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Review

MEANING AND THE SENSE OF MEANING IN LIFE FROM A HEALTH PERSPECTIVE

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SUMMARY

A personalized and holistic approach to therapy is increasingly demanding answers to questions related to the meaning of life. Over the years, research has shown a direct link between the presence of meaning in life, health and recovery. It becomes impossible to ignore this connection as well as the issues of spirituality and religiosity that are immersed in the meaning of life. The article presents different definitions of meaning, the relationship of meaning in life and parts of meaning to quality of life, allostasis, stress, pathological conditions and recovery, and finally connecting the points between creative psychopharmacotherapy and meaning. A complementary approach to the meaning of life implies a desire for a clear, reliable understanding of three related but different dimensions: continuity (as opposed to fragmentation), purpose (as opposed to pointlessness), and value (as opposed to worthlessness). Creating personal meaning in life structures can provide a context for understanding and integrating stressful situations. Finding meaning means connecting, meaning are the expected connections and associations that human beings see in their world. In this aspect, the construction of meaning is a dimension that we impose on the world. Each person's ability is to decide what makes their life meaningful. The meaning of life is a changing cognitive-emotional framework, directly accessible to subjective assessment based on one's own needs and values. The art of living is to discover in though and painful life situations their true meaning, values and meaning of life, and thus health and disease. Creative psychopharmacotherapy can be used to help patients discover and explore the sensation of meaning, create a new meaning in life, a new life story, manifest their potential through recovery. Mental disorders present a chance to break with misplaced life goals and values and turn to authentic values through new forms of thinking, experiencing, behaving, and creating a successful life.

Key words: *creative psychopharmacotherapy – meaning - personalized medicine - values*

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INTRODUCTION

"In the end, one should not ask what the meaning of his life is, but must acknowledge that he is the one being asked."
Viktor Frankl

Meaning in life can be defined as a person's ability to understand his/her life circumstances, recognition of their motivation and life-organizing goals, and their sense that life is worthwhile (Martela & Steger 2016). "We are doomed to make sense of [Nous sommes condamnés au sens]." In these words Merleau-Ponty (1995) illustrates that as human beings we cannot choose to pursue meaning, this is inevitable (Dahlberg & Dahlberg 2019). It is part of our existence, how we relate and connect with the world around us and others. Meaning in life is something we have already understood, but also something that is constantly evolving. Our existence can be understood as a place between what is already understood and understanding again (Dahlberg & Dahlberg 2019).

All humans are beings of potential and transformation. At the same time we are something, but we are constantly evolving, that is the place where our potential lies and where meaning is being created. However, to become something, we simultaneously narrow the field of potential by choosing our choices. To navigate through life, our mind is constantly wandering from present to past and future to direct us in moving through space around us. The pursuit of meaning in life confronts the individual with abstract ideas about the connections between experiences and identity over time (continuity), the goals that life serves (purpose), and its value. The perceived meaning in life positively predicts the parameters of health and social functioning (Steger et al. 2006). In contrast, the perception that life is meaningless is associated with poor functioning and even pathological conditions (Schnell 2009).

A complementary approach to the meaning of life implies a desire for a clear, reliable understanding of three related but different dimensions: continuity (versus fragmentation) is the degree to which separate parts of life - personal history, current actions and predicted future - are perceived as a coherent, temporally unified whole, purpose (as opposed to non-purpose) is the degree to which everyday experiences are perceived as having a purposeful end towards which the individual progresses and value (versus worthlessness) is the degree to which an individual feels that life has valued qualities (Landau 2018).

The purpose of this narrative review article is to illustrate the relation of meaning in life and quality of life, allostasis, stress, pathological conditions and recovery. This article is used to shed light on the way to a conclusion to connect the dots between creative psycopharmacotherapy and meaning in life.

UNDERSTANDING THE EXPRESSION "MEANING IN LIFE"

At a fundamental level, meaning is essentially the formation of mental representations of the world that aim to identify possible relationships between different phenomena (Martela & Steger 2016). Finding meaning means connecting, meaning is the expected connections and associations that human beings see in their world. In this aspect, the construction of meaning is the dimension we impose on the world (Baumeister & Vohs 2002).

In other words, our ways of seeing and understanding the world are largely determined by the frameworks of meaning we have acquired socially and culturally. These frames of meaning are “complex networks of propositions that we hold when interpreting the world as it is and as it will be” (George & Park 2016). These frames of meaning - also called systems of meaning - are the cognitive tools we use to navigate and function on a daily basis. They help us understand our current experience, give us guidance on what goals to pursue, and guide us to what is valuable and important in life and in the world (George & Park 2016).

These frames of meaning come mainly from two sources: they are partly derived from generalizations we create from our own past experiences, but at the same time are heavily influenced by our society, culture and upbringing from which we derive much of our vocabulary, values and ways of understanding the world (Martela & Pessi 2018).

Values as part of meaning

Values can be defined as "implicit or explicit principles that orient an individual's action." Capacity to establish value implies that people are able to form psychological functions without the need for direct conditioning processes. Values differ from goals, which represent achievable outcomes. Unlike goals, values cannot be completed or achieved in absolute terms (Huguelet et al. 2016).

Values foster a sense of meaning, if altruism is important to someone, organizing one's life in accordance with this value can help create a sense of meaning. In contrast, living in a society where human rights have been neglected can affect individuals for whom this value of altruism is important. This principle can be applied to patients with severe mental disorders and whose values are declining due to the psychological and social effects of their disorder. A study of Huguelet et al. (2016) found that values of patients suffering from chronic psychiatric disorders significantly mediate the association between their symptoms (hopelessness, depression and selfesteem), social parameters (number of important relationships, importance of religion/ spirituality) and their meaning in life.

The presence of meaning and the search for meaning

A study conducted by Steger et al. (2006) illustrates meaning in life in two main dimensions: the presence of meaning and the search for meaning. The presence of meaning predisposes people to experience their lives as coherent and valuable, and to feel a sense of purpose or mission in their daily pursuits. The pursuit of meaning represents the dynamic and active efforts that individuals activate as they seek to understand the meaning, value and purpose of their lives.

Studies have shown that the presence of high levels of meaning in life is associated with life satisfaction (Steger et al. 2006, Ho et al. 2010) and positive affect (McMahan & Renken 2011, Howell et al. 2013), whereas low presence of meaning in life was closely linked to psychological problems (Ho et al. 2010) and negative affect (McMahan & Renken 2011).

Empirical and theoretical work on the meaning of life has provided strong evidence for maintaining the difference between the presence of meaning and the search for meaning (Steger et al. 2006). In adults, the presence of meaning is associated with desirable psychological outcomes such as life satisfaction, whereas the report of the presence of a pursuit for meaning without the presence of meaning in life is often associated with undesirable psychological factors such as depression (Steger et al. 2006). The pursuit of meaning is positively associated with greater life satisfaction, more happiness, and less depression among those who have already made a significant amount of meaning in their lives (Park et al. 2010).

Having a sense and purpose in life seems crucial to wellbeing, both from a hedonistic and eudaimonic perspective. Research on adolescents shows that the search for meaning can be conducive to exploring identity in developmental crises, which are a normal, healthy part of maturation (Steger et al. 2009). The presence of meaning in life is positively associated with psychological and academic adaptation (Kiang & Fuligni 2010) and is a protective factor against behaviors involving health risk and poor psychological health among adolescents (Brassai et al. 2011).

Cancer patients with greater sense of meaning in life report better quality of life, higher wellbeing, and lower levels of depressive symptoms and fatigue (Yanez et al. 2009). In a sample of individuals living with a spinal injury, the presence of meaning in life was associated with higher psychological well-being (DeRoon-Cassini et al. 2009).

MEANING IN LIFE AND DEPRESSION

Negative beliefs related to self, world, and future, known as negative cognitive triad, are associated with a predisposition to depression in adults and adolescents, which indicates the importance of a person's personal

beliefs about their lives (Dulaney et al. 2018). Reduced symptomatology in people reporting meaning in life is evident in a variety of patient groups, including clinically depressed persons (Thakur & Basu 2010).

Interventions to increase meaning in life have repeatedly been shown to reduce depression (Bohlmeijer et al. 2003, Roh & Chen 2013, Hsieh & Wang 2003, Dulaney et al. 2018). The presence of more meaning in life predicts lower symptoms of depression. Meaning in life moderates the link between stress exposure and depressive symptoms: stress exposure was more associated with depression when the presence of meaning in life was low, when meaning in life was high, there was no association between stress and depression (Dulaney et al. 2018).

Meaning and purpose in life and allostasis

Allostatic load is a term that refers to the cumulative multi-faceted physiological load that the body experiences as a result of attempting continuous adaptation to environmental challenges through allostasis. Allostasis refers to the physiological changes which occur on the cardiovascular, autonomic, neuroendocrine, immune and metabolic systems that are simultaneously involved. Frequent, prolonged or inadequate cycles of allostasis lead to a state of biological "fragility", known as allostatic load, that is positively associated with a higher risk of disease, cognitive deterioration and mortality (Zilioli et al. 2016).

Living with purpose as a part of meaning in life is associated with better mental and physical health, including longevity. Evidence implies that this association can be explained by the relationship between life purpose and regulation of the physiological systems involved in stress response. A higher sense of life purpose predicts lower levels of allostatic loading at follow-up over a 10-year period (Zilioli et al. 2016).

A sense of purpose in life is associated with a reduction in the mortality of older adults and young adults across cultures. Epidemiological studies have linked life purpose to a lower incidence of certain diseases, improved cognitive aging, and better mental health (Zilioli et al. 2016).

The biological intermediates of these relationships can be traced to the interwoven network of physiological regulatory systems responsible for coordinating allostasis. People who report greater sense of life purpose have lower levels of chronic inflammation, including lower levels of circulating interleukin-6 (IL-6) and soluble IL-6 receptor, greater sense of purpose in life is associated with healthier endocrine profiles, cardiovascular indicators, and restorative sleep (Zilioli et al. 2016).

Meaning in life and trauma

An inevitable existential part of our lives, as well as part of the meaning of existence that imposes itself on us, is survival. Much of the meaning of life is taken by this reality factor. Looking back at the events 200 years back, human destructive nature is clearly revealed. Many survive stressful and traumatic experiences (accident, natural disaster, murder, divorce) that lead to serious post-traumatic symptoms. However, many people are able to understand and interpret their personal experience in an individual way. Such cognitive coping and confrontation mechanisms are often referred to as meaning-making mechanisms (Park 2010), also playing a crucial role in adapting to such experiences. Making sense has been central to recovering from stressful experiences such as sadness, illness, and terrorist attacks (Kernan & Lepore 2009), reducing post-traumatic symptoms, and creating positive change after a traumatic experience (Updegraff et al. 2008).

A study that examined the relationship between the presence of meaning in life and purpose and the effect of stressors on an individual on a daily basis provides interesting data. Sense of purpose was associated with greater daily positive affect, lower daily negative affect, and lower daily reporting of somatic symptoms, daily stress at the individual level did not show major changes in frequency and intensity regardless of the presence of purpose (Hill et al. 2018). Sense of purpose is associated with lower levels of perceived stress, decreased reactivity and secretion of cortisol. The greatest benefit of having meaning and purpose in life is reflected in shaping the perception of stress, individuals with a purpose in life have the perception that they can find more solutions to life's problems and obstacles (Hill et al. 2018).

In addition to the association of meaning in life with improved well-being and resistance to depression, it is also directly linked to a reduction in the effect of stressors. The presence of meaning in life predicts the reduction of symptoms of posttraumatic stress disorder in adults (Owens et al. 2009), the detection of meaning in life after trauma and war events predicts a reduction in PTSD symptomatology (Updegraff et al. 2008). Interventions to enhance meaning in life have been shown to reduce PTSD symptoms and help the patient to live with the symptoms. Meaning-based interventions, focused on addressing religious and spirituality ambivalences and encouraging meaning-making in a religious and spirituality context, have been successfully applied in the treatment of combat-related PTSD in survivors of military trauma (Harris et al. 2011, Hasanović et al. 2011, 2021, Hasanović 2021). A higher index of religious moral beliefs in war veterans enables better control distress, providing better mental health stability. It enables post traumatic conflicts typical for combatants' survivors to be more easily overcome. It also causes healthier reactions to external stimuli. A higher index of religious moral beliefs of war veterans provides a healthier and more efficient mechanism of tobacco and alcohol misuse control. In this way, it

helps overcoming postwar psychosocial problems and socialization of the personality, leading to the improvement in mental health (Hasanović et al. 2011, 2017, Hasanović & Pajević 2010, 2013, 2015, 2017, Pajević et al. 2005, 2017). As a cognitive-emotional network and a changing framework, meaning can be used as a stress reliever, since much of the threat caused by stress is reflected in its importance to the cognitive matrices of the self (Dulaeny et al. 2018).

THE MEANING OF LIFE AND CREATIVE PSYCHOPHARMACOTHERAPY

The goals of creative psychopharmacotherapy are to help the patient to: 1. reset self-identity, self-esteem, self-boundaries, hedonistic capacities, and mental agility; 2. to modify risk traits of temperament and character, 3. to modify stress responses and strengthen resilience; 4. to normalize physiological functions (sleep, appetite and food intake, sexual functions); 5. to improve the control of impulses and behavior; 6. modifies lifestyle; 7. enhance the functions of a healthy self (Jakovljevic 2016). The clinical complexity of mental disorders requires assessment, understanding, and formulation through seven perspectives if a reliable diagnostic model as well as effective and comprehensive therapy is to be obtained. Different perspectives do not exclude each other, but complement each other in creating a holistic diagnostic and therapeutic model. At different stages of treatment, one perspective is usually primary, the others are secondary, but they are also important. The cognitive-axiological perspective argues that mental suffering, dysfunction, and mental disorders are closely related to a person's cognitive style and the values he or she pursues in order to achieve his or her life goals. According to the cognitive-axiological model of mental disorders, the adoption of wrong values and the accumulation of negative emotions over time melts the true joy of living and forms a contradiction with life, which is a mental disorder (Jakovljevic 2016). Through cognitive therapy, the patient can practice positive and creative thinking and see him/herself, others, the world and life in a healthier way. Closely related to this process is the creation of meaning from past events as well as the projection of potential futures.

People are by nature focused on constructing, telling and listening to stories. The story provides a natural framework for gathering very different information about how we live and what we do, and what the meaning of it all is, including illness. We also give meaning to our lives and the world through the stories we tell ourselves and to each other and thus determine our experiences, actions and destiny. An important role in the development of mental disorders is played by the disorder of the narrative self in terms of its pessimization, anhedonization and alienation, due to which patients are unable to recognize their life mission and realize their potential. Life constantly supplies us with information and messages on the basis of which we learn the art of living (Jakovljevic 2016). At the core of the art of living is the interpersonal cognitive matrices of the self wich constantly create meaning from the information that arrives and manage behavior toward values and created meaning. When we disregard important life information and facts, the message becomes a life lesson. Through successfully learned or mastered life lessons, psychosocial growth and development takes place, as well as the shaping of our personality. Changing the narrative of the disease through which the patient explains the causes, origin and outcome of his disease plays an important role in achieving personal recovery. We usually distinguish three narratives of disease. The narrative of restitution presupposes that the disease should be cured or overcome so that the patient is again the old one, the same as before the disease (recurrence of episodes of the disease). The narrative of chaos contains the belief that the disease incapacitates and destroys the patient and recovery is impossible (chronicity of the disease, therapeutic resistance). The narrative of seeking is manifested by the patient's aspiration and search for a deeper meaning and belief that every evil is for some good, and that a better and stronger (personal recovery) can come out of the disease (Jakovljevic 2016). According to narrative theory, mental health reflects a person's narrative self, that is, a person's ability to create a coherent, meaningful, self-actualizing story of their life. Narrative self gives meaning to our lives and the world through the stories we tell about ourselves and others shaping our personal and cultural identity and the way we live. The life story is an internalized and evolving self narrative that includes a reconstructed past, a perceived present, and an anticipated future with the goal of creating our sense of unity and purpose. In addition to the narrative of the disease, the therapeutic narrative is also important, which is included in the explanations of how psychoactive drugs work as well as in all decisions about their use during the therapeutic journey (Jakovljević 2016).

The transcendental/spiritual perspective refers to the spiritual dimension, that is, to what a person could be and become if he/she follows certain spiritual values. It is associated with the transcendental abilities of the brain. It can be said that the notion of spirituality includes three important components or concepts, namely: 1. focus on the spiritual dimension, God or a higher power, 2. the question of the meaning of existence and purpose of life, and 3. the ability to self-transcendence. Spirituality refers to the search for meaning, values, laws, meaning of existence and purpose of life, and thus health and disease, including questions about the natural and supernatural, as well as the possibility of transcendence of the current situation or disease. The art of living is to discover in true and painful life

situations their true meaning, values and meaning of life, and thus health and disease. The purpose of all the ugly things that have happened to us is to make something better later in our future. The good that comes from all the bad things that happen to us is that it helps us get the best part out of ourselves, our essence (Jakovljević 2016, Pajević, et al. 2005, 2017, Hasanović et al. 2011, 2017, Hasanović & Pajević 2013, 2015, 2017).

The system perspective is based on the theory of systems, and refers to the fact that man consists of different systems and that he belongs and exists in different systems. Biological, psychological, social, and spiritual systems interact with each other, so that changes or disturbances in one system are reflected in all other systems with which they are associated. Therefore, it can be said that mental disorders and disorders of the brain and neuroplasticity, but also a specific way of life in the world are associated with a specific value system, life philosophy and tragic/destructive sense of life. In each system there are different types of feedback processes, and these are reinforcing, amplifying and balancing processes. Thanks to feedback gain, small changes can have major consequences, improvement or worsening. Mental disorders often represent a negative vicious circle (circulus viciousus) or vicious circle system, while successful treatment involves creating a positive circle (circulus virtuosus) that forms resilience, new balance and stability of the system and growth and development potentials (Jakovljević 2016, 2021).

The purpose of the sense of meaning in life

The sense of meaning is not a rational phenomenon, it is more like a mystical experience. If we say that Beethoven's Fifth Symphony doesn't make sense because it will end, we have completely missed the point. The point is in the sensation, the instinct of meaning, which enables us while listening to it, providing us with an experience of metaphysical reality, the harmony of order and chaos. Victor Frankl's theory is existential in nature and postulates that meaning-making is the primary force of human motivation (Montross et al. 2016).

Why do we need to do meaningfull things? Because, life is suffering and malevolence, we are going to be tested that is for sure, life will take you out, make no mistake about it. If a person has a sustaining meaning they have a better chance to overcome the situation and gain personal growth. Nitzsche said "He who has a why can beare any how". The oposite is life without meaning, life that makes no sens when compared to the suffering of the individual. Meaning and the sens of meaning is not optional, it is a deep instinct that can be used to guide individuals from darkness to light. The sens of meaning can be found in small things that surround us. If we feel that something is meaningfull we need to do it, even if we do it bad, we will learn from our mistakes. If pain and suffering are fundamental realities, can we say that the sensation of meaning is real, at least as a metaphysical location. Can we use the sensation of meaning as an instinct that will allow us to navigate through life in time and space and help us manifest our full potential. Can meaning and the sense of meaning in life provide us with the nobility we need to cope with life circumstances?

CONCLUSIONS

Making personal sense (creating meaning) in life structures can provide a context for understanding and integrating stressful situations. Meaning in life is linked with better mental and physical health. It is the ability of each person to decide what makes their life meaningful. Thus, meaning in life is a changing cognitive-emotional framework, directly accessible to subjective evaluation based on one's own needs and values.

It is only a matter of time before our lives will be confronted with the death or illness of someone we love or ourselves, or with difficult and challenging life circumstances. This is the time when we ask ourselves what is the meaning of this experience. That question is there all the, even if are not aware of that. When you look at an individual who has been able to find meaning and purpose in life, his/her power far outweighs the small pleasures motivated by instant gratification that demonstrates the phenomenon of hedonistic adaptation. A principle that becomes more powerful by finding meaning in life that is sufficiently involved, immersed in life, that it may counteract the inevitability of death and human vulnerability. Accept the burdensom condition of suffering voluntarily and you are transcended.

When you are not blinded by your impulsive, short-lived pleasures motivated nature and sometimes tendency to evil, you become a reasonably moral person. At that place, a mature character begins to develop, whose meaning of life for optimal functioning should coincide with the meaning of life of the primary family and then the secondary and wider community. When people have personal control over their lives and can predict what will happen, they are predisposed to perceive a greater sense of meaning. Civil engagement is considered to be potentially meaningful behavior. In this way, a game is formed in which the individual follows certain moral rules and principles but also participates in their formation. So that the individual is flexible and the functionality of the system itself, ie the sustainability of the game, depends on the responsibility and moral capacity of the individual.

Creative psychopharmacotherapy can be used to help patients discover and explore the sens of meaning. Help them create fulfilled meaningful life and manifest their full potential. Mental disorders present a chance to break with misplaced life goals and values and turn to authentic values through new forms of thinking, experiencing, behaving, and creating a successful life.

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Aron Mulahalilović: conception and design of the manuscript, collecting data and literature searches, analyses and interpretation of literature, manuscript preparation and writing the paper; and gave final approval of the version to be submitted.

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