

Chapter 6

Different Conceptions of Burnout and Its Relationships with Job Strain and Emotional Intelligence



Miguel A. Serrano, Yasmina El Arbi, and Raquel Costa

Abstract Burnout is an emotional syndrome that involves a prolonged response to stress. Its study in the work environment is of interest, since it manifests itself through negative attitudes toward work and affects the emotional, attitudinal, and physical level of the person who suffers it. The most relevant instruments for measuring burnout are the Maslach Burnout Inventory (MBI), most commonly used, and the Shirom-Melamed Burnout Measure (SMBM). Likewise, taking into account the emotional nature of the Burnout, it is related to Emotional Intelligence (EI), playing a very important role in the adaptive capacity of individuals in stressful situations. The aim of the present study is (1) to analyze the differences and similarities of the questionnaires that evaluate Burnout, (2) as well as to study how these scales relate to Job Strain and EI. 60 workers (37 women) answered 4 scales measuring the main variables. Results show that both the MBI and the SMBM are significantly related. Secondly, Job Strain predicts the subscales of both questionnaires, unlike EI, which does not correlate significantly with these Burnout indicators. We conclude that both questionnaires are valid instruments for measuring burnout syndrome and they have a significant relationship with work stress but no with EI.

Keywords Burnout · Shirom-Melamed Burnout Measure · Maslach Burnout Inventory · Emotional Intelligence · Job Strain

6.1 Introduction

Burnout is a well-studied psychosocial risk recently highlighted in scientific literature (Caballero et al. 2010), which consequences are not only evident in the worker, affecting people at the cognitive, emotional, behavioral, and physical levels (Beltrán et al. 2004), but also presents negative consequences for the organization, manifesting itself in the form of progressive deterioration of communication, productivity, and quality of work. Despite being a frequent phenomenon, its origins as a concept are not

M. A. Serrano (✉) · Y. El Arbi · R. Costa
Department of Psychobiology, University of Valencia, 46010 Valencia, Spain
e-mail: m.angel.serrano@uv.es

new, since the term was used for the first time by Freudenberger (Martínez 2010), who in 1974 used this concept to refer to a behavioral pattern characterized by a progressive loss of energy, demotivation, and lack of interest in work (Freudenberger 1974). However, Burnout is not only a term that has been used at a clinical or organizational level, but has been extrapolated to other areas (Brill 1984), which, along with a lack of conceptual limitation with respect to occupational stress, has been highly criticized and questioned. Therefore, one of the most notable differences regarding occupational stress is that the Burnout is a chronic state difficult to overcome, where the high expectations of the worker that have not been carried out, lead to a great disappointment that makes people feel “burned out,” little involved in their work and exhausted, hence the concept of “burnout syndrome” (Martínez 2010).

There are different conceptualizations for measuring the Burnout. First is carried out by Maslach, who defined this term as a behavioral manifestation of occupational stress (Maslach 1976). This conception understands burnout syndrome as a three-dimensional phenomenon, which is characterized by emotional fatigue—exhaustion—depersonalization in dealing with clients and a difficulty in personal realization—professional effectiveness—and from these components Maslach et al. elaborated the “Maslach Burnout Inventory” (MBI). This scale has become the most accepted due to its wide use in different populations and in different types of studies, hence its multiple revisions, in the last of which the term depersonalization has been replaced by “cynicism.” On the other hand, a different conceptualization is the one offered by Shirom. Shirom (2003) defended that the Burnout comes to be developed after a prolonged time of exposure to a work stress and, for that reason Shirom considers burnout as a consequence or symptom of stress. Shirom’s burnout conception is related exclusively to the energetic resources and includes physical energy, and emotional and cognitive dimensions. These dimensions are part of the conceptualization of the Burnout, since he distinguishes in his theory three determining facets for its development. The first of the three facets refer to physical fatigue—sensation of tiredness and low energy-; the second refers to emotional exhaustion -lack of energy to show empathy to others-; and, finally, cognitive fatigue, understood as the sensation of reduced mental agility (Shirom 2009).

In spite of the conceptual differences from both conceptions and its development, there are not many studies that have been in charge of comparing both forms of measuring the Burnout. Based on the previous definitions offered by both authors, it is possible to understand the Burnout as the consequence of a high level of stress, as we can see reflected in studies that relate work stress to Burnout. Karasek, defined Job Strain from an organizational point of view as a high demand for job—greater pressure and act quickly to tasks—and less control—less ability to decide to face the situation—all presenting a higher cardiovascular risk for the person (Karasek 1979). Therefore, a conceptualization of Burnout focused on the organizational environment is understood as a prolonged response to occupational stress through negative behaviors or attitudes toward work (Gil-Monte 2002). In addition, it influences the person on an emotional, attitudinal, and physical levels (Marrau 2004). Specifically, it has been found that the Job Strain—concept that describes working conditions

that combine high demands and low opportunities of control—is highly related to Burnout indicators (Ortiz et al. 2014).

Finally, considering that Burnout is an emotional syndrome, it is important to study how it is related to emotions in work environments. Thus, a fundamental aspect of emotions is Emotional Intelligence (EI), which has been related to healthy working environments (Garrido and Pacheco 2012). This term was widely conceptualized by Goleman (1995), who considers EI as a combination of a series of attributes related to personality and which is closely linked to the competencies linked to professional achievement (Pérez Pérez 2006). Literature that links Burnout with EI indicates that EI acts as a protective factor of this concept (Mikolajczak et al. 2007) where, in addition, related studies indicate that this relationship of EI on Burnout directly affects the dimensions that characterize this syndrome (Extremera et al. 2003; Görgens-Ekermans and Brand 2012; Álvarez-Ramírez et al. 2017).

Taking into account all the above, we aimed, firstly, to analyze the relationships between two Burnout scales (Maslach and Shirom questionnaires), hypothesizing that both scales would be related taking into account that both conceptions consider burnout as a consequence of work stress. The second aim of this study was to study the relationship between Burnout (measured with both scales) and Job Strain and Emotional Intelligence. It is hypothesized that Job Strain and Emotional Intelligence would explain Burnout scores.

6.2 Method

6.2.1 Sample

Sample was composed of 60 workers (37 women), aged between 20 and 65 ($M = 39.28$; $SD = 11.7$) who voluntarily participated in this study. After explaining the main aims of the study, participants read and signed the informed consent approved by the Ethics Committee of Universidad Miguel Hernández de Elche (Spain).

6.2.2 Procedure

To carry out this study, a set of questionnaires was administered to employees of different companies of different sectors (education and convenience stores). Questionnaires were answered individually, voluntarily, and anonymously.

6.2.3 *Measures*

First, Burnout was measured using Maslach Burnout Inventory-General Survey (Schaufeli et al. 1996), adapted to Spanish by Salanova et al. (2000). This questionnaire consists of 16 items, where a total Burnout score can be obtained (Total Burnout = Exhaustion + Cynicism - Professional Efficacy), as well as a score for each of the three subscales: Exhaustion, Cynicism, and Professional Efficacy. Salanova et al. (2000) found alphas coefficients of 0.85 (emotional burnout), 0.78 (cynicism), and 0.73 (professional efficacy).

Secondly, Shirom-Melamed Burnout Measure questionnaire was also used (Melamed et al. 1999), which consists of 12 items. Items show different sensations/symptoms that can be experienced at work, thus evaluating three dimensions of Burnout: physical fatigue, emotional exhaustion, and cognitive weakness. In the sample a Cronbach's alpha of 0.88 was obtained in the physical fatigue factor, 0.81 in emotional exhaustion, and 0.89 in the cognitive weakness factor.

Job Strain was evaluated using the Work Stress Questionnaire by Karasek and Theorell (1990) in the version adapted by Steptoe et al. (1999). The questionnaire consists of 15 items where the dimensions of demands at work, latitude of decision or control and social support are evaluated. A total index of Job Strain was obtained: demands / (control + use of skills). Cronbach's alpha obtained by Steptoe et al. (1999) were 0.72 (demands at work), 0.64 (latitude of decision or control), and 0.76 (social support).

TMMS-24 was used to measure Emotional Intelligence. This version translated into Spanish by Fernández-Berrocal and Ramos (1999) is based on Trait Meta-Mood Scale (TMMS) from Salovey and Mayer's research group (Salovey et al. 1995). The original scale evaluates the meta-knowledge of emotional states—skills with which we can be aware of our own emotions as well as our capacity to regulate them—through 24 items. The TMMS-24 scale contains three dimensions: Emotional Attention, Clarity of Feelings, and Emotional Repair. The reliability obtained for each component is an alpha of 0.90 for Emotional Attention, 0.90 for Clarity of feeling, and 0.86 for Emotional Repair.

6.2.4 *Statistical Analyses*

Pearson's correlations were used to analyze the relationship between the MBI and SMBM subscales. When correlations resulted significant, simple linear regressions were performed, being Job Strain and EI variables the predictors of the total burnout in the case of the MBI and of the 3 scales in the case of the SMBM questionnaire. Statistical analysis was carried out with the SPSS 20.0 package with a level and significance of 0.05.

6.3 Results

6.3.1 Relationship Between Maslach and Shirom Burnout Subscales

The physical fatigue of the SMBM questionnaire correlates significantly with exhaustion ($r = -0.744, p < 0.001$), cynicism ($r = -0.433, p < 0.001$), and the Burnout Total variable ($r = -0.587, p < 0.001$) of the MBI questionnaire. On the other hand, emotional fatigue correlates with exhaustion ($r = -0.781, p < 0.001$), cynicism ($r = -0.430, p < 0.001$), and the variable Burnout Total ($r = -0.596, p < 0.001$). Finally, cognitive weakness correlates with exhaustion ($r = -0.722, p < 0.001$), cynicism ($r = -0.551, p < 0.001$), and Total Burnout variable ($r = -0.679, p < 0.001$).

6.3.2 Job Strain as a Predictor of the SMBM and MBI

First, Pearson’s correlations were performed between Job Strain and the subscales of both burnout tests (MBI and SMBM). Job strain was related to Total Burnout from MBI score were positively ($r = 0.335; p = 0.001$). In the case of SMBM, Job Strain correlated significantly with Physical Fatigue ($r = -0.431; p = 0.001$), Emotional Fatigue ($r = -0.448; p = 0.001$), and Cognitive Weakness ($r = -0.316; p = 0.001$).

Secondly, four different linear regressions were carried out to measure whether the work stress influenced the subscales of both Burnout tests equally. Total Burnout, Physical Fatigue, Emotional Fatigue, and Cognitive Weakness were used as dependent variables and Workplace Stress as independent. In all four cases, the results were significant.

As for the results obtained, they show how Job Strain significantly predicts both the MBI and SMBM subscales (see Table 6.1). Specifically, it significantly explains 11.2% of the variance in Total Burnout ($R^2 = 0.112, p < 0.001$), 18.6% for Physical Fatigue ($R^2 = 0.186, p < 0.001$), 20.1% of the variance in Emotional Fatigue (R^2

Table 6.1 Job Strain predicting Total Burnout (Maslach) and scales of Burnout (Shirom-Melamed). DV = dependent variable; IV = independent variable

Variables	R^2	Beta	t
DV: Burnout Total	0.112***		
IV: Job Strain		0.335	2.709***
DV: Physical Fatigue	0.186***		
IV: Job Strain		-0.431	-3.639***
DV: Emotional exhaustion	0.201***		
IV: Job Strain		-0.448	-3.817***
DV: Cognitive fatigue	0.100***		
IV: Job Strain		0.316	-2.539**

= 0.201, $p < 0.001$) and, finally, 10% of the variance in Cognitive Weakness ($R^2 = 0.100$, $p < 0.001$).

6.3.3 *Emotional Intelligence as a Predictor of MBI and SMBM*

No significant relationships were found between EI and both Burnout scales.

The scores obtained for the EI subscale, Emotional Attention were, in relation to the SMBM subscales; physical fatigue ($r = -0.191$, $p > 0.1$), emotional exhaustion ($r = -0.168$, $p > 0.1$), cognitive weakness ($r = -0.182$, $p > 0.1$) and for the MBI subscales; exhaustion ($r = 0.141$, $p > 0.1$), cynicism ($r = 0.010$, $p > 0.1$), professional efficiency ($r = 0.152$, $p > 0.1$).

In relation to the EI subscale, Emotional Clarity was, for the MBI subscales; physical fatigue ($r = 0.207$, $p > 0.1$), emotional exhaustion ($r = 0.165$, $p > 0.1$), cognitive weakness ($r = 0.167$, $p > 0.1$) and in relation to the MBI subscales; exhaustion ($r = -0.227$, $p > 0.1$), cynicism ($r = -0.092$, $p > 0.1$), professional efficacy ($r = 0.134$, $p > 0.1$).

Finally, the EI subscale, Emotional Repair as for the SMBM subscales were physical fatigue ($r = 0.142$, $p > 0.1$), emotional exhaustion ($r = 0.000$, $p > 0.1$), cognitive weakness ($r = 0.132$, $p > 0.1$), and for the MBI subscales; exhaustion ($r = -0.126$, $p > 0.1$), cynicism ($r = 0.002$, $p > 0.1$), and professional efficacy ($r = -0.048$, $p > 0.1$).

6.4 Discussion

In view of the increase in studies related to Burnout (Leiter 2017; Pines 2017; Shanafelt et al. 2017), it has been considered especially relevant to analyze the characteristics of the two most studied instruments in a theoretical way (Bianchi et al. 2018), the MBI and SMBM, the former being the most considered in its practical utility in work contexts and scientific environment (Bianchi et al. 2015). From this controversy arises the first hypothesis of the present study.

Results showed how this controversy is reduced to terms of greater scientific diffusion (Faúndez 2017), since both instruments are equivalent in both validity and reliability and, in their factor-to-factor comparison, positive and significant data result. Although it should be mentioned that there is limited scientific literature that confronts both questionnaires in their practical use, the study carried out by Shirom and Melamed (Shirom and Melamed 2006) shows how the SMBM is characterized by a better adjustment between factors, considered other aspects irrelevant between the distinction of both tests. This more detailed analysis on purely statistical issues confirms the relevance and results of the present study.

One of the possible factors related to the use of MBI versus SMBM is considered to be the global score index that arises from the three levels of analysis used by the MBI and that would not be possible to carry out in SMBM (Moreno-jimenez 2001). Despite this, results obtained in the research emphasize that the factorization process in both instruments is significant.

On the other hand, there is a fact that should not generate dissonance in the reader, since it is the object of study of a growing number of scientific articles due to its great impact and interest in the labor environment, that is the study of Job Strain as a predictive factor of Burnout in environments with high levels of stress (Wong and Spence Laschinger 2015; Jiang et al. 2017). It is worth mentioning, therefore, the relevance of the present research, being considered as fundamental implication of both measures of burnout (MBI and SMBM) as predicted factors. Results show that Job Strain is a significant predictor of both the MBI and SMBM. This fact is not surprising, since some studies indicate that a possible trigger of high demands and little control in the work environment (Karasek 1998) lead to suffer Burnout as time goes by and the accumulation of such tension (Chirico 2016). For that reason, the acquisition of new skills and changes in coping styles is recommended for people whose levels of Job Strain are high and interfere their daily activities as well as their normative development at work (Vander Elst et al. 2016).

Finally, in relation to EI, all the correlational analyses showed no relationship between EI and BO scales. These results emphasize the importance of continuing to study EI, since there are studies which show results opposite to those obtained in the present research (Extremera et al. 2003, 2007). Although these studies do not emphasize the predictive power of EI on Burnout, others consider personality factors as a modulating factor between both do show significant results (González et al. 2014). Thus, personality traits such as Neuroticism and Extraversion (Jiménez Morales and López Zafra 2008) acquire special relevance on how EI could predict i.e. emotional exhaustion—a characteristic feature of Burnout. Therefore, not contemplating such personal characteristics could affect the results obtained in this research.

Some limitations should be remarked from this study. First, the reduced number of participants. In order to increase the validity of these results, bigger samples are needed. In this line, bigger samples would contribute to the development of normative data that could help to compare burnout levels transnationally. Another limitation is that in our study only two different types of jobs were evaluated, so different types of jobs would increase the extension of these measures and results to different types of workers. In this sense, the majority of studies on Burnout are performed in professions as teachers, nurses, or physician so more studies in industrial settings are necessary in order to describe burnout and its relationships in jobs with different contextual characteristics.

With reference to possible future research, it would be interesting to review the MBI and SMBM instruments in greater depth, in order to determine if they are totally valid measures. In addition, it is necessary to contribute to the analysis of new factors, especially emotional ones, which can predict Burnout, since it is a syndrome that is increasingly found in work environment. It is also necessary to emphasize not only on Job Strain as a predictive factor of Burnout and EI in future research, but also

to focus studies on a more positive view on how to face such stress and, in case of suffering it, how to reduce the impact on other aspects of the individual's life.

In short, in spite of the number of participants' limitation, results should serve to promote new studies focusing on new ways of approaching and predicting Burnout since the ultimate goal is to entail the improvement of quality of life and workers' health. Furthermore, results also show the need to study more deeply the effects of EI and Job Strain on Burnout. Therefore, promoting an adequate work climate and providing new skills (associated with reduction of work stress) to workers (Ortega and Ortega 2017), and emotional strategies should be key to reduction of Burnout probability risk (Back et al. 2016).

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