Abstract: The purpose of this study was to examine the factorial validity and the internal consistency of a German translation of the “Spanish Burnout Inventory” (SBI). A model of five factors was hypothesized, similar to the original structure. The sample consisted of 113 German healthcare professionals. Confirmatory factor analysis was conducted with the LISREL 8.30 program. The hypothesized five-factor model obtained adequate fit to the data for the sample: Chi-square (S-B) = 223.47 (*), p < .005, CFI = .91, NFI = .90, RMSEA = .058. Cronbach’s alpha values for all subscales were higher than .70. Results indicate that the SBI offers factorial validity and is scales permit adequate internal consistency. Hence, the SBI can be considered as a satisfactory instrument to evaluate burnout syndrome in German healthcare services professionals.

Key words: burnout, factor analysis, job stress, psychosomatic risks.

In the light of social change and a transformation in the work situation, interest in the problem of burnout has grown over the past years. A substantial increase in work pace (Reijerst & Aromos, 2001), indicators' decreasing influence over their work situation, as well as processes like outsourcing, globalization, and downsizing (Hart & Cooper, 2001) have led to an increase of perceived work stress, which is one of the main reasons for psychological complaints such as burnout. According to one of the most extensive characterizations by Maslach and Jackson (1981), burnout is the result of chronic stress (in the workplace) which has not been successfully
The consequences associated with burnout are numerous. Statistical evidence has been drawn to conclusions about the significant relationship between burnout and physical symptoms (Mehran Shirani, Toker, Berliner & Shapira, 2006), levels of cortisol and IL-6 (Stern & Steptoe, 2009), and sleep quality (Velas-Ibarra et al., 2008), low levels of well-being (Pina-Muñoz, Martins-Moreira, Alonso-Morillo & Salvador-Ferrer, 2008), and psychological symptoms, such as depression (Hakanen, Schaufeli & Abola, 2008), anxiety (Grossi, Perni, Evangelou, Blomqvist & Ohrn-Grenier, 2003), and cognitive failures that lead to decreased interest, poor performance and inhibition errors (Van der Linden, Keijzers, Elzing & Schaufeli, 2003). Abola et al. (2008) have concluded that severe burnout is associated with an increased probability of having a medically certified episode of sickness at work.

The most widely used and accepted burnout measurement tool is the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981). The MBI measures burnout on three subscales: Emotional exhaustion (feeling emotionally drained by one's contact with other people), Depersonalization (cognitive feelings and cynical attitudes toward the individuals who develop burnout), and Personal accomplishment (a tendency to evaluate negatively one's own work) (Byron, Curtis, & Locall, 2001).

The MBI is a solid instrument in the assessment of burnout, achieving satisfactory reliability and validity indices in numerous studies (Vanheule, Rosseel, & Van Den Noort, 2007). Still, it has some psychological limitations, especially when it is used in non-English speaking samples (Peters & Rieze, 2005). Some authors have argued that a three-factor structure might not be appropriate (Halbesleben & Dornettes, 2005; Kalliafas, O'Dwyer, Gill, & Blascovich, 2000). Furthermore, some items are not associated with their factors (Kristensen, Borriez, Villadsen, & Christensen, 2005) and the internal consistency of the subscale Deterioration (Schaufeli & Demerouti, 2005) argues that the Emotional Exhaustion subscale focuses only on affective components instead of including also cognitive and physical exhaustion.

The varied limitations of instruments used in the assessment of burnout have hindered the development of the Spanish Burnout Inventory (SBI; Gil-Monte, 2000). The theoretical model underlying the SBI considers burnout as a response to chronic work stress evoked by problematic interpersonal relationships at work. It is characterized by cognitive deterioration (i.e., loss of enthusiasm towards the job), emotional deterioration, attitudes and behaviors of indifference, cynicism, indifference, withdrawal and sometimes abrasive attitudes towards the client. In some cases, feelings of guilt can appear. The theoretical model thus distinguishes two different profiles in individuals who develop burnout: Profile 1 describes individuals who suffer moderately from work-related stress and is characterized by low enthusiasm towards the job, high levels of psychological exhaustion and indifference. In contrast, some problems, the individual is still able to do his/her work and does not show elevated feelings of guilt. In contrast, individuals who show Profile 2 are those who are more strongly by these symptoms, have difficulties carrying out their job appropriately and tend to develop feelings of guilt (Gil-Monte, 2005).

The SBI consists of twenty five items which are distributed into four dimensions: Emotional exhaustion towards the job, defined as the individual's desire to achieve goals at work as a source of personal pleasure, 2) Psychological exhaustion, defined as the appearance of emotional and physical exhaustion due to the fact of having to deal with people who present or cause problems every day, 3) Indifference, defined as the appearance of negative attitudes and cynicism toward the organization's clients and patients, 4) Guilt, defined as the appearance of feelings of guilt about negative attitudes towards work and especially towards the people the individual is working with (Gil-Monte, 2005).

In previous studies, exploratory factor analyses obtained factor structures which adequately reproduced the four dimensions of the SBI. These studies included data samples of nurses from Spain (Gil-Monte, 2000), and public workers from Chile (Gil-Monte, 2007). In these cases, the amount of variance explained by the four factors was high (60.8% and 59.07%, respectively). In the study conducted in Colombia, item 11 ("I feel like being sarcastic with some clients") was also included as an item 14 ("I label or classify the clients according to their behavior"), which belong to the subscale Indifference, also had relevant cross-loadings on other factors. These results were replicated using confirmatory factor analysis (CFA). Empirical support for the four factor structure was obtained in different countries and for different groups of professionals: 1) Spanish professionals working with elderly people, 2) Psychological exhaustion and Emotional exhaustion reached values between r = .24 and r = .33; 3) and the correlation between the individual's subscale Indifference and Depersonalization was between r = .40 and r = .58 (Gil-Monte et al., 2005; Olivares & Gil-Monte, 2007, 2007/2008). It has to be pointed out that the subscale Indifference towards the job does not include self-efficiency, which is included in the MBI subscale Personal accomplishment.

According to the test manual (Gil-Monte, in press) evidence of the discriminate validity of the SBI has been obtained by distinguishing it from other psychologi-
The highest mean value was found in the 15.3-SUB and 16.5-SEP, which indicates that these areas have the highest significance. The lowest mean value was found in the 11.6-SEP and 12.7-SEP, which indicates that these areas have the lowest significance.

Table 1. Descriptive statistics for the SHI items

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Total</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional well-being</td>
<td>15.3</td>
<td>6.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Social contacts</td>
<td>16.5</td>
<td>6.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Psychological symptoms</td>
<td>11.6</td>
<td>4.9</td>
<td>1.3</td>
</tr>
<tr>
<td>Psychological somatisation</td>
<td>12.7</td>
<td>4.9</td>
<td>1.2</td>
</tr>
<tr>
<td>Psychological symptoms (female)</td>
<td>15.8</td>
<td>6.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Physical symptoms (male)</td>
<td>15.6</td>
<td>6.7</td>
<td>1.4</td>
</tr>
<tr>
<td>Physical symptoms (female)</td>
<td>15.9</td>
<td>6.6</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Method

The method of this study consisted of the following steps: 1) A psychometric evaluation of the Spanish version of the SHI was conducted using SPSS 16.0, adjusting for the statistical analysis of the data. 2) A forward stepwise regression analysis was performed to determine the most significant factors contributing to the total score. 3) The internal consistency of the new version of the SHI was assessed using Cronbach's alpha coefficient. 4) The factor structure of the SHI was explored using exploratory factor analysis. 5) The structural validity of the SHI was assessed using confirmatory factor analysis.

The Spanish version of the SHI has high internal consistency (Cronbach's alpha = 0.89), with a factor structure similar to the original version. The factor analysis identified five factors: Emotional well-being, Social contacts, Psychological symptoms, Psychological somatisation, and Physical symptoms. The observed data were consistent with the expected factor structure, with a goodness-of-fit index of 0.95. The results of this study suggest that the Spanish version of the SHI is a valid and reliable measure of health-related quality of life.
Since Chi² is afflicted by the sample size, other fit indices were considered as well. The NNFI and the CFI obtained values of 0.90 and 0.91, respectively, and the value for the RMSEA was lower than 0.08 (RMSEA = 0.069), indicating altogether an adequate model fit.

All of the four dimensions of the SBI correlated significantly. The strongest correlation was found between the Guilt and Psychological exhaustion subscales (r = 0.53, p < 0.05), the lowest correlation was found between guilt and Emphasis towards the job (r = 0.17, p > 0.05). The item which showed by far the lowest correlation with its factor (Indulgence) was item 11 (Ω = 0.48). (Figure 1).

Validity of the subscales.

Table 1 presents the descriptive statistics of the SBI subscales. For the

Figure 1. Factor loading. Five-factor model

Emphasis towards the job, Psychological exhaustion, and Indulgence subscales, the skewness values ranged between ± 1. Therefore, a normal distribution can be assumed for these scales. The Guilt subscale slightly exceeded the ±1 criterion (Sk = 1.18). The kurtosis was 1.49 for this subscale, which indicates a slightly peaked distribution. The internal consistency values for all scales met the standard of Coor- beck's alpha > 0.70 than is recommended by Nunnally (1978) (see Table 1). The items contributed to increase the internal consistency of the subscale they belong to.

Discussion

The objective of the current study was to analyze the factorial validity and the internal consistency of a German version of the SBI, in a German population of human services professionals. Results indicate adequate psychometric properties of the items in relation to the respective subscale they belong to. The values for the corrected item-total correlation and skewness, as well as the factor loadings, were satisfactory. The item which showed by far the lowest correlation with its own factor was item 11. The results confirmed the hypothesized factor structure. The model fit was good according to the fit indices CFI and NFI which achieved higher values than 0.90; and according to the RMSEA since it did not exceed the .08 criterion proposed by Browne and Cudeck (1993). These results are similar to the findings within samples of professionals in other countries, namely Spain (Gil-Monte et al., 2006), Mexico (Gil-Monte et al., 2010, Gil-Monte et al., 2009), Brazil (Gil-Monte et al., 2010) and Portugal (Gil-Monte & Figueiredo-Ferreira, 2010), and thereby contribute to the transnational factorial validity of the SBI. All subscales reached Coorbeck's alpha values higher than 0.80, which indicates high internal consistency and validity of the SBI dimensions (Nunnally, 1978).

One limitation of the study refers to the data collection technique that was used. Due to the online response format, the sample population could not be random- ly selected, which may have resulted in reduced variation in data (Van Selin & Jankowsky, 2006). Also, self-report bias can present a problem in online surveys (Thompson, Surface, Marria & Sanders, 2005; Winkler, Coleman & Katzev, 1999). On the other hand, the online format re- quired respondents to complete all answers prior to survey submission. Thus, the prob- lem of missing data could be avoided in the current study. Other limitations include the relatively small sample size (N = 115) and the fact that the vast majority of the sample were women (80.5%), which might have affected the results. Despite these limita- tions, the results of the current study sup- port the findings of previous studies re- garding the psychometric properties of the SBI. The SBI seems to be a valid instru- ment to evaluate burnout in German pro- fessionals who work in human services, and can serve to overcome the psychometri- c flaws of other instruments (e.g. MBI; Schwarzer, Schmitz, & Tang, 2004). How- ever, to confirm these results further stud- ies with larger sample sizes and higher ho- mogeneity regarding the profession and other sociodemographic variables should be conducted.

As a way of advancing the burnout re- search, it is important for researchers and practitioners to have an inventory with ac- ceptable psychometric properties and a broader concept of burnout than the tradi- tions' one. The SBI offers a theoretical proposal to explain different types of burn- out. It contributes to the literature by offe- ring researchers and practitioners an ex- panded conceptualization of the syndrome that can facilitate the diagnosis and treat- ment of subjects with burnout. The SBI