

- gencias y catástrofes, *Ansiedad y Estrés*, 11, 265-279.
- Tsutsumi, A., Kayaba, K., Theorell, T. & Siegrist, J. (2001). Association between job stress and depression among Japanese employees threatened by job loss in comparison between two complementary job stress models. *Scandinavian Journal of Work and Environment Health*, 27, 146-153.
- Wickens, C. D., Gordon, S. E. & Liu, Y. (1998). *An introduction to human factors engineering*. Nueva York: Longman.
- Young, M. S. & Stanton, N. A. (2001). Mental workload theory, measurement and application. En W. Karwowski (Ed.), *International Encyclopedia of Ergonomics and Human Factors* (pp. 507-509). Londres: Taylor & Francis.
- Xie, B. & Salvendy, G. (2000). Prediction of mental workload in single and multiple tasks environments. *International Journal of Cognitive Ergonomics*, 4, 213-242.



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PSYCHOMETRIC PROPERTIES OF THE SPANISH BURNOUT INVENTORY
IN GERMAN PROFESSIONALS: PRELIMINARY RESULTS

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Abstract: The purpose of this study was to assess the factorial validity and the internal consistency of a German translation of the "Spanish Burnout Inventory" (SBI). A model of four factors was hypothesized, similar to the original structure. The sample consisted of 115 German human services professionals. Confirmatory factor analysis was conducted with the LISREL 8.30 program. The hypothesized four factor model obtained an adequate data fit for the sample: $\chi^2_{(164)} = 272.47$ ($p = .000$), CFI = .91, NNFI = .90, RMSEA = .069. Cronbach's alpha values for all subscales were higher than .70. Results indicate that the SBI offers factorial validity and its scales present adequate internal consistency. Hence, the SBI can be considered a satisfactory instrument to evaluate burnout syndrome in German human services professionals.

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

Resumen: El objetivo de este estudio fue evaluar la validez factorial y la consistencia interna de la traducción al alemán del "Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo" (CESQT). Se hipotetizó un modelo de cuatro factores según la estructura original del cuestionario. La muestra estuvo formada por 115 profesionales alemanes de servicios de atención a personas. El análisis factorial confirmatorio se realizó mediante el programa LISREL 8.30. El modelo hipotetizado obtuvo un ajuste adecuado para la muestra del estudio: $\chi^2_{(164)} = 272.47$ ($p = .000$), CFI = .91, NNFI = .90, RMSEA = .069. Todas las escalas presentaron valores de consistencia alfa de Cronbach superiores a .70. Los resultados indican que el CESQT presenta validez factorial y sus escalas valores de consistencia interna adecuados para concluir que es un instrumento adecuado para evaluar el síndrome de quemarse por el trabajo en profesionales alemanes de servicios de atención a personas.

Palabras Clave: síndrome de quemarse por el trabajo, análisis factorial, estrés laboral, riesgos psicosociales.

Título: Propiedades psicométricas del Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo en profesionales alemanes: resultados preliminares

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 substantive increase in work pace (Bejerot & Aronsson, 2001), indi-

viduals' 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 first extensive characterizations by Maslach and Jackson (1981), burnout is the result of chronic stress (in the workplace) which has not been successfully

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dealt with (Extremera, Durán & Rey, 2010).

The consequences associated with burnout are numerous. Statistical evidence has been obtained to draw conclusions about the significant relationships between burnout and physical symptoms (Melamed, Shirom, Toker, Berliner & Shapira, 2006), levels of cortisol (Chida & Steptoe, 2009), sleep quality (Vela-Bueno et al., 2008), low levels of well-being (Poza-Muñoz, Martos-Méndez, Alonso-Morillo & Salvador-Ferrer, 2008); and psychological symptoms, such as depressive mood (Hakanen, Schaufeli & Ahola, 2008), anxiety (Grossi, Perski, Evengard, Blomkvist & Orth-Gomér, 2003), and cognitive failures that lead to increased distraction, poor performance and inhibition errors (Van der Linden, Keijsers, Eling & Schaijk, 2005). Ahola et al. (2008) have concluded that severe burnout is associated with an increased probability of having a medically certified episode of sickness absence.

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 (negative feelings and cynical attitudes toward the recipients of one's service or care), and Personal accomplishment (a tendency to evaluate negatively one's own work) (Byron, Curtis, & Lockwood, 2001).

The MBI is a solid instrument in the assessment of burnout, having achieved satisfactory reliability and validity values in numerous studies (Vanheule, Rosseel, & Vlerick, 2007). Still, it has some psychometric limitations, especially when it is used in non-English speaking samples (Peeters & Rutte, 2005). Some authors have argued that a three-factor structure might not be appropriate (Halbesleben &

due to the fact of having to deal with people who present or cause problems every day, 3) Indolence, defined as the appearance of negative attitudes of indifference and cynicism toward the organization's clients, and 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. Those studies included data samples of nurses from Spain (Gil-Monte, 2008), and public workers from Chile (Olivares & Gil-Monte, 2007). In these cases, the amount of variance explained by the four factors was high (60.88 % and 59.07 %, respectively). In the study conducted in Chile, item 11 ("I feel like being sarcastic with some clients") as well as item 14 ("I label or classify the clients according to their behavior"), which belong to the subscale Indolence, 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: a) Spanish professionals working with disabled people (Gil Monte, García-Jueas, Nuñez, Carretero, Roldán, & Caro, 2006), b) Mexican doctors (Gil Monte & Zúñiga-Caballero, 2010), c) Mexican teachers (Gil-Monte, Unda, & Sandoval, 2009), d) Brazilian teachers (Gil-Monte, Carlotto, & Gonçalves, 2010), and e) Portuguese teachers (Gil-Monte & Figueiredo-Ferraz, 2010). In the studies conducted in Spain and Portugal, as well as in the study conducted with Mexican doctors, the lowest factor loading was obtained for item 11 ($\lambda = .39$, $\lambda = .53$, and $\lambda = .25$, respectively). In the studies conducted with Mexican and Brazilian teachers, the lowest factor loading corresponded

to item 14, ($\lambda = .52$ and $\lambda = .51$, respectively).

The values of internal consistency were good in all of the studies, with Cronbach's alpha higher than .70 (Nunnally, 1978), despite some exceptions. The subscale with the lowest values was Indolence, with Cronbach's alpha varying from $\alpha = .66$ (Gil-Monte, Carretero, Roldán, & Nuñez-Román, 2005) to $\alpha = .80$ (Gil-Monte et al., 2009). The subscale which generally showed the highest values of internal consistency was Enthusiasm towards the job, with Cronbach's alpha ranging from $\alpha = .72$ (Gil-Monte & Zúñiga-Caballero, 2010) to $\alpha = .90$ (Gil-Monte et al., 2005).

In a sample of 420 employees working with intellectually disabled persons, with two test sessions separated by an interval of one year, the test-retest reliability coefficients for the subscales were the following: .73 for Enthusiasm towards the job; .67 for Psychological exhaustion; .62 for Indolence; and .63 for Guilt (Gil-Monte, in press).

The results for the concurrent validity with the MBI were appropriate for the subscales measuring similar constructs. The correlation between the subscales Enthusiasm towards the job and Personal accomplishment was between $r = .34$ and $r = .61$; Psychological exhaustion and Emotional exhaustion reached values between $r = .74$; and $r = .83$; and the correlation between the subscales Indolence 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 Enthusiasm towards the job does not include self-efficacy, which is included in the MBI subscale Personal accomplishment.

According to the test manual (Gil-Monte, in press) evidence of the discriminant validity of the SBI has been obtained by distinguishing it from other psychologi-

cal constructs. Job satisfaction had a moderate correlation with both Enthusiasm towards the job ($r = .43$) and Psychological exhaustion ($r = -.37$), as well as a slight correlation with both Indolence ($r = -.19$) and Guilt ($r = -.10$). Psychosomatic complaints show a strong positive relationship with Psychological exhaustion ($r = .56$), and the relationships were weak with Enthusiasm towards the job ($r = -.22$), Indolence ($r = .26$), and Guilt ($r = .28$). Results were similar for the relationship between Depression and Psychological exhaustion ($r = .51$), Enthusiasm towards the job ($r = -.35$), Indolence ($r = .31$), and Guilt ($r = .30$).

The SBI offers some advantages over other existing instruments. Among the most relevant advantages are: a) the psychometric model has been derived from a theoretical model, b) even if some of the dimensions are similar to those of the MBI-HSS, it includes feelings of guilt as a symptom which allows to distinguish different profiles in the development of burnout as well as in the degree of impairment exhibited by the individual, and c) it overcomes the theoretical and psychometrical insufficiencies of other instruments (Halbesleben & Demerouti, 2005; Kristensen et al., 2005).

The purpose of this study was to analyze the factor validity and the internal consistency of the German version of the SBI in a German sample in order to evaluate the transnational validity of the questionnaire. Based on previous studies, a four factor model was hypothesized.

Method

Participants

The sample of this study consisted of 115 German human services professionals. Sixteen participants were men (13.9%) and 99 participants were women (86.1%). The mean age was 33.78 years ($SD = 9.71$), with a minimum of 19 and a maximum of

57 years. All of the participants worked in social professions: 50.4% were nurses, 15.7% doctors, 13.9% were teachers, 10.4% worked as counselors or therapists, and 9.7% of the participants were social workers. The average time the participants had been working in their profession was 10.86 years (min: 1 month; max: 37 years).

Instruments

Data was collected with a German version of the Spanish Burnout Inventory (Gil-Monte, 2005; Gil-Monte et al., 2009). The questionnaire consists of 20 items which belong to the following four dimensions: 1. Enthusiasm towards the job (5 items) (e.g., item 19: "I feel enthusiastic about my job"); 2. Psychological exhaustion (4 items) (e.g., item 18: "I feel emotionally exhausted by my job"); 3. Indolence (6 items) (e.g., item 7: "I think I treat some clients with indifference") and 4. Guilt (5 items) (e.g., item 9: "I feel guilty about some of my attitudes at work"). The items are answered on a five-point frequency scale, ranging from 0 (Never) to 4 (Very frequently: every day). Since the items of the Enthusiasm towards the job subscale are written in a positive manner, low scores on this dimension reflect high levels of burnout. For the other dimensions (Psychological exhaustion, Indolence and Guilt), high scores reflect high levels of burnout.

Procedure

The Spanish version of the SBI was translated into German by the first author of this study and subsequently verified using the back-translation method. Data were gathered in a nonrandom way using an online version of the questionnaire. Participation was voluntary. Statistical analyses were conducted using SPSS 16 and LISREL 8.30 (Jöreskog & Sörbom, 1996), using the Maximum Likelihood (ML) method. As recommended by Jackson, Gilman and Pure-Stephenson (2009), the following indices are reported to evaluate the

model fit: The Comparative Fit Index (CFI) and the Non-Normed Fit Index (NNFI) compare the proposed model with an independent model in which no interrelationships are assumed among any of the variables. Values higher than .90 are required to ensure that misspecified models are not accepted (Hu & Bentler, 1999). The Root Mean Square Error of Approximation (RMSEA) estimates the model's global amount of error. Values between .05 and .08 indicate an appropriate model fit (Browne & Cudeck, 1993).

Factor analysis

The tested model yielded a significant χ^2 value ($\chi^2_{(164)} = 272.47, p = .000$), which indicates an insufficient model fit.

Results

Item analysis

The highest mean value was reached by item 15 ("I find my work quite rewarding");

Table 1. Descriptive statistics for the SBI items

Subscale Item	M (Sd)	Corrected Item-Total Corr.	Skewness	α without item
Enthusiasm towards job ($\alpha = .89$)	2.87 (0.84)		-0.63	
1	2.94 (0.91)	.71	-0.73	.86
5	2.42 (1.14)	.60	-0.33	.89
10	2.93 (1.04)	.82	-0.67	.83
15	3.04 (1.09)	.73	-0.84	.86
19	3.03 (0.89)	.78	-0.53	.85
Psychological exhaustion ($\alpha = .88$)	1.93 (0.96)		0.48	
8	1.45 (1.12)	.65	0.83	.87
12	1.83 (1.12)	.76	0.64	.83
17	2.31 (1.16)	.75	0.02	.84
18	2.14 (1.17)	.78	0.20	.82
Indolence ($\alpha = .84$)	1.34 (0.75)		0.96	
2	1.70 (0.96)	.66	0.57	.80
3	1.24 (1.07)	.69	1.05	.79
6	1.44 (0.95)	.52	0.51	.82
7	0.99 (0.94)	.65	0.85	.80
11	1.40 (1.09)	.47	0.43	.84
14	1.23 (1.05)	.67	0.75	.80
Guilt ($\alpha = .86$)	0.96 (0.73)		1.18	
4	1.13 (0.93)	.58	0.86	.84
9	0.84 (1.12)	.62	1.30	.83
13	0.97 (0.97)	.79	1.06	.78
16	0.80 (0.71)	.63	0.61	.83
20	1.04 (0.85)	.70	0.96	.81

Since χ^2 is affected by the sample size, and Psychological exhaustion subscales ($r = .58, p = .00$); the lowest correlation was found between Guilt and Enthusiasm towards the job ($r = -.37; p = .00$). The item which showed by far the lowest correlation with its factor (Indolence) was item 11 ($\lambda = .48$), (Figure 1).

All of the four dimensions of the SBI intercorrelated significantly. The strongest correlation was found between the Guilt

and Psychological exhaustion 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 Cronbach's alpha $> .70$ that is recommended by Nunnally (1978) (see Table 1). The items contributed to increase the internal consistency of the subscale they belong to.

Validity of the subscales

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

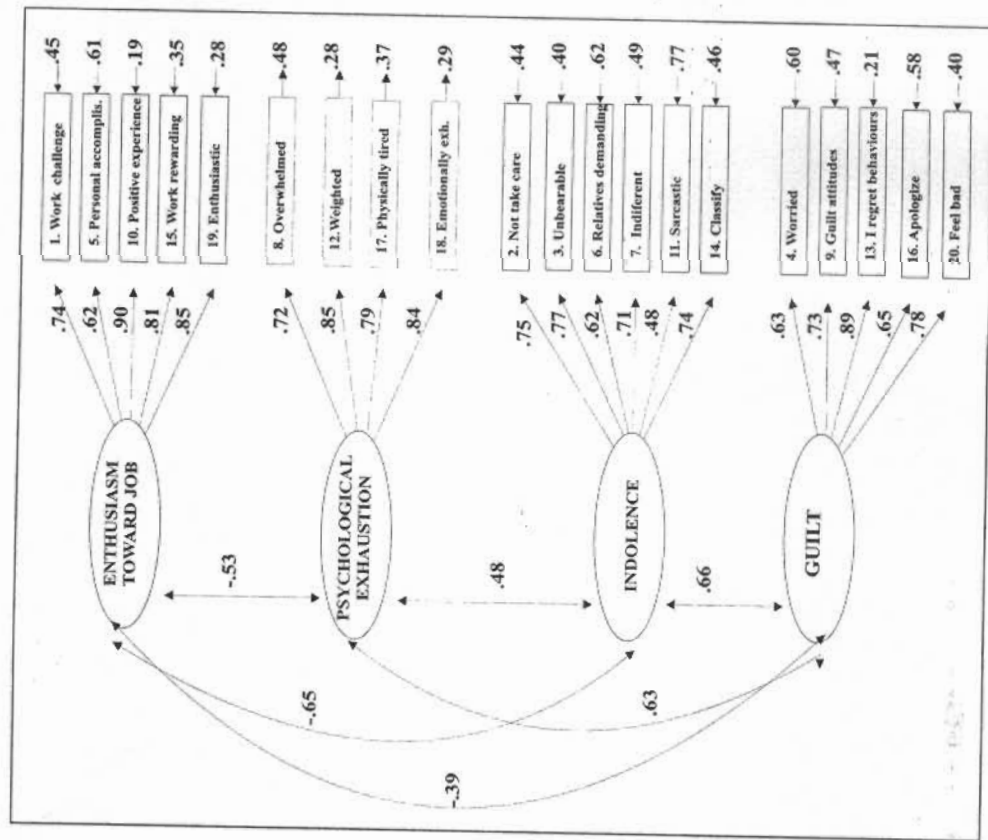


Figure 1. Factor loading: Four-factor model

Enthusiasm towards the job, Psychological exhaustion, and Indolence 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 Cronbach's alpha $> .70$ that 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 NNFI which achieved values higher than .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 & Zúñiga-Caballero, 2010; Gil-Monte et al., 2009), Brazil (Gil-Monte et al., 2010) and Portugal (Gil-Monte & Figueiredo-Ferraz, 2010), and thereby contribute to the transnational factorial validity of the SBI. All subscales reached Cronbach's alpha values higher than .80, which indicates high internal consistency and va-

lidity 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 randomized, which may have resulted in reduced variation in data (Van Selim & Jankowsky, 2006). Also, self-selection bias can present a problem in online survey research (Thompson, Surface, Martin & Sanders, 2003; Witmer, Colman & Katzman, 1999). On the other hand, the online format required respondents to complete all answers prior to survey submission. Thus, the problem 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 (86.1%), which might have affected the results. Despite these limitations, the results of the current study support the findings of previous studies regarding the psychometric properties of the SBI. The SBI seems to be a valid instrument to evaluate burnout in German professionals who work in human services, and can serve to overcome the psychometric flaws of other instruments (e.g., MBI; Schwarzer, Schmitz, & Tang, 2000). However, to confirm these results further studies with larger sample sizes and higher homogeneity regarding the profession and other sociodemographic variables should be conducted.

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. The SBI offers a theoretical proposal to explain different types 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. The SBI

points towards recommending the incorporation of the evaluation of feelings of guilt as a symptom of burnout in order to make a more complete diagnosis, discriminate among subjects affected by the syndrome, and recognize its influence on health disorders.

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References

- Ahola, K., Kivimäki, M., Honkonen, T., Virtanen, M., Koskinen, S., Vahtera, J., & Lönqvist, J. (2008). Occupational burnout and medically certified sickness absence: a population-based study of Finnish employees. *Journal of Psychosomatic Research*, *64*, 185-193.
- Bejerot, E., & Aronsson, G. (2001). Mentally and physically fatiguing work-trends in the 1990s. In S. Marklund (Ed.), *Worklife and health in Sweden 2000* (pp. 175-187). Stockholm: Swedish Work Environment Authority & National Institute for Working Life.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & L. S. Long (Eds.), *Testing Structural Equation Models* (pp. 136-162). Newbury Park, CA: Sage.
- Byron, L., Curtis, A., & Lockwood, M. (2001). Exploring burnout in Australia's Landcare Programme: A case study in the Shepparton region. *Society and Natural Resources*, *14*, 901-910.
- Chida, Y., & Steptoe, A. (2009). Cortisol awakening response and psychosocial factors: A systematic review and meta-analysis. *Biological Psychology*, *80*, 265-278.
- Extremera, N., Durán, A., & Rey, L. (2010). Recursos personales, síndrome de estar quemado por el trabajo y sintomatología asociada al estrés en docentes de enseñanza primaria y secundaria. *Anstiedad y Estrés*, *16*, 47-60.
- Gil-Monte, P. R. (2005). *El síndrome de quemarse por el trabajo ("burnout")*. Una enfermedad laboral en la sociedad del bienestar [Burnout. An occupational illness in the well-being society]. Madrid: Pirámide.
- Gil-Monte, P. R. (2008). Evaluación psicométrica del síndrome de quemarse por el trabajo (burnout): el cuestionario "CESQT" [Psychometric evaluation of burnout syndrome: the SBI scale]. In J. Garrido (Comp.), *¡Maldito trabajo!* (pp. 269-291). Barcelona: Graó.
- Gil-Monte, P. R. (in press). *Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo* [Spanish Burnout Inventory: Manual]. Madrid: TEA.
- Gil-Monte, P. R., Carlotto, M. S., & Gonçalves, S. (2010). Validation of the Brazilian version of the "Spanish Burnout Inventory" in teachers. *Revista de Saúde Pública*, *44*, 140-147.
- Gil-Monte, P. R., Carretero, N., Román, E. (2005). Prevalencia del síndrome de quemarse por el trabajo (burnout) en monitores de taller para personas con discapacidad [Analysis of the burnout prevalence in educators of disabled people]. *Revista de Psicología del Trabajo y de las Organizaciones*, *21*, 107-123.
- Gil-Monte, P. R., & Figueiredo-Ferraz, H. (2010). Psychometric properties of the "Spanish Burnout Inventory" (SBI) among Portuguese teachers. Manuscript submitted for publication.
- Gil-Monte, P. R., García-Juárez, J. A., Núñez, E. M., Carretero, N., Roldán, M. D., & Caro, M. (2006, May). Validez factorial del Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo (CESQT) [Factorial validity of the Spanish Burnout Inventory]. *Psiquiatría.com*, *10*(3). Retrieved from <http://www.psiquiatria.com/psiquiatria/revista/183/24872/?+interactivo>.
- Gil-Monte, P. R., Unda, S., & Sandoval, J. I. (2009). Validez factorial del "Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo" (CESQT) en una muestra de maestros mexicanos [Factorial validity of the "Questionario para la Evaluación del Síndrome de quemarse por el trabajo" (CESQT) in a sample of Mexican teachers]. *Salud Mental*, *32*, 205-214.
- Gil-Monte, P. R., & Zuñiga-Caballero, L. C. (2010). Validez factorial del "Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo" (CESQT) en una muestra de médicos mexicanos [Factorial validity of the "Spanish Burnout Inventory" (SBI) in a sample of Mexican doctors]. *Universitas Psychologica*, *9*, 169-178.
- Grossi, G., Perski, A., Evengard, B., Blomkvist, V., & Orth-Gomér, K. (2003). Physiological correlates of burnout among women. *Journal of Psychosomatic Research*, *55*, 309-316.
- Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The Job Demands-Resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress*, *22*, 224-241.
- Halbesleben, J. R., & Demerouti, E. (2005). The construct validity of an alternative measure of burnout: Investigating the English translation of the Oldenburg Burnout Inventory. *Work & Stress*, *19*, 208-220.
- Hart, P. M., & Cooper, C. L. (2001). Occupational stress: Toward a more integrated framework. In N. Anderson, D. S. Ones, H. Kepir-Singal, & C. Viswesvaran (Eds.), *Handbook of Industrial, Work and Organizational Psychology*. London: Sage.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1-55.
- Jackson, D. L., Gillaspay, J. A., & Purc-Stephenson, R. (2009). Reporting practices in confirmatory factor analysis: An overview and some recommendations. *Psychological Methods*, *14*, 6-13.
- Joreskog, K. G., & Sörbom, D. (1996). *LISREL 8: User's reference guide*. Chicago: Scientific Software International.
- Kalliath, T., O'Driscoll, M., Gillespie, D., & Bluedorn, A. (2000). A test of the Maslach Burnout Inventory in three samples of healthcare professionals. *Work and Stress*, *14*, 35-50.
- Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress*, *19*, 192-207.
- Maslach, C., & Jackson, S. (1981). *Maslach Burnout Inventory Manual* (2nd ed., 1986). Palo Alto, California: Consulting Psychologists Press.
- Melamed, S., Shlomi, A., Toker, S., Berliner, S., & Shapira, I. (2006). Burnout and risk of cardiovascular disease: evidence, possible causal pathways, and promising research directions. *Psychological Bulletin*, *132*, 327-353.
- Nunnally, N. C. (1978). *Psychometric theory*. Nueva York: McGraw-Hill.
- Olivares, V., & Gil-Monte, P. R. (2007). Análisis de las propiedades psicométricas del Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo (CESQT) en profesionales chilenos [An exploratory factor analysis of the Spanish Burnout Inventory (SBI) in a Chilean sample]. *Anstiedad y Estrés*, *13*, 229-240.
- Olivares, V. E., & Gil-Monte, P. R. (2007/2008). Prevalencia del Síndrome de Quemarse por el Trabajo (burnout) en trabajadores de servicios en Chile [Prevalence of burnout in Chilean service professional workers]. *Información Psicológica*, *9/192*, 43-52.
- Peeters, M. A., & Rutte, C. G. (2005). Time management behavior as a moderator for the job demand-control interaction. *Journal of Occupational Health Psychology*, *10*, 64-75.
- Pozo-Muñoz, C., Martos-Méndez, J., Alonso-Morillejo, E., & Salvador-Ferrer, C. (2008). Social support, burnout and well-being in teaching professionals. Contrast of a direct and buffer effect model. *Anstiedad y Estrés*, *14*, 127-141.
- Schwarzer, R., Schmitz, G. S., & Tang, C. (2000). Teacher burnout in Hong Kong and Germany: A cross-cultural validation of the Maslach Burnout Inventory. *Anxiety, Stress, and Coping*, *13*, 309-326.
- Thompson, L. F., Surface, E. A., Martin, D. L., & Sanders, M. G. (2003). From paper to pixels: Moving personnel surveys to the Web. *Personnel Psychology*, *56*, 197-227.
- Van der Linden, D., Keijsers, G. P. J., Eling, P., & Schaijk, R. (2005). Work stress and attentional difficulties: an initial study on burnout and cognitive failures. *Work & Stress*, *19*, 23-36.
- Van Selm, M., & Jankowski, N. W. (2006). Conducting online surveys. *Quality and Quantity*, *40*, 435-456.
- Vanheule, S., Rosseel, Y., & Vlerick, P. (2007). The factorial validity and measurement invariance of the Maslach Burnout Inventory for human services. *Stress and Health*, *23*, 87-91.
- Vela-Bueno, A., Moreno-Jiménez, B., Rodríguez-Muñoz, A., Olivarieta-Bernardino, S., Fernández-Mendoza, J., De la Cruz-Troca, J. J., ... Vgontzas, A. N. (2008). Insomnia and sleep quality among primary care physicians with low and high burnout levels. *Journal of Psychosomatic Research*, *64*, 435-442.
- Witmer, D. F., Colman, R. W., & Katzman, S. L. (1999). From paper-and-pencil to screen-and-keyboard: Toward a methodology for survey research on the Internet. In S. Jones (Ed.), *Doing Internet Research: Critical Issues and Methods for Examining the Net* (pp. 145-161). Thousand Oaks, CA: Sage.