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CONTENT

1. THEORETICAL INTRODUCTION

"In order to burn out, a person needs to have been on fire at one time."

— Ayala Pines

1.1. Burnout syndrome

Freudenberger (1974) in his paper called "Staff burnout" described the symptoms of burnout for the first time. Before him, the term was used in Graham Greene novel "Burnt-out case" from 1960. Freudenberger observed volunteers for aid organizations and noticed that these people after only few months of initial enthusiasm became "burned out" (Freudenberger, 1974; Freudenberger & North, 1992; Schaap & Kladler, 1993; Karazman, 1994). Burnout syndrome was later defined by Maslach and Jackson as a set of three symptoms: 1) *emotional exhaustion*, 2) *depersonalization and cynicism* and 3) feelings of *inefficiency or lack of accomplishment* (Maslach & Jackson, 1981; Maslach et al., 2001). This three-dimensional model has been widely accepted as a conceptual framework for burnout syndrome and WHO used it in its current definition of burnout in the latest version of International Classification of Diseases. What is advantageous about this model is positioning of stress experience of an individual into a social context and conceptualizing self and others (Maslach & Leiter, 2016). Sonneck (1994) expanded this definition of burnout syndrome and used the term "vital instability" to add other burnout symptoms like depression, dysphoria, excitability, inhibition, anxiety, restlessness, despair and irritability.

Danger of burnout syndrome in any profession is that a person can appear fully functioning at work, but emotionally drained, depersonalized and even suicidal (Längle, 2003). The people around them usually do not notice any problems for a very long time, because person with burnout very often feels guilty about their attitude and behavior and they have a tendency to hide their true feelings (Iacovides et al., 2003). People with burnout syndrome feel they are trapped in their situation, imprisoned and with a feeling they are not able to get out of it. They often feel like victims of the situation or given circumstances. Extreme stress work conditions can lead to life-threatening states. In Japan in 1978, there was a special term defined for an "overwork death" – it is called Karōshi. Karōshi is a sudden death resulting from unbearable states of exhaustion or starvation diet and caused by stroke (60% of victims) or heart attack (10%) (Li, 2016). Amongst common causes for the development of burnout syndrome we can usually find very demanding or frustrating job (very often in helping professions involving frequent contact with other human beings) and subsequent series of negative personal changes in attitude and behavior (Cherniss, 1980, 1989, 1990; Maslach et al., 2001).

The need for better diagnostic tools and strategies for prevention are even more urgent considering potential psychosocial and psychosomatic risk factors for professionals in healthcare, education, social work, management etc. Burnout can result in severe problems with both physical and mental health and it can lead to depression or addictive disorders. Stressful situations may also affect

physiological processes and thus burnout syndrome may lead to metabolic disturbances (Esch & Stefano, 2011; Stefano et al., 2012; Ptacek et al., 2013). If a person with burnout has also symptoms of depression, drug dependency and/or despair, it can become a very dangerous state with suicidal tendencies (Längle, 2003). However, the recognition of burnout syndrome on international level is still problematic (Lastovkova et al., 2018). Burnout's unclear status also limits the possibility of disability claims and access to treatment options therefore the need of more precise and objective assessment has become critical (Maslach & Leiter, 2016; Chirico, 2016, 2017). WHO in its 11th version of ICD defined burnout syndrome according to original Maslach's definition, but narrowed it down specifically to the occupational context with a recommendation it should not be applied to describe similar experiences in other areas of life. However, DSM should provide more precise criteria in the future so it will be possible to diagnose burnout as an occupational disease (Chirico, 2017).

1.1.1. Ethiopathogenesis of burnout syndrome

Burnout is usually occurring in the context of work and/or demanding social relationships. Burnout was defined in the ICD-11 (released in June, 2018) according to the primary Maslach's concepts as a syndrome of 3 dimension: 1) feelings of energy depletion or exhaustion; 2) increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and 3) reduced professional efficacy. However, because of the diagnostic unclarity of burnout syndrome amongst mental health researchers (Chirico, 2017), burnout is often explained and associated with existing diagnostic categories like stress-related disorders or a specific type of depression. Some authors even suggest that we should redefine burnout to job-related depression and thus be better able to detect unhealthy states at the workplace with an available disease category (Bianchi et al., 2017). In addition, cultural tendencies for avoiding stigma from mental disease might be present and the term burnout can be used as a socially more acceptable description for depressive episodes (Bahlmann et al., 2013). However, reductionism of burnout syndrome to specific and individual reaction to stress or work overload seems to be misleading. It is important to recognize that one of the differentiating quality of burnout is a crisis of meaning and values and therefore it would be incorrect to focus on just exhaustion and its connection to work overload or stress (Maslach & Leiter, 2016).

In addition, there is an ongoing discussion who can be affected by this syndrome. Originally, this syndrome was detected mainly amongst professionals in healthcare. Later it was extended to other social work positions. Several authors, however, suggest that burnout is not restricted only to healthcare and social work. Pines and Aronson (1988) regard burnout as a symptom that can be seen in any professional or even non-professional work. Also, some jobs nowadays require very high level of customer service and burnout has become relevant for occupations which require intense level of

personal, emotional contact with other people (Maslach & Leiter, 1997). Recent studies amongst various working groups and in various countries have suggested that each person regardless of age or profession (and nor restricted to helping professions) can be affected by burnout syndrome, especially social professions with high emotional load ie. teachers, pastors, trainers, physicians, palliate care specialists, lawyers, managers, policemen, but also women on maternity leave or even unemployed people (Leiter & Schaufeli, 1996; Bakker et al., 2002; Längle, 2003; Richardsen & Martinussen, 2005; Längle & Künz, 2016).

According to Maslach and Jackson (1981) symptoms of burnout syndrome can be grouped into three main categories: 1) *emotional exhaustion*, in which demanding work involves experiencing difficult emotions that consumes person's energy. There might be also symptoms of chronic fatigue (even at the thought of work), sleep disturbance, sleep disorders, diffused physical symptomatology, with susceptibility to illness; 2) *depersonalization and cynicism*, in which people "protect" themselves by disengaging from the relationships and difficult emotions related to work. This might involve signs of dehumanization with negative, cynical attitudes towards colleagues, clients or patients, negative feelings towards the people who seek aid, feelings of guilt, retreat, avoiding behavior and reduction of work, automatic and routine-like "functioning"; 3) feelings of *inefficiency or incompetence*, in which people are no longer consider themselves as able to achieve or accomplish something with reduced efficiency and discontent with achievement: subjective feelings of failure and incompetency, lack of recognition, predominant feelings of insufficiency and permanent overload."

There seems to be a consensus amongst researchers that we can define certain distinctive clusters of causes for explaining symptomatology of burnout syndrome. According to Längle & Künz (2016) there are 3 clusters of burnout causes. First one is individual psychological explanation describing psychological and personality risk factors like perfectionism, idealism, narcissism, goal-orientation, depressive tendencies. Second cluster is social psychological explanation emphasizing experiences like bullying, suppression, mobbing or very demanding, difficult work or service (trauma units at hospitals, firemen, managerial positions etc.). And third one being organizational framework with situational circumstances like conflict of roles, no or little feedback, dysfunctional teamwork, too little autonomy at work, too high expectations but too little information or quantity of work is being simply too much. Combination of high ambitions and high efforts over a long period of time, low satisfaction from work (poor outcomes) and conditions at work that induces stress seems to be causing burnout with high probability (Iacovides et al., 2003).

Demerouti et al. (2001) also found that factors like low job security, lack of feedback, lack of resources and high job demands have a potential to lead to two main components of burnout – exhaustion and disengagement. Other research results indicate that frequent causes of burnout amongst teachers are circumstances like

high expectations from own performance, too heavy workload, unclear job roles, inadequate reward, decreased autonomy and demanding tasks (Tomic & Tomic, 2008). On the contrary, best predictor to describe good working environment is subjectively perceived autonomy and open and supportive communication. For some burnout researchers, the opposite of burnout has been identified as work engagement (Maslach & Leiter, 1997, 2016; Leiter & Shaufeli, 1996). In this context, engagement can be measured as opposite scores on the 3 scales of MBI questionnaire (Maslach & Leiter, 2016).

1.1.2. Burnout phases

Research results have suggested that burnout is not a sudden phenomenon but it rather needs considerable time to develop into a syndrome. It also need several, relatively distinct phases to progress over the course of long period of time. The number of stages and its exact order is still under debate and there is no agreed, unified process for the development of burnout syndrome (Burisch, 2006; Korunka et al., 2010). Most researchers have agreed that development of burnout begins with the incongruity between expectations or idealized visions of an individual on one side and on the other side "profane", everyday reality of a stressful, difficult job and tough organizational conditions or demanding relationships (Schaufeli & Buunk, 2003).

Freudenberger and North (1992, 122-156) have divided the process of development of burnout syndrome into 12 phases. These phases are outlined below:

1. The Compulsion to Prove Oneself; demonstrating self-worth obsessively; showing enthusiasm; accepting responsibility easily.
2. Working Harder; reinforced efforts; an inability to switch off and relax from work.
3. Neglecting Their Needs; problems with sleep; eating disorders; lower level of social interaction.
4. Displacement of Conflicts; problems are repressed; feelings of threat, panic and nervousness.
5. Revision of Values; values are reinterpreted; friends and family neglected; hobbies seem irrelevant; work is only focus.
6. Denial of Emerging Problems; intolerance; perceiving collaborators as stupid, lazy, demanding, or undisciplined; social contacts harder; signs of cynicism, aggression; problems are viewed as caused by time pressure and work, not because of life changes.
7. Withdrawal; social life very small or non-existent; need to feel relief from stress; abuse of alcohol/drugs.
8. Odd Behavioral Changes; visible changes in behavior; friends and family concerned.
9. Depersonalization; seeing neither self nor others as valuable; not being able to perceive own needs.

10. Inner Emptiness; feeling empty inside and to overcome this, look for activity such as overeating, sex, alcohol, or drugs; activities are often exaggerated.
11. Depression; feeling lost and unsure, exhausted; future feels bleak and dark.
12. Burnout itself; can include total mental and physical collapse; time for full medical attention.

Maslach et al. (2001) reframed these stages and simplified them into four phases, phase 4 being considered as heavy disorder:

1. *Idealism and overload:* trying to "prove" something to oneself or others, neglecting personal needs
2. *Emotional and physical exhaustion:* repression of needs, change of values, repression of conflicts
3. *Dehumanization as a protection*: unhappiness, discontent with oneself is dominating, personal connection is withdrawn
4. *Terminal phase:* syndrome of unwillingness and loathing syndrome, disgust against oneself, others, work, finally against everything and finally breakdown (professional resignation, illness, suicidality).

Other models of burnout development including distinctive phases were described for example by Cherniss and Cherniss (1980), Edelwich and Brodsky (1980) or by Golembiewski et al. (1983). All of the mentioned models of burnout development are based on the widely agreed premise that burnout needs development over time and it does not happen instantly. It is usually a slow process that may take years, rather than months. What is so dangerous about burnout development are these subtle, almost unrecognizable changes in the emotions, attitudes and behavior of an afflicted person. All of a sudden, a person feels very exhausted and they are not able to associate their state with a single devastating event. They might be also denying any problems, repressing their symptoms and this psychological attrition can go on for years without noticing by themselves and people around and without naming it burnout syndrome (Etzion, 1987; Schaufeli & Buunk, 2003).

There is a number of different versions of stage order considered, while there is a common agreement that burnout development involves relatively separate and characteristic phases (Schaufeli & Buunk, 2003; Korunka et al., 2010). In addition, this process approach to burnout syndrome suggests in almost every case that the individual's ability to cope with stress largely defines the course of burnout. However, the understanding of the precise development of burnout and how many stages are included are still not unified and more research into the exact definition of burnout and its development is needed (Schaufeli & Buunk, 2003; Burisch, 2006; Korczak, 2010).

1.1.3. Measurement of burnout syndrome

According to some authors, researchers have reached consensus how to measure burnout (Tomic & Tomic, 2008) and they consider Maslach Burnout Inventory (MBI) as a common standard and widely used and accepted instrument, while others argue that theoretical concept of burnout syndrome is still not clear (Kristensen et al., 2005) and we must consider or invent some other or new tools for measurement of burnout than MBI (Bianchi et al., 2015). Numerous other instruments have been invented over the last decades – Burnout Measure (BM), Shirom-Melamed Burnout Inventory (SMBM), Oldenburg Burnout Inventory (OLBI) or Copenhagen Burnout Inventory (CBI). For example, in a systematic literature search from 2015 about research comparing burnout and depression it was found that MBI was used in 78%, SMBM in 14%, BM in 6% and OLBI in 2% of the studies (Bianchi et al., 2015). However, a lot of symptoms of burnout are measured through self-reporting scales (rather than researching directly other features of behaviour or health conditions associated with burnout) which represents another critical constraint for measurement (Maslach & Leiter, 2016).

Maslach Burnout Inventory (MBI)

Maslach Burnout Inventory (MBI) was first published in 1981 by Maslach and Jackson and revised in 1986 (Maslach & Jackson, 1981, 1986). 22 questions of this measurement tool are focused on 3 main components of burnout syndrome (9 items for emotional exhaustion, 5 items for depersonalization and 8 items for personal accomplishment) and they can be assessed individually. Until 1998, the MBI was used in more than 90% of all empirical burnout studies in the world and MBI was seen as the dominating and almost the only measurement of burnout (Schaufeli & Enzmann, 1998).

Nowadays, there are in use three established versions of the MBI: MBI-HSS, MBI-ES and MBI-GS (Maslach et al., 2018):

MBI Human Services Survey (MBI-HSS)
The MBI-HSS is the first and most commonly utilized version of the MBI. It is designed for human services professionals working in a diverse range of jobs and professions, including physicians, nurses, health aides and counsellors, therapists, social workers, police, correctional officers, clergy, and other professionals in the areas focusing on providing people with guidance, prevention of violence, and solving physical, emotional or cognitive issues with the aim of enhancing other people's lives. The MBI-HSS items are in the same format and formulations as in the primary version from 1981.

MBI for Medical Personnel (MBI-HSS (MP))
For research of burnout among health care professionals, a more specific version of Maslach Burnout Inventory – the Human Services Survey for Medical Personnel [MBI-HSS (MP)] – is being used. This version has some slightly altered items. For example, the word "recipients" is replaced by the word "patients." The MBI-HSS(MP) was created because of the rising percentage of burnout among

physicians and the situation has been getting worse over the last years (Shanafelt et al., 2012, 2015). In addition, there is a higher risk for the patients when the physicians suffer from unrecognized and untreated burnout because several research studies have indicated that burnout contributes to the increasing number of errors in diagnosis as well as in drug prescription (Avery et al., 2012).

MBI Educators Survey (MBI-ES)
This questionnaire is intended to be used in educational settings and it is targeted at professions of teachers, school administrators, other members of staff and volunteers. Its former name was MBI-Form Ed and the items of this instrument are the same as in the version from 1986.

MBI General Survey (MBI-GS)
This more general version of MBI was created later in the 90's. The MBI-GS was based on the original MBI but the term "recipients" was removed from all questions and a few new questions were added. Thanks to deletion of the word "recipients" the MBI-GS exhaustion scale is more generic (Taris et al., 1999). Also, the three dimensions have been renamed – from emotional exhaustion to exhaustion, from depersonalization to cynicism, and from personal accomplishment to professional efficacy. Its intended use is for professions outside the sectors of human services and education. These occupational groups include jobs in customer service, manufacturing, maintenance, management, leadership and most other professions. The MBI-GS has the same items as in the first published version from 1996.

MBI General Survey for Students (MBI-GS(S))
This version is an adaptation of the MBI-GS and it should be used with college and university students for assessment of their levels burnout syndrome. The MBI-GS for Students – MBI-GS (S) is available and ready to be used, however it is still waiting for documentation of its psychometric parameters.

Burnout Measure (BM)

Second most commonly used measure of burnout is the questionnaire called Burnout Measure – BM (Pines et al., 1981; Pines & Aronson, 1988; Kristensen et al., 2005). Burnout Measure is a newer version of the questionnaires "The Tedium Scale" and "Tedium Measure" by Ayala Pines who created it together with Elliot Aronson (Pines et al., 1981). The instrument consists of 21 questions scored on a 7-point Likert scale from Never (1) to Always (7) (Malach-Pines, 2005). It was translated to several languages and it is being used in Germany, France, Netherlands and Spain. According to Pines and Aronson (1988), burnout syndrome is a final stadium of exhaustion process (attrition) through which highly motivated individuals lose their enthusiasm.

BM was created for use across a whole range of different occupations, including unemployed people. The authors have considered three main attributes of burnout – psychic (mental), physical

and emotional, yet this instrument is still a one-dimensional tool. It does not work with three factors, but only with a single final score. Burnout Measure has a positive correlation with the subsequent terminations of employment (r= .58). Although it is a one-dimension inventory with three subscales, it correlates well with emotional exhaustion scale from MBI (r= .70) and depersonalization (r= .50), not so well with personal achievement scale (r= .25) (Schaufeli et al., 1993).

To conclude this part about measurement of burnout syndrome, we can state that the MBI has taken the leading role in the research of burnout and has contributed significantly to this new research field and up to this day maintains its position as a main instrument for measuring burnout (Maslach et al., 2001; Schaufeli et al., 2009). Nevertheless, some researchers argue that MBI might be lacking sound theoretical grounding and thorough clinical observation and comparisons. According to them, MBI has been constructed through items that were chosen rather randomly and later on validated through statistic factor analysis (Schaufeli & Buunk, 2003; Shirom, 2005). In addition, some researchers are critical to additional new versions of the original MBI because they claim it is still not clear what exactly does the MBI instrument measure and how do new questionnaires contribute to definition of burnout in any novel way (Kristensen et al., 2005; Bianchi et al., 2015). In this context, to further elaborate on the rather vague conceptualization of burnout based on the original definition used in MBI may appear problematic especially when we try to compare burnout to other entities like depression or stress. It may be necessary to clearly distinguish burnout as a category for measurement by methodical clinical examinations and identify if there is a singularity with a need for new nosological entity (Schaufeli & Enzmann, 1998; Shirom & Melamed, 2006; Bianchi et al., 2015).

1.2. Differential diagnosis of burnout syndrome

This part will reflect a need for better understanding of burnout syndrome as a potentially widely established diagnostic category and will explore how to distinguish it from other related diseases like depression, stress-related disorders or personality disorders. Based on the recent findings, the potential risk of unrecognized and untreated burnout syndrome is very high on personal, professional and social levels (Loonstra et al., 2009; Esch & Stefano 2011; Stefano et al. 2012; Ptacek et al., 2013). Within this context, it is necessary to investigate this disease much more extensively and establish a diagnostic category including a standardized, internationally recognized and valid methods for the differential diagnostics, otherwise it will not make any sense to try and estimate the percentage of people who are in danger of or suffering from burnout (Shirom, 2005; Korczak et al., 2010; Bianchi et al., 2015, 2017).

Several studies have suggested relationships between burnout and some other personality traits like perfectionism or narcissistic tendencies (Maslach et al., 2001; Schwarzkopf et al., 2016). People with narcissistic personalities have usually unstable self-esteem, depending on the feedback from their social environment and the work context can provide this to a larger extent than in their private sphere. At work, they can receive a lot of praise and support for their "false self" since narcissistic people believe that their "true self" is not being appreciated and wanted by others. As a result, their level of engagement is usually very high and engagement is being considered as an exact opposite of burnout (Maslach & Leiter, 2016). In this context, it is not surprising that in recent research there was a positive correlation found between narcissism and the dimensions of burnout syndrome, especially in emotional exhaustion and depersonalization (Schwarzkopf et al., 2016).

Other studies confirmed that people with defensive coping reactions, an external locus of control, lower hardiness and elevated harm avoidance are more susceptible to burnout. Out of the Big Five personality dimensions neuroticism seems to be most related to burnout syndrome because neurotic people exhibit emotional instability and are more vulnerable to distress. Interestingly enough, personality types with a preference for feeling (according to Jung-ian typology) have a tendency to be easily burned-out than thinking types and they display more cynicism in their behavior (Maslach et al., 2001).

Burnout syndrome has been over the last decades associated with many other disorders and sometimes because of the social stigma connected to psychiatric diagnoses like depression, bipolar disorder or anxiety disorder the term burnout is being overused as a socially more acceptable construct. This misuse and overuse of the burnout label involves the danger of unrecognized depression or more serious psychiatric conditions that might continue to develop without proper treatment. On the other hand, people with burnout are usually not stigmatized and because of the need to reimburse them, depression is being used as a diagnosis instead of burnout,

which increases the impact of burnout at socio-economic levels. In addition, there is usually very little objective data (standard medical examinations and tests, observations by third parties etc.) involved in burnout diagnosis making burnout very difficult to accurately recognize and assess its development phase (Bahlmann et al., 2013; Korczak et al., 2010).

1.2.1. Burnout and depression

There is an ongoing debate what is the relation between burnout and depression. Whether burnout is an accelerating factor for depression or vice versa, or maybe if those two categories are the same thing, which would make burnout a mental illness (Maslach & Leiter, 2016). Empirical research has suggested that two constructs are indeed separate entities, the main differentiator being that burnout is job-related, while depression is more general and context-free. However, some empirical studies confirm that burnout and depression are not solely independent (Bianchi et al., 2013). It seems that depressive and burnout symptomatology share similar 'qualitative' characteristics, especially in the more severe forms and also in the final stages of burnout, and in individuals that are more vulnerable and have little satisfaction from their work (Iacovides et al., 2003). But we are still not able to say that burnout and depression are the same mental illness (Maslach & Leiter, 2016).

The relation between burnout syndrome and depression is high, some symptoms are the same – especially in the later stages of burnout (loss of motivation and energy, feeling of meaninglessness) – thus some researchers suggest burnout is a type of depression (Rösing, 2003; Bianchi et al., 2014). According to Bianchi et al. (2015) the current state of research is not able to clearly distinct burnout from depression, especially in the final stage of burnout process when the symptoms are very similar to clinical depression. The differences between the two entities are very subtle – theoretically speaking, depression should emerge after burnout, but it seems there might be circular causal relationship between the two symptoms and some people with depressive symptoms are more vulnerable to burnout. In addition, there are many different forms of depression and burnout should not be compared only to unspecified, generic depressive symptoms, but rather be investigated in relation to atypical forms of depression (Iacovides et al., 1999; Bianchi et al., 2013, 2014, 2015).

In today's world, when people tend to approach work with an exceptional commitment, lack of success might be considered as a sign of losing meaning in life and as such may result in condition resembling depression. People who are not so satisfied at work might exhibit similar symptoms as people with depression. Although, low satisfaction at work does not necessarily mean burnout (Iacovides et al., 2003). On the other hand, people diagnosed with depression do not have to suffer from symptoms of burnout. People can function relatively well at work despite the symptoms of moderate depression (Iacovides et al., 1999). At the same time, it is true

that depression tends to have an effect on all parts of life including work (Melchers et al., 2015). But we can theorize that these two disorders can exist in parallel with relatively different symptoms. According to Plieger et al. (2015) research has shown that burnout is limited to the work arena which applies to patients with depression as well as to healthy people.

Burnout syndrome might be linked to chronic depressive disorder as well as to emotional distress. In addition, as recent research results suggested it is very difficult to identify a personality trait that would be exclusively associated with either burnout or depression (Melchers et al., 2015). At the same time, there are studies indicating that for example neuroticism and extraversion are strongly related to both (Iacovides et al., 2003). This is supported by the findings that burnout and depression represent the same pathology and this overlap brings the question whether a new nosological category is in fact needed and if it has any added value (Bianchi et al., 2013).

As one of the key differentiators between depression and burnout the presence of helplessness was suggested. Helplessness exists in both instances but in burnout it is restrained to work-related environment, while during depression it effects almost all areas of patient's life. In this context, it seems people with burnout have a possibility to get away from helplessness to more private areas of life where they can feel stronger and more capable. This is usually not the case for depressive patients. Other main differentiators between burnout and depression involve the willingness to live in people with burnout in contrast to patients with depression (except the very last stage of burnout syndrome) and always present context to work or work activities (Iacovides et al., 2003; Längle, 2003; Jaggi, 2008; Orosz, 2017).

1.2.2. Burnout and stress

According to the newest definition presented in ICD-11 classification by WHO the burnout is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. Burnout has been often mistaken for stress, because stress is an integral part of burnout. There is no burnout syndrome without stress (Längle, 2003). Similarly, as with depression, stress and burnout have a lot of symptoms in common. Despite the fact that the symptoms may be quite similar, important distinctions should be made. Stress can intensify burnout, but job stress alone is not the main cause of burnout (Burisch, 2006; Chirico, 2016; Pines & Keinan, 2005). In addition, stress symptoms may be more physical rather than emotional. The opposite holds true for burnout. Stress usually leads to hyperactivity and produces feelings of urgency and hyperactivity. Burnout, on the other hand, produces feelings of hopelessness and helplessness. Emotions associated with stress are over-reactive, those associated with burnout are more blunted (Korunka et al., 2010).

Every burnout syndrome development case seems to start with experiencing significant amount of stress from work (Freudenberger & North, 1992; Iacovides et al., 2003; Längle, 2003; Maslach & Leiter, 2016). When we are having stress, we tend to overreact on the emotional level, but when we experience burnout, our emotions are usually weaker (Korunka et al., 2010). Work today brings along a lot of stress, it is not only a source of satisfaction or a certain socio-economic status. To control job environment is very difficult, that is why job stress is often higher than stress from personal life. If the work environment provides professionals with positive feedback, they can function at high productivity level over a long period of time without burnout. This is supported by some studies suggesting that job stress can only accelerate burnout evolution (Cherniss, 1989; Iacovides et al., 2013).

Some people identify themselves and their meaning of life with work so much, that failure at work can be experienced as a traumatic event and seeking success can become very stressful (Iacovides et al. 2003). Managing job stress can be harder than dealing with stressors arising from personal life, because to significantly change the job environment is usually not so easy. Findings from empirical studies indicate that level of stress is determined by the degree to which a person can control the situation. The less control over the events, the more stress that person experiences (Pearlin & Schooler, 1978). In addition, sometimes it is not necessary to experience high level of stress and low morale because of sudden, heavily stressful circumstances, but rather because of smaller stressful events that are occurring on a daily basis and repeatedly (Chamberlain & Zika, 1990; Schonfeld, 1990).

In relation to burnout, people usually find work conditions stressful and potentially leading to burnout, if they do not receive positive feedback, if they do not have enough power and resources to have a real impact, if there is a lack of autonomy and a lot of bureaucracy, if they experience low sense of job significance, role conflicts, lack of job security and high levels of emotional load (Malach-Pines, 2000; Iacovides et al., 2003). According to Chirico (2016) the most prominent methods created for the work-related stress measurement are based on the Cox's transactional model of job stress (Cox et al., 2000). While it can be problematic to differentiate between stress and burnout symptoms using current diagnostic tools especially in the initial stages of the burnout development, it should be possible to decide on prevention and treatment strategies that are fundamentally different for work related stress and for the real burnout syndrome, even despite the fact that burnout syndrome is very frequently studied within the framework of stress research (Iacovides et al., 2003). Research findings suggested that stressors from job are more correlated with work strain than with burnout syndrome while high perception of job significance is more correlated with burnout than with strain. In this context, it would make sense to prevent and treat burnout with a focus on increasing individual's sense of meaningful contribution and feelings of importance and significance at work (Pines & Keinan, 2005).

1.2.3. Burnout and splitting

According to some authors, burnout syndrome usually begins with feelings of enthusiasm and idealized visualizations in the afflicted individuals (Freudenberger & North, 1992; Längle, 2003; Pines, 1996). In the initial stages of burnout there is a tendency to overload and overcommitment, to have unrealistic expectations about one's capabilities, but at the same time to neglect personal needs, and experiencing the "all good", naïve enthusiasm towards the work at the beginning in contrast with disappointment and disillusionment later (Maslach & Leiter, 1997; Längle, 2003). This tendency to idealization and "black-and-white" perception is parallel to the concept of splitting described by Kernberg (1975) which is characterized by switching between contradictory perceptions towards the same object based on pleasurable-good-rewarding and painful-bad-punishing experiences. Based on these tendencies, experiencing of object's contradictory qualities ("all good" or "all bad") is linked to undifferentiated self-object representations (Kernberg, 1975; Gould et al. 1996; Bob & Pec, 2017).

Many professionals show very high degree of commitment to work in the current, economically-driven society. Also, they identify with their profession and organization so much that every mistake is being perceived as something potentially traumatic, to the point of almost losing meaning of life when they fail (Iacovides et al., 2003). In today's secularized world meaning of life is usually no longer provided by religion, but it is being replaced by work. And people try to use work as an alternative "source" for feelings of life fulfilment and being "significant" (Pines, 1996). Especially individuals with idealistic tendencies work hard in order to give more meaning to their existence. In the context of burnout syndrome, we observe people having a lot of (perhaps naïve) enthusiasm and idealism towards work at the beginning, which is in contrast with big disappointment and disillusionment later – "all good" or "all bad" attitude – similar with the concepts of splitting.

Until now there is no reported study assessing relationship between burnout syndrome and conflicting perceptual and emotional patterns related to "splitting". Splitting as an ego defense mechanism reflects shifts of mind related to a consciously experienced conflict of opposing mental forces (Kernberg, 1975; Gould et al. 1996). This fragmentation of conscious experience represented by unexpected shifts between idealization and devaluation of other persons, the self and other "objects" (ie. job, profession, clients etc.) is typically related to long-term or acute stressful experiences that might play an important role in etiopathogenesis of burnout syndrome. Splitting results in a cycle of love, idealization, disappointment and devaluation which resembles the development of burnout syndrome in relation to work and oneself. This cycle brings instability to life as in "all good" moments problems are diminished or overlooked and in "all bad" times problems seem unmanageable and feelings of desperation arise (Siegel, 2006).

1.2.4. Burnout and alexithymia

According to Maslach and Jackson (1981) depersonalization, detachment and cynism belong to the main characteristics of burnout syndrome. The propensity to depersonalization characterized by seeing neither self nor others as valuable and not being able to perceive own feelings and needs exists in parallel to the concept of alexithymia which was first described by Sifneos (1973). The construct of alexithymia represents very low capacity for identifying and verbalizing feelings and emotions and through which people "protect" themselves by disengaging from the relationships and difficult emotions manifesting emotional blindness and affective instability (Sifneos, 1973; Bagby et al., 1994; Taylor & Bagby, 2000; Sloan et al., 2017).

Recent research studies indicated that alexithymia is connected to number of diseases and psychopathological diagnoses (Grabe et al., 2004; Gleichgerrcht & Decety, 2013). People with difficulties to regulate disturbing emotions or to become aware and to express emotions are more likely to feel emotionally exhausted, detached and not having the feelings of personal achievement. These three elements resemble the definition of burnout coined by Maslach and Jackson (1981). In addition, some recent findings suggested that prevalence of alexithymia might be connected to burnout syndrome, especially to its emotional exhaustion component, but also to dissociation and depersonalization (Grabe et al., 2000; Mattila et al., 2007; Iorga et al., 2016).

Due to their inability to process and recognize emotions, alexithymics are often confronted with overwhelming and unexpected emotional sensations from which is very hard to make any meaningful conclusions. This leads to issues in interpersonal relationships that are experienced as stressful and demanding. In addition, people with alexithymia are lacking the ability to process emotions at mental representation level and thus they have difficulties to regulate emotions which make them vulnerable to wide range of psychological and somatic disorders (Grabe et al., 2004; Mattila et al., 2006). Because of the high prevalence of alexithymia, it is important to take these findings into account when assessing the mental health and the general health of different population groups. The recognition of alexithymia in health care is a source of specific and significant concern because without awareness of emotions it is very difficult, if not impossible, to engage in an authentic doctor – patient relationship which is important for accurate medical examination and for client attachment to a therapist. Within the context of burnout syndrome, being able to recognize one's emotions plays a key role in managing stressful work conditions, therefore specific clinical approaches may be needed in managing the health problems of people with strong alexithymic personality traits (Iorga et al., 2016).

The tendency to depersonalization characterized by seeing neither self nor others as valuable and not being able to perceive own

feelings and needs might play an important role in etiopathogenesis of burnout syndrome and for example according to Mattila et al. (2007) alexithymia could be a risk factor for burnout. These findings are in agreement with previous research reporting that burnout syndrome involves stages in which people detach from their emotions and feelings as a defense mechanism against stressful negative and overwhelming emotions and have decreased ability to experience their own feelings and emotional states. These emotional disturbances lead to emotional "blindness" which lies at the core of the concept of alexithymia (Sifneos, 1973; Maslach & Jackson, 1981; Freudenberger & North, 1992; Iorga et al., 2016).

1.3. Burnout within a framework of logotherapy

Recent findings suggest that logotherapy and the concepts of existential meaning and life fulfilment could provide novel and useful framework for explaining and potentially preventing burnout. The following section will summarize and reflect current knowledge concerning relation between burnout syndrome and existential vacuum as a potential correlate. In addition, it will address the fact that despite increasing number of recent articles about burnout syndrome, very few studies have explored connection of burnout with loss of meaning in one's work and life up to date. Recent empirical research indicate that burnout syndrome might be in fact a form of existential vacuum described by Frankl (1985) as part of his logotherapy with loss of both life fulfilment and existential meaning as crucial elements (Längle, 2003; Nindl et al., 2003; Tomic & Tomic, 2008).

Very few researchers go beyond established categories and conceptualization of burnout symptom and suggest other origins of burnout than prolonged stress or work overload. A promising approach is to explain burnout syndrome within a concept of logotherapy formulated by Frankl (1947, 1959, 1966, 1985). From the point of view of logotherapy, the burnout is an affliction generated by loss of existential meaning. Frankl suggested that existential meaning is fundamentally important to mental health and this finding led Frankl (1959) to the formulation of the concept existential vacuum. Frankl defined the term existential vacuum as a loss of life interests and a lack of initiative and proactiveness, which can lead to deep feelings of meaninglessness (Frankl, 1983). These two aspects of existential vacuum can be explained in more detail with the following description related to burnout (Längle, 2003):

1) Losing interest – nothing is interesting anymore, in burnout syndrome because of exhaustion and by being overstressed by problems which we do not have time to resolve
2) Lack of initiative – person is not motivated to do anything, growing apathy, nothing seems to have value, nothing is attractive, passive behaviour, feeling of helplessness.

Frankl defined in his anthropology three dimensions of human existence (Frankl, 1959) – physical sphere, mental sphere and noetic sphere. Symptoms of burnout can manifest on all three spheres (Längle, 2003; Ulrichová, 2012):

1. Physical sphere: physical weakness, sleeping disorders, susceptibility to diseases, reduced immunity, cardio-vascular diseases, muscular and nape tensions, etc.

2. Mental (psychological) sphere: emotional exhaustion, indifference, apathy, hopelessness, sadness, dysphoria, loss of optimism, loss of happiness, increase in irritability.

3. Noetic (spiritual) sphere: disrespect to self and to the world, lower self-esteem, retreat from relationships and connection with

the outer world, loss of spiritual orientation, doubts about value of life.

Burnout syndrome can be explained through this Frankl's model as a deficit primarily in the noetic sphere. There is a danger of feeling existentially frustrated, when people try to satisfy only their inner needs and drives (lust, power need etc.) and do not pay attention to noetic (spiritual) dimension. When living a life like that (only satisfying "psychodynamic" needs), one can develop symptoms of existential vacuum (Frankl, 1985). Two dominant symptoms of existential vacuum – feelings of emptiness (apathy) and meaninglessness (loss of interest) – are similar to later stages in the development of burnout syndrome (Längle, 2003). Burnout can be seen as a manifestation of an existential vacuum. However, the main difference to Frankl's explanation of existential vacuum is the absence of boredom and apathy in burnout syndrome. They are included in Frankl's definition of the existential vacuum, but they are merely consequence of other symptoms that are present in burnout people (Längle, 2003). In addition, people suffering from an existential vacuum seem to have highly developed two main characteristics of burnout – depersonalization and emotional exhaustion (Karazman, 1994).

1.3.1. Burnout and existential meaning

Origins of burnout syndrome can be better understood as a lack of existential meaning. A person achieves existential meaning through the feelings of inner fulfilment. Inner fulfilment gives a person the power and persistence to go through fatigue and exhaustion, especially when they also maintain feeling of freedom and high self-esteem (Längle, 1987). People with burnout syndrome experience a deficit of inner fulfilment, we might also say they seek in their lives things that are not truly fulfilling and in which they rather experience feelings of "I must have it" or "I must do it". From a perspective of logotherapy and existential analysis, people with burnout syndrome perform activities and they are engaged in tasks and duties towards in which they do not feel an existential meaning. They do not experience their personal fulfilment. Instead, they experience burnout which can be defined as a "disorder of well-being, caused by a deficit of fulfilment" (Längle, 2003).

The decisive difference of Frankl's anthropology to the traditional three-dimensional concept (body, psyche and mind/spirit) is the recognition of a dynamic interactive nature of the three spheres. According to Frankl, the noetic (spiritual) sphere is taking a stance towards and sometimes against (independently on) the psyche and the body. Thanks to this independence of noetic dimension we as people have freedom to decide and be active in the world. Noetic dimension gives us the possibility to look at ourselves objectively (from a distance) and independently on our current somatic or psychic states. It also enables us to engage in meaningful activities that go beyond pure satisfaction of our physical or psychological needs.

Frankl named these fundamentally human capacities "self-distance" and "self-transcendence". The self-transcendence competence (also called spiritual) enables a person to interact with the world beyond the self and it is being seen as essentially human, giving the ultimate meaning to life (Frankl, 1962; Frankl, 1985; Längle, 2003).

1.3.2. Measurement of existential meaning and life fulfilment

Several attempts were made to measure the noetic or "existential" abilities and the concept of fulfilment in life according to Frankl's theory. Frankl (1947) introduced the definition of meaning as "a possibility on the background of reality" and he also stated that meaning is fulfilled by realizing values. Längle (1987) elaborated on these concepts of meaning by adding to them a more personal and subjective aspect and he developed the following definition of existential meaning: "Meaning is the most valuable possibility in the actual situation." The term "actual situation" is a concept taken from existential philosophy describing the actual circumstances in which a person is embedded. Taking this definition as a basis, Längle (1988) derived the Meaning-Finding Method with four steps reflecting four "personal competencies for existence" (in brackets):

1) Realistic perception. (Self-distance)
2) Free emotionality. (Self-transcendence)
3) Decision-making ability. (Freedom)
4) Action. (Responsibility)

Längle et al. (2003) operationalized his method by constructing the Existence Scale (ES) with 46 items, 4 subscales and 3 generalized factors and designed it as a self-rating questionnaire measuring personal abilities to reach existential meaning and life fulfilment. The test is based on Frankl's anthropology and his existential analysis (Frankl, 1966) and it reflects four stages of development of a meaningful and fulfilling existence of a person according to Längle's variation of existential analysis (Längle, 1988). It follows standardized self-rating procedure on 6-point Likert scale, ranging from 'fully disagree' to 'fully agree'. It has 8 items related to self-distance, 14 items related to self-transcendence, 11 items related to freedom, and 13 items related to responsibility.

Another similar questionnaire (based on the Existence Scale) is the Existential Fulfilment Scale (EFS), that took three existential concepts – self-acceptance, self-actualization and self-transcendence – and considered them as three distinct dimensions of existential fulfilment (Loonstra et al., 2007). The EFS consists of 15 items, 5 items for each dimension, measured on a 5-point Likert scale, running from 0 to 4, meaning 'not at all' to 'fully' relevant to me (Loonstra et al., 2009). Amongst some other instruments that are in use in relation to the concept of "existential vacuum" is the "Purpose-in-Life-Test" ("PIL") by Crumbaugh and Maholick (1981) and the "Logo-Test" by Lukas (1986) which measures the accomplishment of meaning and existential frustration (Frankl, 1983).

1.3.3. Relation of lack of existential fulfilment and burnout syndrome

Existential and humanistic psychology offered the perspective that life (existential) fulfilment is a prerequisite to healthy human functioning. Frankl (1962) introduced the potential relation between his psychology of meaning (logotherapy) and burnout symptomatology. In contrast to his term "existential vacuum" we can put the opposite concept "existential fulfilment" which refers to experiencing life as being full of meaning and purpose and which induces psychological well-being (Loonstra et al., 2009). Existential fulfilment can be defined as "the life-purpose that aims at doing full justice to the nature of human existence" (Loonstra et al., 2007). By existential fulfilment we mean feeling of fulfilment in whole life, where work represents only one part. But life and work cannot be separated, it is one entity (Tomic & Tomic, 2008). If people are not able to find meaning in their lives, they may be vulnerable to the development of burnout (Bulka, 1984).

In today's world people seek meaning and fulfilment of their needs on the noetic dimension (according to Frankl's anthropology) no longer in religious and community life, but very often at work. This is a potential source of their frustration and disappointment because their expectations about what their jobs can provide to their well-being were too high and unrealistic (Pines & Aronson, 1988; Pines, 1993a; Schaufeli & Enzmann, 1998; Tomic & Tomic, 2008). This factor might also contribute to the rise of burnout, along with an increasing work stress and higher demands from all organizational and social "stakeholders" (clients, patients, managers, shareholders etc.). However, at the beginning of burnout development we usually see very intense experience of meaningful life, work, existence etc. The loss of existential meaning we encounter at the end of the process when a person's efforts failed, the barriers and demands were too high, the circumstances were incredibly unfavorable and people feel their endeavor crashed completely. In this context, Maslach and Leiter (1997) offered fairly radical definition of burnout syndrome: "Burnout is the index of the dislocation between what people are and what they have to do. It represents an erosion in value, dignity, spirit, and will – an erosion of the human soul. It is a malady that spreads gradually and continuously over time, putting people into a downward spiral from which it's hard to recover."

According to Längle (2003) burnout syndrome is related to the loss (or deficit) of existential meaning. Loss of meaning in life is caused by the fact that people do things not because of the things themselves but because of some other (usually external) reason and motivation (ie. career, money, social influence etc.) which provides the feeling of so called apparent meaning. There is a lack of "truth" in one's activity (in what one is doing) and a presence of "foreign" motivation. This apparent meaning has no meaningful content. But people can fall into burnout also because they are experiencing too

much meaning and they are not able to decide between various priorities which leads to exhaustion. Längle differentiates between real existential meaning and "pseudo-meaning". From the point of view of his existential analysis burnout is a disorder of psychological well-being which comes from a lack of inner fulfilment. This inner fulfilment is a result of life devoted to something where a person realizes subjectively important (perceived) value. Burnout syndrome is then last stage of long-lasting state of experiencing working without felt value in what a person does. In people with burn-out syndrome the intention to work is not directed towards the actual job, nor the task itself. It is a subjective intention that leads them away from what they do (for career, for reward, for recognition, respect, self-value, social acceptance, fulfilling the duties, power, influence, to get things done in order to be free from them etc.). They are not interested in the job itself. The motivation is leading away from baseline of action. It results in "pseudo-motivation" and psychologically they are not really occupied with what they do. There is a gap between subjective motive and real doing. The burn-out people are not interested in the content of their work (Längle & Künz, 2016).

Burnout appears not through valuable contents (which provide existential meaning) but by formal, foreign "pseudo-motivation" which leads to "pseudo-turning" towards the work activity. The person does not feel attracted by the value of the work, but more they feel to be pushed by it. The work has to be done for something else and this results in the feelings "I must do it" or "there is no other way". There remains an interesting question how these "pseudo-motivations" and "pseudo-meanings" can be so strong that people will end up in such an unhealthy state for a very long time. These motives must have deeper roots – they are not just opinions or thoughts. They might be psychically deeply anchored needs (Längle & Künz, 2016). Nevertheless, the best prevention from burnout is to experience fulfilment at work and doing a job with pleasure and interest. In such a case, risk of ending up in a burnout is very low (Längle, 2003). But the feelings of fulfilment should be differentiated from enthusiasm, idealism, feeling of success etc. Enthusiasm may lead to burnout, because enthusiasm is often not realistic, it is idealizing the situation and it is expecting a success, usually nothing else. However, a person can experience inner fulfilment even if they are not successful, when the activity itself is perceived as good and meaningful, but it is not "crowned" with a success. Burnout people approach their work in a utilitarian way – as a mean to achieving their goals – not as something of inherent value and meaning. But as a consequence, other areas of life (leisure time, private life) will become affected by this overall feeling of meaninglessness and this feeling will finally consume a person's life in its totality (Längle, 2003).

Several research studies (Nindl et al., 2003; Tomic et al., 2004; Loonstra et al., 2009) have suggested that a degree of existential fulfilment might be related to a development of a burnout syndrome. A low level of existential fulfilment and low perception of existential meaning correspond with high burnout scores. Up to this date, not so many studies about burnout have tried to measure existential

fulfilment and meaning and have identified them as a determinant of burnout (Yiu-kee & Tang 1995; Nindl 2001). Experience of existential meaning out of work can help to prevent and protect from burnout as some recent research findings amongst physicians suggested (Ben-Itzhak et al., 2015). Current prevention and intervention initiatives against burnout are aimed mainly on the objective work conditions or individual stress relief and that does not seem to be enough in order to target the core cause of burnout. Neither recreation and relaxation techniques or stress management programs themselves cannot fill the void of inner meaning and fulfillng experiences (Längle, 2003). We need to focus on increasing the sense of meaning. In relation to meaninglessness, Pines (1993b) sees burnout as a failed attempt to get existential meaning out of work, especially in today's world when religious aspects of life are more and more declining and people are focused – perhaps unrealistically – on the meaning of work. On the other hand, up to this date, there is a limited evidence of the effectiveness of therapies addressing burnout syndrome, with the exception of CBT and more research is warranted (Korczak et al., 2012; Ahola et al., 2017).

1.4. Discussion

Despite the agreement on the core definition of burnout (ie. state of total exhaustion of one's resources), after decades of research considerable confusion exists about the theoretical concept of burnout and number and nature of other dimensions involved and how to measure them on an international level with comparable tools (Korczak et al., 2010; Bianchi et al., 2015). For example, some instruments not only assess burnout on the individual level but take into account the impact of organizational conditions as well (Schaufeli et al., 1993). Other descriptions of burnout include stress factors and for some researchers there is still a question if burnout syndrome can be seen as a psychiatric diagnosis or whether it is rather a set of generic stress-induced depressive symptoms (Ptacek et al., 2013). Nevertheless, based on the recent findings, the potential risk of unrecognized and untreated burnout syndrome is very high on personal level (health issues, risk of total exhaustion, breakdown or even suicide), on relationships (cynical attitude towards oneself and towards others including clients or patients) or professional effectiveness with potential threat to the quality of patient/client care, absenteeism, reduction of productivity, increased number of errors caused by burnout employees, decreased quality of decision making or premature retirement (Iacovides et al., 2003; Tomic & Tomic, 2008; Loonstra et al., 2009; Iorga et al., 2016).

Some research studies have shown that existential fulfilment and existential meaning are associated with burnout dimensions. Burnout emerges out of the experience of meaninglessness. A low level of existential life fulfilment corresponds with high burnout scores. The contribution of the lack of existential fulfilment to the development of burnout has been confirmed in several studies (Nindl, 2001; Nindl et al., 2003; Tomic et al., 2004; Loonstra et al., 2009; Tomic & Tomic, 2008). The recent research results are in accordance with previous findings suggesting that the loss of meaning is a key aspect for the development of burnout syndrome and thus explanation using logotherapeutic framework and existential concepts seems to focus on the real cause of burnout (Pines, 1993b; Maslach & Leiter, 1997; Längle, 2003; Iacovides et al., 2003; Pines & Keinan, 2005).

However, more research is needed in the area of existential capabilities enabling a person to experience meaning on one hand and on the other hand investigate various coping reactions preventing a person from living existentially fulfilled life and their relations to burnout. Further investigations of the overall frequency, determinants, potential risks and treatment of burnout are also needed. In addition, there is a need to enlarge research initiatives focusing on specific correlations between burnout syndrome and various coping reactions and personality traits or tendencies (ie. splitting, narcissism, alexithymia, idealism, neuroticism, need for control, etc.). This kind of research results could be used in screening programs in which these personal capabilities and tendencies would represent a possible key risk factors for the development (or for preventing) of burnout syndrome. Moreover, continuous research is

needed in the area of measuring life fulfilment on one side and feelings of meaninglessness on the other and their correlations to burnout. These findings could be used as a key focus in the prevention programs and in future intervention design.

Because of the number of different operationalizations of burnout construct, burnout needs to have more precise definition which would enable to consider burnout as a diagnostic category and to subsequently develop international validated criteria for measurement tools and standardized methods of the differential diagnostics and subsequent treatment (Korczak et al., 2010, 2012; Bianchi et al., 2015). Within this context, existential perspective and associated methodologies could have implications for new methods how to diagnose, prevent and treat burnout – not within the framework of focusing on just reducing stress from work, but aiming at increasing meaning and life fulfilment in general (Pines, 1993b; Maslach & Leiter, 1997; Längle, 2003; Iacovides et al., 2003; Pines & Keinan, 2005).

2. EMPIRICAL RESEARCH

"What is to give light must endure burning."

— Viktor Frankl

2.1. Burnout syndrome, mental splitting and depression in female health care professionals

Introduction

An ongoing debate exists as to the relationship between depression and burnout syndrome. Contention exists as to the potential of burnout as an accelerant of depression or conversely the possibility that both characterizations represent the same disorder, which would classify burnout as a mental illness (Iacovides et al., 2003; Bianchi et al., 2015; Maslach & Leiter, 2016). Previous research suggests that the two conceptualizations are in fact disparate entities, noting as a primary differentiation an association between work or occupation and burnout, while depression exists free of any context (Iacovides et al., 1999; Orosz et al., 2017). However, some studies confirm that burnout and depression are not solely independent (Rösing, 2003; Bianchi et al., 2014; Bianchi et al., 2017). It seems that depressive and burnout symptomatology exhibit similar 'qualitative' characteristics, particularly in the most severe forms and also in the final stages of burnout, especially in individuals that are more vulnerable and have low satisfaction from their work (Freudenberger, 1976; Iacovides et al., 2003; Längle, 2003; Maslach & Leiter, 2016).

Previous research has found burnout syndrome usually originating with attitudes of enthusiasm and idealized visualizations in the afflicted individuals (Freudenberger & North, 1992; Längle, 2003; Pines, 1996). During the earliest stages of burnout a tendency exists towards overcommitment and assumption of overload reflecting unrealistic expectations about the given individual's capabilities, and also the neglect of personal needs. Further while a general attitude of "all good" positivity, and naïve enthusiasm is maintained in the early days of the work this distinctly contrasts with later disillusionment and disappointment (Maslach & Leiter, 1997; Längle, 2003). The propensity towards idealization and a binary "black-and-white" conceptualization exists in parallel to Kernberg's concept of splitting (1975) which is characterized by oscillating between contradictory perceptions towards the same object (based on painful-bad-punishing experiences and pleasurable-good-rewarding). In accordance to these propensities, the experience of a given object's contradictory qualities ("all good" or "all bad") is associated with undifferentiated self-object representations (Kernberg, 1975; Gould et al. 1996).

These findings strongly suggest that naïve enthusiasm creating false unreal perspective and inappropriate denial of negative consequences which are related to burnout might be in fact produced by defense mechanism of splitting, which is also characterized by

inappropriate "black or white seeing". This splitting mechanism also creates false interpretation of future possibilities with the tendency to create in certain conditions idealized unreal perspectives that later may result in burnout development (Freudenberger, 1976; Kernberg, 1975; Gould et al. 1996; Maslach & Leiter, 1997; Längle, 2003).

In recent research, there has been no evidence about the specific relationships of the splitting and symptoms of burnout syndrome. Within this context, the current study aims to examine the relationships between splitting, burnout symptoms, depression and additional stress related psychopathological symptoms and alexithymia.

Material and methods

Participants

Study participants included 132 female members of the Czech Diabetes Society, a non-profit organization representing health care professionals in the Czech Republic with an interest in diabetes and related topics (number of male members who were willing to participate in the study was under statistical significance for the statistical analyses). The group was comprised of 112 medical doctors (diabetologists), 16 medical nurses and 4 other professionals. Participants in the study included 19% women in the age category 31 – 40 years, 33% in the category 41 – 50, 34% in 51 – 60, 11% in 61 – 70 and 3% over 70 years of age. The subject's participation in the current study was approved by the Czech Diabetes Society. Questionnaires were administered by all participants via an on-line system specifically prepared for this research.

Psychometric measures

Beck Depression Inventory (BDI-II)

Depressive symptoms were assessed utilizing a Czech version of Beck depression inventory (Beck et al., 1996) which utilizes a 21-items questionnaire for depression assessment (Cronbach's alpha 0.89, test-retest reliability after week 0.85). Items are presented on a 4 point Likert Scale for indication of severity in depressive symptom. The scale is sensitive to changes of the mental state of the individual over the course of time.

Splitting Index (SI)

Symptoms of splitting were evaluated utilizing a self-reported Splitting index (SI) (Gould et al. 1996) which has been proposed to test defense mechanisms as described by Kernberg (1975). Splitting Index is a 24-item self-reported questionnaire utilizing a 5-point Likert scale (Cronbach's alfa 0.92, test-retest reliability after one week 0.82). Factor analysis differentiates three clusters of items which are identified to enable description of the splitting process.

These three identified factor clusters represent the self-factor (splitting of the self-image), the family factor (splitting of images of family members), and the factor of others pertaining to people outside the family.

Burnout Measure (BM)

The study participant's level of burnout was assessed utilizing the Burnout Measure (BM) (Pines et al., 1981; Pines & Aronson, 1988). The original 21-item BM total score was included for reasons of comparability with other studies and for more generic view on burnout as a psychic disorder (rather than other instruments eg. the Maslach Burnout Inventory). BM items were scored on a 7-point rating scale ranging from 1 "never" to 7 "always" (Malach-Pines, 2005).

Toronto Alexithymia Scale (TAS-20)

Alexithymia was assessed utilizing the validated Czech version of the 20-item Toronto Alexithymia Scale (Cronbach's alpha 0.81, test-retest reliability after 1 week 0.77) (Bagby et al., 1994). Each question is scored on a five-point Likert scale (1 – 5) and the TAS total score has range from 20 to 100.

Trauma Symptoms Checklist (TSC-40)

Traumatic stress symptoms were evaluated utilizing the Trauma Symptoms Checklist (Briere, 1996). TSC-40 is a self-reported questionnaire with 40 items scored on a 4-point Likert scale (total score from 0 to 120). TSC-40 assesses stress symptoms in adult individuals associated with childhood or adult traumatic experiences and measures aspects of posttraumatic stress and other symptom clusters found in some traumatized individuals. The scale includes subscales for dissociation, anxiety, depression, sexual abuse trauma index (SATI), sleep disturbances and sexual problems. The Czech version of the TSC-40 has high reliability and internal consistency (Cronbach's alpha 0.91, test-retest reliability after one week 0.88).

Statistical methods

Statistical evaluations of psychometric measures included means, standard deviations, Spearman correlations. The main advantage of using non-parametric analysis is that it's a very conservative approach to outliers and leverage points, which in the case of using parametric correlations or regression analysis may create false results and increase risk of inappropriate rejection of the null hypothesis (Fung, 1993). In addition, previous research has indicated this statistical analysis is appropriate for psychopathological data reflecting traumatic stress symptoms that usually have not normal distribution (Bernstein & Putnam, 1986; Bob, 2014). All the methods of statistical evaluation were performed using the software package Statistica version 6.

Results

The primary results of the current study indicate significant Spearman correlations between depression (BDI-II) with burnout syndrome (BM) ($R=0.62$, $p<0.01$) and splitting (SI) with burnout syndrome (BM) ($R=0.45$, $p<0.01$). Additional results indicate relationships of BM score with traumatic stress symptoms measured by TSC-40 ($R=0.61$, $p<0.01$), BM with alexithymia measured by TAS-20 ($R=0.32$, $p<0.01$), and relationships of SI with TSC-40 ($R=0.49$, $p<0.01$) and SI with TAS-20 ($R=0.46$, $p<0.01$). The results also indicate significant correlations of BDI-II with TSC-40 ($R=0.77$, $p<0.01$) and BDI-II with TAS-20 ($R=0.41$, $p<0.01$). Other results of Spearman analysis are in Table 1.

Table 1. Spearman correlations coefficients for psychometric data ($p<0.01$). BM – Burnout Measure; SI – Splitting Index, BDI-II – Beck Depression Inventory II; TAS-20 – Toronto Alexithymia Scale; TSC-40 – Trauma Symptoms Checklist.

	BM	SI	BDI-II	TSC-40
BM	1			
SI	0.45	1		
BDI-II	0.62	0.48	1	
TSC-40	0.61	0.49	0.77	1
TAS-20	0.32	0.46	0.41	0.50

Discussion

The primary results of the current study support the hypothesis assessed in this research study indicating that symptoms of burnout syndrome are related to conflicting and unstable perceptual and emotional patterns related to "splitting" and depressive symptoms (Kernberg, 1975; Gould et al. 1996). These findings indicate that naïve enthusiasm creating false unreal perspective and inappropriate denial of negative consequences related to burnout are likely psychodynamically linked to defense mechanism of splitting, which is also characterized by inappropriate "black or white seeing" creating idealized unreal perspectives that may result in burnout development (Freudenberger, 1976; Kernberg, 1975; Gould et al. 1996; Maslach & Leiter, 1997; Längle, 2003). These results strongly suggest that assessment of splitting as an underlying vulnerability which may lead to burnout could be a useful tool for burnout prevention.

Previously there have been no reported findings assessing the relationship between burnout syndrome and conflicting perceptual

and emotional patterns related to "splitting". Splitting reflects shifts of mind related to a consciously experienced conflict of opposing mental forces (Kernberg, 1975; Gould et al. 1996). This fragmentation of conscious experience represented by unexpected shifts between devaluation and idealization of other persons and the self is typically related to acute or long term stressful experiences that also play a significant role in etiopathogenesis of depression (Cohen et al., 2015). This is in agreement to the results of the current study which indicates relationships of traumatic stress symptoms with splitting as well as with depression and alexithymia representing emotional blindness and affective instability (Sloan et al., 2017; Bagby et al., 1994).

Additionally, the relationship between depression and burnout syndrome is highly significant and some symptoms are identical particularly in the last stages of burnout (feeling of meaninglessness, loss of energy and motivation). In this context, some researchers suggested that burnout is a type of depression (Rösing, 2003; Bianchi et al., 2014) and for example according to Bianchi et al. (2017) the current research is unable to clearly differentiate depression from burnout, particularly in the last stages of the burnout process when the symptoms strongly resemble clinical depression. The results of this study, within this context, suggest that assessment of splitting may have efficacy as a possible predictor for burnout symptoms and depression. Certain limitation of this study include that the results represent only a female sample of participants; further research that includes a male population is warranted.

Conclusion

Results of the current study suggest that the defense mechanism of splitting could enable prediction of burnout symptoms and might predict development of burnout and could be used in screening and prevention programs of burnout syndrome.

2.2. Traumatic stress symptoms, mental splitting and burnout in health care professionals

Introduction

There is an ongoing debate what is the relationship between traumatic stress and burnout syndrome. Several research studies indicate the potential of stress as both predictor and accelerant of burnout making burnout syndrome potentially classified as psychic disorder (Maslach & Leiter, 2016; Iacovides et al., 2003; Chirico, 2017; Demerouti et al., 2001). It appears that the symptomatology of stress and burnout syndrome exhibit similar 'qualitative' characteristics, especially in the early stages of burnout (Freudenberger & North, 1992; Iacovides et al., 2003; Längle, 2003; Maslach & Leiter, 2016) and stress can accelerate burnout progression (Cherniss, 1989; Iacovides et al., 2013).

In addition, stress influences on burnout may be combined with cognitive and affective predispositions manifesting as attitudes of enthusiasm and idealized visualizations in the afflicted individuals (Freudenberger & North, 1992; Längle, 2003). During the initial stages of burnout there is a tendency to overload and overcommitment reflecting unrealistic expectations about the given individual's capabilities, but at the same time neglecting personal needs, and experiencing the "all good", naïve enthusiasm in the early days of work which is in sharp contrast with "all bad" experiences, disappointment and disillusionment later (Freudenberger & North, 1992; Maslach & Leiter, 1997; Längle, 2003). The propensity towards idealization and a binary "black-and-white" conceptualization exists in parallel to Kernberg's concept of splitting (Kernberg, 1975) which is characterized by oscillating between contradictory perceptions towards the same object (based on painful-bad-punishing experiences and pleasurable-good-rewarding). In accordance to these tendencies, the experience of a given object's contradictory qualities ("all good" or "all bad") is associated with undifferentiated self-object representations (Kernberg, 1975; Gould et al. 1996).

In recent research, there is rare evidence about the specific relationships of stress, splitting and symptoms of burnout syndrome. Within this context, the current study aims to examine the relationships between burnout symptoms, splitting and traumatic stress and potential correlation differences between women and men.

Material and methods

Participants

Study participants included 90 members (diabetologists, medical nurses and other professionals) of the Czech Diabetes Society, a non-profit organization representing health care professionals in the Czech Republic with an interest in diabetes and related topics. Participants in the study included 50 women (mean age 46.62, SD

9.12) and 40 men (mean age 48.99, SD 8.82) in the age range 31 – 60 years. The subject's participation in the current study was approved by the Czech Diabetes Society. Questionnaires were administered for all participants via an on-line system specifically prepared for this research. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

Psychometric measures

Burnout Measure (BM)

The study participant's level of burnout was assessed utilizing the Burnout Measure (BM) (Pines et al., 1981; Pines & Aronson, 1988). The original 21-item BM total-score was included for reasons of comparability with other studies and for more generic view on burnout as a psychic disorder (rather than other instruments for measuring burnout eg. MBI). BM-items were scored on a 7-point rating scale ranging from 1 "never" to 7 "always" (Malach-Pines, 2005).

Splitting Index (SI)

Symptoms of splitting were evaluated utilizing a self-reported Splitting index (SI) (Gould et al. 1996) which has been proposed to test defense mechanisms as described by Otto Kernberg (1975). Splitting Index is 24-items self-reported questionnaire utilizing a 5-point Likert scale. Factor analysis differentiates three clusters of items which are identified to enable description of the splitting process. These three identified factor clusters represent the self-factor (splitting of the self-image), the family factor (splitting of images of family members), and the factor of others pertaining to people outside the family.

Trauma Symptoms Checklist (TSC-40)

Traumatic stress symptoms were evaluated utilizing the Trauma Symptoms Checklist (Briere, 1996). TSC-40 is a self-reported questionnaire with 40 items scored on a 4-point Likert scale (total score from 0 to 120). TSC-40 assesses stress symptoms in adult individuals associated with childhood or adult traumatic experiences and measures aspects of posttraumatic stress and other symptom clusters found in some traumatized individuals. The TSC-40 measure includes subscales for dissociation, anxiety, depression, sexual abuse trauma index, sleep disturbances and sexual problems. The Czech version of the TSC-40 has high reliability and internal consistency.

Statistical methods

Statistical evaluations of psychometric measures included means, standard deviations, Spearman correlation. All the methods of statistical evaluation were performed using the software package Statistica version 6.

Results

Results (Table 2) indicate significant Spearman correlations of burnout (BM) with overall score for traumatic stress symptoms (TSC-40) in population of men ($R=0.75$, $p<0.01$) and of women ($R=0.61$, $p<0.01$) as well as for subscales for dissociation, anxiety, depression, sexual abuse trauma index, sleep disturbances and sexual problems (all above $R=0.35$, $p<0.01$). BM correlated also with splitting (SI) (Women $R=0.51$, Men $R=0.40$, $p<0.01$). Other results of Spearman analysis are in Table 2.

Because the data did not have normal distribution we have used non-parametric statistical analysis using Spearman correlations coefficients. The main advantage to use non-parametric analysis is its very conservative approach to outliers and leverage points which in the case of using parametric correlations or regression analysis may create false results and increase risk of inappropriate rejection of the null hypothesis (Fung, 1993). In addition, as previous research has indicated, this statistical analysis is appropriate for psychopathological data reflecting traumatic stress symptoms that usually does not have normal distribution (Bernstein & Putnam, 1986).

With the exception of the Spearman correlation of TSC-40 subscale for dissociation (TSC-40 Dis) with burnout (BM) (Women $R=0.39$, Men $R=0.70$, $p<0.01$) we did not find significant statistical differences between women and men.

Table 2. Spearman correlations of burnout (BM) manifestations with splitting (SI), traumatic stress related symptoms (TSC-40) and its subscales for dissociative symptoms (Dis), anxiety (Anx), depression (Dep), Sexual Abuse Trauma Index (SATI), Sleep disturbances (Sleep) and Sexual Problems (Sex) in women (W) and men (M).

	SI		**TSC-40 Total**		**TSC-40 Dis**		**TSC-40 Anx**		**TSC-40 Dep**		**TSC-40 SATI**		**TSC-40 Sleep**		**TSC-40 Sex**	
	W	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**
BM	0.51	0.40	0.61	0.75	**0.39**	**0.70**	0.47	0.73	0.60	0.68	0.45	0.52	0.48	0.51	0.36	0.47
SI	–	–	0.62	0.38	0.43	0.32	0.44	0.42	0.49	0.31	0.56	0.32	0.35	0.17	0.54	0.31
TSC-40			–	–	0.78	0.93	0.80	0.85	0.90	0.87	0.83	0.83	0.78	0.79	0.73	0.65
TSC-Dis					–	–	0.59	0.83	0.64	0.79	0.74	0.82	0.59	0.77	0.49	0.56
TSC-Anx							–	–	0.66	0.66	0.61	0.62	0.54	0.60	0.57	0.41
TSC-Dep									–	–	0.68	0.76	0.81	0.83	0.62	0.46
TSC-SATI											–	–	0.53	0.63	0.75	0.70
TSC-Sleep													–	–	0.33	0.31

Discussion

The results support the hypothesis assessed in this research study and indicate that symptoms of burnout are related to traumatic stress symptoms and unstable perceptual and emotional patterns related to "splitting" (Kernberg, 1975; Gould et al. 1996). An ongoing debate exists as to the relation between traumatic stress and burnout syndrome. Contention exists as to the possibility that both conceptualizations describe the same disorder, which would make burnout syndrome rightly classified as psychopathology (Maslach & Leiter, 2016; Längle, 2003; Iacovides et al., 2003).

Previous research suggests that the two characterizations burnout and stress are in fact disparate entities, noting as a primary differentiation an association of work or occupation in burnout (burnout syndrome as a work–related disorder), while stress reactions also exist outside the work-related context (Chirico, 2017). However, the findings are mixed with some studies asserting that burnout and stress are not solely independent (Demerouti et al., 2001). Burnout might be considered as a stress disorder, because stress is a central component of burnout syndrome. There is no burnout without stress (Längle, 2003). Stress from work seems to be present at least at the beginning of burnout syndrome development in each burnout case (Freudenberger & North, 1992; Iacovides et al., 2003; Längle, 2003; Maslach & Leiter, 2016). On the other hand, there are studies suggesting that stress is not the main cause of burnout and that job stress alone does not cause burnout, although it can accelerate its evolution (Cherniss, 1989; Iacovides et al., 2013).

In this context, results of this study indicate that burnout is statistically related to chronic stress symptoms reflecting individual ontogenesis which is significantly influenced by experienced traumatic events such as abuse or neglect and also sexual violence and abuse (Bernstein & Putnam, 1986; Briere, 1996). In addition, results of this study indicate significant relationship of burnout with dissociative symptoms reflecting very serious stressful events which may influence disintegration of conscious experience (Bernstein & Putnam, 1986; Bob, 2008).

The results also show significant relationship between burnout and symptoms of splitting. Experienced traumatic stress may also induce splitting as a specific form of dissociation which reflects shifts of mind related to a consciously experienced conflict of opposing mental forces (Kernberg, 1975; Gould et al. 1996). This fragmentation of conscious experience represented by unexpected shifts between devaluation and idealization of other persons and the self is typically related to acute or long term stressful experiences that also play a significant role in etiopathogenesis of stress disorder (Cohen et al. 2015). In agreement with previous findings the present study indicates relationships of burnout with depression and anxiety (Iacovides et al., 2003; Maslach & Leiter, 2016; Sloan et al., 2017).

The relationship between traumatic stress and burnout symptoms is highly significant and for example according to Chirico (2016) the current diagnostic tools are unable to clearly differentiate stress disorders from burnout, particularly in the early stages of the burnout syndrome process when the symptoms are very similar.

Conclusion

In this context, results of this study suggest that the defense mechanisms related to traumatic stress such as splitting or dissociation might predict development of burnout and could be used in screening and prevention programs of burnout syndrome.

2.3. Alexithymia, traumatic stress symptoms and burnout in female health care professionals

Introduction

The burnout symptoms were for the first time described by Freudenberger in 1974 in his paper "Staff burnout". Freudenberger observed volunteers for aid organizations and noticed that these people only after few months of initial enthusiasm became "burned out" (Freudenberger & North, 1992). Burnout syndrome was later defined by Maslach and Jackson (1981) as a set of three symptoms: 1) emotional exhaustion, in which overwhelming and stressful job takes away all individual's mental resources; 2) depersonalization and cynicism, through which a person copes with an emotional detachment from work requirements; and 3) feelings of personal inefficiency or lack of competence, in which people are no longer consider themselves as able to achieve or accomplish something (Maslach & Leiter, 2016).

Freudenberger and North (1992) reported burnout syndrome involves stages in which people detach from their emotions and feelings as a defense mechanism against stress and have decreased ability to experience their own feelings and emotional states. Their findings suggest that emotional disturbances related to burnout might be closely linked to emotional "blindness" as a defense mechanism against negative and overwhelming emotions which was for the first time described and conceptualized as alexithymia by Sifneos (1973). The construct of alexithymia represents very low capacity for identifying and verbalizing feelings and emotions (Grabe et al., 2004; Gleichgerrcht & Decety, 2013).

Within the context of these findings, we have tested a hypothesis linking burnout symptoms with alexithymia and in addition with respect to individual development we have tested relationship of the burnout symptoms with traumatic stress experiences.

Material and methods

Participants

Study participants included 114 female members of the Czech Diabetes Society (doctors, medical nurses and other professionals), a non-profit organization representing health care professionals in the Czech Republic with an interest in diabetes and related topics. Participants in the study included women with age range 31 – 60 years (mean age 46.62, SD 8.71). Number of male members who were willing to participate in the study was under statistical significance for the statistical analyses. The subject's participation in the current study was approved by the Czech Diabetes Society. Ques-

tionnaires were administered for all participants via an on-line system specifically prepared for this study. All procedures performed in research involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

Psychometric measures

Maslach Burnout Inventory (MBI-HSSMP)

One of the first measures for burnout syndrome, the Maslach Burnout Inventory (MBI), was presented by Maslach & Jackson (1981), and revised 5 years later (Maslach & Jackson, 1986). 22 questions of this measurement tool are focused on 3 main components of burnout syndrome (9 items for emotional exhaustion, 5 items for depersonalization and 8 items for personal accomplishment) and they can be assessed individually. Later in the 90's, a more general version of MBI was created (MBI-GS – General Survey). Until 1998, the MBI was used in more than 90% of all empirical burnout studies in the world and MBI was seen as the dominating and almost only measurement of burnout (Schaufeli & Enzmann, 1998). For this research, a more specific version of Maslach Burnout Inventory – the Human Services Survey for Medical Personnel [MBI-HSS (MP)] – was used. Examples of the items include: "I feel emotionally drained from my work." (emotional exhaustion) "I have accomplished many worthwhile things in this job." (personal accomplishment) "I don't really care what happens to some patients." (depersonalization)

Burnout Measure (BM)

Study participants' level of burnout was also assessed using the Burnout Measure (BM) (Pines et al., 1981). The original 21-item BM total-score was included for reasons of comparability with other studies and for more generic view on burnout. BM items were scored on a 7-point rating scale ranging from 1 "never" to 7 "always" (Malach-Pines, 2005).

Toronto Alexithymia Scale (TAS-20)

Alexithymia was assessed utilizing the validated Czech version of the 20-item Toronto Alexithymia Scale (Cronbach's alpha 0.81, test-retest reliability after 1 week 0.77) (Bagby et al., 1994). This tool measures the degree of difficulty during accessing emotions and in becoming aware of an emotion. Each question is scored on a five-point Likert scale (1 strongly disagree to 5 strongly agree) and the TAS total score has range from 20 to 100. The scores of the 20 items represent three domains: difficulty of describing feelings, difficulty of identifying feelings, and externally oriented thinking. The third scale evaluates the tendency of individuals to focus their attention externally. It is in fact a cognitive style that avoids introspective thought. A general alexithymia score is calculated as the sum of

these three subscales and the final scores provide the level of alexithymia: subjects not having alexithymia (scores equal to or less than 51), subjects having borderline alexithymia (scores of 52 to 60), and subjects having scores equal to or greater than 61 are characterized by alexithymia.

Beck Depression Inventory (BDI-II)

For the assessment of depressive symptoms was used Czech version of Beck depression inventory (Beck at al., 1996) that represents 21-items questionnaire for assessing depression (Cronbach's alpha 0.89, test-retest reliability after week 0.85). Subjects indicate degree of their experience of depressive symptoms on a 4-point Likert scale. The scale is sensitive to changes of the mental state of the individual in the course of time.

Trauma Symptoms Checklist (TSC-40)

Symptoms of traumatic stress were assessed using Trauma Symptom Checklist (Briere, 1996). TSC-40 is a self-reported questionnaire with 40 items scored on a 4-point Likert scale (total score from 0 to 120). TSC-40 evaluates stress symptoms in adult individuals associated with childhood or adult traumatic experiences and measures aspects of posttraumatic stress and other symptom clusters found in some traumatized individuals. The Czech version of the TSC-40 has high reliability and internal consistency (Cronbach's alpha 0.91, test-retest reliability after one week 0.88). The TSC-40 measure also includes subscales for dissociation, anxiety, depression, sexual abuse trauma index (SATI), sleep disturbances and sexual problems.

Statistical methods

Statistical evaluations of psychometric measures included means, standard deviations, Spearman correlation. All the methods of statistical evaluation were performed using the software package Statistica version 6. Because the data did not have normal distribution we have used non-parametric statistical analysis using Spearman correlations coefficients. The main advantage to use non-parametric analysis is its very conservative approach to outliers and leverage points which in the case of using parametric correlations or regression analysis may create false results and increase risk of inappropriate rejection of the null hypothesis (Fung, 1993). In addition, as previous research has indicated, this statistical analysis is appropriate for psychopathological data reflecting traumatic stress symptoms that usually does not have normal distribution (Bernstein & Putnam, 1986).

Results

Results (Table 3) indicate significant Spearman correlations of burnout measured by Burnout Measure (BM) with alexithymia (TAS-20) ($R=0.41$, $p<0.01$) as well as between BM and traumatic stress (TSC-40) and depression (BDI-II) (both $R=0.63$, $p<0.01$). Maslach Burnout Inventory (MBI-HSSMP) subscales also correlated with alexithymia (TAS-20), especially Emotional Exhaustion subscale with alexithymia ($R=0.37$, $p<0.01$) as well as with depression (BDI-II) and total score of TSC-40. In addition, BM results correlate with all subscales of traumatic stress symptoms (TSC-40) – dissociation, anxiety, depression, sexual abuse trauma index (SATI), sleep disturbances and sexual problems (all above $R=0.35$, $p<0.01$). In addition, we have calculated multiple linear regression describing burnout symptoms measured by BM as a function of three variables TSC-40, BDI-II and TAS-20, $BM=F(BDI\text{-}II, TSC\text{-}40, TAS\text{-}20)$ with multiple $R=0.69$, $p<0.01$.

Table 3. Spearman correlations of burnout measured by MBI and BM with alexithymia (TAS-20), depression (BDI-II), stress related symptoms (TSC-40) and its subscales for dissociative symptoms (Dis), anxiety (Anx), depression (Dep), Sexual Abuse Trauma Index (SATI), Sleep disturbances (Sleep) and Sexual Problems (Sex).

	MBI EE	**MBI DP**	**MBI PA**	**TAS-20**	**BDI-II**	**TSC-40 Total**	**TSC-40 Dis**	**TSC-40 Anx**	**TSC-40 Dep**	**TSC-40 Sati**	**TSC-40 Sleep**	**TSC-40 Sex**
BM	0.67	0.38	-0.48	0.41	0.63	0.63	0.46	0.59	0.60	0.44	0.47	0.36
MBI – EE	–	0.55	-0.35	0.37	0.56	0.52	0.43	0.50	0.47	0.41	0.38	0.34
MBI – DP		–	-0.27	0.33	0.33	0.31	0.25	0.29	0.29	0.22	0.17	0.22
MBI – PA			–	-0.41	-0.36	-0.31	-0.28	-0.27	-0.24	-0.27	-0.22	-0.14
TAS-20				–	0.49	0.57	0.60	0.46	0.44	0.54	0.32	0.41
BDI-II					–	0.78	0.56	0.61	0.76	0.68	0.67	0.52
TSC-40						–	0.74	0.83	0.91	0.82	0.83	0.71
TSC-DIS							–	0.59	0.59	0.78	0.53	0.44
TSC-ANX								–	0.70	0.60	0.62	0.50
TSC-DEP									–	0.74	0.84	0.66
TSC-SATI										–	0.63	0.70
TSC-SLEEP											–	0.48

Note. Spearman R higher than 0.22 is significant at $p<0.05$ and R higher than 0.24 is significant at $p<0.01$.

Discussion

Results of this study support the hypothesis that symptoms of burnout syndrome are related to alexithymia, but also to depressive and traumatic stress symptoms.

These results are in agreement with previous findings documenting that tendency to depersonalization characterized by seeing neither self nor others as valuable and not being able to perceive or express own feelings and needs might play an important role in etiopathogenesis of burnout syndrome (Grabe et al., 2004; Mattila et al., 2007; Gleichgerrcht & Decety, 2013; Iorga et al., 2016). In addition, Maslach and Jackson (1981) identified detachment and cynicism in people with burnout, through which they "protect" themselves by disengaging from the relationships and difficult emotions manifesting emotional blindness and affective instability (Sloan et al., 2017; Bagby et al., 1994). Furthermore, results of this study indicate significant relationship of burnout with dissociative symptoms reflecting very serious stressful events which may influence disintegration of conscious experience (Bernstein & Putnam, 1986; Briere, 1996; Bob, 2008).

The results are also in agreement with findings describing the relationship between burnout syndrome and depression, especially in the final stages of burnout characterized by loss of motivation and energy, and with experiences of meaninglessness (Längle, 2003; Chirico, 2017; Bianchi et al., 2017).

Conclusion

Recent research studies indicate that alexithymia is likely related to various psychosomatic diseases and various psychopathological conditions as well as decreased ability to engage in authentic relationships (Grabe et al., 2004; Gleichgerrcht & Decety, 2013; Iorga et al., 2016). Within this context, results of this study suggest that assessment of alexithymia could be useful as a possible predictor for burnout syndrome.

2.4. Burnout syndrome, existential meaning and life fulfillment in health care professionals

Introduction

Life fulfilment plays a significant role in feeling positive about oneself and in leading meaningful and satisfactory life (Pines, 1993b; Längle, 2003). On the contrary, burnout syndrome is a consequence of usually stressful circumstances at work and personal reactions to a demanding and exhausting job. Final phases of burnout are characterized by feelings of hopelessness, loss of meaning and desperation (Freudenberger, 1976; Maslach & Leiter, 1997). Existential vacuum described by Viktor Frankl (1985) in his logotherapy as a state of lack of life fulfilment has very similar characteristics to final stages of burnout. Some authors (Bulka, 1984; Nindl, 2001; Längle, 2003) even consider burnout syndrome to be a special form of existential vacuum. Despite of these connections between life fulfilment, existential meaning and possible progression of burnout syndrome to its final phases, only a few studies have been conducted to study this relationship up to the date (Yiu-Kee & Tang 1995; Nindl et al., 2003; Tomic et al., 2004; Tomic & Tomic, 2008; Loonstra et al., 2009).

Frankl defined meaning as "a possibility on the background of reality" following the notion from Gestalt psychology of interchanging images of figure and ground (Frankl, 1947). In addition, he wrote that meaning is fulfilled by realizing values. Längle (1987) expanded on these first concepts of meaning by adding to them a more personal and subjective perspective referring to the subjective value contained in every meaning and purpose by bringing up the following definition of existential meaning: "Meaning is the most valuable possibility in the actual situation." "Actual situation" is a term from existential philosophy characterizing the actual circumstances in which one is embedded. Based on this definition of existential meaning, Längle (1988) created the Meaning-Finding Method with 4 steps:

1) Look at the reality / situation. (Self-distance)
2) Look at the value. (Self-transcendence)
3) Make a Decision. (Freedom)
4) Act. (Responsibility)

Längle et al. (2003) operationalized this method by constructing the Existence Scale with 4 subscales (in brackets above) and 3 generalized factors. These personal capabilities (Self-distance, self-transcendence, freedom and responsibility) describe people's own contribution to finding meaning in their actual lives or, on the contrary, how much they are existentially frustrated as a result. According to Längle (2003) the burnout syndrome is, at a first step, related to the loss (or deficit) of existential meaning. Loss of meaning in life is caused by the fact that people do things not because of the value in things themselves but because of some other reasons or needs (i.e. career, money, task fulfilment, social influence, need of superiority

etc.). Such pressing reasons do not include real meanings but instead "pseudo-meanings". The characteristic of pseudo-meanings is that they lack a valuable content. They are just formal and as such empty regarding values. Going deeper in existential analysis burnout turns out to be a disorder of psychological well-being resulting from a life with a lack of inner fulfilment. Inner fulfilment is an effect of a life devoted to subjectively felt values. Burnout syndrome as such is the last stage of a long-lasting working without feeling the value of what a person does. Instead of an existential motivation, people with burnout live in "pseudo-motivation" and are psychologically no longer attracted by and connected with the content of what they do. This has its roots in a deficit of a specific personal-existential experiencing of values by accessing personal feelings (Längle & Künz, 2016).

Within this context, burnout can be understood as a psychological syndrome emerging from a prolonged life without inner adhesion to the values contained in what people do. People just fulfill tasks and do not feel their beauty or importance. The beginning can be either that they had this attitude from the beginning of their occupation or they burned at the beginning and attained it by the time due to exhaustion. The three main dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment (Maslach & Leiter, 2016). Taken from a phenomenological viewpoint, the lack of felt existential meaning and decreased capacities for an existentially fulfilling life might play a key role in the development of burnout syndrome (Längle, 2003), while number of empirical studies studying these aspects is very low. In this context, the purpose of this empirical study is to examine the relationship between burnout syndrome and capabilities for experiencing existential meaning and life fulfilment.

Material and methods

Participants

The sample included 161 members of the Czech Diabetes Society, a non-profit organization representing the health care professionals (medical doctors and medical personnel) in the Czech Republic interested in diabetes and related subjects. The study group consisted of 141 medical doctors (diabetologists), 16 medical nurses and 4 other professionals. In this study participated 122 women (76%), 39 men (24%), in the age category 31 – 71 years (mean age 50.14, SD 11.65). Their participation in this study was approved by the Czech Diabetes Society. Among the reasons that research on burnout among medical personnel is of a high priority is that burnout in the caring personnel has the potential to put patients at risk. The questionnaires were filled out by all study participants through an on-line system specifically designed for this research.

Psychometric measures

Existence Scale (ES)

Existential fulfillment was measured by the Existence Scale (Längle et al., 2003). The Existence Scale (ES) is a self-reported test measuring the own perception of how a person actually feels or sees meaning in their lives or how much they are existentially frustrated. ES assess the degree of someone's personal fulfillment in one's existence and their competence to cope in a meaningful way with oneself and the world (Längle et al., 2003). ES consists of 46 items to be rated by means of a 6-point Likert scale, ranging from 'fully disagree' to 'fully agree'. It has 8 items related to self-distance (SD), 14 items related to self-transcendence (ST), 11 items related to freedom (F), and 13 items related to responsibility (R). Examples of such items are: 'A situation is interesting to me only if it meets my wishes' (SD); 'After all there is nothing in my life to which I want to devote myself' (ST); 'Without much reflection I try to put off unpleasant decisions' (F); and 'I take too little time for important things' (R). These four subscales correspond with 4 steps of the Meaning-Finding Method (realization of existential potentiality) described above. Steps 1 and 2 are called the P-factor, they deal with the development of the Personality. Steps 3 and 4 are called the E-factor, and deal with Existential field, or with taking and realizing decisions. The G-factor is the overall ratio or total score.

Maslach Burnout Inventory (MBI)

One of the first measurements of burnout syndrome, the Maslach Burnout Inventory (MBI), was presented by Maslach & Jackson (1981), and revised 5 years later (Maslach & Jackson, 1986). 22 questions of this measurement tool are focused on 3 main components of burnout syndrome (9 items for emotional exhaustion, 5 items for depersonalization and 8 items for personal accomplishment) and they can be assessed individually. Later in the 90's, a more general version of MBI was created (MBI-GS – General Survey). Until 1998, the MBI was used in more than 90% of all empirical burnout studies in the world and MBI was seen as the dominating and almost only measurement of burnout (Schaufeli & Enzmann, 1998). For this research, a more specific version of Maslach Burnout Inventory – the Human Services Survey for Medical Personnel [MBI-HSS (MP)] – was used. Examples of the items include: "I feel emotionally drained from my work." (emotional exhaustion) "I have accomplished many worthwhile things in this job." (personal accomplishment) "I don't really care what happens to some patients." (depersonalization)

Burnout Measure (BM)

The level of burnout in this study group was also assessed using the Burnout Measure (BM) (Pines et al., 1981; Pines & Aronson, 1988). The original 21-item BM total score was included for reasons of comparability with other studies and for a more generic view on burnout as a psychic disorder. BM-items were scored on a 7-point rating scale ranging from 1 "never" to 7 "always" (Malach-Pines,

2005). The Burnout Measure (BM) questionnaire is the second most commonly used measure of burnout (Pines et al., 1981; Pines & Aronson, 1988; Kristensen et al., 2007). Burnout Measure is a newer version of the questionnaires "The Tedium Scale and Tedium Measure" by Ayala Pines and Elliot Aronson (Pines et al., 1981). According to Pines (1996), burnout syndrome is a final stadium of exhaustion (attrition) through which highly motivated individuals lose their enthusiasm. This tool was created for use across a whole range of different professions, including unemployed people. The author has considered three main attributes of burnout – psychic (mental), physical and emotional, yet this instrument is still one-dimensional tool. Instead of delivering the above mentioned three factors, it only provides a single final score.

Statistical methods

Statistical evaluations of psychometric measures included means, standard deviations, Spearman correlation. All the methods of statistical evaluation were performed using the software package NCSS version 12.

Results

The primary results of the current study indicate significant Spearman negative correlation between the overall score of Existence Scale (ES) with Emotional Exhaustion scale from the Maslach Burnout Inventory (MBI-HSSMP) ($r = -0.52$, $p<0.01$), and also negative correlation with Depersonalization ($r = -0.41$, $p<0.01$) and positive correlation with Personal Achievement ($r=0.45$, $p<0.01$). Amongst other ES subscales and factors correlations with MBI-HSSMP, there are higher negative correlations between Emotional Exhaustion and Freedom and Responsibility scales, and Existentiality Factor (all above $r = -0,50$, $p<0.01$). Other results of Spearman analysis are in Table 4.

Table 4: Spearman correlations coefficients between Maslach Burnout Inventory MBI-HSS (MP) and Existence Scale (ES) including all subscales.

	EE	DP	PA
SD	-0.36	-0.35	0.32
ST	-0.39	-0.35	0.36
P	-0.41	-0.38	0.38
F	-0.50	-0.40	0.43
R	-0.53	-0.36	0.41
E	-0.54	-0.40	0.44
ES	-0.52	-0.41	0.45

EE = Emotional Exhaustion; DP = Depersonalization; PA = Personal Accomplishment; SD = Self-Distance; ST = Self-Transcendence; P = Personality Factor; F = Freedom; R = Responsibility; E = Existentiality Factor; ES = total score.

In addition, there are negative significant correlations between the overall ES total score and the burnout symptoms measured by the Burnout Measure (BM) ($r= –0.52$, $p<0.01$). Other results for all ES subscales and BM are in Table 5.

Table 5: Spearman correlation coefficients between Burnout Measure (BM) and Existence Scale (ES) including all subscales.

	BM
SD	-0.33
ST	-0.45
P	-0.43
F	-0.52
R	-0.52
E	-0.55
ES	-0.52

BM = Burnout Mesausre; SD = Self-Distance; ST = Self-Transcendence; P = Personality Factor; F = Freedom; R = Responsibility; E = Existentiality Factor; ES = total score

Discussion

The primary results of the current study support the hypothesis assessed in this research study indicating that symptoms of burnout syndrome are related to a person's capability to experience a fulfilling life and existential meaning (Längle, 2003). Several research studies have already suggested that a degree of existential fulfilment might be related to a development of a burnout syndrome and

that a low level of existential fulfilment and low perception of existential meaning correspond with high burnout scores (Nindl et al., 2003; Tomic et al., 2004; Loonstra et al., 2009; Tomic & Tomic, 2008). Nevertheless, up to this date, not so many studies about burnout have tried to measure existential fulfilment and meaning and have identified them as a possible determinant of burnout (Yiu-Kee & Tang 1995; Nindl 2001; Nindl et al., 2003; Tomic & Tomic, 2008).

Some recent research findings amongst physicians suggested that an experience of existential meaning outside of work can help to prevent and protect from burnout (Ben-Itzhak et al., 2015), however the treatment of burnout should be aimed at its core cause which seems to be a life aimed at "apparent meaning" or "apparent values" and deficit in real existential meaning while working (Längle, 2003; Längle & Künz, 2016). Burnout people are so exhausted because they have no real meaning in their work and thus do not come to inner fulfilment. If there is an existential meaning perceived in a person's activity, they can feel inwardly satisfied, happy even when they are very tired from those activities. This is in agreement to the results of the current study which indicates relationships of emotional exhaustion, depersonalization and lack of feeling of personal accomplishment with reduced existential personal capabilities. Additionally, the relationship between existential frustration (especially in the Existentiality factor measured by ES) and burnout syndrome is highly significant and some symptoms are identical particularly in the last stages of burnout (feeling of meaninglessness, loss of energy and motivation). High negative correlation between burnout and Freedom scale may indicate the reason why people with burnout usually remain in unfavorable circumstances for long periods of time and have feelings of being imprisoned (Längle & Künz, 2016). In addition, these results support the idea that burnout may be a type of existential vacuum as described in Frankl's logotherapy (Frankl, 1985; Längle, 2003).

The findings of high negative correlations between subjectively perceived existential fulfilment and levels of burnout in both Maslach Burnout Inventory and Burnout Measure may lead to a deeper understanding of the syndrome with implications in etiopathogenesis of burnout syndrome. Current prevention and intervention initiatives against burnout are aimed mainly on the objective work conditions or individual stress relief and that does not seem to be enough in order to target the core cause of burnout. Neither recreation and relaxation techniques or stress management programs themselves can fill up the lack of inner meaning and fulfilling experiences (Längle, 2003; Längle & Künz, 2016). In relation to meaninglessness, Pines (1993b) sees burnout as a failed attempt to get existential meaning out of work, especially in today's world when religious aspects of life are more and more declining, and people are focused – perhaps unrealistically – on the meaning of work. In addition, there is a lack of evidence that therapies trying to address burnout syndrome are in fact effective (Korczak et al., 2012). Within this context and based on the research findings, the treatment should be focused on increasing the sense of meaning in afflicted individuals and connect them back to the real existential values.

Conclusion

The results of this empirical study suggest that personal capabilities for seeking and experiencing existential fulfilment and finding meaning in one's life are related to the symptoms of burnout. Typical current explanations of causes of burnout and suggested treatment options seem to miss the real issue that may lead to burnout – a person's inability to live meaningful life connected to values and to experience meaning and fulfilment. In this context, this research findings suggest that capacity for experiencing existential meaning might predict the development of burnout and could be used in screening and prevention programs of burnout syndrome as well as for the design of treatment strategies.

3. CONCLUSIONS

Burnout syndrome was defined by Maslach and Jackson as a set of three symptoms: 1) *emotional exhaustion*, 2) *depersonalization and cynicism* and 3) feelings of *inefficiency or lack of accomplishment* (Maslach & Jackson, 1981; Maslach et al., 2001). This definition was used by WHO in the latest revision of ICD-11 in which was the usage of the term burn-out syndrome restricted to the context of work with a recommendation that it should not be referred to in other areas of life. Despite this agreement on the core elements of burnout definition, after decades of research significant confusion exists about the theoretical concepts of burnout and number and nature of other burnout dimensions possibly involved and researchers are still looking into ways how to measure aspects of burnout internationally and interculturally with comparable tools (Korczak et al., 2010; Bianchi et al., 2017). Some instruments not only assess burnout on the individual level but take into account the impact of organizational conditions as well (Schaufeli, et al., 1993). On the other hand, although burnout is usually occurring in the context of work, some researchers argue that it can be experienced in any life circumstances, including parenthood, studies or even unemployment (Pines, 1993b; Längle, 2003).

Other descriptions of burnout include depressive or stress symptoms, and some researchers still debate whether burnout syndrome can be seen as a psychiatric diagnostical category or if it is rather a set of generic, stress-induced depressive symptoms within a context of work (Pines & Keinan, 2005; Ptacek et al., 2013; Bianchi et al. 2015, 2017). Nevertheless, the recent findings suggest that the potential risk of unrecognized and untreated burnout syndrome is very high on both personal level (health issues, psychosomatic diseases, risk of total exhaustion, breakdown or even suicide) and relational level towards the clients, patients and family members (cynical attitude towards oneself and to others, devaluation of others and their issues and needs). Furthermore, unrecognized and untreated burnout syndrome can have an impact on professional effectiveness and it represents potential threat to the quality of patient/client care, increased absenteeism, reduction of productivity, premature retirement, increased number of errors caused by burnout employees or decreased quality of decision making, communication, especially in the health care professions (Iacovides et al., 2003; Längle, 2003; Tomic & Tomic, 2008; Loonstra et al., 2009; Avery et al., 2012; Iorga et al., 2016). Because of the high number of different operationalizations of burnout construct, there is a clear need for better definition of burnout as a diagnostic category and for international standardization of measurement tools and standardized methods of the differential diagnostics and subsequent treatment strategies (Maslach et al., 2001; Korczak et al., 2010; Bianchi et al., 2015, 2017).

Primary results of the current study support the assessed hypothesis indicating that symptoms of burnout syndrome are related

to conflicting and unstable perceptual and emotional patterns related to "splitting" (Kernberg, 1975; Gould et al. 1996). These findings indicate that naïve enthusiasm creating false unreal perspective and inappropriate denial of negative consequences related to burnout are likely psychodynamically linked to defense mechanism of splitting, which is also characterized by inappropriate "black or white seeing" creating idealize, unreal perspectives that may result in burnout development (Freudenberger, 1976; Kernberg, 1975; Gould et al. 1996; Maslach & Leiter, 1997; Längle, 2003). Previously there have been no reported findings assessing the relationship between burnout syndrome and conflicting perceptual and emotional patterns related to "splitting". This fragmentation of conscious experience (associated with splitting and represented by unexpected shifts between devaluation and idealization of other persons and the self) is typically related to acute or long term stressful experiences that also play a significant role in etiopathogenesis of depression (Cohen et al., 2015). This is in agreement to the results of the current study which indicates relationships of splitting and depression as well as with alexithymia representing emotional blindness and affective instability (Sloan et al., 2017; Bagby et al., 1994).

In agreement with previous findings the present study also indicates relationships of burnout with depression and anxiety (Iacovides et al., 2003; Maslach & Leiter, 2016; Sloan et al., 2017). The relationship between depression and burnout syndrome is highly significant and some symptoms are identical particularly in the final stages of burnout characterized by loss of motivation and energy, and with experiences of meaninglessness (Längle, 2003; Chirico, 2017; Bianchi et al., 2017). In this context, some researchers suggested that burnout is a type of depression (Rösing, 2003; Bianchi et al., 2014) and for example according to Bianchi et al. (2017) the current research is unable to clearly differentiate depression from burnout, particularly in the last stages of the burnout process when the symptoms strongly resemble clinical depression. The results of this study, within this context, suggest that assessment of splitting as an underlying vulnerability may have efficacy as a possible predictor for burnout symptoms as well as for depression and could be used in screening and prevention programs of burnout syndrome.

Further results indicate that symptoms of burnout are closely related to traumatic stress symptoms as previous research findings suggested (Iacovides et al., 2003; Pines & Keinan, 2005; Chirico, 2016). Although they are closely related, it seems that burnout and stress are in fact disparate entities, noting as a primary differentiation an association of work or occupation in burnout (burnout syndrome as a work-related disorder), while stress reactions also exist outside the work-related context (Chirico, 2017). However, burnout might be considered as a stress disorder, because stress is a central component of burnout syndrome. There is no burnout without stress (Demerouti et al., 2001; Längle, 2003). Stress from work seems to be present at least at the beginning of burnout syndrome development in each burnout case (Freudenberger & North, 1992; Iacovides et al., 2003; Längle, 2003; Maslach & Leiter, 2016). On the other hand, there are studies suggesting that stress is not the main cause

of burnout and that job stress alone does not cause burnout, although it can accelerate its evolution (Cherniss, 1989; Iacovides et al., 2013).

In this context, results of this study indicate that burnout is statistically related to chronic stress symptoms reflecting individual ontogenesis which is significantly influenced by experienced traumatic events such as abuse or neglect and also sexual violence (Bernstein & Putnam, 1986; Briere, 1996). In addition, results of this study indicate significant relationship of burnout with dissociative symptoms reflecting stressful events which may influence disintegration of conscious experience (Bernstein & Putnam, 1986; Bob, 2008). The relationship between traumatic stress and burnout symptoms is highly significant and according to Chirico (2016) the current diagnostic and screening tools are unable to clearly differentiate stress disorders from burnout, particularly in the initial phases of the burnout syndrome process when the symptoms are very similar. Results of this study suggest that the defense mechanisms related to traumatic stress such as anxiety or dissociation might predict development of burnout and could be used in screening and prevention programs of burnout syndrome.

Results of this study support the hypothesis that symptoms of burnout syndrome are also related to alexithymia. These results are in agreement with previous findings documenting that tendency to depersonalization characterized by seeing neither self nor others as valuable and not being able to perceive or express own feelings might play an important role in etiopathogenesis of burnout syndrome (Grabe et al., 2004; Mattila et al., 2007; Gleichgerrcht & Decety, 2013; Iorga et al., 2016). Maslach and Jackson (1981) identified detachment and cynicism in people with burnout, through which they "protect" themselves by disengaging from the relationships and difficult emotions manifesting emotional blindness and affective instability described as alexithymia (Sloan et al., 2017; Bagby et al., 1994). Recent research studies indicate that alexithymia is likely related to various psychosomatic diseases and psychopathological conditions as well as decreased ability to engage in authentic relationships (Grabe et al., 2004; Gleichgerrcht & Decety, 2013; Iorga et al., 2016). Within this context, results of this study suggest that assessment of alexithymia could be useful as a possible predictor for burnout syndrome.

Further research findings are in agreement with previous reported studies showing that concepts of existential fulfilment and existential meaning are associated with burnout dimensions and burnout symptoms. Burnout syndrome emerges out of the experience of meaninglessness resembling the concept of existential vacuum (Frankl, 1985; Längle, 2003). The results of the current study support the assessed hypothesis indicating that symptoms of burnout syndrome are related to a person's capability for seeking and experiencing existential life fulfilment and finding existential meaning (Längle, 2003). A low level of existential fulfilment corresponds with high burnout scores, and the contribution of the lack of existential fulfilment and the absence of existential meaning to

the development of burnout has been already indicated in some research studies (Nindl, 2001; Nindl et al., 2003; Tomic et al., 2004; Loonstra et al., 2009; Tomic & Tomic, 2008). Nevertheless, up to this date, not so many studies about burnout have tried to measure existential fulfilment and meaning and have identified them as a possible determinant of burnout (Yiu-Kee & Tang 1995; Nindl et al., 2003; Tomic & Tomic, 2008).

Recent research findings amongst physicians suggested that an experience of existential meaning outside of work can help to prevent and protect from burnout (Ben-Itzhak et al., 2015), however the prevention and treatment of burnout should be aimed at its core cause which seems to be living a life aimed at "apparent meaning" or "apparent values (Längle, 2003; Längle & Künz, 2016). When there is an existential meaning perceived in persons' activities, they can feel inwardly satisfied and happy even they are very tired from those activities. This is in agreement with the results of the current study which indicates relationships of emotional exhaustion, depersonalization and lack of feeling of personal accomplishment with reduced existential personal capabilities. Additionally, the relationship between existential frustration (especially in the Existentiality factor measured by ES) and burnout syndrome is highly significant and some symptoms are identical particularly in the last stages of burnout (feeling of meaninglessness, loss of energy and motivation). High negative correlation between burnout and Freedom scale may indicate the reason why people with burnout usually remain in unfavorable circumstances for long periods of time and have feelings of being imprisoned (Längle & Künz, 2016).

The findings of high negative correlations between subjectively perceived existential fulfilment and levels of burnout in both MBI and BM may lead to a deeper understanding of the syndrome with implications for its etiopathogenesis. Typical current prevention and intervention initiatives against burnout are aimed mainly at the objective work conditions or individual stress relief which seem to miss the real issue that may lead to burnout – a person's inability to live meaningful life connected to values and to experience meaning and fulfilment. Neither recreation and relaxation techniques nor stress management programs themselves can fill up the lack of inner meaning and fulfilling experiences (Längle, 2003; Pines & Keinan, 2005; Längle & Künz, 2016). In relation to meaninglessness, Pines (1993b) sees burnout as a failed attempt to get existential meaning out of work, especially in today's world when religious aspects of life are more and more declining, and people are focused – perhaps unrealistically – on the meaning of work. In addition, there is a lack of evidence that therapies trying to address burnout syndrome are in fact effective (Korczak et al., 2012). Within this context, the prevention and treatment of burnout should not be focused just on reducing job stress, but rather on increasing the sense of meaning in afflicted individuals that their work has significant contribution and connect them back to the real existential values (Längle, 2003; Pines & Keinan, 2005; Längle & Künz, 2016). In addition, the capacity for experiencing existential meaning might predict the development of burnout and could be used in screening

and prevention programs of burnout syndrome as well as for the design of treatment strategies.

Results of this study provide promising data for refocusing burnout research to new phenomena which might have a significant impact on the design of future prevention and treatment strategies as well as specific interventions. In addition, the research findings could be used in screening programs in which these personal traits, capabilities and tendencies (ie. splitting, alexithymia, existential capabilities etc.) would represent a possible key risk (or preventive) factors for the development of burnout syndrome. Despite these results, further research in the area of determination of burnout ("external" vs. "internal" circumstances) is warranted. More research is also needed in the area of measuring life fulfilment on one side and feelings of meaninglessness on the other and their correlations to burnout. There is also a need to further investigate frequency, determinants, potential risks and treatment options of burnout on much larger samples of respondents than in this study and through longitudinal research methodologies.

Taken together, these data support the hypothesis that burnout syndrome is significantly connected with a number of serious personality disorders and psychological defense mechanisms and coping reactions (alexithymia, splitting, depersonalization, dissociation etc.) as well as ontogenetical experiences resulting in traumatic stress symptoms or deficit in so called existential capabilities defined by Frankl (1959). In addition, these results support the idea that burnout may be a type of existential vacuum as described in Frankl's logotherapy (Frankl, 1985; Längle, 2003). These connections seem to be stronger than situational circumstances of specific work environments which have been considered to have a substantial influence on the development of burnout syndrome. The current study results are in accordance with previous findings suggesting that the loss of meaning is a key aspect for the development of burnout syndrome (Frankl, 1985; Pines, 1993b; Yiu-Kee & Tang 1995; Längle, 2003; Nindl et al., 2003; Pines & Keinan, 2005; Tomic & Tomic, 2008). The manifestation of the loss of meaning is ranging from the prevalence of defense mechanisms like splitting, dissociation and alexithymia on one hand, and decrease ability to experience life fulfilment and to use personal existential capabilities like self-distance, self-transcendence, freedom and responsibility on the other.

4. APPENDIX – PSYCHOMETRIC MEASURES

4.1. BURNOUT MEASURE – BM

BM

Jméno a příjmení..... Rodinný stav.....Věk.....

Zaměstnání..... Vzdělání.....

Zakroužkujte, jak často máte následující pocity a zkušenosti? Použijte, prosím, toto odstupňování:

1. nikdy 2. jednou za čas 3. zřídka kdy 4. někdy 5. často 6. obvykle 7. Vždy

1. Byl(a) jsem unaven(a).	1 2 3 4 5 6 7
2. Byl(a) jsem v depresi (tísni).	1 2 3 4 5 6 7
3. Prožíval(a) jsem krásný den.	1 2 3 4 5 6 7
4. Byl(a) jsem tělesně vyčerpán(a).	1 2 3 4 5 6 7
5. Byl(a) jsem citově vyčerpán(a).	1 2 3 4 5 6 7
6. Byl(a) jsem šťastná (šťasten).	1 2 3 4 5 6 7
7. Cítil(a) jsem se vyřízen(a), zničen(a).	1 2 3 4 5 6 7
8. Nemohl(a) jsem se vzchopit a pokračovat dále.	1 2 3 4 5 6 7
9. Byl(a) jsem nešťastný(á).	1 2 3 4 5 6 7
10. Cítil(a) jsem se uhoněn(á) a utahán(á).	1 2 3 4 5 6 7
11. Cítil(a) jsem se jakoby uvězněn(á) v pasti.	1 2 3 4 5 6 7
12. Cítil(a)jsem se jako bezcenný(á).	1 2 3 4 5 6 7
13. Cítil(a) jsem se utrápen(a).	1 2 3 4 5 6 7
14. Tížily mne starosti.	1 2 3 4 5 6 7
15. Cítil(a) jsem se zklamán(a) a rozčarován(a).	1 2 3 4 5 6 7
16. Byl(a) jsem sláb(a) a na nejlepší cestě k onemocnění.	1 2 3 4 5 6 7
17. Cítil(a) jsem se beznadějně.	1 2 3 4 5 6 7
18. Cítil(a) jsem se odmítnut(a) a odstrčen(a).	1 2 3 4 5 6 7
19. Cítil(a) jsem se pln(á) optimismu.	1 2 3 4 5 6 7
20. Cítil(a) jsem se pln(á) energie.	1 2 3 4 5 6 7
21. Byl(a) jsem pln(á) úzkostí a obav.	1 2 3 4 5 6 7

4.2. MASLACH BURNOUT INVENTORY – MBI-HSS(MP)

Maslach Burnout Inventory – Human Services Survey for Medical Personnel – MBI-HSS (MP)

Due to copyright restrictions regarding publication of the whole questionnaire in dissertations issued by the publisher of MBTI-HSS(MP) we have included below only three sample items for which we obtained publication rights from MindGarden, Inc.

Sample items:

- I feel emotionally drained from my work.
- I have accomplished many worthwhile things in this job.
- I don't really care what happens to some patients.

4.3. SPLITTING INDEX – SI

SI

Jméno a příjmení..... Rodinný stav..... Věk .....

Zaměstnání..... Vzdělání.....

Odpověď znázorněte na škále od 1 (vůbec tomu tak není) do 5 (velmi dobře to odpovídá).

1. Cítím sám(a) sebe odlišně, když jsem s jinými lidmi.	1	2	3	4	5
2. Moje matka má své chyby, ale nikdy jsem nepochyboval(a) o její lásce ke mně.	1	2	3	4	5
3. Být schopen si udržet přátele, je pro mne jednou z nejdůležitějších věcí.	1	2	3	4	5
4. Moji rodiče vždy pečovali o mé potřeby.	1	2	3	4	5
5. Moje cítění sebe sama se dramaticky mění.	1	2	3	4	5
6. Je nemožné mé rodiče vždy milovat.	1	2	3	4	5
7. Odlišné části mé osobnosti je obtížné složit dohromady.	1	2	3	4	5
8. Moje pocity o mé matce se mění ze dne na den.	1	2	3	4	5
9. Moji rodiče pro mne udělali to nejlepší co mohli.	1	2	3	4	5
10. Mám pochybnosti o mých nejbližších přátelích.	1	2	3	4	5
11. Občas si nejsem jist kdo jsem.	1	2	3	4	5
12. Moje pocity o sobě jsou velmi silné, ale mohou se měnit od jednoho okamžiku k druhému.	1	2	3	4	5
13. Mé přátelské vztahy jsou téměř vždy uspokojivé.	1	2	3	4	5
14. Moje pocity o sobě se nemění snadno.	1	2	3	4	5
15. Měl jsem mnoho dlouhodobých přátelství.	1	2	3	4	5
16. Občas se cítím rozdělen(a) mými pocity o sobě.	1	2	3	4	5
17. Mé vztahy s rodinou jsou pevné.	1	2	3	4	5
18. Mé vztahy vůči mým blízkým zůstávají neměnné.	1	2	3	4	5
19. Byl(a) jsem si vždycky vědom(a), že moji blízcí přátelé se o mne opravdu starali.	1	2	3	4	5
20. Mé mínění o mých přátelích se zřídka mění.	1	2	3	4	5
21. Téměř vždy pociťuji jako dobré ty, kteří jsou mi blízcí.	1	2	3	4	5
22. Mám extrémně smíšené pocity o mojí matce.	1	2	3	4	5
23. Má rodina mne často zraňovala.	1	2	3	4	5
24. Kdo jsem záleží na tom jak se cítím.	1	2	3	4	5

4.4. TRAUMA SYMPTOMS CHECKLIST – TSC-40

TSC-40

Jméno a příjmení..... Rodinný stav.....

Zaměstnání..... Vzdělání.....

Jak často jste zažil[a] každou z následujících položek v posledních dvou měsících

	Nikdy			Často
1. Bolesti hlavy.	0	1	2	3
2. Nespavost [problém s usnutím].	0	1	2	3
3. Ztráta váhy [bez diety].	0	1	2	3
4. Žaludeční problémy.	0	1	2	3
5. Sexuální problémy.	0	1	2	3
6. Pocit izolovanosti od ostatních.	0	1	2	3
7. "Retrospektivy" [náhlé, živé zneklidňující vzpomínky].	0	1	2	3
8. Neklidný spánek.	0	1	2	3
9. Snížený zájem o sex.	0	1	2	3
10. Záchvaty úzkosti.	0	1	2	3
11. Zvýšený sexuální zájem.	0	1	2	3
12. Pocit osamělosti.	0	1	2	3
13. Noční můry.	0	1	2	3
14. "Úlety" [úniky ve vaší mysli].	0	1	2	3
15. Smutek.	0	1	2	3
16. Závrať.	0	1	2	3
17. Nespokojenost se sexuálním životem.	0	1	2	3
18. Obtížná kontrola nálady.	0	1	2	3
19. Probouzení se brzy ráno a nemožnost opět usnout.	0	1	2	3
20. Nekontrolovatelný pláč.	0	1	2	3
21. Strach z mužů.	0	1	2	3
22. Rána bez pocitů odpočinku.	0	1	2	3
23. Máte sex, který Vás netěší.	0	1	2	3
24. Potíže ve vycházení s druhými.	0	1	2	3
25. Problémy s pamětí.	0	1	2	3
26. Zájem o sebepoškozování.	0	1	2	3
27. Strach ze žen.	0	1	2	3
28. Probouzení o půlnoci.	0	1	2	3
29. Špatné myšlenky nebo pocity v průběhu sexu.	0	1	2	3
30. Odchody někam.	0	1	2	3
31. Pocity, že věci jsou "nereálné".	0	1	2	3
32. Nadbytečné nebo příliš časté mytí.	0	1	2	3
33. Pocity ponížení.	0	1	2	3
34. Trvalé pocity napětí.	0	1	2	3
35. Zmatenost pokud jde o pocity související se sexualitou.	0	1	2	3
36. Přání fyzicky poškozovat druhé.	0	1	2	3
37. Pocity viny.	0	1	2	3
38. Pocity, že nejste vždy ve vašem těle.	0	1	2	3
39. Máte potíže s dýcháním.	0	1	2	3
40. Sexuální pocity tam, kde si je nepřejete mít.	0	1	2	3

4.5. BECK-DEPRESSION INVENTORY – BDI-II

BDI-II

Jméno a příjmení..... Rodinný stav..... Věk .....

Zaměstnání..... Vzdělání.....

Zakroužkujte v každé skupině jeden výrok, který nejlépe vystihuje, jak se cítíte **během posledních 14 dnů včetně dneška.**

1. Smutek
0 Nejsem smutný[á].
1 Většinou jsem smutný[á].
2 Pořád jsem smutný[á].
3 Jsem tak smutný[á], že se to nedá vydržet.

2. Pesimismus
0 O svou budoucnost nemám obavy.
1 O svou budoucnost se obávám více než dříve.
2 Myslím, že se mi nebude dařit.
3 Moje budoucnost je beznadějná a bude ještě horší.

3. Minulá selhání
0 Nemám dojem, že selhávám.
1 Selhal[a] jsem častěji než bych měl[a].
2 Když se dívám do minulosti vidím spoustu selhání.
3 Jako člověk jsem úplně selhal[a].

4. Ztráta radosti
0 Raduji se stejně jako dříve.
1 Neraduji se stejně jako dříve
2 Téměř nemám potěšení s věcí, které jsem měl[a] rád[a].
3 Vůbec nemám potěšení s věcí, které jsem měl[a] rád[a].

5. Pocit viny
0 Nemívám nijak zvlášť pocity viny.
1 Cítím vinu za řadu věcí, které jsem udělal[a] nebo měl[a] udělat.
2 Mívám často pocity viny.
3 Pořád mám pocity viny.

6. Pocit potrestání
0 Nemyslím, že mě život trestá.
1 Myslím, že by mě život mohl potrestat.
2 Očekávám trest.
3 Myslím, že jsem životem trestán[a].

7. Znechucení ze sebe sama
0 Myslím si o sobě pořád to samé.
1 Ztratil[a] jsem důvěru v sebe sama.
2 Jsem ze sebe zklamaný[á].
3 Sám[a] sebou jsem znechucen[a].

8. Sebekritika
0 Nekritizuji nebo neobviňuji sebe sama více než obvykle.
1 Jsem sám[a] k sobě více kritický[á] než dříve.
2 Kritizuji se za všechny své chyby.
3 Obviňuji se za všechno špatné co se přihodí.

9. Sebevražedné myšlenky nebo přání
0 Nepřemýšlím o tom, že bych se zabil[a].
1 Mám myšlenky o sebevraždě, ale neudělal[a] bych to.
2 Chtěl[a] bych se zabít.
3 Kdybych měl[a] možnost se zabít, tak bych se zabil[a].

10. Plačtivost
0 Nepláču více než dříve.
1 Pláču více než dříve.
2 Pláču kvůli každé maličkosti.
3 Je mi do pláče, ale nejsem toho schopen[na]

11. Agitovanost
0 Nejsem více neklidný[á] nebo napjatý[á] než obvykle.
1 Cítím se více neklidný[á] nebo napjatý[á] než obvykle.
2 Jsem tak neklidný[á] nebo rozrušený[á], že je těžké to vydržet.
3 Jsem tak neklidný[á] nebo rozrušený[á], že nemohu zůstat v nečinnosti.

12. Ztráta zájmu
0 O jiné lidi nebo věci jsem zájem neztratil[a].
1 Méně se zajímám o jiné lidi nebo věci.
2 Mnohem méně se zajímám o jiné lidi nebo věci.
3 Je těžké se zajímat o cokoliv.

13. Nerozhodnost
0 Rozhoduji se stejně dobře jako dříve.
1 Rozhodovat se je obtížnější, než obvykle.
2 Rozhoduji se mnohem obtížněji než dříve.
3 Mám problém udělat jakékoliv rozhodnutí.

14. Pocit bezcennosti
0 Necítím se bezcenný[á]
1 Nemyslím, že mám pro lidi stejnou cenu jako jsem míval[a].
2 Ve srovnání s jinými lidmi se cítím více bezcenný[á].
3 Cítím se úplně bezcenný[á].

15. Ztráta energie
0 Mám stejně energie jako vždy.
1 Mám méně energie než jsem míval[a].
2 Nemám dost energie, abych toho hodně udělal[a].
3 Vůbec na nic nemám energii.

16. Změna spánku
0 Nevšiml[a] jsem si žádných změn u svého spánku.
1a Spím trochu více než obvykle.
1b Spím trochu méně než obvykle.
2a Spím mnohem více než obvykle.
2b Spím mnohem méně než obvykle.
3a Většinu dne prospím.
3b Probouzím se o jednu až dvě hodiny dříve a už nemohu usnout.

17. Podrážděnost
0 Nejsem podrážděný[á] více než obvykle.
1 Jsem více podrážděný[á] než obvykle.
2 Jsem mnohem více podrážděný[á] než obvykle.
3 Bývám pořád podrážděný[á].

18. Změny chuti k jídlu
0 Necítím žádné změny v chuti k jídlu.
1a Mám trochu menší chuť k jídlu než obvykle.
1b Mám trochu větší chuť k jídlu než obvykle.
2a Mám mnohem menší chuť k jídlu než obvykle.
2b Mám mnohem větší chuť k jídlu než obvykle.
3a Vůbec nemám chuť k jídlu.
3b Jíst mohu pořád.

19. Koncentrace
0 Mohu se soustředit jako vždycky.
1 Nejsem schopný[á] se soustředit jako obvykle.
2 Je těžké se na cokoliv delší dobu soustředit.
3 Nejsem schopný[á] se soustředit na nic.

20. Únava
0 Nejsem unavený[á] více než obvykle.
1 Unavím se snadněji než obvykle.
2 Jsem příliš unavený[á], než abych dělal[a] tolik věcí, jako jsem dělával[a].
3 Jsem tak unavený[á], že nedokážu dělat skoro nic.

21. Ztráta zájmu o sex
0 V současnosti jsem nezaznamenal[a] změnu zájmu o sex.
1 Mám menší zájem o sex než obvykle.
2 Mám nyní mnohem menší zájem o sex.
3 Úplně jsem ztratil[a] zájem o sex.

4.6. TORONTO ALEXITHYMIA SCALE – TAS-20

TAS-20

Jméno a příjmení..... Rodinný stav..... Věk .....

Zaměstnání..... Vzdělání.....

Odpověď znázorněte na škále:
od 1 (neodpovídá to mým zkušenostem a pocitům) do 5 (velmi dobře odpovídá).

1. Bývám často zmatený(-á) pokud jde o to, jaké emoce cítím.	1	2	3	4	5
2. Je pro mne těžké najít správná slova pro mé pocity.	1	2	3	4	5
3. Mám fyzické vjemy, kterým ani lékaři nerozumí.	1	2	3	4	5
4. Jsem snadno schopen(-na) popsat mé pocity.	1	2	3	4	5
5. Dávám přednost analyzování problémů před jejich popisováním.	1	2	3	4	5
6. Když se necítím dobře, nevím, jestli jsem smutný(-ná), vyděšený(-ná) nebo rozhněvaný(-ná).	1	2	3	4	5
7. Jsem často zmatený(-ná) z pocitů v mém těle.	1	2	3	4	5
8. Dávám přednost tomu ponechat věcem volný průběh, před tím než abych se snažil(-a) porozumět tomu, proč se takto dějí.	1	2	3	4	5
9. Mívám pocity, které nemohu zcela identifikovat.	1	2	3	4	5
10. Být ve styku s emocemi je zásadní.	1	2	3	4	5
11. Zjistil(-a) jsem, že je těžké popsat to, co cítím o lidech.	1	2	3	4	5
12. Lidé mi říkají, abych více popsal(-a) své pocity.	1	2	3	4	5
13. Nevím, co se ve mně děje.	1	2	3	4	5
14. Často nevím, proč jsem rozhněvaný(-á).	1	2	3	4	5
15. Raději hovořím s lidmi o jejich denních aktivitách spíše než o jejich pocitech.	1	2	3	4	5
16. Raději se koukám na „lehký“ zábavný pořad než na psychologické drama.	1	2	3	4	5
17. Je pro mne těžké odhalit moje nejvnitřnější city a to i blízkým přátelům.	1	2	3	4	5
18. Cítím se blízko někoho i v okamžicích mlčení.	1	2	3	4	5
19. Zkoumání mých pocitů považuji za užitečné pro řešení osobních problémů.	1	2	3	4	5
20. Hledání skrytých významů ve filmech nebo hrách odvádí od zábavy.	1	2	3	4	5

4.7. EXISTENCE SCALE – ES

ES

Jméno a příjmení..... Rodinný stav..... Věk .....

Zaměstnání..... Vzdělání.....

Posuďte, prosím, nakolik dále uvedené výroky platí právě o Vás. U každého výroku proškrtněte na připojené vodorovné stupnici křížkem **X** vždy to kolečko, jehož pozice to nejlépe vyjadřuje. (Při posuzování výroku neberte v úvahu příležitostné krátkodobé výkyvy.)

O----------O----------O----------O----------O----------O----------O

Naprosto platí	S výjimkami platí	Spíše platí	Spíše neplatí	S výjimkami neplatí	Naprosto neplatí

Nakolik o mně platí tento výrok?

PLATÍ NEPLATÍ

O-----O-----O-----O-----O-----O

1) Často zanechám důležitých činností, protože je mi nepříjemná námaha s nimi spojená.
2) Cítím, že mě mé úkoly osobně oslovují.
3) Významné pro mě je jenom to, co odpovídá mému přání.
4) V mém životě není nic dobrého.
5) Nejraději se zabývám sám (sama) sebou – svými starostmi, přáními, sny a obavami.
6) Většinou se nedokážu soustředit.
7) S tím, co jsem doposud vykonal(a), jsem nespokojen(a), protože si myslím, že jsem měl(a) dělat něco důležitějšího.
8) Vždy se řídím podle toho, co ode mne očekávají druzí.
9) Nepříjemná rozhodnutí se snažím bez dlouhého uvažování odložit na později.
10) Snadno se nechám odvést i od prací, které dělám rád(a).
11) V mém životě není nic, o co bych se doopravdy rád(a) zasadil(a).
12) U mnoha věcí nechápu, proč bych je měl(a) dělat právě já.
13) Myslím, že můj život tak, jak jej vedu, není k ničemu dobrý.

14) Připadá mi těžké pochopit význam mnohých věcí.

15) Dovedu sám (sama) se sebou dobře vycházet.

16) Věnuji příliš málo času tomu, co je důležité.

17) Nikdy mi není hned jasné, co mohu v dané situaci udělat.

18) Mnoho věcí dělám jen proto, že musím, a ne proto, že chci.

19) Když nastanou problémy, snadno ztrácím hlavu.

20) Většinou dělám věci, které bych mohl(a) stejně tak dobře udělat později.

21) Vždy znovu jsem zaujat(a) tím, co přináší den.

22) Většinou až při svém jednání zjišťuji, jaké má moje rozhodnutí následky.

23) Když se musím rozhodovat, nemohu se vůbec spoléhat na svůj cit.

24) I když mi na něčem velmi záleží, brání mi nejistota, jak to dopadne, abych to udělal(a).

25) Nikdy přesně nevím, za co jsem odpovědný(-á).

26) Cítím se vnitřně svobodný(-á).

27) Cítím, že mi život ukřivdil, protože mi nedopřál splnění mých přání.

28) Když vidím, že nemám možnost volby, je to pro mě úleva.

29) Jsou situace, ve kterých se cítím zcela bezmocný(-á).

30) Dělám mnoho věcí, ve kterých se ve skutečnosti nevyznám.

31) Obvykle nevím, co je v dané situaci důležité.

32) Splnění vlastních přání má přednost.

33) Je mi zatěžko vcítit se do druhých lidí.

34) Bylo by lépe, kdybych nebyl(a).

35) Mnohé věci, se kterými mám co dělat, jsou mi v podstatě cizí.

36) Rád(a) si dělám svůj vlastní názor.

37) Cítím se rozháraný(-á), protože dělám příliš mnoho věcí najednou.

38) I při důležitých věcech mi schází síla k tomu, abych vytrval(a).

39) Dělám mnohé věci, které vlastně ani dělat nechci.

40) Situace mě zajímá jen potud, pokud vyhovuje mým přáním.

41) Když jsem nemocný(-á), nevím, co si počít s tím časem.

42) Jen zřídkakdy vidím, že v nějaké situaci mám více možností, jak jednat.

43) Okolní svět mi připadá jednotvárný.

44) Jen zřídkakdy se klade otázka, zda něco chci dělat, protože to většinou dělat musím.

45) V mém životě není nic opravdu krásné, protože všechno má své pro a proti.

46) Moje vnitřní nesvoboda a závislost mi působí potíže.

The items of the Czech version of Existence scale were published in this dissertation with a kind permission granted by the author of this instrument, Prof. Alfried Längle

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6. LIST OF PUBLICATIONS

Publication in journals with IF related to dissertation

1.

IF (2017) = 2.857, Frontiers in Psychiatry

Riethof, N., Bob, P. (2019). Burnout syndrome and Logotherapy: Logotherapy as useful conceptual framework for explanation and prevention of burnout. Frontiers in Psychiatry

2.

IF (2017) = 1.894, Medical Science Monitor

Riethof, N., Bob, P., Laker, M., Varakova, K., Jiraskova, T., Raboch, J. (2019). Burnout syndrome, mental splitting and depression in female health care professionals. Medical Science Monitor

Total cumulative IF = 4,751

Other publications

Riethof, N., Bob, P., Laker, M., Zmolikova, J., Jiraskova, T., Raboch, J. (2019). Burnout, traumatic stress symptoms and alexithymia in female health care professionals. Journal of International Medical Research (under review)

Zmolikova, J., Bob, P., Riethof, N., Laker, M., Raboch, J., Weiss, P. (2019). Mental splitting and sexual dysfunctions in young obese women (under review)

7. LIST OF ABBREVIATION

BDI-II – Beck Depression Inventory
BM – Burnout Measure
DSM – Diagnostic and Statistical Manual of Mental Disorders
EFS – Existential Fulfilment Scale
ES – Existence Scale
ICD – International Classification of Diseases
MBI – Maslach Burnout Inventory
MBI-ES – Maslach Burnout Inventory Educators Survey
MBI-GS – Maslach Burnout Inventory General Survey
MBI-GS(S) – Maslach Burnout Inventory General Survey for Students
MBI-HSS – Maslach Burnout Inventory Human Services Survey
MBI-HSSMP – Maslach Burnout Inventory–the Human Services Survey for Medical Personnel
PIL – Purpose-in-Life-Test
SI – Splitting Index
TAS-20 – Toronto Alexithymia Scale
TSC-40 – Trauma Symptom Checklist
WHO – World Health Organization

SOUHRN

Syndrom vyhoření je stav úplného vyčerpání související s pracovními podmínkami a dlouhodobým stresem. Zatímco úvodní fáze vyhoření se podobají příznakům stresu, závěrečné fáze vyhoření jsou charakterizovány pocity beznaděje, ztrátou smyslu a zoufalství, které mají podobné rysy jako deprese, stejně jako existenciální vakuum popsané Franklem v jeho logoterapii. Navíc syndrom vyhoření zahrnuje fáze, kdy se lidé odtrhávají od svých emocí a využívají tuto sníženou schopnost prožívat vlastní pocity jako obranný mechanismu proti stresu. Syndrom vyhoření obvykle začíná pocity nadšení a idealizovanými vizualizacemi, což je v kontrastu s následně prožívaným rozčarováním a zklamáním.

Po desetiletích výzkumu vyhoření přetrvává potřeba lépe definovat tento stav, včetně stanovení přesnějších diagnostických kritérií a určení mezinárodně uznávaných měřicích nástrojů, a to zejména v rámci systému zdravotní péče, kde jsou rizika nerozpoznaného a neošetřeného vyhoření vysoká. Tato studie je zaměřena na zkoumání potenciálních příčin syndromu vyhoření a vztahů mezi symptomy vyhoření s určitými osobnostními rysy, obrannými mechanismy a "zvládacími reakcemi" jako jsou na jedné straně Kernbergova koncepce štěpení, dále deprese, traumatické stresové symptomy, alexithymie a na straně druhé existenciální naplnění života a schopnost prožívat existenciální smysl.

Tyto jevy jsme hodnotili u zdravotnického personálu sdruženého do České diabetologické společnosti s využitím těchto psychometrických nástrojů: Dotazník psychického vyhoření (BM), Inventář vyhoření podle Maslachové – dotazník pro zdravotnické pracovníky (MBI-HSSMP), Index štěpení (SI), Beckův inventář deprese (BDI-II), Torontská škála alexithymie (TAS-20), Inventář traumatických symptomů (TSC-40) a Existenciální škála (ES).

Celkové výsledky studie ukazují významné Spearmanovy korelace mezi syndromem vyhoření (BM, MBI-HSSMP) a depresí (BDI-II), štěpením (SI), traumatickým stresem (TSC-40), alexithymií (TAS-20) (vše nad $r = .50$, $p < 0{,}01$) a významné negativní korelace s existenciálními osobními schopnostmi (ES) – sebedistance, sebepřesažení, svobody a odpovědnosti. Dále jsme vypočítali vícenásobnou lineární regresi popisující symptomy vyhoření měřené BM jako funkci tří proměnných TSC-40, BDI-II a TAS-20, BM = F (BDI-II, TSC-40, TAS-20) s koeficientem $R = 0.69$, $p < 0{,}01$.

Současná zjištění studie ukazují, že obranné mechanismy štěpení, symptomy traumatického stresu, alexithymie a schopnosti člověka hledat a nalézat existenciální smysl a naplnění života mohou umožnit predikci příznaků vyhoření. Tyto nálezy mohou být využitelné při potenciální detekci, prevenci a léčbě syndromu vyhoření.

Klíčová slova: Syndrom vyhoření; Štěpení; Deprese; Traumatický stres; Alexitymie; Logoterapie; Existenciální vakuum; Existenciální smysl; Životní naplnění

SUMMARY

Burnout syndrome is a state of total exhaustion related to work conditions and prolonged stress. While initial phases of burnout resemble stress symptoms, final phases of burnout are characterized by feelings of hopelessness, loss of meaning and desperation that have similar qualities as depression as well as existential vacuum described by Frankl in his logotherapy. In addition, the burnout syndrome involves stages in which people detach from their emotions and feelings as a defense mechanism against stress and have decreased ability to experience their own feelings and emotional states. Burnout usually begins with feelings of enthusiasm and idealized visualizations and it is in contrast with subsequent disillusionment, disappointment experienced later.

After decades of burnout research, there is still a need for better definition of this condition including more precise diagnostic criteria and internationally recognized measurement tools, especially within health care system where the risks of unrecognized and untreated burnout are high. This study is focused on examination of potential causes of burnout and relationships of burnout symptoms with certain personality traits, defense mechanisms and coping reactions including Kernberg's concept of splitting, depression, traumatic stress symptoms, alexithymia on one hand, and with existential life fulfilment and capabilities to experience existential meaning on the other.

We have assessed these phenomena in health care professionals associated in Czech Diabetes Society utilizing psychometric measures Burnout Measure (BM), Maslach Burnout Inventory – Human Services Survey for Medical Personnel (MBI-HSSMP), Splitting index (SI), Beck Depression Inventory (BDI-II), Toronto Alexithymia Scale (TAS-20), Traumatic Symptoms Checklist (TSC-40) and Existence Scale (ES).

Overall study results indicate significant Spearman correlations between burnout syndrome (BM, MBI-HSSMP) and depression (BDI-II), splitting (SI), traumatic stress (TSC-40), alexithymia (TAS-20) (all above $r=.50$, $p<0.01$) and significant negative correlations with existential personal capabilities (ES) of self-distance, self-transcendence, freedom and responsibility. In addition, we calculated the multiple linear regression describing burnout symptoms measured by BM as a function of three variables TSC-40, BDI-II and TAS-20, BM=F(BDI-II, TSC-40, TAS-20) with multiple $R=0.69$, $p<0.01$.

The current study findings provide implications the defensive mechanisms of splitting, traumatic stress symptoms, alexithymia and person's capabilities to seek and find existential meaning and life fulfilment may allow for the prediction of burnout symptoms. Such findings may be used in the potential detection, prevention and treatment of burnout.

Key words: Burnout syndrome; Splitting; Depression; Traumatic Stress; Alexithymia; Logotherapy; Existential vacuum; Existential Meaning; Life fulfilment