

Pedro R Gil-Monte¹

Mary Sandra Carlotto^{II}

Sheila Gonçalves Câmara^{II}

Validation of the Brazilian version of the “Spanish Burnout Inventory” in teachers

ABSTRACT

OBJECTIVE: To assess factorial validity and internal consistency of the Brazilian version of the “Spanish Burnout Inventory” (SBI).

METHODS: The translation process of the SBI into Brazilian Portuguese included translation, back translation, and semantic equivalence. A confirmatory factor analysis was carried out using a four-factor model, which was similar to the original SBI. The sample consisted of 714 teachers working in schools in the metropolitan area of the city of Porto Alegre, Southern Brazil, in 2008. The instrument comprises 20 items and four subscales: Enthusiasm towards job (5 items), Psychological exhaustion (4 items), Indolence (6 items), and Guilt (5 items). The model was analyzed using LISREL 8.

RESULTS: Goodness-of-Fit statistics showed that the hypothesized model had adequate fit: $\chi^2_{(164)} = 605.86$ ($p < 0.000$); Goodness-of-Fit Index = 0.92; Adjusted Goodness-of-Fit Index = 0.90; Root Mean Square Error of Approximation = 0.062; Nonnormed Fit Index = 0.91; Comparative Fit Index = 0.92; and Parsimony Normed Fit Index = 0.77. Cronbach’s alpha measures for all subscales were higher than 0.70.

CONCLUSIONS: The study showed that the SBI has adequate factorial validity and internal consistency to assess burnout in Brazilian teachers.

DESCRIPTORS: Burnout, Professional, diagnosis. Validity of Tests. Reproducibility of Results. Validation Studies.

^I Unidad de Investigación Psicosocial de la Conducta Organizacional. Facultad de Psicología. Universidad de Valencia. Valencia, España

^{II} Curso de Psicología. Programa de Pós-Graduação em Saúde Coletiva. Universidade Luterana do Brasil. Canoas, RS, Brasil

Correspondence:

Pedro R. Gil-Monte
Universidad de Valencia
Av. Blasco Ibáñez, 21
46010 Valencia, España
E-mail: Pedro.Gil-Monte@uv.es

Received: 1/19/2009

Revised: 6/16/2009

Approved: 7/17/2009

INTRODUCTION

According to the World Health Organization (WHO)²⁴ (2000), workers are at risk of developing burnout syndrome, which may lead to physical and mental impairment and is regarded as a public health concern (Cebriá-Andreu⁵ 2005). The Brazilian Ministry of Health^a has recognized it as a “professional exhaustion syndrome” caused by chronic exposure to emotional and interpersonal stressors at work that affects mostly professional service providers or those who come in direct contact with users of services such as educators (Ortega Ruiz & López Rios²⁰ 2004), health workers, police officers, social workers and prison officers, among others.

Several Brazilian studies have investigated burnout in teachers (Carlotto & Câmara³ 2007; Mazon et al¹⁶ 2008). Burnout is characterized by cognitive impairment with loss of motivation and low personal accomplishment at work, an affective deterioration characterized by physical and emotional exhaustion, and the development of negative attitudes and behaviors toward the clients and the organization such as indifference, coldness, and withdrawal. These symptoms may be accompanied by feelings of guilt (Gil-Monte¹⁰ 2008).

The most widely used instrument for the assessment of burnout has been the Maslach Burnout Inventory (MBI) (Maslach & Jackson¹⁴ 1986). The MBI assesses the following dimensions of burnout: personal accomplishment, exhaustion and depersonalization or cynicism (Maslach et al¹⁵ 2001). Despite its adequate reliability and validity (Gil-Monte⁷ 2005), the MBI's psychometric properties are often inadequate (Kristensen et al¹² 2005), especially when it is translated into languages other than English (Olmedo et al¹⁹ 2001; Peeters & Rutte²¹ 2005; Truchot et al²³ 2000).

In a study investigating a sample of Brazilian teachers, the Cronbach's alpha reliability coefficient for the MBI's depersonalization subscale was 0.58 (Carlotto & Câmara² 2004), which corroborates the results from other studies conducted in Spain (Olmedo et al¹⁹ 2001).

In light of these results, other assessment instruments (Kristensen et al¹² 2005) have been designed such as the Spanish Burnout Inventory (SBI) (*Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo*) (Gil-Monte⁶ 2005). The SBI comprises four dimensions: (1) Enthusiasm toward the job, defined as an individual's desire to achieve certain job goals reflecting his/her personal and professional accomplishment; (2) Psychological exhaustion, defined as emotional and physical exhaustion due to work activity requiring daily contact with people who have or create

problems; (3) Indolence, defined as negative attitudes of indifference and cynicism toward the organization's clients; (4) Guilt, defined as feelings of guilt as a result of one's own negative behaviors and attitudes at work, especially toward those people with whom the individual has to have a professional relationship.

The SBI was developed based on the assumption that burnout is a response to chronic job stress that occurs among professionals who work in close contact with people. According to this model, cognitive (low scores on Enthusiasm toward the job) and affective impairments (high scores on Psychological exhaustion) are the first manifestations in response to chronic job stress, followed by negative attitudes toward people they have close contact with at work (high levels of Indolence). Some of these individuals may sometimes experience feelings of guilt due to these symptoms. Two different profiles can be distinguished in the process of burnout. Profile 1 consists of a set of feelings and behaviors associated with job stress that give rise to moderate discomfort, which is not incapacitating but to some extent compromises job performance. Low levels of Enthusiasm toward the job with high levels of Psychological exhaustion and Indolence are typically seen in Profile 1. Profile 2 comprises more severe manifestations of burnout characterized by feelings of Guilt (Gil-Monte⁶ 2005), in addition to other symptoms as described above.

Studies of the SBI carried out among Spanish nurses and employees working with psychologically disabled people (Gil-Monte⁹ 2008) reported adequate factorial validity of the instrument and adequate internal consistency of its subscales. The SBI has been adapted to other cultures, showing adequate factorial validity and internal consistency in studies conducted in Argentina (Marucco et al¹³ 2007/2008), Chile (Olivares & Gil-Monte¹⁸ 2007), and Mexico (Gil-Monte et al¹¹ 2009).

The SBI offers some advantages over other available instruments. It is based on a theoretical model developed prior to the psychometric one. Although some of its components are similar to those of the Maslach Burnout Inventory (MBI-HSS) (Maslach & Jackson¹⁴ 1986), the SBI makes it possible to assess feelings of guilt and, therefore, different burnout profiles including not only emotional items but also cognitive and physical aspects of exhaustion. In addition, some psychometric deficiencies arising from the Brazilian adaptation of other burnout assessment instruments are no longer seen.

^a Ministério da Saúde; Organização Panamericana da Saúde. Doenças relacionadas ao trabalho: manual de procedimentos para os serviços de saúde. Brasília, DF; 2001.

The objective of the present study was to assess the factorial and construct validity of the SBI. Our hypothesis was that the four-factor model replicating the original one would adequately fit the data in the sample studied.

METHODS

The process of adaptation of the Brazilian Portuguese version of the SBI for educators (SBI-Ed) followed the International Test Commission (ITC) methodological criteria for adequate adaptation of instruments to other cultures (Muñiz & Hambleton¹⁷ 2000). Three skilled translators with knowledge of Spanish and Brazilian Portuguese were selected for translation. Two of them were Brazilians living in Spain and one was a Spaniard living in Brazil. 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.

The final Portuguese version of the SBI was pre-tested in 25 students-teachers either attending or working at a private university. They were asked to comment on how they understood the words and sentences and make suggestions about how to make the instrument more easily understood.

The SBI-Ed comprises 20 items divided into four subscales: 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); and Guilt (five items; e.g.: I regret some of my behaviors at work). The items were answered on a 5-point frequency scale: 0 (Never) to 4 (Very frequently: every day) with an anchored intermediate position of 2 (Sometimes: a few times a month). The score on each subscale was calculated as the mean of the scores on the items that belong to the subscale. Low scores on Enthusiasm toward the job (<2) and high scores on Psychological exhaustion, Indolence and Guilt (≥ 2) reflect high levels of burnout (Gil-Monte et al⁸ 2005).

The sample in this study included 714 teachers of all educational levels from schools in the metropolitan area of the city of Porto Alegre, southern Brazil, in 2008. The participants were selected in a non-random manner. Participation was voluntary, and confidentiality was guaranteed. In the sample studied, 86.6% were females and 16.4% were males. The mean age was 39.32 years (SD = 10.01, range: 19–67). The average time working as a teacher was 13.80 years (SD = 9.30), and the average time working in the current job was 8.59 years (SD = 7.43).

This questionnaire is self-administered; it was handed to teachers at the beginning of their working day and they were asked to return the completed questionnaire at the end of the day by dropping it in a box in the teachers' room. Data analysis was conducted using SPSS 15.0, and confirmatory factor analysis was performed using LISREL 8. The Maximum Likelihood estimate method was employed.

The study was approved by the Research Ethics Committee of the *Universidade Luterana do Brasil*.

RESULTS

The statistical analysis of the SBI's items and subscales are presented in the Table. The highest mean values were reached by the items that belong to the "Enthusiasm towards the job" subscale (items 1, 5, 10, 15, and 19), indicating low levels of burnout. On the other hand, the lowest means were reached by the items that belong to the Indolence and Guilt subscales. For all the items, homogeneity values were higher than 0.40.

Cronbach's alpha coefficients for the internal consistency of the SBI subscales are presented in the Table. All values were higher than 0.70: Enthusiasm toward the job, alpha = 0.83; Psychological exhaustion, alpha = 0.80; Indolence, alpha = 0.80; and Guilt, alpha = 0.80. All the items contributed to increasing the internal consistency of the subscale to which they belong (Table). The Cronbach's alpha coefficient values, together with the item's semantic structure, make it possible to affirm that all the items are related to the original constructs to which they belong for the assessment of burnout.

With regard to subscale means, the highest measure was found for the Enthusiasm toward the job subscale (M = 3.01; SD = 0.80). The items on this subscale are positively formulated, in contrast to the wording of the remaining SBI items; i.e., high scores are suggestive of low levels of burnout. The lowest mean was obtained for the Indolence subscale (M = 1.00; SD = 0.74).

The skewness and kurtosis values obtained for the SBI items make it possible to affirm that they have a normal distribution. The highest skewness and kurtosis values were found on item 7 (Sk = 1.30; Ku = 1.15), which belongs to the Indolence subscale. On the four SBI subscales, the skewness and kurtosis values ranged between ± 1 , which indicates a normal distribution.

The factorial model tested obtained an adequate data fit for the sample according to all the indices: $\chi^2 = 605.86$, $p = 0.000$; $g1 = 164$, $\chi^2/g1 = 3.69$; Goodness-of-Fit Index (GFI) = 0.92; Adjusted Goodness-of-Fit Index (AGFI) = 0.90; Root Mean Square Error of Approximation (RMSEA) = 0.062; Non-Normed Fit Index (NNFI) = 0.91; Comparative Fit Index (CFI)

Table. Descriptive statistics and internal consistency of items and subscales of the Brazilian version of the Spanish Burnout Inventory for teachers. Municipality of Porto Alegre, Southern Brazil, 2008.

Subscale/Item	Mean (SD)	Corrected homogeneity	Skewness	Kurtosis	Alpha if item deleted
Enthusiasm toward the job ($\alpha = 0.83$)	3.01 (0.80)		-0.69	-0.21	
1	3.11 (0.96)	0.56	-1.04	0.72	0.81
5	3.11 (1.06)	0.66	-1.08	0.37	0.79
10	3.06 (1.02)	0.58	-1.02	0.40	0.81
15	3.03 (1.08)	0.70	-1.07	0.48	0.77
19	2.74 (1.07)	0.63	-0.62	-0.38	0.79
Psychological exhaustion ($\alpha = 0.80$)	1.63 (0.89)		0.43	-0.17	
8	1.25 (1.12)	0.62	0.71	-0.14	0.75
12	1.36 (1.13)	0.53	0.52	-0.48	0.79
17	2.09(1.10)	0.63	0.01	-0.65	0.74
18	1.82 (1.14)	0.68	0.28	-0.67	0.72
Indolence ($\alpha = 0.80$)	1.00 (0.74)		0.94	0.78	
2	1.41 (1.12)	0.57	0.49	-0.53	0.76
3	1.07 (1.06)	0.62	0.95	0.34	0.75
6	1.01 (1.03)	0.50	0.95	0.33	0.78
7	0.73 (0.96)	0.65	1.30	1.15	0.74
11	0.82 (1.06)	0.54	1.23	0.72	0.77
14	1.00 (1.06)	0.44	1.02	0.47	0.79
Guilt ($\alpha = 0.82$)	1.11 (0.77)		0.66	0.30	
4	1.45 (1.20)	0.51	0.68	-0.38	0.80
9	1.16 (1.03)	0.60	0.84	0.39	0.77
13	0.82 (0.95)	0.66	1.17	1.05	0.75
16	1.06 (0.95)	0.60	0.89	0.68	0.77
20	1.04 (0.95)	0.63	0.98	0.82	0.76

= 0.92; Parsimony Normed Fit Index (PNFI) = 0.77. These results confirmed the hypothesis formulated. Because the χ^2 test is sensitive to sample size, the χ^2/gf ratio was estimated. Values equal to or lower than 5.00 are generally accepted as indicating an adequate model fit. The value obtained indicates that the model fits the data well ($\chi^2/gf = 3.69$). The relative amount of variance explained by the model (GFI = 0.92, AGFI = 0.90) was adequate, and the model's fit was good considering the error of approximation in the population (RMSEA = 0.062) and the relative goodness-of-fit indices (NNFI = 0.91 and CFI = 0.92) (Byrne¹ 1998).

All the factorial loading values were significant. The lowest value was obtained by item 14 ($\lambda = 0.51$, $t = 13.52$). All correlations between SBI subscales were significant ($p < 0.05$). As expected, based on subscale definitions, the correlations between Enthusiasm toward the job and the remaining SBI subscales were negative, while the correlations between the remaining subscales were positive. The strongest correlations was found between Psychological exhaustion and Indolence (0.70, $p < 0.05$), and the lowest correlations was between Enthusiasm toward the job and Guilt (-0.21, $p < 0.05$) (Figure).

DISCUSSION

The study results show that the SBI-Ed is a reliable and valid instrument to assess burnout in Brazilian teachers. The model's fit indices supported the hypothesis of a four-factor structure. This finding is similar to results obtained in previous studies conducted in Spain (Gil-Monte⁹ 2008) and Mexico (Gil-Monte et al¹¹ 2009) using confirmatory factor analysis, and to the one found in Chile (Olivares & Gil-Monte¹⁸ 2007) using exploratory factor analysis. It supports the instrument's validation and the psychometric validation of the theoretical four-factor model.

Factor loadings of items were adequate, thus supporting the internal consistency of the subscale to which they belong. All the subscales showed an adequate Cronbach's alpha value (Carretero-Dios & Pérez⁴ 2007). Therefore, the SBI-Ed satisfies the basic internal consistency requirements for its application in the assessment of burnout in Brazilian teachers. Similar results were also reported by Gil-Monte et al¹¹ (2009) in a sample of Mexican teachers using the Spanish version of the SBI. In this study¹¹ they found the lowest factor loading on item 14 ($\lambda = 0.52$, $t = 12.99$), which was similar to what was found in the present study.

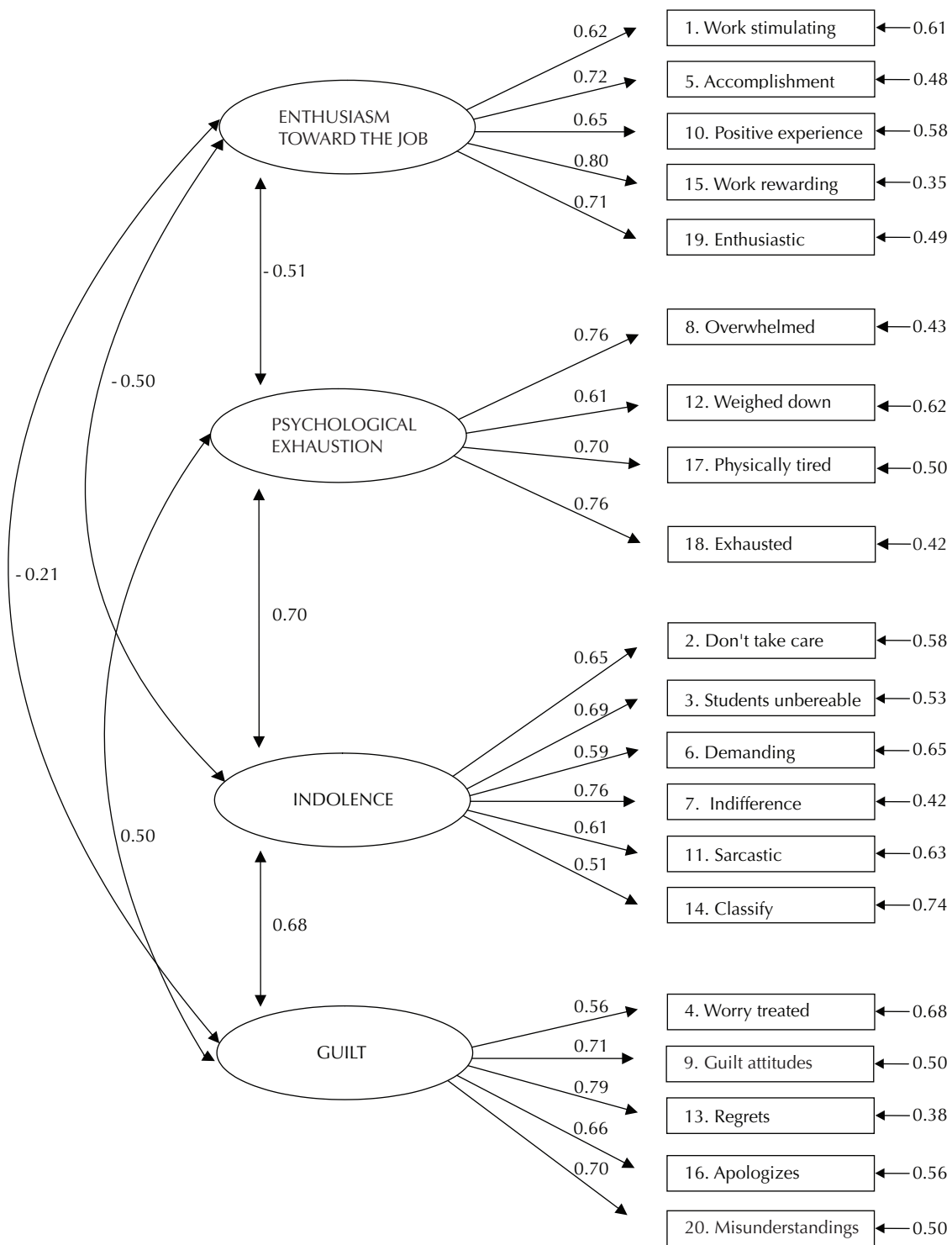


Figure. Results of the factorial model of the Brazilian version of the Spanish Burnout Inventory for teachers. Municipality of Porto Alegre, Southern Brazil, 2008.

One potential limitation of the use of the SBI as a data collection instrument has to do with the sincerity of the answers provided and the fact that some variables show a slight deviation from the normal distribution.

Another limitation of this study involves the sampling process. Although a large sample was studied, it was not randomly selected, and it might not be representative of the teaching population. The ratio of cases with

high scores on Psychological exhaustion, Indolence, and Guilt and low scores on Enthusiasm toward the job may be lower in the sample studied.

Studies designed to reproduce the results of the present study in workers with different occupations and socio-cultural backgrounds in other Brazilian regions are suggested for further validation of the SBI's theoretical model and its factor structure. Studies assessing cut-off points for the distribution of individuals into the subscales could also provide valuable input on the prevalence and incidence of burnout and aid in the development of interventions. Longitudinal studies are also recommended to analyze the antecedents vs. consequences relationship between the subscales in

order to better understand the progress of burnout (Taris et al²² 2005).

A practical implication of the SBI would be its use for the psychometric assessment of individuals from different cultural backgrounds as it has better theoretical and psychometric properties than other instruments and may facilitate the diagnosis of burnout. The SBI is designed from a theoretical model with a component that includes feelings of guilt, making it possible to discriminate two forms of burnout that have different psychological consequences. This differential diagnosis is important for understanding different behaviors in individuals with high levels of burnout.

REFERENCES

1. Byrne BM. Structural equations modeling with LISREL, PRELIS, and SIMPLIS: basic concepts, applications, and programming. London: Lawrence Erlbaum Associates; 1998.
2. Carlotto MS, Câmara SG. Análise fatorial do Maslach Burnout Inventory (MBI) em uma amostra de professores de instituições particulares. *Psicol Estud.* 2004;9(3):499-505. DOI:10.1590/S1413-73722004000300018
3. Carlotto MS, Câmara SG. Preditores da Síndrome de Burnout em professores. *Psicol Esc Educ.* 2007;11(1):101-10.
4. Carretero-Dios H, Pérez C. Standards for the development and review of instrumental studies: considerations about test selection in psychological research. *Int J Clin Health Psychol.* 2007;7(3):863-82.
5. Cebrià-Andreu J. Comentario: el síndrome de desgaste profesional como problema de salud pública. *Cac Sanit.* 2005;19(6):470. DOI:10.1157/13082793
6. Gil-Monte PR. El síndrome de quemarse por el trabajo (Burnout): una enfermedad laboral en la sociedad del bienestar. Madrid: Pirámide; 2005.
7. Gil-Monte PR. Factorial validity of the Maslach Burnout Inventory (MBI-HSS) among Spanish professionals. *Rev Saude Publica.* 2005;39(1):1-8. DOI:10.1590/S0034-89102005000100001
8. Gil-Monte PR, Carretero N, Roldán MD, Núñez-Román E. Prevalencia del síndrome de quemarse por el trabajo (burnout) en monitores de taller para personas con discapacidad. *Rev Psicol Trab Organ.* 2005;21(1-2):107-23.
9. Gil-Monte PR. Evaluación psicométrica del síndrome de quemarse por el trabajo (burnout): el cuestionario "CESQT". In: Garrido J, compilador. ¡Maldito trabajo!. Barcelona: Granica; 2008. p. 269-91.
10. Gil-Monte PR. Magnitude of relationship between burnout and absenteeism: a preliminary study. *Psychol Rep.* 2008;102(2):465-8. DOI:10.2466/PRO.102.2.465-468
11. Gil-Monte PR, Unda RS, Sandoval JI. Validez factorial del "Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo" (CESQT) en una muestra de maestros mexicanos. *Salud Ment.* 2009;32(3):205-14.
12. Kristensen TS, Borritz M, Villadsen E, Christensen KB. The Copenhagen Burnout Inventory: a new tool for the assessment of burnout. *Work Stress.* 2005;19(3):192-207. DOI:10.1080/02678370500297720
13. Marucco MA, Gil-Monte PR, Flamenco E. Síndrome de quemarse por el trabajo (burnout) en pediatras de hospitales generales, estudio comparativo de la prevalencia medida con el MBI-HSS y el CESQT. *Inf Psicol.* 2007/2008;91/92:32-42
14. Maslach C, Jackson SE. Maslach Burnout inventory. 2. ed. Palo Alto: Consulting Psychologists Press; 1986.
15. Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annu Rev Psychol.* 2001;52:397-422. DOI:10.1146/annurev.psych.52.1.397
16. Mazon V, Carlotto MS, Câmara SG. Síndrome de Burnout e estratégias de enfrentamento em professores. *Arq Bras Psicol.* 2008;60(1):55-65.
17. Muñoz J, Hambleton RK. Adaptación de los tests de unas culturas a otras. *Metodol Cienc Comp.* 2000;2(2):129-49.
18. Olivares VE, Gil-Monte PR. Análisis de las propiedades psicométricas del "Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo" (CESQT) en profesionales chilenos. *Ansiedad Estres.* 2007;13(2-3):229-40.
19. Olmedo Montes M, Santed Germán MA, Jiménez Tórner R, Gómez Castillo MD. El síndrome de burnout: variables laborales, personales y psicopatológicas asociadas. *Psiquis.* 2001;22(3):117-29.
20. Ortega Ruiz C, López Rios F. El burnout o síndrome de estar quemado en los profesionales sanitarios: revisión y perspectivas. *Int J Clin Health Psychol.* 2004;4(1):137-60.
21. Peeters MA, Rutte CG. Time management behavior as a moderator for the job demand-control interaction. *J Occup Health Psychol.* 2005;10(1):64-75. DOI:10.1037/1076-8998.10.1.64
22. Taris TW, Le Blanc PM, Schaufeli WB, Schreurs PJ. Are there causal relationships between the dimensions of the Maslach Burnout Inventory?. A review and two longitudinal tests. *Work Stress.* 2005;19(3):238-55. DOI:10.1080/02678370500270453
23. Truchot D, Keirsebilck L, Meyer S. Communal orientation may not buffer burnout. *Psychol Rep.* 2000;86(3 Pt 1):872-8.
24. World Health Organization. The World Health Report 2000: health systems: improving performance. Geneva; 2000.

Annex. The English version of the Spanish Burnout Inventory (*Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo*) for teachers.

	0	1	2	3	4
	Never	Rarely: a few times a year	Sometimes: a few times a month	Frequently: a few times a week	Very frequently: every day
1. I find my work is a stimulating challenge.					0 1 2 3 4
2. I don't like taking care of some students.					0 1 2 3 4
3. I think many students are unbearable.					0 1 2 3 4
4. I worry about how I have treated some people at work.					0 1 2 3 4
5. I see my job as a source of personal accomplishment.					0 1 2 3 4
6. I think the relatives of students are very demanding.					0 1 2 3 4
7. I think I treat some students with indifference.					0 1 2 3 4
8. I feel I am overwhelmed by work.					0 1 2 3 4
9. I feel guilty about some of my attitudes at work.					0 1 2 3 4
10. I think my job gives me positive experiences.					0 1 2 3 4
11. I feel like being sarcastic with some students.					0 1 2 3 4
12. I feel weighed down by my job.					0 1 2 3 4
13. I regret some of my behaviors at work.					0 1 2 3 4
14. I label or classify students according to their behavior.					0 1 2 3 4
15. I find my work quite rewarding.					0 1 2 3 4
16. I think I should apologize to someone for my behavior at work.					0 1 2 3 4
17. I feel physically tired at work.					0 1 2 3 4
18. I feel emotionally exhausted.					0 1 2 3 4
19. I feel enthusiastic about my job.					0 1 2 3 4
20. I feel bad about some of the things I have said at work.					0 1 2 3 4