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Factor Analysis of the Spanish Burnout Inventory among Mexican Prison Employees

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Abstract

This study was designed to assess the factor structure of the Spanish Burnout Inventory in a sample of 1131 Mexican prison employees. This instrument is composed of 20 items distributed in four dimensions: Enthusiasm toward the job (5 items), Psychological exhaustion (4 items), Indolence (6 items), and Guilt (5 items). The factor structure was examined through confirmatory factor analysis. To assess the factorial validity of the Spanish Burnout Inventory, four alternative models were tested. The four-factor model obtained an adequate data fit for the sample. The results show that the four-model factor of the Spanish Burnout Inventory possesses adequate psychometric properties in the Hispanic cultural context.

Keywords: burnout, Spanish Burnout Inventory, job stress, factor analysis, mental health.

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Some studies have shown that one of the limitations of many diagnostic tools is that they have been created for the U.S. population and, in some cases, later exported to other cultural contexts. When measurement instruments that have been developed by a dominant group are applied to groups for which they were not originally intended (U.S. Hispanic population, for example Mexicans), care must be taken to ensure that possible cross-cultural effects are taken into account when interpreting the results (Mushquash & Bova, 2007).

Burnout can be regarded as a major public health problem and a cause for concern (Melamed, Shirom, Toker, Berliner & Shapira, 2006). The definition of burnout that currently finds considerable consensus in the scientific community is the one advanced by Maslach, Schaufeli and Leiter (2001), who refer to burnout as a syndrome of exhaustion, cynicism (or depersonalization) and reduced efficacy or accomplishment. These symptoms can be assessed using the Maslach Burnout Inventory (MBI) (Maslach, Jackson & Leiter, 1996), as they are the three dimensions or subscales of this questionnaire.

A review of the literature indicates that researchers have been troubled by some of the limitations of the MBI (Sassi & Neveu, 2010). For example: a) a two-factor model might be more appropriate than the three-factor original structure (Kalliath, O´Driscoll, Gillespie & Bluedorn, 2000); b) items 12 (*I feel very energetic*) and 16 (*Working with people directly puts too much stress on me*) cross-load (Maslach et al., 1996); and c) this instrument does not contemplate the possibility of different types of burnout (Farber, 2000; Paine, 1982, Vanheule, Lievrouw & Verhaeghe, 2003). Furthermore, the MBI dimensions were not theoretically deduced before construction of the questionnaire; instead, they were labeled after the factor analysis (Schaufeli & Van Dierendonck, 1993). A consequence of using this procedure to establish the definition of burnout is that the MBI is based on a limited concept of burnout (Halbesleben & Demerouti, 2005; Kristensen, Borritz, Villadsen & Christensen,

2005).

Experiencing feelings of guilt is a variable that appears to be involved in the burnout syndrome (Ekstedt & Fagerberg, 2005; Farber & Miller, 1981; Freudenberger, 1974; Maslach, 1982; Price & Murphy, 1984). This variable could explain different profiles in the development of burnout, taking into consideration the role of guilt feelings in the relationships between burnout and its consequences. One of the frequent causes of guilt feelings in professionals is having negative thoughts about others and treating them in a negative and cynical way (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. In this situation, they feel higher levels of burnout. As a result, they develop a sense of failure and a loss of self-esteem, which can lead to a state of depression (Maslach, 1982).

To address the problems associated with the MBI, some Spanish researchers have developed and offered initial construct validity evidence for the "Spanish Burnout Inventory" (SBI) (Gil-Monte, Carlotto & Gonçalves, 2010; Gil-Monte, Unda & Sandoval, 2009). The SBI comprises 20 items divided into four subscales: 1) Enthusiasm toward the job: the individual's desire to achieve goals at work because it is a source of personal pleasure; 2) Psychological exhaustion: the appearance of emotional and physical exhaustion due to the fact that he or she must deal daily with people at work who present problems; 3) Indolence: the appearance of negative attitudes of indifference and cynicism toward the organization's clients; and 4) Guilt: the appearance of feelings of guilt about negative attitudes developed on the job, especially toward the people with whom he or she establishes work relationships.

To elaborate the items, symptoms of burnout were identified by reviewing the literature and interviewing professionals with symptoms of burnout in different occupations, such as teachers, caseworkers and nurses. Corrections officers also display burnout similar to

that of these professionals (Carlson & Thomas, 2006).

The theoretical model underlying the SBI is based on the concept that burnout is a response to chronic job stress that stems primarily from problematic interpersonal work relationships (Maslach et al., 2001). 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, whereas 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 (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 without experiencing 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 makes them develop feelings of guilt.

Thus, a significant advantage of the SBI over the MBI is that it provides a broader conceptualization of burnout. 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 the psychometric one, and it overcomes the theoretical and psychometric limitations of other instruments (e.g., a limited concept of burnout, shortcomings of factor structure, or the misfit between theoretical and psychometric models that have been evident with some alternative scales) (Halbesleben & Demerouti, 2005; Kristensen et al., 2005).

Results have been replicated by means of confirmatory factor analysis (CFA), obtaining empirical support for the four-factor structure model across countries and occupational groups: a) Spanish professionals working with intellectually disabled people (Gil-Monte et al., 2006), b) Mexican doctors (Gil-Monte & Zúñiga-Caballero, 2010), c) Mexican teachers (Gil-Monte et al., 2009), and d) Brazilian teachers (Gil-Monte et al., 2010). In studies conducted in Spain (Gil-Monte et al., 2006), and in the study of Mexican doctors (Gil-Monte & Zúñiga-Caballero, 2010), the lowest item-factor relationship was obtained for item 11 (*I feel like being sarcastic with some patients*)[1], which belongs to the Indolence scale ($\lambda = .39$ and $\lambda = .25$, respectively), whereas in studies with Mexican and Brazilian teachers, the lowest item-factor relationship was obtained for item 14 (*I label or classify students according to their behavior*) ($\lambda = .52$ and $\lambda = .51$, respectively), which also belongs to the Indolence scale.

The score reliability of the subscales has been assessed. For all subscales, the values are generally well above the critical value of .70 (Nunnally, 1978). The Indolence subscale scores tend to produce lower Cronbach's alpha values than the other subscales. The score reliability of the Indolence subscale has been reported to be between .66 (Gil-Monte, Carretero, Roldán & Núñez-Román, 2005) and .80 (Gil-Monte et al., 2010), whereas the "Enthusiasm toward the job" subscale tends to produce the highest Cronbach's alpha scores, with values reported between .72 (Gil-Monte & Zúñiga-Caballero, 2010) and .90 (Gil-Monte et al., 2005).

Previous studies have obtained adequate concurrent validity values between the SBI and the MBI. The Pearson r values ranged from .34 to .61 for the correlation between Enthusiasm toward the job and Personal accomplishment, .74 to .83 for the correlation

[1] The words "patients" in item 11, and "students" in item 14, were changed to "inmates" in the SBI version for prison employees.

between Psychological exhaustion and Emotional exhaustion, and .40 to .58 for the correlation between Indolence and Depersonalization (Gil-Monte et al., 2005; Olivares & Gil-Monte, 2007; Olivares & Gil-Monte, 2007/2008).

Although there is support for the three-factor model of the MBI, some studies have suggested a better fit for a two-factor model, where the Emotional exhaustion and Depersonalization items form one factor (this has been called "the Core of Burnout"), and the second factor is defined by the Personal Accomplishment items (Holland, Michael & Kim, 1994; Walkey & Green, 1992). Furthermore, many studies have tested the validity of the MBI as a one-factor model, assuming that burnout is a unitary latent variable (Cordes, Dougherty & Blum, 1997; Worley, Vassar, Wheeler & Barnes, 2008). Taking into consideration the concurrent validity between the MBI and SBI subscales, we consider it possible to obtain a similar factor structure for the SBI, with Guilt as an independent fourth dimension.

Prison employees are exposed to unique and powerful stressors such as maximum security level, contact hours with inmates, danger, role problems, and shifts (Dowden & Tellier, 2004), but stress and burnout (and factors contributing to their development) have been studied less frequently in prison employees than burnout in other occupational groups (Cieslak, Korczynska, Strelau & Kaczmarek, 2008). In recent years, the number of related studies has increased (Keinan & Malach-Pines, 2007; Neveu, 2007). However, the limited study of burnout in the field of corrections has found that this is a serious problem for many officers and other prison staff, and one that needs more attention (Griffin, Hogan, Lambert, Tucker-Gail & Baker, 2010). Studies in Spain have concluded that the mean burnout level among correctional officers was reasonably high, and higher than the burnout means for other professionals groups, such as police, teachers or nurses (Hernández-Martín, Fernández-Calvo, Ramos & Contador, 2006). In studies carried out in the U.S., Hurst and Hurst (1997) concluded that about 64% of correctional officers reported moderate or strong emotional

exhaustion, and Lindquist and Whitehead (1986) concluded that one-third or more of correctional officers were experiencing burnout. Statistical evidence has made it possible to draw conclusions about significant relationships between correctional staff burnout and low life satisfaction, turnover intent and absenteeism (Lambert, Hogan & Altheimer, 2010).

Although previous studies have supported the four-factor structure of the SBI, they were carried out in professionals working in occupational sectors different from prison employees. However, this occupational group has working conditions and socio-demographic characteristics that could produce significant differences in the psychometric properties and validity of the SBI. The generalization of the four-factor structure of the SBI obtained in previous studies should be viewed with caution because cultural work values, work condition predictors of burnout (Mann-Feder & Savicki, 2003), and guilt (Kim, Thibodeau & Jorgensen, 2011) are variables influenced by cross-cultural differences. Professionals from different occupational groups might be differentially motivated to adhere to moral or professional standards, as occupational differences can establish significant differences in the experience of an inappropriate attribution of personal responsibility for negative outcomes over which the individual had no control. Haney, Banks and Zimbardo (1973), in the Stanford Prison Experiment, concluded that the aggressive attitudes and behaviors among guards in American prisons were due to the prison environment.

In addition, most Mexican prison guards are men, and gender is a variable that explains significant differences in burnout (Purvanova & Muros, 2010). Most previous studies examining the psychometric properties of the SBI were developed with samples in which a majority of the participants were women, for example, teachers (Gil-Monte et al., 2009; Gil-Monte et al., 2010; Mercado & Gil-Monte, 2012: 77.5%, 86.6% and 54% of those samples were women, respectively), professionals working with intellectually disabled people (Gil-Monte et al., 2005; 75.8% women), and administrative employees dealing with the public

(Olivares & Gil-Monte, 2007; 75% women). Taking these statements into consideration, the characteristics of our sample strengthen the rationale for this study.

The purpose of this paper is to provide evidence for the factor structure of the SBI in Mexican prison employees, and to explore the pattern of their responses to the prison service version of the SBI.

Taking the literature into consideration, four models will be examined: (a) the one-factor model (M_1), which assumes that all SBI items load on a general composite burnout factor; (b) the two-factor model (M_2), in which the Psychological exhaustion, Indolence and Enthusiasm toward the job items cluster into one factor and the Guilt items constitute the second factor; (c) the three-factor model (M_3), in which the Psychological exhaustion and Indolence items cluster into one factor, the Enthusiasm toward the job items constitute the second factor, and the Guilt items constitute the third factor; and (d) the four-factor model (M_4), which corresponds to the SBI model (Gil-Monte, 2011). On the basis of previous results and the factor structure of the instrument, a four-factor model was hypothesized.

Method

Participants

The sample consisted of 1131 prison employees of the three main prisons in Jalisco (Mexico). The participants were selected in a non-random manner; 61.50% were men, and 38.50% were women. The mean age was 37.90 years (minimum = 20, maximum = 69). The mean number of years at work was 10.11 (*SD* = 6.53). With regard to occupation, the highest percentage of participants worked as guards (88.59%). The remaining participants worked as social workers, psychologists, health professionals, and administrative staff.

Survey data were collected in the workplace by three psychologists working in the organization. Participation was voluntary, and confidentiality was guaranteed. The questionnaire was handed out together with a response envelope in which to return the

questionnaire to the researchers. The response rate was 87.3%.

Instruments

Respondents completed the Spanish Burnout Inventory (Gil-Monte, 2011; Gil-Monte et al., 2009), using the version for professionals working in prisons. This instrument contains 20 items distributed in four dimensions: Enthusiasm toward the job (5 items, e.g., *I see my job as a source of personal accomplishment*), Psychological exhaustion (4 items, e.g., *I feel emotionally exhausted*), Indolence (6 items, e.g., *I don't like taking care of some inmates*), and Guilt (5 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.

According to the SBI theoretical model, burnout is defined as a syndrome with two profiles. To evaluate the profiles, the scores on each subscale can be combined into a single score, as an average score. The Profile 1 score is estimated as the mean of the 15 items from the subscales of Enthusiasm toward the job (reversed), Psychological exhaustion, and Indolence. The Profile 2 score is estimated taking into consideration the mean of these 15 items together with the mean of the Guilt subscale.

Data analysis

Data were subjected to confirmatory factor analysis using the Amos 17 program. The Maximum likelihood estimation method was used. As 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 *Normed Fit Index* (NFI) 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 indexes, values higher than .90 are considered indicators of an

acceptable fit of the model (Bentler, 1992; Hoyle, 1995). The *Root Mean Square Error of Approximation* (RMSEA) estimates the overall amount of error 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 also evaluated using the *Akaike Information Criterion* (AIC). The model with the lowest AIC value is chosen as the best model to fit the data (Akaike, 1987). As a rule of thumb, AIC differences higher than 4 show considerably more support for the model with the lowest AIC (Burnham & Anderson, 2002).

Results

Data were analyzed in three steps: (1) item analysis, (2) testing of the factor structure of the SBI scores by means of confirmatory factor analysis (CFA), and (3) assessment of score reliability of the subscales of the SBI.

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 for item 11 ($M = 0.47$) (*I feel like being sarcastic with some inmates*), which belongs to the Indolence scale. In the case of the Psychological exhaustion scale, the highest mean was obtained for item 17 ($M = 0.97$) (*I feel physically tired at work*). With regard to the Guilt scale, the highest mean, obtained for item 4 ($M = 1.05$) (*I worry about how I have treated some people at work*), stands out among the remaining items of the scale.

For most items, the corrected item-total correlation achieved values greater than $r = .40$, but items 2, 11, and 14, which belong to the Indolence scale, and item 4, which belongs to the Guilt scale, obtained values below .40. None of the items diminished the Cronbach's alpha of the scale to which it belonged. With regard to the skewness values, items from the Enthusiasm toward the job scale reflected a negative skewness and, thus, a tendency toward

high-range scores, whereas the opposite tendency occurred with the remaining subscales. Of the 20 items on the inventory, 2 items slightly exceeded the skewness range of +/-2 (item 11, *Sk* = 2.26, and item 13, *Sk* = 2.18).

INSERT TABLE 1 ABOUT HERE

Factor analysis

Table 2 displays the data fit results for the SBI models. The four-factor model (M4) obtained the best data fit for the sample: $\chi^2_{(164)} = 479.476$ ($p < .001$), RMSEA = .041 (90% confidence intervals: .036 to.047), GFI = .959, NFI = .903, CFI = .933, and AIC = 571.476. All the factor loadings were statistically significant, and all the relationships among the dimensions of the SBI were statistically significant for $p < .001$ (Figure 1).

INSERT TABLE 2 ABOUT HERE

Furthermore, in all pairs of comparisons, the difference in χ^2 was significant, indicating that with this index, M4 fit the data significantly better than the other models (i.e., M1 to M3). Values of the difference in χ^2 were as follows: M1 vs. M2,.$\chi^2_{(1)} = 373.551$ ($p < .001$); M2 vs. M3,.$\chi^2_{(2)} = 1097.823$ ($p < .001$); and M3 vs. M4,.$\chi^2_{(3)} = 298.966$ ($p < .001$). Taking the AIC index into consideration, M4 obtained the smallest AIC value. The difference of M3 vs. M4, AIC = 292.966, showed a value higher than 4.

All the item-factor relationships were significant. The lowest value was obtained for the relationship between item 14 (*I label or classify inmates according to their behavior*) and the Indolence factor. The parameter for this relationship was .31 (Figure 1). Inspection of the modification indices did not show indications of cross-loadings. The fit of the model would not improve if any item were set free to load on any other dimension either.

INSERT FIGURE 1 ABOUT HERE

In addition, as most previous studies examining the psychometric properties of the SBI were developed with samples in which most of the participants were women, gender

invariance of the M4 was tested. The model obtained a good data fit for the subsample of men (n = 696): $\chi^2_{(164)}$ = 365.857 (p < .001), GFI = .950, NFI = .886, CFI = .933, RMSEA = .044 (90% confidence intervals: .036 to.048); and the data fit was acceptable for the subsample of women (n = 435): $\chi^2_{(164)}$ = 347.436 (p < .001), GFI = .926, NFI = .826, CFI = .898, RMSEA = .051 (90% confidence intervals: .043 to.058). Although the value of the NFI was lower than .90 in both subsamples, the model fit was acceptable in both according to the *Incremental Fit Index* (IFI): men, IFI = .934; and women, IFI = .900. All the factor loadings were statistically significant for p < .001 in both subsamples.

To test whether the factor structure was statistically equivalent across the two samples, a hierarchical series of nested models was tested. As can be seen in Table 3, the configural invariance model provided a good fit to the data: RMSEA = .032, CFI = .920, χ^2/df = 2.17, indicating that the same factor structure held for the two samples (i.e., men vs. women). As the configural invariance was supported, the factor pattern coefficients were constrained to be equal in order to test for metric invariance. Although the difference in χ^2 was significant, considering the CFI support was obtained for metric invariance, as the difference between the configural model and the metric model, CFI = .004, showed a value lower than .01. That is, the strengths of the relations between specific scale items and their respective underlying constructs were the same across groups. However, support was not obtained for the scalar invariance model. The difference in χ^2 was significant for the scalar model vs. the metric model, $\Delta\chi^2_{(20)}$ = 138.753, p < .001; the difference of CFI = .025, showed a value higher than .01; and the ΔAIC = 98.75, was higher than 10. That is, the two different sets of intercepts were not invariant. The highest values in the critical ratios for differences between parameters were obtained for the intercepts of item 14 (*CR* = -6.172) on the Indolence scale, and for the intercepts of item 14 (*CR* = -5.581) on the Guilt scale.

Validity of the scales

Table 4 presents the descriptive statistics for the subscales of the SBI. All subscales fit the normal distribution to a great extent because the skewness values ranged between +/-2 and, regarding kurtosis, were close to 0 and a mesokurtic tendency.

Scale score reliability coefficients for 3 of the 4 SBI scales showed values higher than .70: Enthusiasm toward the job (α = .77, 95% confidence interval: .74 to .79), Psychological exhaustion (α = .73, 95% confidence interval: .70 to .76), and Guilt (α = .73, 95% confidence interval: .69 to .74); however, for the Indolence scale, the alpha value was lower than .70 (α = .65, 95% confidence interval: .59 to .66). All correlations between the SBI subscales were significant. According to the definition of the SBI dimensions, correlations between Enthusiasm toward the job and the remaining subscales were negative, as expected, whereas relationships among the rest of the subscales were positive. The strongest correlation was found between the Indolence and Guilt subscales (.46, $p < .05$), and the lowest correlation was between the Enthusiasm toward the job and Guilt subscales (-.07, $p < .05$) (Table 4).

INSERT TABLE 4 ABOUT HERE

Discussion

The purpose of this study was to examine the factor structure of the SBI prison-services version, in a sample of 1131 prison employees of the three main prisons in Jalisco (Mexico). The relevance of this study is that it provides evidence for the adequate psychometric properties of an alternative burnout measure. In advancing the literature on burnout, 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 it contains. Some items presented skewness values outside the range of +/- 1, the range usually accepted to conclude that the fit has a normal distribution. However, only two

skewness values slightly exceed the value of +/-2, which means that this deviation is not important (Miles & Shevlin, 2005)

Nevertheless, two items warrant comment. On the Indolence scale, item 14 (*I label or classify inmates according to their behavior*) showed the highest value on the scale means. In this study, this item also presented a relatively low item-factor relationship ($\lambda = .31$) compared to the other items on the questionnaire, which showed values higher than .40. However, this item did not present any striking psychometric values in previous studies using the Spanish version of the SBI (Gil-Monte et al., 2010; Gil-Monte & Zúñiga-Caballero, 2010).

On the other hand, item 4, which belongs to the Guilt scale, presented the highest item mean of the items that belong to this scale. In previous studies, results for the item's mean have been similar, using the Spanish version (Gil-Monte et al., 2009; Gil-Monte & Zúñiga-Caballero, 2010) and the Portuguese version of the SBI (Gil-Monte et al., 2010), although the item did not negatively contribute to the score reliability of the scale. This result can be justified by the fact that the item wording does not explicitly refer to feelings of guilt like the remaining items do. However, findings obtained by CFA and EFA, as in the scale score reliability values for the Guilt subscale in previous studies, reflect that item 4 contributes significantly to the variance of this scale.

The results confirmed the hypothesized four-factor structure, consistent with the original Spanish model (Gil-Monte, 2011). It can be concluded that the factorial model adequately reproduces the theoretical model of the SBI. This structure clearly supports the theoretical model of the four symptoms of burnout: Enthusiasm toward the job, Psychological exhaustion, Indolence, and Guilt. Moreover, the fit of the four-factor structure was tested for the subsamples of men and women. The results supported the gender invariance for the configural model (i.e., men and women conceptualize the constructs in the same way), and for

the metric model (i.e., all factor loading parameters are equal across groups), as ΔCFI showed a value lower than .01 (Cheung & Rensvold, 2002). Although the difference in χ^2 was significant for the configural vs. metric invariance models, when the sample size is large, a small discrepancy in the model that may be of no practical or theoretical interest can lead the χ^2 to reject the model (Chen, Sousa & West, 2005).

The scale score reliability coefficients of three subscales were satisfactory, with Cronbach's alphas ranging from .73 to .77; however, the Indolence scale was problematic because the Cronbach's alpha was less than .70. This result is identical to what was obtained in a study of Mexican teachers (i.e., Cronbach's alpha for Indolence was < .70) (Mercado & Gil-Monte, 2012). However, this scale has not presented psychometric problems in previous studies with Spanish (Gil-Monte et al., 2006), Argentinean (Marucco, Gil-Monte & Flamenco, 2007/2008), Chilean (Olivares & Gil-Monte, 2007), and Mexican samples (Unda, Sandoval & Gil-Monte, 2007/2008).

The correlations among subscales were statistically significant, and in the expected direction. However, correlation values between Enthusiasm toward the job and Psychological exhaustion, and between Enthusiasm toward the job and Indolence, deserve a comment. Although the SBI subscales are independent dimensions, these particular values were unusually low. Values obtained in previous studies ranged from r = -.36 to r = -.46 for the correlation between Enthusiasm toward the job and Psychological exhaustion, and from r = -.34 to r = -.45 for the correlation between Enthusiasm toward the job and Indolence. Some of these studies have been carried out with Mexican samples of teachers and doctors.

Results of our study could be explained by the occupational characteristics of the sample and the low values reached by the means of the four subscales. Comparing the results of this study with those of previous studies carried out in samples of Mexican teachers (Gil-Monte et al., 2009; Mercado & Gil-Monte, 2012) and doctors (Gil-Monte & Zúñiga-

Caballero, 2010), the means of this study were lower than the mean values reached in those studies for the Enthusiasm toward the job (teachers, $M = 3.51$ and $M = 3.54$; doctors, $M = 3.58$; $F = 127.83$, $p < .001$), Psychological exhaustion (teachers, $M = 1.66$ and $M = 1.43$; doctors, $M = 1.48$; $F = 155.76$, $p < .001$) and Guilt (teachers, $M = .98$ and $M = .86$; doctors, $M = .72$; $F = 18.73$, $p < .001$) subscales, but higher for the Indolence subscale (teachers, $M = .77$ and $M = .78$; doctors, $M = .71$; $F = 10.30$, $p < .001$). The post hoc Bonferroni test was significant for all pairs of mean comparisons, with the exception of the prison professional-doctor comparison for the Guilt subscale.

The higher scores on Indolence reached by prison employees could be explained by the conclusions of Haney et al. (1973) derived from the Stanford Prison Experiment. In addition, especially in prison professionals, indolence could act as a coping strategy (Lee & Ashforth, 1990) that would contribute to effectively managing levels of psychological exhaustion and guilt -i.e., emotional deterioration of these professionals. The lower mean value reached in our sample for the Enthusiasm toward the job subscale could be explained as a lower vocational orientation of prison employee workers than teachers and doctors. Future studies carried out with prison employee samples should analyze the values of the relationship among the dimensions of the SBI.

On the whole, the results of our study indicate that the present SBI possesses adequate psychometric properties for the study of burnout in Mexican prison employees. The relevance of this study is that it provides evidence showing the adequate psychometric properties of an alternative burnout measure in Hispanic employees and correctional officers. Future studies should attempt to examine the cross-validation of the model –e.g., with English or French samples- and the generalizability of these results, and establish clinical cut-off scores based on the SBI, in order to analyze the true epidemiological impact of burnout.

In advancing research on burnout and occupational mental health, 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. The SBI offers a theoretical proposal to explain the different types of burnout, and it contributes to the literature by offering researchers and practitioners an expanded conceptualization of the syndrome, which can facilitate the diagnosis and treatment of prison employees (e.g., correctional officers with burnout: Garland, 2002; 2004), for example, by improving social support (Lambert, Altheimer & Hogan, 2010) to reduce feelings of guilt. Diagnosis in the initial stages of burnout could keep the symptoms from increasing in intensity and facilitate earlier recovery. The SBI can contribute to improving initial-stages diagnosis by identifying profiles with more intense symptoms.

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Table 1. *Descriptive Statistics of SBI Items.*

Subscale Item	*M* (SD)	Corrected item-scale correlations	Skewness	Alpha if item deleted
Enthusiasm toward job				
1. I find my work is a stimulating challenge	2.78 (1.40)	.44	-0.80	.76
5. I see my job as a source of personal accomplishment	3.01 (1.39)	.58	-1.11	.71
10. I think my job gives me positive experiences	3.14 (1.23)	.57	-1.29	.71
15. I find my work quite rewarding	2.87 (1.43)	.54	-0.94	.72
19. I feel enthusiastic about my job	2.75 (1.42)	.55	-0.78	.72
Psychological exhaustion				
8. I feel I am overwhelmed by work	0.84 (1.10)	.49	1.30	.69
12. I feel weighed down by my job	0.65 (0.96)	.53	1.71	.66
17. I feel physically tired at work	0.97 (1.03)	.57	0.88	.64
18. I feel emotionally exhausted	0.91 (1.07)	.49	1.16	.69
Indolence				
2. I don’t like taking care of some inmates	0.95 (1.12)	.35	1.14	.59
3. I think many inmates are unbearable	1.29 (1.17)	.43	0.80	.55
6. I think the relatives of inmates are very demanding	0.68 (0.98)	.42	1.54	.56
7. I think I treat some inmates with indifference	0.57 (0.89)	.45	1.82	.56
11. I feel like being sarcastic with some inmates	0.47 (0.92)	.35	2.26	.59
14. I label or classify inmates according to their behavior	1.45 (1.46)	.24	0.56	.65
Guilt				
4. I worry about how I have treated some people at work	1.05 (1.30)	.38	1.10	.73
9. I feel guilty about some of my attitudes at work	0.60 (0.95)	.50	1.81	.66
13. I regret some of my behaviors at work	0.49 (0.89)	.53	2.18	.65
16. I think I should apologize to someone for my behavior at work	0.88 (1.04)	.52	1.29	.65
20. I feel bad about some of the things I have said at work	0.64 (0.92)	.50	1.64	.66

Note 1. Item number indicates the position of the item in the questionnaire.

Note 2. The SBI was applied in the Spanish language.

Table 2.

Model Fit for the SBI

Model	χ^2	df	$RMSEA_{(90\% CI)}$	GFI	NFI	CFI	AIC
M1 (1 factor)	2249.816	170	$.104_{(.100-.108)}$	.790	.543	.560	2329.816
M2 (2 factors)	1876.265	169	$.095(_{.091-.098})$	.816	.619	.640	1958.265
M3 (3 factors)	778.442	167	$.057_{(.053-.061)}$	.927	.842	.871	864.442
M4 (4 factors)	479.476	164	$.041_{(.036-.047)}$	.959	.903	.933	571.476

Note. χ^2 = chi-square; df = degrees of freedom; $RMSEA_{(CI)}$ = Root Mean Square Error of Approximation (90% confidence intervals); GFI = Goodness-of-Fit Index; NFI = Normed Fit Index; CFI = Comparative Fit Index**;** AIC **=** Akaike Information Criterion. For all chi-square values, $p < .001$.

Table 3.

Fit Indices for Invariance Tests

Model	χ^2	df	$RMSEA_{(90\% CI)}$	CFI	AIC
Configural invariance	712.968	328	$.032_{(.029-.035)}$	.920	976.968
Metric invariance	749.929	344	$.032_{(.029-.035)}$	.916	981.929
Scalar invariance	888.682	364	$.036_{(.033-.039)}$	.891	1080.682
Error variance invariance	1010.676	384	$.038_{(.035-.041)}$	.870	1162.676

Note. χ^2 = chi-square; df = degrees of freedom; $RMSEA_{(CI)}$ = Root Mean Square Error of Approximation (90% confidence intervals); CFI = Comparative Fit Index**;** AIC = Akaike Information Criterion. For all chi-square values, $p < .001$.

Table 4.

Descriptive statistics for SBI dimensions, and correlations between dimensions.

	M (*SD*)	Sk	Ku	Range	1	2	3	4
1. Enthusiasm toward job	2.91 (0.99)	-0.77	-0.27	0-4	(.77)			
Men	2.91 (0.98)	-0.73	-0.35					
Women	2.92 (1.00)	-0.82	-0.14					
2. Psychological exhaustion	0.84 (0.77)	0.99	0.89	0-4	-.16**	(.73)		
Men	0.79 (0.78)	1.04	0.85		-.17**			
Women	0.93 (0.76)	0.96	1.10		-.14*			
3. Indolence	0.90 (0.65)	0.74	0.40	0-4	-.16**	.38**	(.65)	
Men	0.98 (0.68)	0.66	0.22		-.15**	.44**		
Women	0.78 (0.59)	0.80	0.62		-.19**	.33**		
4. Guilt	0.73 (0.70)	1.05	0.78	0-4	-.07*	.38**	.46**	(.73)
Men	0.80 (0.73)	0.93	0.45		-.10*	.42**	.48**	
Women	0.63 (0.64)	1,25	1.53		-.03	.34**	.39**	

** $p < .001$; * $p < .01$

Note 1. The Cronbach's alpha values are on the diagonal of the correlation matrix.

Note 2. The results in the top row correspond to the total sample.

Figure 1. Factor loading: Four-factor model.