Original article

Psychometric properties of the "Spanish Burnout Inventory" (SBI): Adaptation and validation in a Portuguese-speaking sample

Les propriétés psychométriques du Spanish Burnout Inventory (SBI) : adaptation et validation auprès d'un échantillon portugais

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ABSTRACT

Introduction. – Teaching and nursing are two of the most stressful occupations. The Maslach Burnout Inventory (MBI) has some limitations that require using it with caution out of the American and Anglo-Saxon context. To address the problems associated with the MBI was developed the Spanish Burnout Inventory (SBI).
Objective. – This study was designed to assess the psychometric properties of the Portuguese version of the SBI.
Method. – The sample consisted of 211 teachers and 133 nurses from Portugal. The psychometric properties were examined through the following analyses: confirmatory factor analysis (CFA), reliability (Cronbach's alpha), and concurrent validity with the MBI.
Results. – The four-factor model obtained an adequate data fit for the sample. The Cronbach's alpha coefficient was adequate for the four scales of the instrument. Results supported the concurrent validity.
Conclusion. – As a whole, results show that the four-factor model of the SBI possesses adequate psychometric properties for the study of burnout in the Portuguese cultural context.

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RÉSUMÉ

Les professionnels de la santé et de l'enseignement sont particulièrement vulnérables au développement du stress professionnel et du syndrome d'épuisement professionnel. Le Maslach Burnout Inventory (MBI) présente des limites méthodologiques qui nécessitent une application prudente dans des pays qui ne sont pas de culture américaine et anglo-saxonne. Pour répondre à ces limites méthodologiques du MBI, il est apparu nécessaire de développer un Spanish Burnout Inventory (SBI). L'objet de cette étude est d'évaluer les qualités psychométriques et la structure factorielle du SBI auprès de deux échantillons portugais de 211 enseignants et de 133 infirmières. Les propriétés psychométriques sont examinées par trois analyses : une analyse factorielle confirmatoire, une analyse de fiabilité, et une analyse de validité concourante avec le MBI. Le modèle à quatre facteurs obtient une adéquation satisfaisante des données pour l'échantillon. La consistance interne mesurée par le coefficient alpha de Cronbach est suffisante pour les quatre échelles de l'instrument. Les résultats des analyses confirment la validité convergente. Les résultats soutiennent également que le modèle en quatre facteurs possède des propriétés psychométriques satisfaisantes pour l'étude du syndrome d'épuisement professionnel dans le contexte culturel portugais.

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Stress is the fourth most common health problem symptom reported by Europe's workers. Workers in the education and healthcare sectors are the high-risk population with a high prevalence rate for work-related stress (Parent-Thirion, Fernández, Hurley, & Vermeylen, 2007). Burnout is a serious and common

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concern among educators and also has been recognised as an important stress-related problem for people working in education (Brock & Grady, 2000), and nursing (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000).

1. Burnout

Burnout is a response to chronic job stress that occurs when the individual feels overwhelmed and powerless to face up to difficulties at work, like social one. The definition of burnout that currently finds more consensus in the scientific community is the one advanced by Maslach & Jackson (1981), who defined burnout symptoms as:

- reduced efficacy or personal accomplishment, understood as the professionals' tendency to evaluate oneself negatively, particularly their work with clients;
- emotional exhaustion, in which professionals feel they are no longer able to give of themselves at a psychological level,
- and depersonalization (or cynicism), defined as negative and cynical attitudes and feelings about one's clients. These symptoms can be assessed using the Maslach Burnout Inventory (MBI) (Maslach, Jackson, & Leiter, 1996).

In the last few decades, there has been a series of changes that have affected organisations, jobs and workers. Some of these changes have contributed to the development of burnout. According to estimations by Shiron (1989), the prevalence of burnout in teachers can be situated between 10% and 30%, and Farber (1991) estimated that 5% to 20% of American teachers are truly burned out. Workload (Laugaa, Rasclen, & Bruchon-Schweitzer, 2008), pupil misbehavior (Genoud, Brodard, & Reicherts, 2009; Hakanen, Bakker, & Schaufeli, 2005) and conflicts with colleagues (Skaalvik & Skaalvik, 2007), have been identified as significant predictor of burnout in teachers. Kyriacou (2001), summarised a number of international studies and found ten main stressors for teachers. These include: teaching students who lack motivation, maintaining discipline, time pressures and workload, coping with change, being evaluated by others, dealings with colleagues, self esteem and status issues, problems dealing with administration/management, role conflict and ambiguity and poor working conditions.

In the healthcare services sector, some studies have pointed out that approximately 8% of the cases of occupational illness refer to burnout symptoms (Sundin, Hochwälder, Bildt, & Lisspers, 2006). A review of the literature shows that nurses are exposed to multiple stressors (Potter, 2006), such as aggressive behaviors by patients (Needham, Abderhalden, Halfens, Dassen, Haug, & Fischer, 2005) or work overload (Greenglass, Burke, & Fiksenbaum, 2001; Hansen, Sverke, & Näswall, 2009), which influence the development of burnout. Nursing is one of the occupations with the highest burnout prevalence rates (Demerouti et al., 2000).

The symptoms of burnout can produce health related disorders in teachers and nurses, as cortisol dysregulation (Bellingrath, Weigl, & Kudielka, 2008), physical symptoms (Leiter, 2005), or a more negative perception of the general state of health (Gilibert & Daloz, 2008).

2. Maslach Burnout Inventory

It seems we are working with a limited concept of burnout – i.e., that on which the MBI is based – (Kristensen, Borritz, Villadsen, & Christensen, 2005). Some studies have proposed the existence of different types of burnout. Taking into consideration Lacan's model of intersubjectivity, Vanheule, Lievrouw, & Verhaeghe (2003) examined the intersubjective process connected with burnout, and

they differentiated between people with high and low burnout scores. On the other hand, Farber (2000) suggested that there are three types of teacher burnout: wearout, classic, and underchallenged. Having feelings of guilt could explain different types of burnout, taking into consideration the role of guilt feelings in the relationship between burnout and its consequences (Gil-Monte, 2008).

Some studies (Vanheule, Rosseel, & Vlerick, 2007; Worley, Vassar, Wheeler, & Barnes, 2008) consider the MBI psychometrically robust enough for use in diverse countries. However, a review of the literature makes it possible to conclude that researchers have been troubled by some of the psychometric limitations of the MBI:

- a two-factor model might be more appropriate than the three-factor original structure (Kalliath, OïDriscoll, Gillespie, & Bluedorn, 2000);
- cross-loadings for Item 12 and Item 16 (Maslach et al., 1996);
- poor internal consistency coefficients for the subscale of Depersonalization (Brackett, Palomera, Mojsa-Kaja, Reyes, & Salovey, 2010; Papastylianou, Kaila, & Polychronopoulos, 2009).

These limitations are found in some studies carried out in Portugal. For example, the Depersonalization subscale splits into two factors (Marqués-Pinto, Lima, & Lopes, 2005), and tends to produce Cronbach's alpha values lower than .60 (Sá & Fleming, 2008).

3. Spanish Burnout Inventory

To address the problems associated with the MBI it has been developed the "Spanish Burnout Inventory" (SBI) (Gil-Monte, Carlotto, & Gonçalves, 2010; Gil-Monte, Unda, & Sandoval, 2009). The SBI comprises 20 items divided into four subscales:

- enthusiasm toward the job: the individual's desire to achieve goals at work because it is a source of personal pleasure. This subscale is similar to the Personal accomplishment subscale from the MBI, but it does not incorporate any self-efficacy indicator;
- psychological Exhaustion: the appearance of emotional and physical exhaustion due to the fact that at work s/he must deal daily with people, who present problems. This subscale is similar to the Exhaustion subscale from the MBI;
- indolence: the appearance of negative attitudes of indifference and cynicism toward the organization's clients. This subscale is similar to the Depersonalization subscale from the MBI;
- and guilt: the appearance of feelings of guilt about negative attitudes developed on the job, especially toward the people with whom s/he establishes work relationships.

Guilt is conceptualized as the unpleasant and remorseful feelings associated with the recognition that one has violated, or is capable of violating, a moral standard (Jones & Kugler, 1993). It appears to be involved in the burnout syndrome (Ekstedt & Fagerberg, 2005; Farber & Miller, 1981; Freudenberger, 1974; Maslach, 1982; Price & Murphy, 1984). One of the frequent causes of feelings of guilt in professionals is the existence of negative thoughts about others and the negative and cynical way they have treated them (Maslach, 1982). Some professionals feel they are becoming cold and dehumanized, and this experience leads them to reaffirm their commitment toward other people and the responsibility of taking care of them (Baumeister, Stillwell, & Heatherton, 1994; Tangney, Stuewig, & Mashek, 2007). In such a situation, they feel higher levels of burnout. As a result, they develop a sense of failure and loss of self-esteem, which can lead to a state of depression (Maslach, 1982).

The theoretical model underlying the SBI is based on the concept that burnout is a response to chronic job stress that stems from problematic interpersonal work relationships. It is characterized by cognitive deterioration (i.e., low enthusiasm toward the job), emotional deterioration, and attitudes and behaviors of indifference, indolence, and withdrawal. In some cases, feelings of guilt appear. The model distinguishes two profiles in the development of burnout. In both, attitudes and behaviors of indolence can be understood as a coping strategy that arises to handle emotional and cognitive deterioration. However, while for some professionals this coping strategy is sufficient and allows them to manage the levels of strain, other professionals consider this way of proceeding to be inadequate, and they develop feelings of guilt and more absenteeism (Gil-Monte, 2008). Profile 1 describes individuals who suffer moderately from work-related stress, and it is characterized by low enthusiasm toward the job, high levels of psychological exhaustion, and indolence. Despite these problems, the individual is still able to do his or her work and does not experience strong feelings of guilt. In contrast, individuals who fall into Profile 2 are affected more intensely by the symptoms. They cannot do their jobs properly, which leads them to develop feelings of guilt.

This marks a significant advantage of the SBI over the MBI as it captures a broader conceptualization of burnout that is simply missing from the MBI (i.e., guilt). Furthermore, the SBI features questions designed to assess cognitive and physical components of exhaustion. Moreover, the SBI is based on a theoretical model developed prior to psychometric one, and it overcomes the theoretical and psychometric limitations of other instruments (Halbesleben & Demerouti, 2005; Kristensen, Borritz, Villadsen, & Christensen, 2005).

Taking into consideration the SBI factor structure, previous exploratory factorial analysis studies have shown a four-factor structure similar to that of the model, representing Enthusiasm toward the job, Psychological Exhaustion, Indolence, and Guilt (Olivares & Gil-Monte, 2007). Results have been replicated by confirmatory factor analysis (CFA), obtaining empirical support for the four-factor structure model across countries and occupational groups: Mexican doctors (Gil-Monte & Zúñiga-Caballero, 2010), Mexican teachers (Gil-Monte, Unda, & Sandoval, 2009), and Brazilian teachers (Gil-Monte, Carlotto, & Gonçalves, 2010).

The internal consistency of the subscales has been assessed. The values are generally well for all subscales above the critical value of .70 (Nunnally, 1978). The Indolence subscale scores tend to produce lower Cronbach' alpha values than the other subscales, while the Enthusiasm toward the job subscale tend to produce the highest Cronbach' alpha scores. Previous studies have obtained appropriate values of concurrent validity with the subscales of the MBI.

Values of concurrent validity with the MBI have been adequate for scales evaluating similar constructs. The r Pearson values ranged from .34 to .61 for the correlations between Enthusiasm toward the job and Personal accomplishment, .74 to .83 for the correlations between Psychological exhaustion and Emotional exhaustion, and .40 to .58 for Indolence with Depersonalization (Gil-Monte, Carretero, Roldán, & Núñez-Román, 2005; Olivares & Gil-Monte, 2007; Olivares & Gil-Monte, 2007/2008).

The purpose of this paper is to develop evidence for the psychometric properties of a Portuguese-translation of the SBI in sample of teachers and nurses.

4. Method

4.1. Participants and procedure

The sample consisted of 344 Portuguese professionals from two occupational sectors: 211 secondary school teachers from five different schools in Northern Portugal (61,34%), and 133 nurses from a general hospital in Lisbon (38,66%). With regard to gender, 95 (27.6%) were men and 249 (72.4%) women. The mean age was 39.03 years ($SD = 10.20$). The mean number of years at work was 15.67 years ($SD = 10.20$).

The participants were selected in a non-random way. For the sample of teachers, the survey form was handed over to each school's Executive Board, where each President distributed the forms in all departments. For the sample of nurses, the researchers contacted the manager of the hospital personally to ask for permission to use a questionnaire in the hospital. In all samples, the questionnaire was handed out together with a response envelope in which to return the questionnaire to the researchers. Response rate was 84.4% for teachers, and 57.6% for the sample of nurses.

The process of adaptation of the Portuguese version of the SBI followed the International Test Commission (ITC) methodological criteria for adequate adaptation of instruments to other cultures (Muñiz & Hambleton, 2000). Three skilled translators with knowledge of Spanish and Portuguese were selected for translation. Two of them were Portuguese living in Spain and one was a Spaniard living in Portugal. The SBI was back translated and then the back translations were compared. The assessment of semantic equivalence had satisfactory referential meaning results: all items showed between 95 and 100% agreement in the back translations.

4.2. Instruments

The data were obtained with a Portuguese version of the SBI (Gil-Monte, Carlotto, & Gonçalves, 2010; Gil-Monte, Unda, & Sandoval, 2009). This instrument contains 20 items distributed into four dimensions called: Enthusiasm toward the job (five items) (e.g.: I see my job as a source of personal accomplishment), Psychological exhaustion (four items) (e.g.: I feel emotionally exhausted), Indolence (six items) (e.g.: I don't like taking care of some students)[1] and Guilt (five items) (e.g.: I regret some of my behaviors at work). Items are answered on a five-point frequency scale, ranging from 0 (Never) to 4 (Very frequently: every day) (range 0–4). Low scores on Enthusiasm toward the job, together with high scores on Psychological Exhaustion and Indolence, as well as on Guilt, indicate high levels of burnout.

In addition, the Portuguese adaptation of the MBI was applied: Personal Accomplishment (eight items, range 0–48) and Depersonalization (five items, range 0–30) from the MBI-HSS version (Maslach & Jackson, 1981); and Exhaustion (five items, range 0–30) from the MBI-GS version (Maslach et al., 1996), a similar but shorter version of the Emotional exhaustion subscale from the MBI-HSS, with Cronbach's alpha values ranging from .84 to .90. In a similar way to the Psychological exhaustion subscale, items on the Exhaustion subscale include references to both emotional and physical fatigue (Leiter & Schaufeli, 1996), thus improving the shortcomings of the Emotional exhaustion subscale from the MBI-HSS version (Halbesleben & Demerouti, 2005).

4.3. Data analysis

Descriptive statistics, correlations among the variables of the study, and reliability of the scales were estimated by SPSS 17. Data were subjected to CFA with the AMOS 7.0 program. The Maximum Likelihood (ML) estimation method was employed. Because the χ^2 test is sensitive to sample size, other fit indices were considered. The Goodness of Fit Index (GFI) is a measure of the relative amount of variance and covariance explained by the model. The

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[1] The word "students" was changed to "patients" in the SBI version for nurses – i.e., in the health professionals version.

Table 1
Descriptive statistics of SBI items.

Subscale Item	M (SD)	Corrected item-scale correlations	Skewness	Alpha if item deleted
Enthusiasm toward job				
1.	3.10 (0.80)	.69	−0.53	.84
5.	3.16 (0.87)	.70	−0.93	.84
10.	3.03 (0.81)	.66	−0.70	.85
15.	2.98 (0.90)	.76	−0.60	.83
19.	2.45 (0.95)	.68	−0.40	.85
Psychological exhaustion				
8.	1.47 (1.02)	.67	0.48	.74
12.	1.81 (1.07)	.58	0.22	.79
17.	2.10 (1.01)	.65	−0.13	.76
18.	1.82 (1.03)	.65	0.21	.76
Indolence				
2.	1.26 (0.96)	.52	0.40	.70
3.	1.48 (0.93)	.51	0.48	.70
6.	1.30 (0.85)	.48	0.42	.71
7.	0.65 (0.78)	.57	1.18	.69
11.	1.31 (0.94)	.38	0.32	.74
14.	1.11 (1.11)	.45	0.75	.72
Guilt				
4.	1.24 (1.03)	.51	0.92	.76
9.	1.23 (.91)	.49	0.77	.76
13.	.75 (.78)	.51	0.92	.73
16.	.80 (.78)	.57	0.85	.72
20.	.96 (.80)	.53	0.83	.72

The item number indicates the position of the item in the questionnaire.

Table 2
Models Fit for the SBI.

Model	χ^2	df	RMSEA	GFI	TLI	CFI	AIC
M1 (1 factor)	1282.943	170	.138	.628	.473	.528	1362.943
M2 (2 factors)	945.377	169	.116	.705	.630	.671	1027.377
M3 (3 factors)	499.198	167	.076	.852	.840	.859	585.198
M4 (4 factors)	305.602	164	.050	.920	.930	.940	397.602

χ^2: chi-square; df: degrees of freedom; *P*: significance level; RMSEA: Root Mean Square Error of Approximation; GFI: Goodness-of-Fit Index; TLI: Tucker-Lewis Index; CFI: Comparative Fit Index; AIC: Akaike Information Criterion. For all chi-square values, *P* < .001.

Tucker Lewis Index (TLI) or Non-Normed Fit Index (NNFI), and the Comparative Fit Index (CFI) indicate the amount of variation and covariation accounted for by a particular model by comparing the relative fit of the given model with the fit of a baseline model. For these three indices, values higher than .90 are considered as indicators of an acceptable fit of the model (Bentler, 1992; Hoyle, 1995). The Root Mean Square Error of Approximation (RMSEA) estimates the overall error amount in the model. Values between .05 and .08 indicate an adequate fit of the model (Browne & Cudeck, 1993; Hair, Anderson, Tatham, & Black, 1995). Differences between models were evaluated also using the Akaike measure (AIC). The model with minimum AIC value is chosen as the best model to fit the data (Akaike, 1987). As rule of thumb, AIC differences higher than 4 shows considerably more support for the model with the lowest AIC (Burnham & Anderson, 2002).

5. Results

Data were analysed in four steps:

- items analysis;
- testing of the factor structure of scores produced by the SBI by means of CFA;
- assessment of internal consistency of the subscales of the two burnout instruments (i.e. the SBI, MBI-HSS);
- based on the best fitting model from the previous analyses (step 2), the concurrent validity of the two burnout instruments was tested.

5.1. Item analysis

Descriptive statistics for the items are shown in Table 1. The highest mean values were reached by the items that belong to the Enthusiasm toward the job scale, characterized by high scores indicating low levels of burnout. The lowest mean values were obtained

by item 7 (M = 0.65) (I think I treat some students with indifference), which belongs to the Indolence scale. In the case of the scale Psychological exhaustion, highest mean obtained by item 17 (M = 2.10) (I feel physically tired at work) stands out against the rest of items of the scale. With regard to scale Guilt, highest mean obtained by item 4 (M = 1.24) (I worry about how I have treated some people at work).

The corrected item-total correlation for all items achieved values higher than .40, with exception of item 11 (r = .38), which belongs to the Indolence scale (Table 1). All items contributed to increase the internal consistency of the scale to which they belong because its deletion reduced the Cronbach's alpha value of the scale. With regard to the skewness values, items from Enthusiasm toward the job scale reflected a negative skewness, and thus a tendency toward high-range scores, whereas the tendency was opposite with the remaining scales. From 20 items of the inventory, only the item 7, which belongs to the Indolence scale, exceeded slightly the skewness range of ±1 (Sk = 1.18) (Table 1).

5.2. Factor structure

Table 2 displays results for data fit for the SBI models. In order to assess the factorial validity of the SBI, four alternative models were tested:

- the one-factor model (M1), which assumes that all SBI items load on a general composite burnout factor;
- the two-factor model (M2), in which the enthusiasm toward the job, psychological exhaustion and indolence items cluster into one factor and the guilt items constitute the second factor;
- the three-factor model (M3), in which the Enthusiasm toward the job items cluster into one factor, the psychological exhaustion and indolence items cluster into a second factor, and the guilt items constitute the third factor;
- and the original four-factor model (M4).

The four factor model (M4) obtained the best data fit for the sample: $\chi^2_{(164)}$ = 305.602 (*P* < .001), RMSEA = .050, GFI = .920, TLI = .930, CFI = .940, and AIC = 397.602. Furthermore, in all pairs of comparisons the difference in χ^2 was significant, indicating that with this index M4 fitted the model significantly better than the other models – i.e., M1 to M3−. Values of difference in χ^2 were: M1 vs. M2, $\chi^2_{(1)}$ = 337.566 (*P* < .001); M2 vs. M3, $\chi^2_{(2)}$ = 446.179 (*P* < .001); and M3 vs. M4, $\chi^2_{(3)}$ = 193.596 (*P* < .001). Taking into consideration the AIC index M4 obtained the smallest AIC value. The difference M3 vs. M4, AIC = 187.596, shown a value higher than 4.

All of the relationships between the dimensions of the SBI were statistically significant, and all of the factorial loadings were statistically significant for *P* < .001. The lowest value was obtained by the relationship between item 11 and the Indolence factor. The parameter for this relationship reached a value of λ = .44 (Fig. 1). The inspection of the modification indices (MI) did not indicate cross-loadings. The fit of the model would not improve if any item were free to also load on any other dimension. The highest MI value
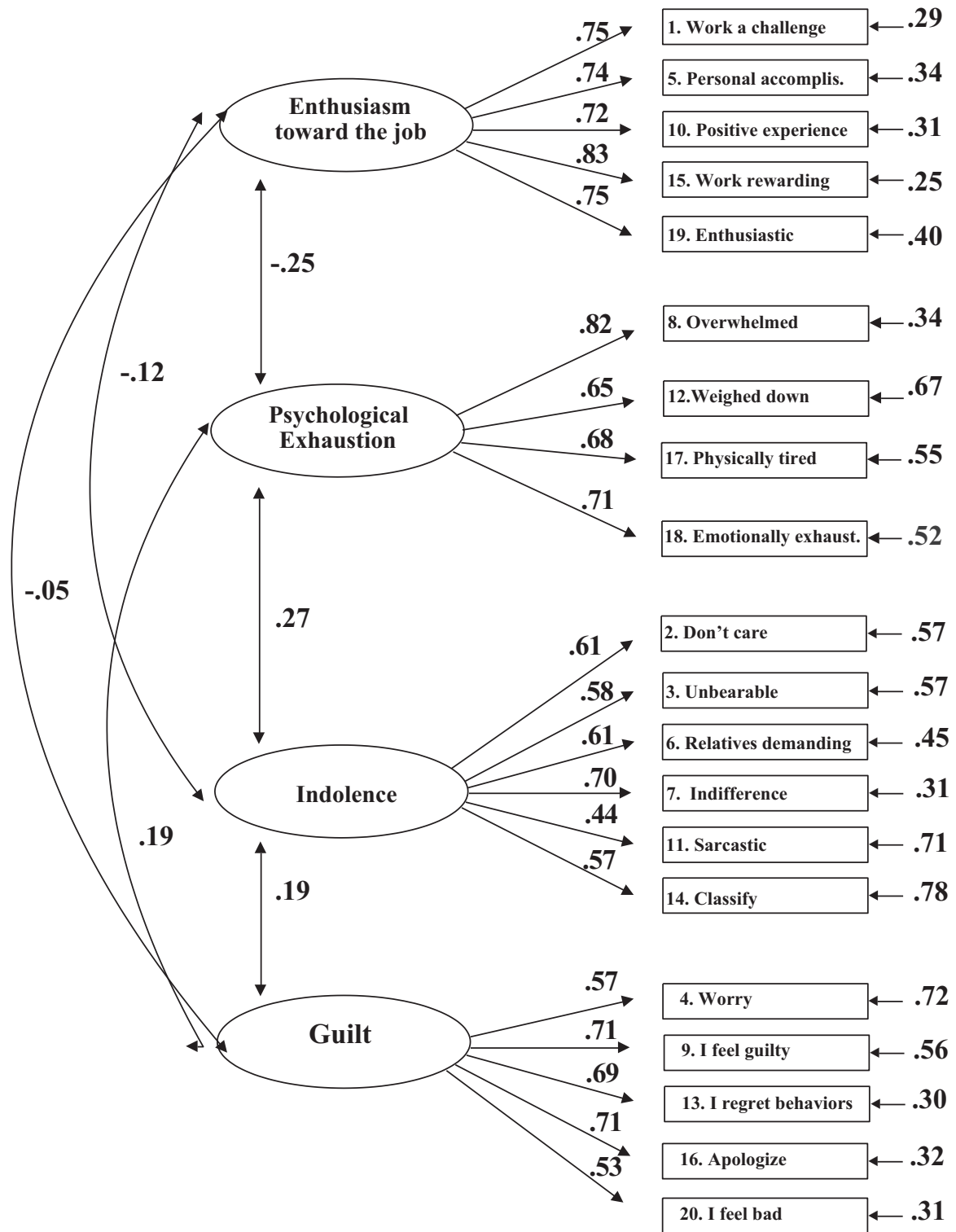
Fig. 1. Covariances and factor loading: Four-factor model.

was for the relationship between the Guilt dimension and item 10, which belongs to the Enthusiasm toward the job scale (MI = 9.93, parameter change = −.19). The lowest squared multiple correlation (SMC) value was obtained by item 11 (R^2 = .20).

The review of the MI revealed small values for error covariances. In the Enthusiasm toward the job dimension, the largest value was between items 1 and 5 (MI = 17.59, parameter change = .08).

Regarding the items in the Psychological exhaustion dimension, the largest value was between items 17 and 18 (MI = 8.20, parameter change = .09). In the Indolence dimension, the largest value was between items 3 and 6 (MI = 10.94, parameter change = .10). And the highest MI value for error covariances in the Guilt dimension was between items 4 and 13 (MI = 14.27, parameter change = −.11). These values point to a likely absence of overlap of item content.

5.3. Internal consistency

Table 3 presents the descriptive statistics for the scales of the SBI. All scales fitted to the normal distribution to a great extent, because the skewness value ranged between ±1, and regarding to kurtosis, presented values closed to 0 and a mesokurtic tendency.

The internal consistency values for all SBI scales showed values higher than .70: Enthusiasm toward the job (α = .87), Psychological exhaustion (α = .81), Indolence (α = .75), and Guilt (α = .79) (Table 3). Comparing these values to the Cronbach's alpha values from the MBI scales, it can be observed that Personal accomplishment (α = .83), as well as Exhaustion (α = .81) scales presented adequate internal consistency values. However, the Cronbach's alpha value for the Depersonalization scale was relatively low and lower than .70.

5.4. Concurrent validity

Taking into consideration the correlation among SBI and MBI scales measuring similar constructs, the correlations between Enthusiasm toward the job and Personal accomplishment was r = .52 (P < .001); between Psychological exhaustion and Exhaustion, r = .68 (P < .001); and between Indolence and Depersonalization, r = .45 (P < .001) (Table 3).

6. Discussion

The purpose of this study was to examine the psychometric properties of a Portuguese adaptation of the SBI. The relevance of this study is that it provides evidence showing the adequate psychometric properties of an alternative burnout measure. As a means of advancing the burnout literature, it is important for researchers to have an inventory with acceptable psychometric properties.

The corrected item-scale correlation values obtained for the items are relatively high, which indicates that each of the dimensions of the SBI can be considered as a lineal function of the items that make it up.

Nevertheless, there is one item deserving a comment. In the scale Guilt, item 4 has presented the highest item mean for the items that belong to this scale. However, the internal consistency of Guilt scale decreases deleting that item. In previous studies results for the mean have been similar, using the Spanish version of the SBI (Gil-Monte, Unda, & Sandoval, 2009; Gil-Monte & Zúñiga-Caballero, 2010) as well as the Portuguese version (Gil-Monte, Carlotto, & Gonçalves, 2010). This result can be justified by the fact that the item wording does not make explicit reference to the feelings of guilt as the remaining items of the scale. However, findings obtained by CFA and EFA, just as the internal consistency values for the scale Guilt in previous studies, reflect that item 4 contributes significantly to the variance of this scale.

The results of our study suggest that the four-factor model (M4) shows the best fit to data. Based on the results obtained, it can be concluded that the factorial model adequately reproduces the theoretical model of the SBI. This structure supports the theoretical model of four symptoms of burnout: Enthusiasm toward the job, Psychological exhaustion, Indolence and Guilt. The correlations among the subscales were significant, and in the expected direction. The Guilt subscale showed the highest correlation with the Indolence subscale. These findings are consistent with those reported by other researchers in other countries (Bosle & Gil-Monte, 2010; Gil-Monte, Carlotto, & Gonçalves, 2010; Gil-Monte & Zúñiga-Caballero, 2010), and they confirm that burnout could be a four-dimensional concept, as measured by the SBI. The internal consistencies of the four subscales were satisfactory, with all the Cronbach's alphas ranging from .75 to .87. These results are

similar to those reported with both Brazilian (Gil-Monte, Carlotto, & Gonçalves, 2010) and Mexican samples (Gil-Monte, Unda, & Sandoval, 2009).

Burnout as evaluated by the SBI progresses in a parallel way from low Enthusiasm toward the job to Indolence and from Psychological exhaustion to Indolence. Indolence is considered as a dysfunctional, rather than effective, coping strategy tried after the reappraisal stage. In some cases, negative attitudes on the job, especially toward the people with whom the worker establishes work relationships, lead to feelings of guilt due to the existence of negative thoughts about others and the negative and cynical way he or she has treated them (Gil-Monte, 2012). Following Baumeister et al. (1994), these professionals will probably reaffirm their commitment toward other people – i.e., student or patients – and the responsibility of taking care of them, and as a result, develop a sense of failure and loss of self-esteem, which can lead to a state of depression (Maslach, 1982).

However, the generalization or universality of this statement and the four-factor structure of the SBI obtained in our study should be viewed with caution because guilt is a variable that is influenced by cross-cultural differences (Bedford & Hwang, 2003). People from different cultures or countries might be differentially motivated to adhere to moral or professional standards. Cultural differences can establish significant differences in the experience of an inappropriate attribution of personal responsibility for negative outcomes over which the individual has no control, and it may yield an inherently maladaptive guilt that would predict significant relations with psychological maladjustment and depressive symptoms (Kim, Thibodeau, & Jorgensen, 2011).

Concurrent validity of the SBI was obtained through the relationship with the parallel subscales from the MBI: Enthusiasm toward the job vs. Personal accomplishment, Psychological Exhaustion vs. Exhaustion, and Indolence vs. Depersonalization. All the subscales were associated in the expected direction, and the Pearson correlations were moderate and acceptable (Cohen, 1988), which implies that the theoretical construct of burnout estimated by the SBI is similar to that of other major burnout scales. The findings are consistent with results found in the literature (Gil-Monte, Carretero, Roldán, & Núñez-Román, 2005; Olivares & Gil-Monte, 2007).

Among the limitations of the study, it must be pointed out that:

- the information was collected by means of a self-administered questionnaire;
- participants were selected in a non-random way;
- and the sample was not balanced in terms of gender (27.6% of the sample were men).

Although the majority of studies on the guilt and gender relationship concludes that women present higher scores in the Guilt scales than men, some studies indicate that this result could be influenced by the exposure frequency to events of an interpersonal nature (Etxebarria, Ortiz, Conejero, & Pascual, 2009), the instrument used in measuring guilt and the patterns of gender role socialization can affect those results (Benetti-McQuoid & Bursik, 2005). In this way, men developing female roles (e.g., taking care) with a high number of events of an interpersonal nature can present higher scores in some guilt aspects. These analyses should be replicated with a similar number of participants in both groups – i.e., men vs. women – in order to conclude about the influence of gender on Guilt variable estimated by the SBI.

Another potential limitation could be related to the length and content validity of the questionnaire, due to the low number of items considered in constructing the subscales – i.e., four items for Psychological exhaustion and five items for the Guilt subscale. However, prior to the psychometric analysis performed to test the validity of the SBI, the burnout literature was examined

Table 3
Descriptive statistics for SBI and MBI dimensions, Cronbach' alpha, and correlations between dimensions of both inventories.

	M (SD)	Sk	Ku	Range	1	2	3	4	5	6	7
1. Enthusiasm toward job	2.94 (0.70)	−0.47	−0.33	0–4	(.87)						
2. Psychological Exhaustion	1.80 (0.82)	0.36	−0.07	0–4	−.40**	(.81)					
3. Indolence	1.18 (0.61)	0.40	−0.10	0–4	−.30**	.42**	(.75)				
4. Guilt	0.99 (0.63)	0.55	0.18	0–4	−.10*	.31**	.42**	(.79)			
5. Personal accomplishment	35.15 (7.02)	−0.39	−0.09	0–48	.52**	−.29**	−.34**	−.27*	(.83)		
6. Emotional exhaustion	13.07 (6.36)	0.35	−0.69	0–30	−.34**	.68**	.27**	.26**	−.18**	(.81)	
7. Depersonalization	4.60 (4.50)	1.04	0.45	0–30	−.24**	.30**	.45**	.37**	−.22**	.32**	(.65)

**P < .001; *P < .01.
The Cronbach's alpha values are in the diagonal of the correlation matrix.

in order to identify and learn more about symptoms of burnout (Einsiedel & Tully, 1982; Maslach, 1982; Paine, 1982; Schaufeli & Enzman, 1998). Furthermore, to elaborate the items and fit a minimal number of elements in all the subscales, we interviewed some professionals (e.g., teachers, caseworkers, and nursing) with health disorders that had been identified as burnout symptoms in previous studies.

Moreover, some limitations of alternative burnout measures were considered to improve the content validity. For example, Halbesleben & Demerouti (2005) stated that the MBI focuses only on affective components of emotional exhaustion, and that the exhaustion component should include physical exhaustion in order to more broadly capture the nature of exhaustion. The SBI includes both affective and physical components – e.g., I feel physically tired at work. In addition, previous studies have obtained acceptable values of concurrent validity with the subscales of the MBI. Therefore, future studies should explore the length and item sampling of the subscales in order to draw conclusions about these aspects.

On the whole, the results of our study indicate that the present Portuguese adaptation of the SBI possesses adequate psychometric properties for the study of burnout in the Portuguese teachers and nurses, and it allows to generalize results obtained with the original Spanish version to other languages and cultures – i.e., Portugal.

The relevance of this study is that it provides evidence showing the adequate psychometric properties of an alternative burnout measure. As a way of advancing the burnout research, it is important for researchers and practitioners to have an inventory with acceptable psychometric properties and a broader concept of burnout than the traditional one.

In addition to these results on the construct of burnout, our study offers some suggestions for elaborating a theory on burnout that would make it possible to better interpret the relationship between its dimensions and between these dimensions and some of their significant consequents. The SBI offers a theoretical proposal to explain different types of burnout, taking into consideration the incorporation of the evaluation of guilt as a symptom of burnout. It contributes to the literature by, offering researchers and practitioners an expanded conceptualization of the syndrome that can facilitate the diagnosis and treatment of subjects with burnout, for example by evaluating feelings of guilt and other symptoms of burnout in interventions designed to improving social support (Gray-Stanley, Muramatsu, Heller, Hughes, Johnson, & Ramirez-Valles, 2010; Richardson & Rothstein, 2008) and uncertainty (Halbesleben, Osburn, & Mumford, 2006). Diagnosis in the initial stages of burnout could prevent the increase in intensity of the symptoms and make earlier recovery possible.

As a recommendation for further validation of the SBI, future studies should attempt to examine the cross-national validation of the four-factor model – e.g., in French speaking samples – and establish clinical cut-off scores based on the SBI, in order to analyze the true epidemiological impact of burnout.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at http://dx.doi.org/10.1016/j.erap.2012.08.003.

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