscious psychological needs, non-adaptive learning, and bad choices. Some aspects of PTSD may result from what patients are doing wrong and their wrong attitudes and beliefs about PTSD symptoms.

The spiritual/transcendental perspective

“God, grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference” (The serenity prayer)

Despite a renewed interest and repeated calls for mental health professionals to focus on spiritual issues, this area has been still neglected. Unfortunately, we still don't know much about the relationship between spirituality and PTSD because spirituality has long been a taboo issue in mental health care practices. Spiritual alienation and loss of sense have been frequently reported in patients with PTSD. According to data from the PTSD residential program 74% of residents reported

having difficulty reconciling their religious beliefs with the traumatic events they saw and experienced in the war zone and 51% reported that they abandoned their religious faith in the war zone (see Foy et al. 2011). The ways in which religion influences trauma response are different, e.g. traditional Buddhists, who believe in karma, often show more acceptance of terrible events than Westerners, while Islamic people, who believe that their fate is in Allah's hand, may feel less of a need to actually strive for any relief (Drozdek 2007).

Spirituality is a personal experience with many different definitions (Jakovljević 2010). Spirituality can be regarded as „an belief system providing a person with meaning and purpose in life, a sense of the sacredness of life, and a vision of the better world“. Some definitions emphasize „an personal understanding of, experience with, and connection to that which transcends the self“ (Foy et al. 2011) what is related to the concept of spiritual intelligence and transpersonal self. This transcendental connection might be to God, a higher power, a universal energy, cosmic law, the sacred, or to nature. Good spirituality may protect an individual from traumatic distress and lead to personal growth.

Spiritual beliefs are of great importance to many patients and may have a significant impact on traumatic life events and PTSD. Spirituality is a valid coping mechanism after a traumatic experience. In general, trust in providence which is love and wisdom, belief in greater power which is a source of reassurance and hope, ability to find meaning in suffering and illness, gratitude for life which is perceived as a gift, ability to forgive have protective and promotive effects on health.

Research indicates that trauma has both positive and negative effects on spiritual experiences, beliefs and perceptions. Positive post-trauma effects can be expressed through increased appreciation of life, enhanced spiritual well-being and sense of purpose in life, feeling of greater closeness to God, etc. Negative emotions like anger, rage, embitterment and a desire for revenge following trauma may be tempered by forgiveness, spiritual beliefs and spiritual practice. On the negative side, trauma can be associated with spiritual struggle, alienation and loss of faith. Spiritual alienation (separation from the transcendent, the divine, or God) and loss of meaning and purpose for life have been identified as distressing issues in veterans with PTSD (Brende & McDonald 1989). Spiritual alienation can take many forms like feeling abandoned by God, feeling that God was uninterested or powerless to help or prevent adversary, or even nonexistent, feeling that traumatic event was punishment from God, rejecting or cursing God and people, etc. The spiritual ability to make sense of a traumatic event not only reduces the likelihood of PTSD, it may even result in spiritual and psychological growth (Decker 1993). From spiritual point of view PTSD can be a wake up call and open a door to spirituality and deeper sense of life's meaning in

a world filled with violence and obsessed with material values. A deep spirituality gives hope, inner peace, power and a way to make sense of unexplainable and develop a sense of new identity and greater purpose. The spiritual journey with experience of empowerment helps traumatized persons to shift their perspective from „why me“ to „what can I do about it“, from „what's wrong to „what can I be grateful for“.

The narrative perspective

“Our greatest glory is not in never falling, but in rising up every time we fall” (Confucius). “Our outcome in the game of life depends not only on the cards that we have been dealt, but also on how we play out our hands” (Higgins and Snyder 1991)

The narrative perspective is based on the logic of narrative, narrative self and distressed states of the soul, which are quite natural, understandable and the result of adverse impressions and experiences (McHugh & Slavney 1998). Our identity is shaped by narratives or stories, both uniquely personal and culturally general. The story is a natural framework for a very different conclusion about how we live and what we do, and what is the meaning of everything. So we also give meaning to our lives and the world by the stories we tell to ourselves and each other, hence we define our experiences, actions and destiny. Life stories can reflect four contextual visions of reality: 1. a romantic vision, in which life is an adventure and the person as a hero overcomes all difficulties and becomes a winner; 2. an ironic version in which there is disappointment in romantic ideals and illusions with a consequential emphasis on life's difficulties and multiple perspectives; 3. a tragic vision, that is filled with disappointments and losses, where the emphasis is on the life's limitation and acceptance of a certain amount of despair that can lead to a life of wisdom, and 4. a comic vision, in which things go from bad to better, life can be controlled, conflict occurs between people and situations, and not between people, and the desired resolution is to improve an ability to play the social role (McAdams 1993, Hoyt 2005). PTSD often points to a tragic story of „dread frozen in memory“, existential despair and life irony.

A narrative perspective focuses on the life story of a patient with PTSD, and provides a better understanding, not only of the patient's actual mental state but also of the significance, meaning and processes contributing to the onset and maintenance of clinical symptoms. This perspective emphasizes the importance of life experience, personality organization and psychological life script for understanding the individual psychopathology. The psychological script contains the ongoing program for the person's life drama and tendencies to some mental disorders. From narrative viewpoint, PTSD may be related to the patient's specific sad and defeating life story, destructive self-attitude and a particular unconscious loser life-script. According to a narrative perspective what a person can know is reality, a reality

constructed by the person, which has the form of a story. From a narrative constructivist perspective, victimization is commonly associated with the shattering of at least three basic assumptions individuals hold about themselves and their world: 1. the belief in personal invulnerability; 2. the perception of the world as meaningful and comprehensible; and 3. the view of selfhood in positive terms. People normally operate on the basis of unchallenged and unquestioned positive assumptions about themselves and the world like, for example „My world is predictable, safe, meaningful and just“ and „bad things don't happen to good people like me“. Recovery from PTSD is related to the cognitive rebuilding of a viable assumptive world view which integrates the realms of vulnerability, meaning, and self-esteem (Amendolia 1998) in order to create a new better life story. Recontextualization of the traumatic memory, fear and hyperarousal cued by the traumatic memory, within a broader context of life mission, love, courage, mastery, etc. and within a context inclusive of other memories, affects, beliefs and values. A new story gives the new meaning to life, but also fashions the relations with people. The story teaches how to behave and live in general as well as with experience of the traumatic events, discovers the true values that should be followed, and the meaning of life in adversary and happy times. Metaphors have a healing power and are useful in narrative psychotherapy helping PTSD patients to change their tragic story into winner's story with happy end.

The idea that tragedy and suffering can endanger personal transformation and growth is ancient, occurring in the major world's religions, Greek tragedies, and many stories in the literature (Tedeschi & McNally 2011). The study of literature discover universal themes with heroic figures whose journey of existential self-transformation and psychological and spiritual growth in the life cycle upon survival of traumatic experiences may be a form of transgenerationally transmitted experiences of collective narrative therapy. The key message is not to celebrate trauma itself but instead distress and illness that trauma may set the stage for beneficial changes that may occur in its aftermath (Tedeschi & McNally 2011).

The systems perspective

“Pay attention to your thoughts, because they become words. Pay attention to your words, because they become actions. Pay attention to your actions, because they become habits. Pay attention to your habits, because they become your character. Pay attention to your character, because it is your fate“ (Talmud). “Nothing in excess, including moderation (Benjamin Franklin). „Nature love balance“ (Peter M. Senge)

According to the systems theory, the genome operate within the context of the cell, the cell within the context of the body, the body within the context of the self, the self within the context of society, and the society within the context of the universe (Cloninger

2004). Mental disorders and somatic diseases/illnesses can be conceptualized within different body, energy, mental, family, social and etc. systems. PTSD may reflect the problems in many different, more or less related systems. Therefore there are many roads to PTSD consideration and understanding. PTSD can be considered as a individual and personal condition as well as a family condition and a social condition. A belief system about life, death and destiny which may be part of a religious, philosophical or ideological family or social system, significantly influences the regulation of the processing of traumas and associated activated terrors.

At an individual level PTSD is a multisystem mind-body disorder which usually affects a number of mental systems, neural networks, organs and tissues during its course. Mental disorders of all types are more common in patients with PTSD compared with the general population. Somatic disorders/illnesses of all sorts are more common in patients with PTSD than in general population. Therefore, one might say that PTSD is characterized by high rates of psychiatric and somatic comorbidity related to metabolic disturbances, oxidative stress and inflammation induced by traumatic stress that suggests major mental disorders as multisystem diseases. An important question is how to define what is comorbidity and what is a multisystem disorder in psychiatry. Do PTSD, depression, diabetes and coronary heart disease represent comorbid disorders or a trauma-related multisystem or complex mind-body disease?

Traumatic experience, particularly during childhood, not only lead to PTSD but also generally predispose to many other mental disorders like depression, alcoholism, drug abuse, etc. and somatic diseases like ischemic heart disease, cancer, chronic lung disease, diabetes, stroke, etc. (see van der Kolk 2004). This may also partly explain the notion that PTSD is characterized by massive comorbidity.

The systems approach: PTSD between vicious and virtuous cycles

Although psychotraumatology and trauma research has emphasized individual psychopathology, many types of traumatic stress are experienced collectively when traumatic events like natural disasters, war, terrorist attacks, political oppression, epidemics, and economic recessions bring harm, loss, pain, fear and horror to large numbers of people simultaneously (see Norris et al. 2011). Ecology of human behavior describes the impact of social context, in the form of family, community, society and culture on coping with adversity and traumatic events. „Microsystems are the primary setting, such as families, schools, and places of work, mesosystems are intersecting microsystems; and macrosystems are the matrices of rules, laws, and cultural norms that shape the nature of society's political, economic, legal, and educational systems“ (Soutwick et al. 2011). From the systems perspective, a

person with PTSD is part of the feedback process, not existing apart from it. There are two types of feedback processes: reinforcing and balancing (Senge 2006). Whenever things are growing, reinforcing or amplifying is at work. Two types of reinforcing feedback processes can be recognized which form „vicious“ and „virtuous“ cycles. Some reinforcing processes in PTSD are „vicious cycles“, in which processes start off badly and grow worse (the cuckoo's egg syndrome). Personal, psychological and spiritual post-traumatic growth is strongly associated with processes that reinforce in desired directions of virtuous cycles. Balancing processes are associated with discovering the sources of stability and resistance (Senge 2006). Balancing processes underlies all goal-oriented behavior. Human mind-body system contains countless of balancing feedback processes that may heal our traumas and alert us to real threat. Organizations and societies have also myriad balancing feedback processes which may support post-traumatic recovery and resilience.

The healing process and recovery are always balancing processes. The recovery occurs when a new balance between resilience from one side and damage and vulnerability from another side establishes enriching victim's mission, purpose and quality of life.

PTSD related problems and difficulties can be understood and changed only by understanding the structures of interdependencies within different systems, e.g. within mind-body networks, family, society. It is possible to alter pathological structure to free patients with PTSD from previously mysterious forces that dictated their experiences and behavior. The road to full recovery lies not exclusively in alleviating the negative, but also in fostering the positive processes in a system. Bringing the person out of suffering and negative functioning is one form of success, but facilitating progression toward the restoration of positive functioning is also very important (Fava 2012, Cloninger 2004).

The systems approach and an integrative model of PTSD

There has been a substantial conflict between current knowledge and various concepts and models of PTSD. The systems approach suggests that the only way to understand the complex issues of psychotraumatization and PTSD is to approach them in a holistic multiperspective transdisciplinary way. The various perspectives and dimensions are interconnected and interdependent, and cannot be fully understood separately. According to the systems theory the whole is more than the mere sum of its parts, and the interconnections between the parts add a specific and distinct quality and dimension to the whole. While the focus of the reductionistic, mechanistic and formistic information processing is on the parts, the systems approach emphasize the whole (Jakovljević 1995). The application of the transdisci-

plinary systems approach helps us in understanding psychotraumatization and PTSD in a better and more appropriate way and offers a broader range of more efficient treatment strategies and options.

Our transdisciplinary multiperspective integrative model of PTSD is based on the four perspective explanatory model proposed by McHugh and Slavney (1998), on the fifth discipline, the art and practice of the learning organization (Senge 2006), as well as on the method of multiple working hypotheses (see Oschman 2003) that consists of „bringing up every rational explanation“ of stress and trauma related, reactive and adjustment disorders. Systems thinking makes a shift of mind from seeing parts of the trauma-victim-context-society tetrad to seeing wholes, from seeing patients with PTSD as helpless reactors to seeing them as active participants and partners in therapy and shaping their reality as well as from reacting to the past in the present to creating the desired future and living life from a creative (proactive) as opposed to reactive viewpoint.

CONCLUSIONS

The human response to traumatic stress is one of the most important public health issues in modern medicine and psychiatry. Traumatic stressful events and the subsequent way how individuals and groups deal with them, play a crucial role in the development of not only PTSD but also of many, if not all other mental and somatic disorders. PTSD is truly a highly distressing and debilitating medical disorder, but it is much more than that. PTSD comprises a complex set of multi-dimensional domains, so it seems improbable that any single perspective will be sufficient to provide a comprehensive understanding and treatment of this disorder. Future research should bring with itself new scientific paradigms and perspectives in psychopathology with new diagnostic phenotypes and refining the old ones. This paper suggests the seven perspectives model of PTSD that is broadly defined in complementary terms and concepts and overlapping, but distinct constructs. This model provides an transdisciplinary integration of different perspectives and various treatment modalities from psychopharmacotherapy to well-being therapy in order to decrease illness and increase wellness through traumatic experience and PTSD.

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