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Original Article

Assessment of the Personal Losses Suffered by Correctional Officers due to Burnout Syndrome

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Abstract

Background: Professional burnout is defined as a state of depletion and loss of motivation accompanied by different mental and physical symptoms.

Objective: To assess personal losses suffered by correctional officers due to burnout.

Methods: This cross-sectional study conducted between June and December 2012 included 201 correctional officers in two Bulgarian prisons. The mean age of the whole group was 41.2 (SD 8.0) years. The respondents was mostly male (56.7%), married (72.6%), had a secondary educational level (61.7%), and 76.1% of them had been in current prison work over 5 years.

Results: The demographic characteristics had no influence on the occurrence of burnout but there was a correlation between level of burnout and the number of sick-leaves, the need for medical help, and the expenses spent on medications. Officers affected by burnout took more sick-leaves and this affected adversely their remuneration as they lost 3.1% of their annual wages. Their expenses spent on user fees for medical services were 3 times higher. Their monthly expenses spent on medications were 3.14 times higher than those of people without the burnout syndrome.

Conclusion: The high level of burnout has a negative personal economic effect on the prison employees.

Keywords: Burnout, professional; Police; Prisons; Health care economics and organizations; Bulgaria

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Introduction

The professional exhaustion or "burnout" syndrome was first described in the literature by Freudenberger in 1974.[1] He described the phenomenon that he observed in himself and in some of his colleagues as a state of depletion and loss of motivation accompanied by different mental and physical symptoms. In the same time, independently from Freudenberger, Christina Maslach[2] defined burnout as a state of physiological, emotional and intellectual depletion characterized by chronic fatigue, a feeling of helplessness and hopelessness, development of a negative perception and behavior towards oneself, the job, life and the others. Burnout syndrome is an officially recognized diagnosis introduced in the International Classification of Diseases (ICD), 10th revision,[3] specified as a state of vital exhaus-

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tion (Z73.0). Therefore, according ICD-10-CM "vital exhaustion" refers to "burnout." Occupational burnout falls within Class XXI—factors influencing health status and contact with health services under problems related to life-management difficulty.

Burnout is a process that begins with excessive and prolonged job stress levels. There are not many researchers worldwide who have studied the development of the professional burnout in prison and correctional officers.[4-7] Work conditions in prisons include various sources of stress which are relatively specific to the prison environment. Career within a prison involves dealing with hostile individuals, life threats, shift work, work under high risk levels, overtime, and fear of contracting incurable diseases when in contact with offenders. All these unfavorable work environment specific factors lead to physical and mental depletion, insomnia, increased alcohol consumption, smoking, medical substances abuse, as well as frequent headaches, gastrointestinal disorders, fatigue and depression.[8-10]

Burnout research focused on its attitudinal and organizational consequences and its negative impact on mental health.[11] Job burnout has negative consequences on individual accomplishments at work and results in frequent absence from work (*eg*, sick leave), changes of vocational orientation, low efficiency, reduced satisfaction with and reduced dedication to work.[12] These negative organizational consequences of burnout have in common that they all—directly or indirectly—lead to financial losses.

In Bulgaria, there is no official information on this area and therefore, we conducted this study to assess the personal losses suffered by correctional officers as a result of burnout syndrome.

For more information on job stress among Iranian prison employees see http://www.theijoem.com/ijoem/index.php/ijoem/article/view/403

Materials and Methods

Study Area

The study was conducted in the regional prison of Pazardzhik and the regional prison of Sliven. The prison in Pazardzhik encompasses the building of the prison itself and two open-type correctional communities (CC): CC Pazardzhik in the city of Pazardzhik and CC Sredna Gora located near the town of Pirdop, region of Sofia.

In Bulgaria, there is only one prison for women and one correctional facility for minor girls, both located in Sliven. The regional prison of Sliven encompasses two open-type correctional communities: CC Sliven in the city of Sliven and CC Ramanusha located 10 km to the East of the same town.

Study Design

A cross-sectional study was carried out with all available staff at prisons between June and December 2012. The response rate was 100%. The front page of the survey explained that participation was voluntary and the results would be kept in strict confidence. All employees in direct contact with the inmates were included in the study.

Participants

A total of 201 prison employees with a mean age of 41.2 (SD 8.0) years was included in this study. The socio-demographic characteristics of participants are shown in Table 1.

Data collection tools

The principal tool used for data collection was the specially designed questionnaire organized in four sections: The first section covered the demographic characteristics such as gender, age, educational level, marital status, rank in the chain of command, and years of tenure in present pris-

on. The second section identified the presence and level of burnout syndrome among correctional officers using V. Boyko's method for diagnostics of the severity of symptoms and the phases of formation and completion of the "occupational burnout" process.[13] The third part of the questionnaire covered some of the most widely spread complaints noted over the last six months in respect to stress and exhaustion at work. The list of symptoms was used as a screening test for emotional burnout and allowed disclosing the occurrence of psychosomatic and psycho-vegetative disorders among the affected respondents. The destructive coping mechanisms—smoking, alcohol consumption, and substance use and abuse—were assessed with the questionnaire with only two possible answers (yes/no) without asking participants the name of the medication taken. The fourth section of the questionnaire included questions related to quantitative assessment of the sick leaves taken during the last year, the visits to the general practitioner and self-assessment of the related loss of work time or leisure time, the expenses spent on medicines and the weight of such expenses, as well as the extent of job salary of the respondents. Some of the questions were open, whereas for other questions five-grade Likert scale was used to measure some of the studied signs. To prevent confusion in the respondents and obtain correct information concerning the sick leaves taken, the visits to the general practitioner and the expenses on medicines attributable to burnout syndrome, the questions contained specific guidelines as to the circumstances under which a sick leaves must have been taken, the general practitioner visited and medicines purchased.

Boyko describes the dynamics of "occupational burnout" differentiating three stages each of which is manifested in the form of four symptoms: (1) Strain phase:

Table 1: Socio-demographic characteristics and work places of the respondents

Variable	n (%; 95% CI)
Sex	
Male	114 (56.7; 49.9 to 63.5)
Female	87 (43.3; 36.5 to 50.1)
Educational level	
University	77 (38.3; 31.6 to 45.0)
Secondary	124 (61.7; 55.0 to 68.4)
Marital status	
Single	27 (13.4; 8.7 to 18.1)
Married	146 (72.6; 66.4 to 78.8)
Widow/Widower	6 (3.0; 0.7 to 5.4)
Divorced	22 (10.9; 6.6 to 15.2)
Rank	
Correctional officer	141 (70.1; 63.8 to 76.4)
Inspector	44 (21.9; 16.2 to 27.6)
Administration	16 (8.0; 4.3 to 11.7)
Experience in this workplace	
≤ 1 yr	16 (8.0; 4.3 to 11.7)
1.1–3 yrs	16 (8.0; 4.3 to 11.7)
3.1–5 yrs	16 (8.0; 4.3 to 11.7)
>5 yrs	153 (76.1; 70.2 to 82.0)
City	
Sliven	101 (50.2; 43.3 to 57.1)
Pazardzhik	100 (49.8; 42.9 to 56.7)

the presence of strain is a precursor for the starting and the development of the mechanism of formation of the burnout syndrome. This phase is characterized by the following symptoms—experiencing traumatizing psychological situations, dissatisfaction with oneself, feeling of being

"enclosed in a cage," and anxiety and depression. (2) Resistance phase: the introduction of this phase as a separate one is conditional. Where one realizes the presence of strains, they strive to avoid the effect of the emotional factor by reducing their emotional reactions, which leads to inadequate selective emotional reactions, emotional and moral disorientation, enlarged area of saving emotions, and reduced fulfillment of the professional duties. And (3) Exhaustion phase: it is characterized by general loss of energy and failure of the nervous system. Emotional deficit, emotional avoidance (isolation), isolation of the personality (depersonalization), and psychosomatic and psycho-vegetative disorders are observed during this phase. The diagnostic methodology allows differentiating not only the three stages in the development of burnout syndrome but also the four principal signs or symptoms within each of these stages. Therefore, a detailed picture of job burnout is presented. Each statement in the questionnaire in its positive or negative version is assigned a given number of points that form the total score for each sign/symptom. The higher is the total score, the more pronounced is the respective sign/symptom. Once the total score for each symptom has been calculated, the score by stages needs to be calculated. Special attention was paid to symptoms with scores in excess of 20 points as they were the leading symptoms and the stage to which they belong was determined as dominating. The quantitative indicators provide understanding of the degree of formation of each stage, *ie*, the level of completeness. If the total score was <45 the level of burnout was considered "low;" between 46 and 75, "moderate;" and >75, the level of burnout was considered "high." We tried to figure out which stage of development of the burnout syndrome belonged to the leading symptoms, and at which stage they had the highest frequency.

As the method of V. Boyko was applied for the first time in Bulgaria, it was preliminarily adapted and validated.[14] The Boyko's method (containing 84 statements) was translated into Bulgarian language by three translators following the recommended stages of translation and cultural adaptation—translation with conceptual and linguistic evaluation, back translation, comparison of the source, and verification of the new instrument. Comparison of the backward version with the original source version was performed by the expert in psychology.

The data collection from the pilot study was administered to a sample of 100 prison employees (50% male, 50% female). The test-retest interval was 2–4 months. The reliability coefficients for the three phases, estimated by Cronbach's α in the pilot sample, were as follows: strain phase -0.94, resistance phase -0.86, and exhaustion phase -0.90. The reliability of the total scale was 0.96.

There were strong to moderate correlations between the responses obtained from Boyko's method and the results of most widely used measure on burnout-Maslach Burnout Inventory (MBI); the Pearson's

TAKE-HOME MESSAGE

- Burnout syndrome is a significant predictor of sickness absence at the correctional officers.
- Burnout syndrome has a negative economic impact on the correctional officers due to reduced salary amounts and increasing use of medical care and medications.
- Burnout syndrome affects the health of the prison staff and leads to psychosomatic diseases among correctional officers more often than members of other occupations.
- Burnout syndrome is significant associated with harmful habits like increased alcohol intake and substance abuse among the wardens.

correlation coefficients with "emotional exhaustion," "depersonalization," and "personal accomplishment" subscales were 0.878, 0.627, and -0.391, respectively. The Bulgarian version of the MBI performed by B. Tzenova[15] was used to measure the three core dimensions of burnout—emotional exhaustion (Cronbach's α=0.813), depersonalization (Cronbach's α=0.729) and reduced personal accomplishment (Cronbach's α=0.766).

This study was a non-interventional socio-psychological study. Participation was voluntary and performed after obtaining informed concept from all participants. Therefore the University Ethics Committee waived the ethical approval. Confidentiality of all the respondents was emphasized.

Statistical Analysis

Data was processed using SPSS® for Windows® ver 17.0 and MS Excel® for Windows®. A p value <0.05 was considered statistically significant.

Results

Using Boyko's method, burnout syndrome was found in 147 (73.1%, 95% CI: 67.0% to 79.3%) of participants. Table 2 shows the distribution of the respondents with respect to the presence or absence of burnout syndrome depending on their socio-demographic characteristics. The demographic characteristics did not affect the presence or absence of burnout in the personnel of the studied prisons.

Level of burnout was significantly ($p<0.05$) correlated with number of sick leaves used by the employee (Spearman's $\rho=0.192$), number of visits to general practitioner per month (Spearman's $\rho=0.253$), and amount of purchased drugs (Spearman's $\rho=0.327$).

The median number of sick leaves taken in those without established burnout syndrome was 5 (IQR 15) days per year; in participants with low levels of burnout syndrome, it was 12.5 (IQR 14) days per year, and in individuals with high levels of burnout syndrome it was 29 (IQR 57) days per year.

Table 2: Distribution of the respondents with and without burnout syndrome

Variable	Without burnout n (%)	With burnout n (%)	p value
Sex			
Male	35 (30.7)	79 (69.3)	0.16
Female	19 (22)	68 (78)	
Educational level			
University	20 (26)	57 (74)	0.82
Secondary	34 (27.4)	90 (72.6)	
Marital status			
Single	8 (30)	19 (70)	0.88
Married	40 (27.4)	106 (72.6)	
Widow/Widower	1 (17)	5 (83)	
Divorced	5 (23)	17 (77)	
Rank			
Correctional officer	37 (26.2)	104 (73.8)	0.57
Inspector	14 (32)	30 (68)	
Administration	3 (19)	13 (81)	
Experience in this workplace			
≤1 yr	7 (44)	9 (56)	0.13
1.1–3 yrs	5 (31)	11 (69)	
3.1–5 yrs	4 (25)	12 (75)	
>5 yrs	38 (24.8)	115 (75.2)	
City			
Sliven	31 (31)	69 (69)	0.18
Pazardzhik	23 (22.8)	78 (77.2)	

The median number of visits to the general practitioner for individuals without burnout syndrome was 1 (IQR 1.25) per month; for those with low levels of burnout, it was 2 (IQR 2.75) visits per month, and for individuals with high levels of burnout it was 3 (IQR 2) visits per month. The mean net wages in the studied prisons amounted to US$ 408 (SD 93). For the Pazardzhik prison the mean net wages amounted to US$ 415 (SD 92) and for Sliven they amounted to US$ 401 (SD 93). Based on these data, the mean daily wages of the employees of the two prisons was US$ 19.4 for the staff of the Pazardzhik prison and US$ 19.1 for the staff of Sliven prison.

We tried to evaluate the loss associated with reduced salary for officers who had taken sick leaves on annual basis with reference to the Bulgarian legislation related to compensations paid for temporary disability to work. On the basis of the reported (annual) average number of days of sick leave taken by wardens with high levels of burnout, using expert calculation we established that these staff members had received 3.3% less income on an annual basis compared to those without burnout syndrome. This was a result of the reduced salary that was paid for sick leaves (60% of the employee's gross salary for the period of temporary incapacity to work).

The respondents' self-assessment of the loss of leisure in connection with the access to health care was significantly associated with the occurrence (p=0.015) and the level (p=0.005) of burnout syndrome.

The respondents observed during the last six months, mostly complained of anxiety and depression (n=68; 33.8%), sleeplessness (n=62; 30.9%), weight gain or loss (n=59; 29.4%), continuous suspicions (n=53; 26.4%), frequent headaches (n=48; 23.9%), increased self-criticism (n=48; 23.9%), increased irritability (n=45; 22.4%), gastrointestinal disorders (n=33; 16.4%), and shortness of breath (n=20; 10.0%). Of all these symptoms, more than three were simultaneously present in 50% (n=71) of the senior police officers and 45% (n=20) of the prison wardens.

Among the respondents, 44.3% (n=89) smoked cigarettes; 11.9% (n=11) of them had increased the number of cigarettes per day over the last year. Twenty-two (11.0%) of studied participants consumed alcohol four times a week; 6.0% (n=2) had increased alcohol intake over the last year. The average volume of strong alcohol intake varied between 100 and 200 mL in each session. One-hundred and forty (69.7%) of the staff members did not drink wine at all; 37.8% (n=76) did not drink beer at all and 53.2% (n=107) drank mostly strong alcohol. Seventy-five (37.5%) wardens and senior officers reported use of psychotropic substances to recover after an exhausting work shift. All three dimensions and the total scale of burnout were significantly associated with alcohol intake (p=0.004) and psychotropic substance use (p=0.0001) among respondents. There was no significant association between burnout and smoking.

Discussion

Burnout syndrome is a problem among prison staff. Keinan and Maslach-Pines reported that the correctional employees in their study had much higher levels of burnout than the levels found in the general population, even higher than police officers.[16] Our findings confirmed that the correctional officers who took part in this survey were generally burned-out. It seems reasonable to suggest that increased demands and responsibilities of controlling and assuring the safety of unwilling and hostile individuals, in addition to other stressors in the correctional environment, could lead to increased levels of occupational burnout.

We found that wardens with high levels of burnout took more sick leaves than those without burnout. It also negatively affected the salaries they received for the respective months. They might be absent for want of withdrawing from the aversive work circumstances. Using this hypothesis, it has been found that prison employees who are low in job satisfaction and organizational commitment are more frequently absent than those who are more satisfied and committed. Our results agreed with the findings of similar studies in this field. A study using a large representative Finnish sample found that those with severe burnout had 52 excess sickness absence days during the two-year study period as compared to those with low burnout scores.[17] Pranjic and Males-Bilic showed that 53% of their participants with burnout used longer sick leaves to achieve stabilization of health, for mental rehabilitation and reintegration at work place.[18]

Using average weighted values calculated based on the amounts spent on medicines reported by the respondents, we found that the correctional officers with burnout syndrome spent 3.14 times higher monthly expenses on medicines than those who were not affected by the syndrome. The wardens with higher levels of burnout needed more medical help; the rate was three times of those without burnout. From an economic point of view, prison employees with burnout syndrome incurred three times higher personal expenses on consumer fees paid for health services than prison staff without the syndrome because the former were not registered or hospitalized and thus not exonerated from the consumer fee under the health insurance legislation of Bulgaria.

We found a relatively weak correlation between the respondents' self-assessment of the loss of leisure in connection with the access to health care and burnout syndrome. The majority of the respondents (14.4%; n=29) believed that the increased need for medical help as a result of burnout syndrome was at the expense of their leisure. Given the insignificant amount of hours of leisure loss reported we did not calculate the correlation. The relatively low assessment of the loss of leisure was due to the fact that in Bulgaria the access to health services is at a rather good level and anyone who needs such services can receive them relatively quickly.

We did not find any correlation between the respondents' self-assessment of work time loss connected to the access to health care and the occurrence of burnout syndrome, which can be explained by the fact that correctional officers did not seek for medical help while at work; only 5.0% (n=10) of the participants with burnout syndrome sought medical help during their work hours. In that case, there was no evidence of significant loss of work time on account of the employer. However, we could not find studies related to economic losses of burnout syndrome for the individuals concerned.

It has been shown that burnout syndrome affects the health of the prison staff. Chronically stressful emotions related to job dissatisfaction, alienation, and burnout have been associated with depression, psychosomatic symptoms, and other symptoms and illness in over 90% of studies that examined these relationships in organizational psychology.[19] According to data from the Bureau of Labor Statistics, workers who must take time off work because of stress, anxiety, or a related disorder are off the job for about 20 days.[20] A study conducted in the USA showed that psychosomatic diseases are more common among correctional officers than members of most other occupations, including police officers—a comparable profession.[21] The prevalence of anxiety and depression (33.8%) in our sample was higher than that of correctional officers (24%) in France,[9]

and approximately two times lower than that found in the Chinese prison staff.[8] International Labor Organization reports estimate that in the USA one in ten workers are diagnosed with depression, resulting in approximately 200 million lost working days each year and costing US$ 30–44 billion.[22]

Our results showed lower percentage of sleep disorders among Bulgarian prison staff compared with a French sample where 42% of them had sleep disturbances.[9] Correctional officers, working in a closed and harsh prison environment, are prone to suffer from various health disorders.[9,23]

In the course of the study it was established that the work load of correctional officers had increased over the previous few years due to financial and personnel cuts. In the meantime, the number of prisoners had increased more than twice. Consequently, the correctional officers had to do more overtime. To cope with job stress they often had recourse to harmful habits like increased alcohol intake, smoking and substance abuse. We showed the increased use of alcohol among wardens. In our previous paper, we revealed that the levels of burnout and its stages were higher among prison staff used alcohol excessively.[24] According to Violanti alcohol abuse among police officers in the USA is about double that of the general population where one in ten adults abuses alcohol.[25] MaClean asserts that alcohol abuse among police officials is the norm because they are ostracized by the rest of society for the type of work they do.[26] In the literature this rationale for drinking is referred to as "drinking to cope."

Over the past 20 years, the prevalence of psychotropic drug use among workers ranged from 3.9% to 19.5%.[27] We found a very high prevalence of psychotropic drug use among our respondents whereas the consumption of substances among Quebec correctional officers was 14.7%.[10] Another study reported the prevalence of psychotropic drug use among correctional officers as 58.0%.[28] We previously reported that all three dimensions of burnout were significant associated with psychotropic substance use among wardens.[24] So far, little is known about the prevalence of psychotropic drug use among correctional officers.[10]

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