

Alexithymia, traumatic stress symptoms and burnout in female healthcare professionals

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Abstract

Objective: The burnout syndrome represents a defence mechanism against stress and includes stages with decreased ability to experience feelings and emotional states. This finding suggests that burnout might be closely linked to emotional ‘blindness’ as a defence mechanism against negative and overwhelming emotions known as alexithymia. The aim of this study is to examine the relationships between burnout syndrome, alexithymia, depression and traumatic stress symptoms in healthcare professionals.

Methods: This empirical study assessed female healthcare professionals who work with a population of patients with diabetes, utilizing the Maslach Burnout Inventory (MBI-HSSMP), Burnout Measure (BM), Toronto Alexithymia Scale (TAS-20), Beck Depression Inventory (BDI-II) and Traumatic Stress Checklist (TSC-40). Data were analysed using Spearman’s correlation coefficient.

Results: A total of 114 female participants were included (age range, 31–60 years; mean age, 46.62 ± 8.71 years). Statistically significant associations were found between burnout syndrome (BM scores) and alexithymia (TAS-20) ($r = 0.41$), and between BM scores and traumatic stress (TSC-40; $r = 0.63$). The MBI-HSSMP emotional exhaustion subscale also correlated with alexithymia (TAS-20) ($r = 0.37$).

Conclusion: Findings of this study suggest that alexithymia and traumatic stress are related to burnout symptoms. This dynamic may be potentially useful for detecting and preventing burnout syndrome.

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Introduction

Symptoms of ‘burnout’ were first described in 1974 by Freudenberger, in his paper ‘Staff burnout’, in which Freudenberger observed volunteers for aid organizations and noticed that these people became ‘burned out’ after only a few months of initial enthusiasm.¹ Burnout syndrome was later defined by Maslach and Jackson² as a set of three symptoms: (1) emotional exhaustion, in which an overwhelming and stressful job takes away all of an individual’s mental resources; (2) depersonalization and cynicism, through which a person is coping via an emotional detachment from work requirements; and (3) feelings of personal inefficiency or lack of competence, in which people no longer consider themselves as able to achieve or accomplish something.³

Freudenberger and North¹ reported that burnout syndrome involves stages in which people detach from their emotions and feelings as a defence mechanism against stress, and have decreased ability to experience their own feelings and emotional states. Their findings suggested that emotional disturbances related to burnout may be closely linked to emotional ‘blindness’ as a defence mechanism against negative and overwhelming emotions. Such emotional blindness was first described and conceptualized as alexithymia by Sifneos (1973),⁴ and the construct of alexithymia represents very low capacity for identifying and verbalizing feelings and emotions.^{5,6}

People who find it difficult to regulate disturbing emotions or to become aware of, and to express, emotions, are reported

to be more likely to feel emotionally exhausted, detached and not have feelings of personal achievement. Such symptoms of alexithymia are indicated to be connected to a number of diseases and psychopathological diagnoses.^{5,6} Three elements mentioned above – feelings of emotional exhaustion, detachment and not having feelings of personal achievement – resemble the definition of burnout coined by Maslach and Jackson.² In addition, the prevalence of alexithymia is suggested to be connected to burnout syndrome, particularly to its emotional exhaustion component, but also to dissociation and depersonalization.^{7–9}

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 the etiopathogenesis of burnout syndrome and alexithymia may be a risk factor for burnout.⁸ These findings are in agreement with previous research reporting that burnout syndrome involves stages in which people detach from their emotions and feelings.^{1,2} As a defence mechanism against stressful negative and overwhelming emotions, and decreased ability to experience feelings and emotional states, these emotional disturbances lead to emotional blindness, which lies at the core of the concept of alexithymia.^{4,9}

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 physician–patient relationship, which is important for accurate medical examination and for a patient’s (or

client's) attachment to a therapist.⁹ Within the context of burnout syndrome, an ability to recognize one's emotions is key in managing stressful work conditions in people with strong alexithymic personality traits.^{6,8,9}

There is an ongoing debate regarding the relationship between traumatic stress and burnout syndrome. Several research studies have indicated the potential of stress as both predictor and accelerant of burnout, making burnout syndrome potentially classified as a psychiatric disorder.^{3,10–12} It appears that the symptomatology of stress and burnout syndrome exhibit similar qualitative characteristics, particularly in the early stages of burnout^{1,3,10,13} and stress may accelerate burnout progression.^{10,14}

The two characterizations, burnout and stress, may be disparate entities; burnout syndrome is a work-related disorder, while stress reactions also exist outside the work-related context.^{10,11,14} Conversely, some studies indicate that burnout and stress cannot be solely independent.¹² Burnout might be considered as a stress disorder, because stress is a central component of burnout syndrome and likely there is no burnout without stress.¹³ In addition, research has shown that stress from work is frequently present, at least at the beginning of burnout syndrome development, in each burnout case.^{1,3,10,13}

Within the context of the details described above, the aim of the present study was to test the hypothesis that burnout symptoms are linked to alexithymia and depression. In addition, the relationships between burnout symptoms and traumatic stress experiences were analysed with respect to individual development.

Participants and methods

Study population

Members of the Czech Diabetes Society, a non-profit organization representing

healthcare professionals in the Czech Republic with an interest in diabetes and related topics, were invited by letter to participate in this cross-sectional study, that was conducted at the Department of Psychiatry, First Faculty of Medicine, Charles University, Prague between October 2018 and February 2019. Only female healthcare professionals aged >31 and <60 years were included in the final analyses, described in the results section.

Approval for subjects to participate in the study was provided by the Czech Diabetes Society. Following study enrolment, questionnaires were administered to all participants via an on-line system specifically prepared for this study. The questionnaires were self-completed with no time limits. All procedures involving human participants were performed 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. Written informed consent was obtained from all study participants.

Psychometric measures

Maslach Burnout Inventory (MBI-HSS[MP]). The Maslach Burnout Inventory (MBI), one of the first measures for burnout syndrome, presented by Maslach and Jackson in 1981,² and revised 5 years later,¹⁵ includes 22 questions scored on a 7-point Likert scale ranging from 0 'never' to 6 'every day'. The questions focus on three main components of burnout syndrome: 9 items for emotional exhaustion; 5 items for depersonalization; and 8 items for personal accomplishment. Higher scores in emotional exhaustion and depersonalization subscales are interpreted as higher burnout levels, and a higher personal accomplishment subscale score corresponds to a lower burnout level. A more general version of the MBI was created in the 1990s

(MBI-GS – General Survey), and until 1998, the MBI was used in over 90% of all empirical burnout studies.¹⁶ The present study utilised a more specific version of the Maslach Burnout Inventory – the Human Services Survey for Medical Personnel (MBI-HSS [MP]).¹⁵ 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); and ‘I don’t really care what happens to some patients’ (depersonalization). These three scale scores should not be summed to create a total burnout score, but should be interpreted separately.¹⁵ Cronbach’s α yielded estimates for the MBI-HSS scales of 0.90 for emotional exhaustion, 0.79 for depersonalization, and 0.71 for personal accomplishment. The test-retest reliability coefficients for the MBI-HSS scales were the following: 0.82 for emotional exhaustion, 0.60 for depersonalization, and 0.80 for personal accomplishment.¹⁵

Burnout Measure (BM). Study participants’ level of burnout was also assessed using the Burnout Measure (BM) (Cronbach’s $\alpha=0.89$, test-retest reliability after one week = 0.88).¹⁷ The original 21-item BM total score was included for reasons of comparability with other studies and for a more generic view on burnout. BM items were scored on a 7-point rating scale ranging from 1 ‘never’ to 7 ‘always’.¹⁸ Examples of items include ‘I have felt physically drained’; ‘I have felt unhappy’; and ‘I have felt full of optimism’. Higher total score is interpreted as a higher level of burnout.

Toronto Alexithymia Scale (TAS-20). Alexithymia was assessed using the validated Czech version of the 20-item Toronto Alexithymia Scale (TAS; Cronbach’s $\alpha=0.81$, test-retest reliability after one week = 0.77).¹⁹ This tool measures the

degree of difficulty during accessing emotions and in becoming aware of an emotion. Each question is scored on a 5-point Likert scale (from 1 ‘strongly disagree’ to 5 ‘strongly agree’), with a total TAS score ranging from 20 to 100. The scores of the 20 items represent three domains: difficulty of describing feelings (DDF subscale), difficulty of identifying feelings (DIF subscale), and externally oriented thinking (EOT subscale). The third subscale 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 without alexithymia (scores ≤ 51), subjects with borderline alexithymia (scores 52–60), and subjects with alexithymia (scores ≥ 61). Examples of items include ‘I have feelings I can’t quite identify’; ‘I am often confused about what emotion I am feeling’; and ‘It is difficult for me to reveal my innermost feelings, even to close friends’.¹⁹

Beck Depression Inventory (BDI-II). Depressive symptoms were assessed using the Beck depression inventory, a 21-item questionnaire for depression assessment (Cronbach’s $\alpha=0.89$, test-retest reliability after one week = 0.85).²⁰ Items are presented on a 4-point Likert scale to indicate severity of depressive symptom. The scale is sensitive to changes in the mental state of the individual over time, and has a maximum total score of 63. Higher total scores indicate more severe depressive symptoms. Examples of items include pessimism, suicidal thoughts, and irritability. The subscale measuring anhedonia was also calculated from the BDI-II, as the sum of items 4, 12 and 21.

Trauma Symptoms Checklist (TSC-40). Traumatic stress symptoms were evaluated using the Trauma Symptoms Checklist

(TSC; Cronbach's $\alpha=0.91$, test-retest reliability after one week = 0.88).²¹ TSC-40 is a self-reported questionnaire with 40 items scored on a 4-point Likert scale (from 0 'never' to 3 'often') with a total score ranging from 0 to 120 (higher scores equate to higher levels of traumatic stress). The TSC-40 assesses stress symptoms associated with childhood or adult traumatic experiences, in adult individuals, 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 (SATI), sleep disturbances and sexual problems. Examples of items include 'Headaches'; 'Not feeling rested in the morning'; and 'Being confused about your sexual feelings'.

Statistical analyses

Data are presented as mean \pm SD, range or n (%) prevalence, and were analysed using Statistica software, version 6 (StatSoft). Data were not normally distributed, therefore non-parametric Spearman's correlation coefficient was used to analyse associations between factors. The main advantage to using non-parametric analysis is the very conservative approach to outliers and leverage points, unlike in the case of using parametric correlations or regression analyses, which may create false results and increase risk of inappropriate rejection of the null hypothesis.²² In addition, previous research has indicated that this statistical analysis is appropriate for psychopathological data reflecting traumatic stress symptoms that usually does not have normal distribution.²³ A P value < 0.05 was considered to be statistically significant.

Results

Out of 600 female members of the Czech Diabetes Society, 132 were interested in

participating in this study (recruitment rate, 22%), however, 18 were excluded because they were aged > 60 years. Out of 200 male members who were invited to participate, 28 were interested in participating (recruitment rate 14%), which was below the statistical significance required for the statistical analyses, thus male participants were not included in the study. The final study population comprised 114 female participants, with a mean age of 46.62 ± 8.71 years (age range, 31–60 years). Of these, 83.3% were physicians, 14% were medical nurses and 2.7% were other medical professionals. Mean duration of professional employment was 19.78 ± 7.53 years (range, 5–39 years).

The following results were observed in the present study population: For burnout measured by MBI-HSS(MP), mean scores were 17.22 ± 11.1 (emotional exhaustion subscale), 5.58 ± 5.05 (depersonalization subscale) and 36 ± 7.51 (personal achievement subscale); For burnout measured by BM, mean score was 2.83 ± 0.79 ; For alexithymia measured by TAS-20, mean score was 41.64 ± 9.95 (participants without alexithymia 84%, borderline 11%, with alexithymia 5%); For depression measured by BDI-II, mean score was 7.59 ± 6.96 ; and for traumatic stress measured by TSC-40, overall mean score was 21.22 ± 13.57 .

Statistically significant correlations (Spearman's rho [r] values ≥ 0.22) were observed between burnout (measured by both BM and MBI; particularly positive correlations of the MBI-HSS[MP] emotional exhaustion subscale) and total score of alexithymia (TAS-20), depression (BDI-II, BDI-II anhedonia and BDI-17) and total score of TSC-40 (Table 1). In addition, BM results positively correlated with all subscales of traumatic stress symptoms (TSC-40) – dissociation, anxiety, depression, sexual abuse trauma index (SATI), sleep disturbances and sexual problems. The BM results also positively correlated

Table 1. Correlations between burnout (Maslach Burnout Inventory [MBI-HSSMP] and its subscales for emotional exhaustion [EE], depersonalization [DP] and personal achievement [PA]; Burnout Measure [BM]) and depression (Beck Depression Inventory [BDI-II] and its subscales for anhedonia [Anhed] and other questions not related to anhedonia [BDI-17]), stress related symptoms (Traumatic Stress Checklist [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]), and alexithymia (Toronto Alexithymia Scale [TAS-20] and its subscales for difficulty of identifying feelings [Dif], difficulty of describing feelings [DDF] and externally oriented thinking [EOT]).

Measure	MBI		BDI-II		TSC-40		TSC		TSC		TSC		TAS-20		TAS-20		
	EE	DP	PA	MBI	BDI-II	Anhed	TSC-40	Dis	Anx	Dep	SATI	Sleep	Sex	TAS-20	Dif	DDF	EOT
BM	0.67	0.38	-0.48	0.63	0.59	0.60	0.44	0.47	0.36	0.41	0.38	0.32	0.26				
MBI - EE	I	0.55	-0.35	0.51	0.52	0.43	0.50	0.47	0.41	0.38	0.34	0.37	0.24	0.34			
MBI - DP		I	-0.27	0.33	0.32	0.26	0.31	0.25	0.29	0.22	NS	0.22	0.33	0.27	0.30	0.22	
MBI - PA			I	-0.36	-0.35	-0.33	-0.31	-0.28	-0.27	-0.24	-0.27	-0.22	NS	-0.41	-0.27	-0.42	-0.29
BDI-II				I	0.98	0.75	0.78	0.56	0.61	0.76	0.68	0.67	0.52	0.49	0.43	0.45	0.30
BDI-17					I	0.63	0.73	0.54	0.57	0.69	0.64	0.64	0.46	0.47	0.41	0.46	0.27
BDI-II Anhed						I	0.69	0.44	0.55	0.71	0.59	0.55	0.57	0.37	0.38	0.28	0.24
TSC-40							I	0.74	0.83	0.91	0.82	0.83	0.71	0.57	0.56	0.48	0.36
TSC-40 Dis								I	0.59	0.59	0.78	0.53	0.44	0.60	0.49	0.49	0.47
TSC-40 Anx									I	0.70	0.60	0.62	0.50	0.46	0.44	0.37	0.29
TSC-40 Dep										I	0.74	0.84	0.66	0.44	0.46	0.34	0.28
TSC-40 SATI											I	0.63	0.70	0.54	0.52	0.43	0.37
TSC-40 Sleep												I	0.48	0.32	0.35	0.25	NS
TSC-40 Sex													I	0.41	0.50	0.32	NS
TAS-20														I	0.74	0.79	0.79
TAS-20 DIF															I	0.55	0.32
TAS-20 DDF																I	0.42
TAS-20 EOT																	I

Spearman's rho (r) values ≥ 0.22 are statistically significant at $P < 0.05$, and r values ≥ 0.24 are statistically significant at $P < 0.01$ (Spearman's correlation coefficient). NS, no statistically significant correlation.

with all subscales of the TAS-20, representing cognitive and affective dimensions of alexithymia (Table 1). No statistically significant correlations were found between subscales of TSC-40 (sleep disturbances and sexual problems) and subscale 'externally oriented thinking' of TAS-20 and between TSC-40 subscales (sleep disturbances and sexual problems) and subscales 'depersonalization' and 'personal achievement' of the MBI-HSS(MP).

Discussion

According to Maslach and Jackson (1981)² depersonalization, detachment and cynicism are 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 one's own feelings and needs, exists in parallel to the concept of alexithymia first described by Sifneos.⁴ The construct of alexithymia represents a very low capacity for identifying and verbalizing feelings and emotions related to emotional blindness and affective instability.^{4,19,24,25} Due to their decreased ability to process and recognize emotions, people with alexithymia have difficulties in interpersonal relationships, which are experienced as stressful and demanding. In addition, because people with alexithymia have difficulties in regulating emotions, then this difficulty as a defence mechanism may be a reason behind the relationship between alexithymia and anhedonia, and this emotional dysfunction may cause a cascade of other psychological and somatic symptoms.^{5,26,27}

Results of the present study indicate that burnout is statistically related to alexithymia as well as chronic stress symptoms, which are significantly influenced by the experience of traumatic events, such as abuse, neglect, or sexual violence.^{21,23} These results are in agreement with

previous findings documenting that a tendency to depersonalization is characterized by seeing neither self nor others as valuable and not being able to perceive or express one's own feelings and needs, which may play an important role in the etiopathogenesis of burnout syndrome.^{5,6,8,9} In addition, Maslach and Jackson (1981)² identified detachment and cynicism in people with burnout, through which they 'protect' themselves by disengaging from relationships and difficult emotions, manifesting as emotional blindness and affective instability.^{19,25} The results of the present study also indicate a significant relationship between burnout and dissociative symptoms that reflect very serious stressful events, which may influence the disintegration of conscious experience.^{21,23,28}

Furthermore, the present results concur with findings that describe the relationship between burnout syndrome and depression, particularly the final stages of burnout that are characterized by loss of motivation and energy, and with experiences of meaninglessness.^{11,13,29}

The results of the present study may be limited by selection bias introduced by sampling of the study population, including the low recruitment rate, and by the relatively small sample size, which may limit the generalizability of the results to the wider population of healthcare professionals.

In conclusion, the results of the present study support the hypothesis that symptoms of burnout syndrome are related to alexithymia, as well as to depressive and traumatic stress symptoms. Recent research has indicated that alexithymia is likely related to various psychosomatic diseases and various psychopathological conditions, as well as decreased ability to engage in authentic relationships.^{5,6,9} Within this context, results of the present study suggest that assessment of alexithymia may represent a risk factor of burnout syndrome. Further research involving a larger study

population is required to validate the present results.

Declaration of conflicting interest


The authors declare that there is no conflict of interest.

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