PRIMENJENA PSIHOLOGIJA, 2016, Vol. 9(2), STR. 177-198

UDK: 159.944.4
Originalni naučni rad
doi: 10.19090/pp.2016.2.177-198

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SERBIAN VERSION OF THE WORK BURNOUT SCALE FROM THE COPENHAGEN BURNOUT INVENTORY: ADAPTATION AND PSYCHOMETRIC PROPERTIES[2]

Burnout is most commonly defined as a state of physical, emotional, and mental exhaustion caused by long-term involvement in emotionally demanding situations. The Copenhagen Burnout Inventory (CBI) is a recently-developed public domain questionnaire designed to measure burnout in three domains: personal, work-related, and client-related. The present study examined the psychometric properties of the Work Burnout (WB) scale from the CBI and its relationships with various relevant constructs. 352 Serbian employees from two different samples completed several instruments assessing work burnout, distress, (ir)rational beliefs, turnover intentions, and job satisfaction. Results showed that the WB had a two-dimensional factorial structure (work exhaustion and work frustration), with acceptable fit indices using CFA, and excellent internal consistency. Moreover, the scale (and both dimensions) meaningfully correlated with distress, irrational beliefs, job satisfaction, and intentions to leave the organization. These findings indicate that the WB is a valid instrument to use with employees across different occupations and could be particularly useful when researchers want to quickly and efficiently assess emotional burnout. Also, the scale may be used as a short two-dimensional scale for measuring two distinct aspects of burnout, work frustration and work exhaustion. Some limitations of the study and the instrument itself have also been highlighted and discussed.

Keywords: burnout, Copenhagen Burnout Inventory, validity, distress, irrational beliefs, Serbia

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Primljeno: 17. 02. 2015.
Primljena korekcija: 30. 11. 2015.
Prihvaćeno za štampu: 12. 01. 2016.

[2] This research was supported by the Serbian Ministry of Education and Science, project number 179022.

The concept of burnout was introduced independently by Freudenberger (1974) and Maslach (1976), and it was used to depict the phenomenon of chronic exhaustion and cynicism that occur mostly in the so-called "helping professions". So far, several definitions, models, and concepts of burnout have been developed. One of the most popular concepts (Maslach, Schaufeli, & Leiter, 2001) recognises burnout as a syndrome which consists of three dimensions: (1) Emotional exhaustion: the feeling of being "drained" and the inability to summon sufficient energy for a new day, as well as the lack of enthusiasm; (2) Depersonalisation/cynicism: the feeling of detachment from work and the people from the work environment, distancing and taking on a cynical attitude, and (3) Reduced personal accomplishment: feelings of decline in one's competence and productivity and a lowered sense of self-efficacy. Previous research has suggested that three dimensions appear in a successive manner, whereas exhaustion occurs first, which sequentially leads to cynicism (Maslach et al., 2001). Furthermore, it has been stated that the relationship of inefficacy to the other two aspects of burnout is somewhat more complex and less clear. Namely, many findings imply that those appear simultaneously rather than successively (Brookings, Bolton, Brown, & McEvoy, 1985; Dignam, Barrera, & West, 1986; Lee & Ashforth, 1990). Shirom (2003) claims that authors "have yet to provide convincing theoretical arguments about why the three different clusters of symptoms that make up their conceptualization of burnout should 'hang together'" (p. 248).

Other conceptualisations of burnout put more emphasis on fatigue, exhaustion, and emotional weariness. For example, Pines and Aronson (1988) argue that burnout is a "state of physical, emotional and mental exhaustion, caused by long-term involvement in emotionally demanding situations" (p. 9). Similar to Pines and Aronson (1988), as well as Shirom (1989), Schaufeli and Greenglass (2001) defined burnout as "a state of physical, emotional, and mental exhaustion that results from long-term involvement in work situations that are emotionally demanding" (p. 501). The dilemmas regarding whether depersonalisation/cynicism and inefficacy should be viewed as a part of burnout or whether they are mere correlates and consequences of it exist. However, definitions of burnout formulated by Pines and Aronson, Shirom, and Schaufeli and Greenglass provided a base for developing a new burnout scale.

Instruments for measuring burnout

There are a number of instruments that have been developed for measuring burnout, including the Oldenburg Burnout Inventory (OLBI: Demerouti, Bakker, Vardakou, & Kantas, 2003; Halbesleben & Demerouti, 2005), the Burnout Measure (BM: Pines & Aronson, 1988), the Spanish Burnout Inventory (SBI: Figueiredo-Ferraz, Gil-Monte, & Grau-Alberola, 2013), and the most popular, the Maslach Burnout Inventory (MBI: Maslach, Jackson, & Leiter, 1996). The MBI is used in over 90% of empirical research on burnout syndrome (Schaufeli & Enzmann, 1998, p. 71) which is a direct consequence of the circular paradox claiming that burnout is what

the MBI measures and that the MBI measures what burnout is. However, several shortcomings of this scale have been reported (e.g. Kristensen, Borritz, Villadsen, & Christensen, 2005 or Figueiredo-Ferraz et al., 2013). For example, most questions in the original version of the questionnaire are meant exclusively for employees in the services sector; some of the questions in the MBI were not formulated precisely nor were they suitable for non-American respondents. Furthermore, many studies have so far tested the factorial structure of the MBI and some of them have been successful in confirming a three-factor model (cf. Schutte, Toppinen, Kalimo, & Schaufeli, 2000; Worley, Vassar, Wheeler, & Barnes, 2008). However, a number of studies have been unsuccessful in confirming the original factorial structure of the MBI, or they have yielded mixed results (cf. Beckstead, 2002; Galanakis, Moraitou, Garivaldis, & Stalikas, 2009; Gil-Monte, 2005; Kalliath, O'Driscoll, Gillespie, & Bluedorn, 2000; Poghosyan, Aiken, & Sloane, 2009; Vanheule, Rosseel, & Vlerick, 2007). Finally, an additional problem of all three the MBI questionnaires (including the MBI GS and the MBI-ES for teachers) is that neither of them is free nor available in the public domain, which makes them less accessible to the scientific community.

Copenhagen Burnout Inventory (CBI)

Recently, the Copenhagen Burnout Inventory (CBI) was developed, in which fatigue and exhaustion are at the core of burnout. The CBI is a public domain questionnaire and consists of three sub-dimensions. Personal burnout is designed to compare individuals regardless of their occupational status. This scale is intended to answer the simple question: How tired or exhausted are you? This generic part of the CBI might as well be called fatigue, exhaustion or any other similar term. The personal burnout dimension is defined as "the degree of physical and psychological fatigue and exhaustion that is experienced by the person" (Kristensen et al., 2005, p. 197). Client-related burnout is "the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work with clients" (Kristensen et al., 2005, p. 197). What the authors are interested in here is the degree to which people see a connection between their fatigue and their "people work". Finally, Work-related burnout is defined as "the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work" (Kristensen et al., 2005, p. 197).

To our knowledge, several studies have used the CBI and tested its psychometric characteristics. For example, Milfont, Denny, Ameratunga, Robinson, and Merry (2008) concluded that the CBI is a valid instrument to use with teachers in New Zealand. The results of Biggs and Brough (2006) also supported the adequacy of the use of the CBI, while Winwood and Winefield (2004) showed that the CBI exhibited excellent psychometric properties and proved to be an appropriate measure of burnout. Finally, Yeh, Cheng, Chen, Hu, and Kristensen (2007) found in their paper that personal and work burnout were highly correlated and appeared to measure overlapping concepts.

Relationships between burnout and other relevant constructs

Analyses show that there is a strong and positive relationship between the level of distress and some of the components of the burnout syndrome (Schaufeli, Taris, & van Rhenen, 2008). Also, research done with various professions shows that there is a strong correlation between the sources of stress at work and burnout (Tennant, 2001). Burnout can be linked to many negative organisational outcomes, including increased turnover and absence from work (Ahola et al., 2008; Borritz, Rugulies, Christensen, Villadsen, & Kristensen, 2006; Huang, Chuang, & Lin, 2003; Parker & Kulik, 1995; Schaufeli, Bakker, & Van Rhenen, 2009), lower organisational commitment (Moore, 2000; Peng et al., 2014), lower job satisfaction (Moore, 2000; Maslach et al., 2001), reduced job performance (Halbesleben & Buckley, 2004; Maslach et al., 2001; Taris, 2006), and decreased organisational citizenship behaviour (Cropanzano, Rupp, & Byrne, 2003; see also Chiu & Tsai, 2006). Employees who are experiencing burnout are also less willing to help colleagues, may be losing their concern for the organisation (Bakker, Demerouti, & Verbeke, 2004), and may be causing lower customer satisfaction (Dormann & Kaiser, 2002).

The present study

This paper reports the results from two independent studies examining some of the antecedents and consequences of burnout in different occupations in Serbia. It should be noted that the authors of the CBI suggest the use of all three subscales and that items should be combined into one questionnaire. This is not mandatory, though. In fact, Kristensen et al. (2005, p. 205) added that "the three scales can be used independently in accordance with the populations being studied and the theoretical questions being elucidated. In many concrete studies, it would be meaningful to use only one or two of the scales.". Given that many professionals and employees, in general, are not employed in positions in which daily contact with clients is required, we wanted to investigate the characteristics of the Work Burnout subscale from the CBI. Because of all the above-stated, only the Work Burnout scale was translated into Serbian and administered to the employees.

As a starting point in our work, we began by measuring the burnout and dealt with the psychometric characteristics of the Work Burnout subscale from the CBI questionnaire. Secondly, we observed its relationships with relevant constructs which influence the wellbeing of employees, in order to better understand and measure this prevalent diagnosis among employees today.

Method

Sample and procedure

The sample for this study comprised 352 Serbian employees and was divided into two smaller independent samples. Both samples were collected during July and August 2011.

Sample 1 consisted of 160 employees, with an average age of approximately 41 years (M = 41.08, SD = 10.35) and with the average years of employment of 17.8 years (M = 17.84, SD = 11.5). Subjects from this sample belonged to the general population of employees, with different occupations, levels of education, age, and marital status. Sample 2 included 192 employees in sales and healthcare (age M = 37.07, SD = 9.35; years of employment M = 13.80, SD = 10.03). The healthcare subsample comprised medical staff of the Novi Sad City Hospital, the Children's Hospital in Novi Sad, and the Primary Health Care Centre in Priboj, Serbia. Questionnaires were administered after consultation with the heads of departments, and it was their responsibility to distribute questionnaires to their subordinates. Together with questionnaires, the heads of departments were given written instructions detailing the purpose of the study and a polite request for respondents to fill in and return all questionnaires. Employees filled in questionnaires during regular breaks, but there was also an option to complete questionnaires at home. The subsample of employees in sales consisted of staff employed in several shopping malls, as well as sellers in one global direct-selling, multi-channel network, located in Novi Sad, Serbia. In most cases, this part of the sample was collected individually.

Researchers needed to ensure that respondents did not receive additional instructions apart from those printed on the battery, in order to standardise the administration of questionnaires in both samples. Basic demographic characteristics for both samples are shown in Table 1.

Table 1
Descriptive indicators of demographic variables used in the *study*

Variables	Sample 1 (n =160)	Sample 2 (n = 192)
Sex	Women (n = 104; 65.0%), men (n = 53; 33.1%)	Women (n = 149; 77.6%), men (n = 43; 22.4%)
Education	Elementary and high school (n = 94; 58.8%), college, university and MA/PhD (n = 63; 39.4%)	Elementary and high school (n = 119; 62.0%), college, university and MA/PhD (n = 72; 37.5%)
Position	Non-executives (n = 137; 85.6%), executives (n = 19; 11.9%, of which 9 women [47.37%] and 10 men [52.63%])	Non-executives (n = 160; 83.3%), executives (n = 30; 15.63%, of which 21 women [70.0%] and 9 men [30.0%])
Sector	Private (n = 44; 27.5%), public (n = 108; 67.5%), nonprofit (n = 3; 1.9%)	Private (n = 96; 50%), public (n = 96; 50%)

Note. The total % is not always 100 because there are missing data.

Instruments

Work Burnout (WB: Kristensen et al., 2005; adapted to the Serbian language by Popov, 2009). WB represents a scale for measuring the intensity of burnout syndrome. It assesses the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work. It consists of seven items (e.g. "Is your work emotionally exhausting?"), with a five-point response format (from *never/almost never* to *always*). Original scoring was used (the response *never/almost never* is calculated as 0, *seldom* as 25, *sometimes* as 50, *often* as 75 and *always* as 100), and the total score is obtained as an arithmetic mean of the responses to all seven items.

The Four-Dimensional Symptom Questionnaire (4DSQ: Terluin, Van Rhenen, Schaufeli, & de Haan, 2004). 4DSQ is a multidimensional scale for measuring and differentiating distress from other mental health problems among the working population, such as depression, anxiety and somatisation. In this study, the 16-item distress subscale is used (e.g. "How often have you had a restless sleep in the last four weeks?"), with an original five-level response format (*no, sometimes, regularly, often,* and *very often or constantly*). However, every symptom is rated as absent (*no*: 0 points); present at a clinically significant level (*regularly*/*often*/*very often*: 2 points), or doubtfully present (*sometimes*: 1 point; for details see Terluin et al., 2004). This scale has been translated into Serbian and used in earlier research (Kalaj, Jelić, Berat, & Popov, 2011).

[Ir]rational Beliefs Scale (IRB-16: Tovilović & Popov, 2009). IRB-16 is a new scale designed for measuring irrational (e.g. "I must succeed in achieving my goals because it is totally unacceptable for me to fail.") and rational beliefs (e.g. "It is important for me to succeed in what I do, but I can accept failure."), as defined in the REBT theory. The scale consists of 16 items, divided into two subscales: irrational and rational beliefs. In studies conducted on our population it showed satisfactory psychometric characteristics (reliability: .77. and .76 for irrational and rational beliefs subscales, respectively; Popov & Popov, 2013).

Job Satisfaction Survey (JSS: Spector, 1985). JSS was designed for measuring indicators of job satisfaction. In this research three subscales from the original version of the scale were used (nature of work, communication, and coworkers). The overall reliability of the scale measured by Cronbach's alpha was .91, and the reliability of the individual subscales ranged between .63 and .71.

Intentions to leave the organisation (Namera za napuštanje organizacije - NNO: Popov, 2009). NNO is a 3-item scale that measures turnover intentions. Its main purpose is to assess how strong the employee's intention is to leave the organisation in which he or she works (e.g. "How often have you seriously thought about leaving the job in the past month?"). A five-level response format is used, ranging from *almost never* to *very often*. A two-item version of the scale was used in Kalaj et al. (2011), to which one item was added ("How often did you inquire about job opportunities elsewhere recently?").

A higher score indicates a higher level for all variables.

Data Analyses

Basic data analyses were performed using the software package SPSS for Windows version 16.0, while confirmatory factor analyses were performed using EQS 6.1 (Bentler, 2006) and maximum-likelihood estimation procedures with the robust method for non-normal estimators corrections, where possible. The robust method was implemented, since normalized Mardia coefficient suggested substantial positive kurtosis (6.42 in Sample 1, and 3.78 in Sample 2). Rule of thumb suggests that values larger than 3 provide evidence of nontrivial positive kurtosis (Bentler, 2006).

Two independent analyses of the latent structure were conducted on two samples of respondents. The degree to which the data fit the confirmatory models was assessed using following absolute fit indices: (1) the Sattora-Bentler χ^2 goodness-of-fit statistic, (2) the root mean square error of approximation (RMSEA), and (3) the Standardized Root Mean-Square Residual (SRMR). Because χ^2 is sensitive to sample size, three relative goodness-of-fit measures were calculated as well: (1) normed fit index (NFI), (2) nonnormed fit index (NNFI), and (3) comparative fit index (CFI). Values smaller than .05 for RMSEA may indicate a good fit, smaller than .08 are indicative of an acceptable fit, and values greater than .10 may indicate a serious problem (Browne & Cudeck, 1993; Kline, 2010). For the three relative fit indices, values greater than .90 may indicate a good fit (Hoyle, 1995). However, Hu and Bentler (1999) have recommended slightly higher threshold, such as .95 for the CFI. For the SRMR, Hu and Bentler (1999) have set the threshold of ≤ .08 for acceptable fit, but Kline (2010) has suggested that this value is not a very demanding standard.

Prior to all these analyses, multiple imputation using the EM algorithm was conducted to replace missing values (Tabachnik & Fidell, 2001).

Results

Descriptive statistics and metric characteristics

Table 2 presents descriptive indicators, characteristics of score distribution, and internal consistency index (Cronbach's alpha) of variables used in the study in both samples separately. The results indicate satisfactory psychometric properties, as for the WB scale in total (α = .88 in both samples), WB subscales Work exhaustion and Work frustration, and also for other measures in the study. Exceptions are job satisfaction subscales, where α values are at the low limit of acceptability. Skewness and kurtosis indicate that the distribution of variables does not deviate notably from the normal; therefore, they meet the basic requirements for the implementation of the proposed data analyses.

Table 2
Descriptive indicators and reliability of variables used in the study

Variable	TR	AR	*M*	*SD*	α	Sk	Ku
	Both samples (*N* = 352)						
Work burnout (7)	0–100	0–100	44.99	22.39	.87	.18	-.75
Work exhaustion (4)	0–100	0–100	46.71	23.41	.81	.12	-.68
Work frustration (3)	0–100	0–100	42.68	24.95	.83	.33	-.64
Irrational beliefs (8)	0–32	0–30	10.37	6.39	.72	.57	-.31
Rational beliefs (8)	0–32	4–32	17.97	5.96	.78	-.06	-.31
	Sample 1 (*n* = 160)						
Distress (16)	0–32	0–32	15.71	8.22	.92	.08	-.84
	Sample 2 (*n* = 192)						
Turnover intentions (3)	3–15	3–15	5.58	3.47	.80	1.37	.89
Job satisfaction – coworkers (4)	4–24	5–24	17.92	3.93	.63	-.66	.12
Job satisfaction – nature of work (4)	4–24	4–24	17.48	4.44	.68	-.64	-.01
Job satisfaction – communication (4)	4–24	5–24	16.84	4.68	.71	-.33	-.99

Note. Number of items in each instrument is given in parentheses; TR = theoretical range; AR = achieved range; *M* = mean; *SD* = standard deviation; α = Cronbach's alpha; Sk = skewnees; Ku = kurtosis.

Item-total correlations within the WB scale ranged from .46 to .77, with an average of .52. Reliability coefficients of all scales, as well as for individual items, are very similar to those obtained in the original CBI study (Kristensen et al., 2005). The subjects achieve higher scores on the Work exhaustion dimension, in comparison to the Work frustration. Descriptive indicators of individual items in the burnout scale are presented in Table 4. The percentage of missing data for all items was less than 1%.

Table 3
Descriptive indicators of individual items in Work burnout scale (N = 352)

	Response category and scoring percentage					
	Never/ almost never (Scoring 0)	Seldom (Scoring 25)	Sometimes (Scoring 50)	Often (Scoring 75)	Always (Scoring 100)	*M* (*SD*)
1. Is your work emotionally exhausting?	9.9	26.4	22.7	23.9	17.0	52.91 (31.36)
2. Do you feel burnt out because of your work?	19.9	23.3	25.9	22.4	8.5	44.10 (31.04)
3. Does your work frustrate you?	33.5	29.0	21.0	10.5	6.0	31.61 (29.97)
4. Do you feel worn out at the end of the working day?	4.5	17.6	36.6	27.0	14.2	57.17 (26.42)
5. Are you exhausted in the morning at the thought of another day at work?	14.8	24.4	31.5	21.6	7.7	45.74 (28.86)
6. Do you feel that every working hour is tiring for you?	8.8	22.4	36.1	22.4	10.4	50.71 (27.53)
7. Do you have enough energy for family and friends during leisure time?	29.5	29.8	23.6	14.5	2.6	32.67 (27.95)

Note. Indicators for item 7 are presented after recoding.

T-test analyses showed that women scored higher on burnout than men (women $M = 46.92$, men $M = 39.47$, $t(347) = 2.79$, $p < .01$), as did lower-educated employees in comparison to higher-educated (elementary and high school $M = 47.38$, college, university and PhD $M = 41.51$, $t(346) = 2.41$, $p < .05$). Finally, respondents from Sample 2 achieved similar scores on the WB scale, which is slightly above the average score in the total sample (Healthcare employees, $M = 44.16$, employees in sales, $M = 44.41$, $t(191) = .10$, n.s.).

The results are similar observing the WB subscales. Women achieve higher scores on the Work exhaustion subscale (women $M = 48.84$, men $M = 40.95$, $t(347) = 2.83$, $p < .01$), as well as on Work frustration subscale (women $M = 44.33$, men $M = 37.50$, $t(347) = 2.31$, $p < .05$). While lower-educated have significantly higher scores on the Work frustration subscale than higher-educated employees (elementary and high school $M = 45.58$, college, university and PhD $M = 38.52$, $t(346) = 2.59$, $p < .01$), there are no significant differences between these two groups of respondents regarding scores on the Work exhaustion dimension (elementary and high school $M = 48.74$, college, university and PhD $M = 43.75$, $t(346) = 1.95$, n.s.).

Construct validity. Construct validity was evaluated in a confirmatory factor model on both samples of employees. Table 4 shows that the model computed a S-B $\chi^2(14) = 87.92$, $p < .01$, with RMSEA being .12 – both suggesting that there is room for improvement of the model fit. We then reverted to Yeh et al.'s (2007) paper, in which they hypothesized that there might be rather two factors in the Work burnout scale of the CBI – the first they named Work exhaustion (comprising of items 1, 2, and 4), and the second one Work frustration (items 3, 5, 6, and 7). This model obtained a better, but still marginal fit (S-B $\chi^2(13) = 64.60$, $p < .01$; NFI = .95; NNFI = .93; CFI = .96; RMSEA = .11; SRMR = .04). Finally, we made one more change to the 2-factor model we tested. We speculated that item number 7 ("Do you have enough *energy* for family and friends during leisure time?" – emphasized by the authors) containing a word "energy", should be better placed in the Work exhaustion factor, rather that Work frustration. The model (Figure 1) showed the best fit to the data (S-B $\chi^2(13) = 55.58$, $p < .01$; NFI = .96; NNFI = .95; CFI = .97; RMSEA = .10; SRMR = .04), even though not excellent, giving the fact that 90% confidence for the RMSEA exceeded .10 (Kline, 2010). Interestingly, removing item 7 (with inverse scoring) did not improve the fit indices in either of the two models (cf. Bostic, Rubio, & Hood, 2000). In the final model all loadings were significant ($p < .05$) and high, ranging from .51 (item 7) to .84 (item 4; see Figure 1). Basic descriptive statistics were then computed for both factors.

Table 4
Results of the confirmatory factor analysis of the Work Burnout scale: method Robust (except for the SRMR)

Model	S-B $\chi^2(df)$	RMSEA (90% CI)	CFI	NFI	NNFI	SRMR
1 – factor	87.93(14)***	.12 (.10; .15)	.94	.93	.91	.05
1 – factor[1]	75.46(9)***	.15 (.12; .17)	.94	.94	.90	.05
2 – factor[2]	64.60(13)***	.11 (.08; .13)	.96	.95	.93	.04
2 – factor[3] (Figure 1)	55.58(13)***	.10 (.07; .12)	.97	.96	.95	.04
2 – factor[1]	45.98 (8)***	.12 (.09; .15)	.97	.96	.94	.04

Note. [1] item 7 ommited; [2] item 7 loaded on "work frustration"; [3] item 7 loaded on "work exhaustion".
*** $p < .001$. ** $p < .01$. * $p < .05$.

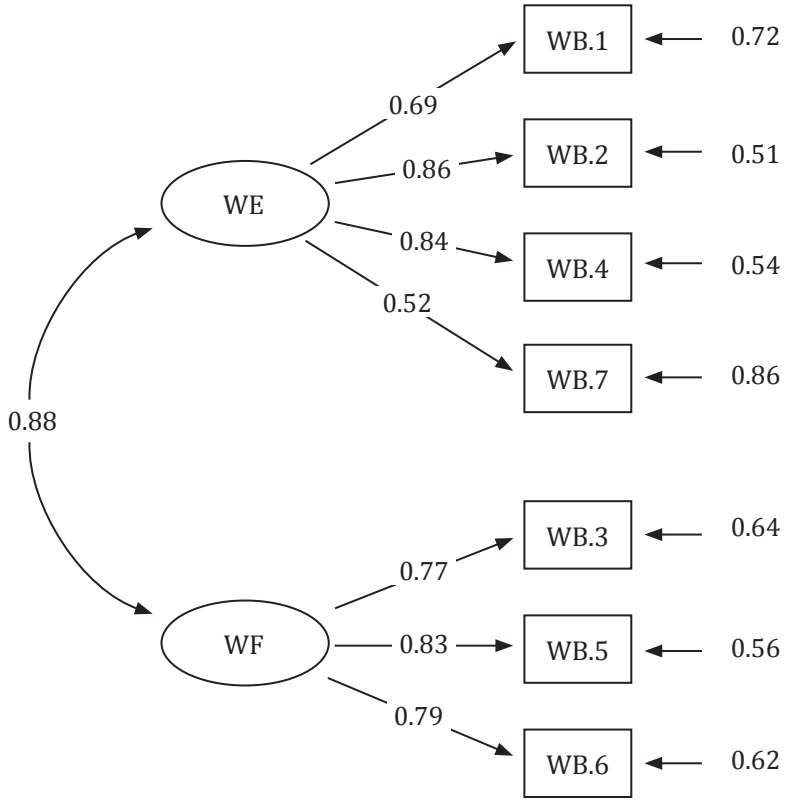

Figure 1. Factor loadings for the Work Burnout scale. All factor loadings are significant at the $p < .05$. WE = Work exhaustion; WF = Work frustration.

Concurrent validity

To assess the concurrent validity of the WB scale, we examined its correlation with constructs that are considered to be related to burnout (see Table 5). The subscales are expectedly highly correlated (r = .73, p < .001). Most of the correlations between the total score of the WB scale, as well as between scores on both subscales and similar constructs are moderately high, indicating that the scale is not redundant with them and that they do not measure the same concepts.

Table 5
Correlations of WB scale with other constructs

Variable	Work exhaustion	Work frustration	Total WB scale
Beliefs (Both samples, N = 352)			
Rational beliefs	-.01	-.04	-.01
Irrational beliefs	.20***	.23***	.23**
Distress (Sample 1, n = 160)	.47***	.52***	.53***
Turnover intentions (Sample 2, n = 192)	.32***	.36***	.36***
Job Satisfaction (Sample 2, n = 192)			
Coworkers	-.28***	-.29***	-.31***
Nature of work	-.37***	-.47***	-.44***
Communication	-.25***	-.29***	-.29***

*** p < .001. ** p < .01.

Significant correlations of burnout with distress and job satisfaction indicate the satisfactory concurrent validity of the scale, as was found earlier (Kristensen et al., 2005; Milfont et al., 2008; Yeh et al., 2007). The results also show a significant correlation of burnout with turnover intentions and irrational beliefs, while rational beliefs did not prove to be related to burnout. That being said, it should be noted that the Work frustration subscale has somewhat higher correlations with all abovementioned constructs than the Work exhaustion subscale.

Discussion

The goal of this paper was to examine several psychometric characteristics of the Work Burnout subscale from the CBI questionnaire (Kristensen et al., 2005). Descriptive indicators of burnout level at work showed that employees in Serbia scored significantly higher on the Work exhaustion dimension than on the Work frustration, i.e. that they were more prone to feeling physical aspects of fatigue than an emotional one, which is expected. Moreover, it should be highlighted that

Serbian employees scored highest on the Work Burnout scale (M = 44.99, SD = 22.39) than any other group of employees reported in previous research: a general sample of Danish employees (M = 33.0, SD = 17.7; Kristensen et al., 2005), teachers from New Zealand (M = 41.5, SD = 18.3; Milfont et al., 2008), a sample consisting mostly of engineers and white-collar workers from Taiwan (M = 36.8, SD = 15.6; Yeh et al., 2007), as well as sample of dentists in Australia (M = 36.6, SD = 20.3; Winwood & Winefield, 2004). Actually, the achieved score in this sample is comparable only to previous studies of burnout using the same scale in Serbia (M = 41.29, SD = 21.31; Popov, Miljanović, Stojaković, & Matanović, 2013; cf. Arandjelović, Ilić, & Jović, 2010; Di Benedetto & Swadling, 2014; Jordan, Fenwick, Slavin, Sidebotham, & Gamble, 2013). There are several possible reasons for such finding: (1) unfavourable working conditions of the employees in Serbia, poor socio-economic circumstances, and low wages that often drive them to work more than 40 hours per week in order to provide enough resources for themselves and their families; (2) lack of Employee Assistance Programs and other stress management activities that would ameliorate stressful conditions and critical incidents on the work site; (3) a large number of companies going through transition, leading to a high degree of uncertainty among employees, and, as a possible consequence, a greater degree of burnout. Furthermore, the results showed that people who work directly with other people (employees in healthcare and sales) scored just slightly higher (M = 45.85, SD = 23.41) than other employees (M = 44.27, SD = 21.54), which indicates that similar levels of burnout are present across all sectors and all jobs. In other words, our results indicate that the construct of emotional exhaustion is independent of the actual job position of the employee and is not "reserved" only for professions that require direct contact with clients. This is in line with some earlier findings that place secondary importance on client demands as a determinant of burnout (cf. Leiter, 1991; Leiter & Schaufeli, 1996; Richardsen & Martinussen, 2004; Schutte et al., 2000).

Fit indices showed acceptable values, all seven items in the scale had good characteristics – not excellent though, giving the fact that RMSEA slightly exceeded agreed upon cut-off points (see also Chen, Curran, Bollen, Kirby, & Paxton, 2008) and that S-B χ^2 was significant. However, it is known that S-B χ^2 is sensitive to sample size, and therefore often significant. On the other hand, it is also known that RMSEA indicator is sensitive to a number of degrees of freedom, in a way that it penalizes simple models with low df. More specifically, results of the latest research indicate that when the cut-off values are used to assess the fit of the properly specified models with small df and small sample size, the RMSEA too often falsely indicates a poorly fitting model (Kenny, Kaniskan, & McCoach, 2015). Having that in mind, we could say that two-factor model fitted collected data well.

Overall, the WB scale may be used as a short two-dimensional scale for measuring emotional burnout at work in different samples of employed individuals, precisely for measuring two aspects of it, one related to the emotional symptoms of frustration with work and the other more related to the symptoms of fatigue and lack of energy, i.e. work frustration and work exhaustion. Interestingly, one

negatively worded item did not deteriorate the latent structure of the scale, as might have been expected having in mind the previous findings regarding different sets of responses to positively and negatively worded items (cf., Bostic et al., 2000; see also Yeh et al., 2007). It is true, however, that item 7 (the only item with an opposite direction), showed the lowest factor loading on CFA (.51). Yeh et al. (2007) expressed some scepticism towards this item emphasising that not all people like spending their leisure time with friends or family – thus, this item may be irrelevant for some employees and may not capture the true absence of burnout, as it is supposed to do. The item analysis showed that item 4 ("Do you feel worn out at the end of the working day?") has the highest factor loading and mean in the sample, unlike one previous study (Milfont et al., 2008). It should be kept in mind, however, that these two studies are not fully comparable, since, in contrast to us, Milfont and his colleagues administered the whole CBI questionnaire.

The WB scale significantly and meaningfully correlated with other constructs. However, it can be noticed that the Work frustration subscale had somewhat higher correlations with all observed constructs, which is expected because this subscale describes emotional aspects of frustration with work, i.e. emotional weariness, for which it can be said is the core of the burnout problem (Schaufeli, Taris, & van Rhenen, 2008). The largest correlation was found between work frustration and distress, followed by work exhaustion and distress, leading to the conclusion that these constructs do overlap indeed, but are distinct. Different studies had come up with similar results, and an example of it is the study conducted by Terluin et al. (2004), who found a high correlation between the distress and the emotional exhaustion scales using the UBOS, a Dutch adaptation of the Maslach Burnout Inventory (r = .57). A high correlation with distress might indicate that the WB scale primarily measures the physiological aspect of burnout – which represents the very essence of burnout, according to authors of the CBI. Furthermore, both subscales are positively related to intentions to leave (Work frustration r = .36, Work exhaustion r = .32), which lends some support to the argument that mental or behavioural disengagement from work should be considered part of a more general burnout syndrome (Schaufeli & Taris, 2005; Halbesleben & Demerouti, 2005; Popov, Raković, & Jelić, 2016). Correlation between burnout and both rational beliefs and irrational beliefs was as expected. There have previously been very few studies that tested the relationships between rational/irrational beliefs and burnout. One of them (Popov & Popov, 2013) showed that irrational beliefs were related to burnout in a small sample of Serbian employees across different occupations. In the same study, only a weak correlation was found between RBs and burnout (r = .15). Similar results were found in this study. Irrational beliefs proved to be significantly correlated to burnout (as well as with both dimensions).

One important question is what would be the best way of administering the CBI. It has been already stated that the authors of the CBI advocate the use of the whole questionnaire. However, Milfont et al. (2008) have recently noticed a problem of multicollinearity between scales of personal and work burnout, suggesting a possibility of combining the CBI items to form a general burnout score. Yeh et

al. (2007) did not uphold that view, suggesting that the three scales measure different domains, and that people who are high on one, but low on other measures, could theoretically behave in different ways. Given that a large number of professionals are not in everyday contact with clients, we believe that in such cases the Work Burnout scale would perform a very useful function in assessing the level of emotional weariness related to work. This conclusion is based on our observation that the WB scale is short, efficient, has similar psychometric characteristics to the whole CBI questionnaire, and, last but not least, represents a reliable measurement of the construct of emotional burnout at work.

Finally, it should be stated that the main goal of this paper was not to resolve the theoretical dilemma of whether the constructs of depersonalisation and inefficacy belong to the burnout syndrome or not. We believe that if researchers intend to use the CBI, they need to measure other two dimensions as well, and that further studies should give empirical support to either of the two hypotheses.

Limitations of the study

The research was conducted using a cross-sectional design. Consequently, the reported findings should not be understood in the context of the development of burnout, but rather in terms of its current level among employees. Furthermore, the data collected within the sample of healthcare, and to a lesser extent in sales, include a relatively small number of organisations; therefore the results may reflect the specificities of these organisations, rather than characteristics of employees in these industries and the industries themselves.

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SRPSKA VERZIJA SKALE IZGARANJE IZ KOPENHAGEN INVENTARA IZGARANJA: ADAPTACIJA I PSIHOMETRIJSKE KARAKTERISTIKE

Sindrom izgaranja predstavlja specifičnu formu stresnog odgovora, odnosno hroničan i složen psihofiziološki odgovor osobe na visoke zahteve posla i poslovnog okruženja, a posebno na pritiske i konflikte koji potiču od direktnog kontakta sa ljudima. Ovaj termin se ustalio u upotrebi tokom 70-tih godina prošlog veka u SAD-u, a korišćen je za opis prepoznatog fenomena hronične iscrpljenosti i cinizma i to najčešće kod tzv. pomažućih profesija, kao što su socijalni radnici, nastavnici i učitelji, medicinsko osoblje, policajci, kao i menadžeri. Osnovni cilj sprovedenog istraživanja bio da se ispitaju metrijske karakteristike skale izgaranja iz Kopenhagen inventara izgaranja (Kristensen et al., 2005) – da se testira njena faktorska struktura, pouzdanost, kao i relacije sa nekim relevantnim konstruktima. Uzorak istraživanja obuhvatio je ukupno 352 zaposlenih sa teritorije Republike Srbije i podeljen je na dva nezavisna uzorka. Ispitanici iz prvog uzoka (n = 160) pripadaju opštoj populaciji zaposlenih, različitih su zanimanja, prosečne starosti oko 41 godina (AS = 41.08, SD = 10.35) i radnog staža oko 18 godina (AS = 15.6, SD = 11.5). U drugom uzorku (n = 192) nalaze se zdravstveni radnici i zaposleni u prodaji. Ispitanici iz drugog uzorka u proseku su nešto mlađi (AS = 37.07, SD = 9.35), i imaju manje radnog staža (AS = 13.80, SD = 10.03). Ispitanici su popunili sledeće upitnike: (1) Skalu izgaranja iz Kopenhagen inventara izgaranja (Work Burnout: Kristensen, Borritz, Villadsen, & Christensen, 2005; adaptirao na srpski Popov, 2009), (2) Skalu distresa iz 4DSQ (The Four-Dimensional Symptome Questionnaire: Terluin, Van Rhenen, Schaufeli, & de Haan, 2004), (3) Skalu (i)racionalnih uverenja (IRU-16: Tovilović & Popov, 2009), (4) tri subskale iz upitnika zadovoljstva poslom, i to zadovoljstvo prirodom posla, komunikacijom i odnosom sa saradnicima (JSS: Spector, 1985) i (5) Skalu namere za napuštanjem organizacije (Popov, 2009). Testiranje latentne strukture korišćenjem eksplorativne fakorske analize pokazalo je da skala meri dva konstrukta, koji su nazvani radna iscrpljenost i radna frustriranost. U okviru skale izgaranja na celom uzorku, ajtem-total korelacije se kreću od .46 do .77, sa prosečnom inter-ajtem korelacijom od .52. Koeficijenti pouzdanosti cele skale, njenih subskala kao i pojedinačnih stavki, veoma su slični onima koji su dobijeni u istraživanju prilikom razvoja skale.

Više skorove na celoj skali, kao i na subskalama, postigle su žene. Dok ispitanici nižeg obrazovanja postižu više skorove na dimenziji radne frustriranosti, razlike između ovih ispitanika nisu pronađene kada je reč o skorovima na subskali iscrpljenosti. Konfirmatornom faktorskom analizom pokazano je da se dobri indeksi podesnosti mogu postići ukoliko unutar dvofaktorske strukture instrumenta stavka 7, zbog svog sadržaja, posmatra kao deo subskale iscpljenosti, umesto frustriranosti (S-B $\chi^2(13) = 55.58$, $p < .01$, CFI = .97, NFI = .96, NNFI = .95, RMSEA[90% CI] = .10 [.07, .12]). Rezultati su takođe pokazali da skala izgaranja, kao i njene subskale, smisleno koreliraju sa distresom, iracionalnim uverenjima, zadovoljstvom poslom i namerom za napuštanjem organizacije. Rezultati ove studije ukazuju da je emocionalna iscrpljenost u vezi sa poslom merena skalom izgaranja iz Kopenhagen inventara izgaranja pouzdan, dvodimenzionalan konstrukt sa stabilnom latentnom strukturom. Struktura ove skale je stabilna kada se krosvalidira i na drugom uzorku. To znači da se ova skala može koristiti kao kratka dvodimenzionalna skala za merenje dva različita aspetka izgaranja na radu, od kojih je jedan u vezi za frustracijom na radu a drugi sa iscrpljenošću. Ispitanici u Srbiji pokazuju znatno više skorove na celokupnoj skali u poređenju sa uzorcima zaposlenih iz drugih država − ovaj podatak ukazuje na oprez prilikom upoređivanja rezultata u kros-kulturalnim studijama i daje osnov za dalje unapređivanje metrijskih svojstava instrumenta.

Ključne reči: izgaranje, Kopenhagen Burnout Inventory, validacija, distres, iracionalna uverenja, Srbija