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Feeling Guilty or Not Guilty. Identifying Burnout Profiles among Italian Teachers

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Abstract This study aimed at the assessment of psychometric properties of the Italian version of the Spanish Burnout Inventory (SBI-Ita) in a sample of Italian teachers and the analysis of burnout profiles based on a model that includes four dimensions: Enthusiasm toward job, Psychological exhaustion, Indolence, and Guilt. A self-reported questionnaire was filled out by 689 Italian teachers. Data analyses performed Multi-sample Confirmatory Factor Analysis and Hierarchical Cluster Analysis. Results confirmed the hypothesized four-factor structure and the discriminant role of Guilt in differentiating clusters. Results highlights the reliability of the SBI-Ita in the assessment of teachers' burnout. Furthermore, results evidence for a new typology of burnout that differentiate guilty from non-guilty professionals.

Keywords Italian version of Spanish burnout inventory · Psychometric properties · Burnout profiles · Cluster analysis · Confirmatory factor analysis

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Introduction

The interest in the development of burnout and its consequences has grown during last decade due to social changes and transformation in work situations that have lead to an increase in work stress and health complaints.

Like other human service professions, teaching represents a highly stressful occupation (Lodolo D'Oria et al. 2006; Stoeber and Rennert 2008) given the presence of societal, organizational, and interpersonal challenges. At the societal level, teachers have to face increased pressure on the job, resulting in less autonomy, increased accountability demands, and non-teaching-related workloads (Van Droogenbroeck and Spruyt 2015). Recent legal reforms, the higher retirement age for teachers (Converso et al. 2015; Viotti et al. 2016), poor acknowledgement by school administrators (Cordeiro et al. 2002; Zurlo et al. 2007) represent some of the challenges that impact on teachers' mental health. At the same time, organizational and job characteristics, such as increased workload, conflict with colleagues, student behavioral problems, and lack of support from supervisors and students' parents (Grayson and Alvarez 2006; Otero-Lopez et al. 2010; Skaalvik and Skaalvik 2009; Velasco et al. 2013) are some of the main stressors linked to burnout.

The study of teacher burnout constitutes an important issue, as burnout can cause repercussions not only on individual health, such as physical and psychological symptoms (Hakanen et al. 2005; Leiter 2005), but also on the quality of the teaching process itself. According to Brown et al. (2010), burnout symptoms lessen empathy and emotional intelligence in the daily interaction with students. Studies show that burned-out teachers exhibit less involvement with students' needs: providing less praise and information (Capel 1991; Travers and Cooper 1996), showing lower tolerance for classroom behavior problems (Kokkinos et al. 2005), and reporting less closeness and warmth in teacher-student interaction (Gastaldi et al. 2014; Yoon 2002).

These findings highlight the importance of monitoring and managing job burnout among teachers in order to improve both work conditions and the quality of the school social climate.

An Alternative Model of Burnout

Several descriptions of burnout syndrome and operationalizations are found in the literature. The most popular theoretical model is the one proposed by Maslach and Jackson (1981), related to the Maslach Burnout Inventory (MBI), considering burnout as a multidimensional syndrome that develops as a response to stressor on the job (Maslach et al. 2001).

There are three dimensions included in the MBI: emotional exhaustion, a draining of emotional resources; depersonalization, a development of cynical attitudes toward the job or the recipients of the service; and a reduction in a sense of personal accomplishment.

More recently, Gil-Monte (2005) developed an alternative model that considers this syndrome as a psychological response to chronic job stress, mainly due to problematic interpersonal relationships at work. This model consists of four dimensions. Three of them partially overlap the Maslach's model, e.g., emotional exhaustion, cognitive deterioration (i.e., loss of enthusiasm toward the job), and attitudes of indifference and indolence. Moreover, the model introduces as a fourth dimension feelings of Guilt.

The presence of the fourth dimension is a novelty in the assessment of burnout since, even though guilt had already been identified as typical of burnout syndrome (Burisch 2006; Freudenberg 1974; Maslach 1976; Price and Murphy 1984; Schafueli and Enzman 1988), this model is the only one that includes it.

In order to measure the four dimensions proposed by this model, the twenty-item Spanish Burnout Inventory (SBI) was firstly developed in the Spanish context (Gil-Monte 2005). The four dimensions are: (1) Enthusiasm toward the job or the desire to achieve goals at work. (2) Psychological exhaustion, that describes physical and emotional deterioration given by the daily interaction with "problematic" people. (3) Indolence, characterized by negative attitudes, cynicism, and indifference toward the organization and the recipients. (4) Feelings of Guilt that can appear as a consequence of the negative attitudes developed and expressed on the job, especially toward recipients or co-workers.

The SBI has then been well validated in many Latin American and European countries and across various organizational contexts. For example, in studies with samples of Portuguese policy officers (Figueiredo-Ferraz et al. 2013a), Spanish nurses (Gil-Monte et al. 2006), and Chilean public workers (Olivares and Gil-Monte 2007), exploratory factor analysis (EFA) obtained factor structures that adequately reproduced the four dimensions of the SBI.

Furthermore, results have been replicated using confirmatory factor analysis (CFA), providing additional empirical support for the four-factor model across countries and professional groups (Bosle and Gil-Monte 2010; Gil-Monte and Zúñiga-Caballero 2010; Carlotto et al. 2015), included Mexican (Gil-Monte et al. 2009), Brazilian (Gil-Monte et al. 2010) and Portuguese teachers (Figueiredo-Ferraz et al. 2013b).

Recently, also the Italian version of the Spanish Burnout Inventory (SBI-Ita) has been developed (Viotti et al. 2015, 2017). Just the same as the original version (Gil-Monte 2005), SBI-Ita consisted of the 20 items, which were back-translated from Spanish into Italian. So far, SBI-Ita was tested among workers from Italian health-care context, showing adequate psychometric properties (Viotti et al. 2015). Therefore, this previous study may suggest that SBI-Ita could be profitably employed to measure burnout also among other helping professionals in the Italian context. Specifically, the results obtained in this study were congruent with those obtained in previous ones conducted in Spanish and Portuguese -speaking samples. First of all, it provided evidence for the same four-factor structure underlying the original version of SBI. Similarly to previous studies, a significant portion of variance was explained by Guilt (15.65%), confirming the relevance of this dimension to better understand and capture the nature of the phenomenon of burnout. Furthermore, in line with other studies (Gil-Monte 2012; Loera et al. 2014), item 11 (*I feel like being sarcastic with some patients*) reported the lowest item-scale correlation within the Indolence dimension. Finally, all Cronbach's alphas ranged from .72 to .86 and concurrent validity with MBI was confirmed (Gil-Monte and Figueiredo-Ferraz 2013; Gil-Monte and Olivares-Faundez 2011).

Altogether, these studies indicate that the model proposed by Gil-Monte (2005) offers some advantages over other theoretical models, including the one underlying MBI (Maslach and Jackson 1981), as it includes feelings of Guilt aimed at distinguishing different profiles in the development of burnout, overcoming its theoretical and psychometrical limitations (Halbesleben and Demerouti 2005).

Guilt is conceptualized as an unpleasant and remorseful feeling associated with recognition that one has violated, or is capable of violating, a moral standard. From an interpersonal approach, guilt is described as a social emotion linked to communal relationships (Baumeister et al. 1994). This psychological state has, in many cases, a prosocial effect motivating the individual to recover the lack of balance in emotional states resulting from social exchange, whereas excessive or inappropriate levels of guilt can lead to disruptive experiences and, in some cases, psychological and somatic symptoms (Pineles et al. 2006). In work-related relationships, especially those involved in helping professions, cynical and detached attitudes expressed when recipients are perceived as a source of frustration can sometimes cause the need to re-affirm the commitment and the responsibility for providing care

(Baumeister et al. 1994; Tangney 2007), leading to an intensification of burnout symptoms.

Based on transactional perspective of stress (Lazarus and Folkman 1984), the burnout syndrome proposed by this model is then conceptualized as a process where the appearance of guilt occurs after cognitive, affective, and attitudinal deterioration. Differently from other process models of burnout previously elaborated (Golembiewski et al. 1983; Lee and Ashforth 1993a, b; Leiter and Maslch 1988), the one proposed by the Author conceptualizes burnout as a response of secondary appraisal when initial coping strategies are not successful. Low Enthusiasm toward the job and Psychological exhaustion lead to Indolence as a coping strategy. In some cases, Guilt can finally appear as a response to excessive detached attitudes.

Evidence supporting the developmental process, highlighted the mediating role of Guilt in the relationship of Indolence with alcohol use (Olivares-Faundez et al. 2014) and depression (Gil-Monte 2012). These results also confirmed previous studies that have shown that experiencing self-blaming feelings is associated with feelings of hopelessness and powerlessness (Ghatavi et al. 2002). Moreover, from these studies emerges that the sense of Guilt is significantly related to the highest levels of cognitive and affective deterioration together with more dysfunctional coping strategies of depersonalization.

A Typological Approach to Burnout

These findings give empirical support to the theoretical assumption of the role of this dimension in the onset of burnout (Burisch 2006; Eskedt and Fagerberg 2005; Maslach 1982; Price and Murphy 1984), and inform therefore about the explanation of various forms of the syndrome, which have different repercussions on the individual's mental health. Two profiles of "burned-out" can be then distinguished (Gil-Monte 2005), wherein for both, Indolence represents a coping strategy to handle cognitive and emotional deterioration:

– Profile 1 includes individuals who report high levels of psychological exhaustion, cognitive deterioration, and cynical attitudes, but lower or absence of feelings of guilt, describing professionals who moderately suffer from work-related stress and discomfort on the job. In this case the coping strategy of cynical attitudes allows for control of the stress levels.
– Profile 2 in contrast, includes those who, as a consequence of the highest sense of guilt associated with the highest levels of emotional, cognitive, and attitudinal deterioration (Olivares-Faundez et al. 2014), experience discomfort more seriously on the job. In this case, cynicism and indolence expressed in work relationships represent, or are perceived as, inadequate coping strategies.

The relevance given to the recognition and study of burnout profiles stems from the fact that burnout is a multidimensional construct that cannot be combined into a single factor (Lee and Ashfort 1996), especially due to the sub-dimensions that relate differently to behavioral and attitudinal variables (Foley and Murphy 2015). Espinoza-Diaz et al. (2015), using a variable-centered approach, examined the relationship between the dimensionality of the SBI and personality factors among teachers. This study showed that emotional stability, extraversion, and agreeableness operate as protective factors, lessening emotional exhaustion, indolence, and guilt. Newer insight can also be gained by applying a typological, or person-centered approach to the study of the dimensionality of the construct, providing more in-depth research on intervention models designed for a specific set of symptoms (Farber 2000) and personality factors (Ying Jin et al. 2015). At the same time, the use of a person-centered approach can contribute further to the understanding of the phenomenon of burnout as a process (Boersma and Lindblom 2009; Hultell et al. 2013; Onder and Basim 2008).

Farber (2000), through a qualitative study, observed three types of burn-out among teachers (Worn-out, Classic and Under-challenged), and some authors extended this perspective using cluster analysis in different organizational contexts. In a sample of police managers, Loo (2004) identified three types of professionals using the Maslach Burnout Inventory (MBI), distinguishing among Well-Adjusted, Laissez-Faire, and Distressed. Onder and Basim (2008) highlighted a similar three-cluster solution, showing the utility of profiles rather than individual scores to investigate developmental trajectories of burnout in nurses. This study reveals that emotional exhaustion is invariably associated with a higher level of depersonalization and that personal accomplishment does not decline monotonically with the increase of emotional exhaustion and/or depersonalization. Finally, in the study by Lee et al. (2010), three groups of counsellors emerged (Well-adjusted, Persevering and Disconnected), using the Counsellor Burnout Inventory (Lee et al. 2007). Only one study has been conducted in the educational sector using the MBI, identifying a three-cluster solution consistent with the one that characterized the study of Loo (2004) (Ying Jin et al. 2015). Notably, Laissez-Faire Teachers are those with low scores on emotional exhaustion, depersonalization, and personal accomplishment. The group of Well-Adjusted intercepts those with low scores on emotional exhaustion, depersonalizations, and high personal accomplishment. The third cluster, labelled Distressed Teachers, is characterized by high scores on emotional exhaustion, depersonalization, and high personal accomplishment.

The Present Study

The purpose of the present study is twofold.

The first is to test the psychometric properties (factor structure and reliability of its dimensions) in an Italian teacher

sample in order to provide evidence for validity of the instrument in the educational sector. As stated above, to date, the goodness of the psychometric properties of the Italian version of the SBI-Ita has been ascertained only among the health-care workers (Viotti et al. 2015). No studies have been conducted previously with the aim of examining the psychometric properties of the instrument in the educational sector.

The second purpose of this study is to investigate the presence of different typologies of burnout in a sample of Italian teachers, clustering individuals based on the four dimensions considered by the SBI. On one hand, we think that this may overcome current limitations in the state of the art. On the other hand, this may further highlight potentialities inherent in the model proposed by Gil-Monte (2005).

The study of burnout using a "person-centered" approach, so far, is limited even in respect to the type of measure adopted, the underlying theoretical model, and the organizational contexts investigated. Indeed, many of the studies are based on the model proposed by Maslach, whereas only two, to best of our knowledge, have been conducted in the educational sector (Farber 2000; Ying Jin et al. 2015). Given the more discomfort experienced by burned-out individuals with a higher sense of guilt (Gil-Monte 2005; 2012; Olivares-Faundez et al. 2014), the identification of various profiles can give further comprehension to the theoretical model proposed and to better understanding of the nature of this syndrome.

Moreover, the use of cluster analysis could improve the knowledge not only about the factor structure of the instrument and its validity, but also about the presence of the hypothesized profiles in the teaching profession, as none of the previous studies performed cluster analysis. This methodological approach represents a well-known statistical procedure to uncover psychological profiles based on various variables.

Methodology

Design

A cross-sectional design was used in order to collect the data by means of a self-reported questionnaire. In 2015, an agreement program between the Department of Psychology (University of Turin) and fifteen public school districts in North Italy was developed, aimed at assessing and monitoring the quality of school life among primary and middle school teachers.

Ethical Consideration

Schools administrators and teacher representatives for each school evaluated and authorized the data collection after collegial meetings, allowing researchers to use the data for scientific purposes. Participants volunteered for the research without receiving any reward, signed the informed consent, and

agreed to anonymously complete the questionnaire. The research conforms to the Declaration of Helsinki of 1995 (as revised in Edinburgh 2000) and all ethical guidelines were followed as required for conducting human research, including adherence to legal requirements of the study country.

Procedure and Sample

A self-reported questionnaire was administered by researchers of the Department of Psychology (University of Turin) after an explanation of the project's aims. Teachers at their own convenience returned the completed questionnaire anonymously. Overall, the response rate was 63.62% (778 of the 1223 questionnaire were returned) and 747 teachers correctly filled out the questionnaire. After missing-data analysis, 689 cases were considered valid for carrying out the analysis.

The sample comprised 548 women (86.8%) and 83 men (13.2%) with a mean age of 45.65 years (SD = 9.56; min. = 22 years, max. = 64 years). The length of service in the educational sector was 19.97 years (SD = 11.31). The sample comprised two subsamples, based on grade level: 397 primary school teachers (57.61%) and 278 middle school teachers (40.34%). Finally, 510 of participants (77.7%) had permanent contracts, and 146 (22.3%) were temporary employees.[1]

Measurements

As regards burnout, the Italian version of the Spanish Burnout Inventory (SBI-Ita) (Viotti et al. 2015), developed for the health-care context, was adapted to the educational context by replacing in each item of the Inventory the word "recipient(s)" with the word "student(s)". The Italian version (SBI-Ita), equally to the original version, consisted of 20 items grouped into four scales (five-point scale ranging from 0 "Never" to 4 "Every day"): 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 patients*), and Guilt (5 items, e.g., *I regret some of my behaviors at work*). Low scores on Enthusiasm toward the job, together with high scores on Psychological exhaustion, Indolence, and Guilt indicate a high level of burnout.

Commitment to the workplace was measured with an Italian adaptation of a sub-scale of the Copenhagen Psychosocial Questionnaire (Kristensen et al. 2005). The scale consisted of 4 items (four-point scale ranging from 1 "Strongly disagree" to 4 "Strongly agree"; e.g. *Do you enjoy telling others about your place of work?)*. All four items were translated using back-translation method (Brislin 1970, 1976).

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[1] Due to missing data in socio-demographic variables, the number of participants in each of these characteristics is lower than the total sample used for the analysis.

Teacher stress was measured using the Italian version (Guidetti et al. 2015) of the Teacher Stress Inventory (TSI) proposed by Klessen and Chiu (2010). The TSI by Klessen and Chiu (2010) consisted of 7 items grouped in 2 sub-dimensions: workload stress (4 items, e.g., "*As a teacher, how great a source of stress are these factors to you?*" *Having too much work to do*) and class stress (3 items, e.g., "*As a teacher, how great a source of stress are these factors to you?*" "*Having noisy students*"). All 7 items were translated from English into Italian using the back-translation method (Brislin 1970, 1976).

Data Analysis

In order to assess the psychometric proprieties among the two teachers subsamples, two separate Confirmatory Factor Analyses (CFAs) were performed. As no serious violations from the normality distribution were found (all the skewness and kurtosis values of the variables considered were within ±2), Maximum Likelihood, as an estimation method, was employed. The fit of the model was assessed with the ratio of χ^2 to the degrees of freedom (df), the Comparative Fit Index (CFI), the Tucker-Lewis Index (GFI), the Standardized Root Mean Square Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA). According to Kline (2005), a χ^2/df ratio of 3 or less indicates a good model fit. For GFI and TLI indices, values equal or higher than .90 are considered indicators of good model fit (Bentler 1995; Hoyle 1995). A value of the SRMR less than .08 indicates good fit, whereas less than .05 indicates excellent fit (Hu and Bentler 1999). Finally, value of RMSEA lower than .06 indicates acceptable model fit (Byrne 1998).

To assess invariance, the model hypothesized was tested simultaneously across the two occupational subsamples. Investigating invariance implies the sequential examination of differently constrained models, from the least constrained to the most constrained. Configural invariance refers to the less constrained model, and it is achieved if its fit is satisfactory across the groups. Although the model is the same across groups, the parameters of the model are assumed to be different across primary and middle school teachers. Metric or Weak Factorial Invariance implies that, for each subsample, the model and the factor loadings are the same. Scalar or Strong Factorial Invariance is supported when the model is the same with identical factor loadings, means and covariances across the subgroups. Strict Factorial Invariance is achieved if all the parameters, including factor loadings, means, covariances and residuals, are the same across the groups. The chance of CFI (Meade et al. 2008) was used to determine the presence of invariance. A difference higher than .002 in the CFI value between the less constrained and the more constrained model suggests lack of invariance.

Cronbach's alphas (α) were computed in order to assess internal consistency of each subscale (Table 1).

Table 1 Means, standard deviations and Cronbach's alphas for each subscale

Subscale	Elementary school teachers		Middle school teachers	
	M (SD)	α	M (SD)	α
Enthusiasm toward job	3.27 (.50)	.83	3.16(.60)	.84
Psychological exhaustion	1.90(.83)	.82	1.86(.83)	.82
Indolence	1.15(.60)	.74	1.33(.67)	.75
Guilt	1.13(.76)	.88	1.16(.73)	.87

In order to identify homogeneous groups of teachers' burnout profiles, a clustering-by-cases procedure was then carried out with SPSS Statistical Package, version 21. In this procedure, the four dimensions of the Spanish Burnout Inventory z-transformed scores reported by the teachers were used as criteria variables. A hierarchical cluster analysis was carried out in an explorative perspective in order to make a decision about the number of clusters, selecting the squared Euclidian distance as a similarity measure, and using Ward's method to form the initial clusters. These analyses produced a dendogram based on the distance between the clusters. Once the number of clusters had been determined, analyses of variance that involved dimensions of occupational wellbeing expected to vary across profiles, were carried out to test for statistical significance of the cluster solution (Barbaranelli 2006).

Results

Confirmatory Factor Analyses and Testing for Invariance

CFAs performed separately indicated that model fits were acceptable in both subsamples (Table 2). In addition, all factors loadings were statistically significant (see Figs. 1, and 2). Among primary school teachers, the lowest value was obtained by the relationship between item 6 and the Indolence factor (λ = .44), whereas the higher value by item 15 and Enthusiasm (λ = .84). Also, among middle school teachers items 15 reached the higher value (λ = .84), and the lowest was obtained by items 14 on Guilt (λ = .54). In both subsamples, all correlations among factors were significant with the exception of that involving Enthusiasm and Guilt among middle school teachers (p = .06).

Since the separate CFAs indicated that a satisfactory fit to the data was reached in both subsamples, configural invariance was tested. The fit was acceptable (see Table 2), indicating that configural invariance was achieved. Therefore, metric invariance was tested by constraining all factor coefficients to be equal across the two subsamples of teachers. No difference on CFI value (ΔCFI = .000) between this model and the less constrained was observed, providing evidence for metric

Table 2 CFAs and Invariance across the two teacher sub-samples

	χ^2(df)	χ^2/df	CFI	TLI	SMRM	RMSEA
CFA elementary school teachers	375.65 (164)	2.29	.938	.92	.05	.05 [.04–0.5]
CFA middle school teachers	431.63 (164)	2.63	.901	.90	.06	.07 [.06–.08]
Configural Invariance (unconstrained)	807.38(328)	2.46	.922	.90	.05	.04 [.04–.04]
Metric factorial invariance (λ constrained)	825.20(344)	2.40	.922	.91	.05	.04 [.04–.04]
Scalar invariance (λ, mean constrained)	847.14(354)	2.39	.919	.91	.05	.04 [.04–.04]
Strong invariance (λ, mean, residuals constrained)	917.67(374)	2.45	.910	.90	.05	.04 [.04–.04]

invariance. The next model tested for the scalar invariance, by constraining the factor intercept, variances, and covariances, in addition to the factor coefficients. The ΔCFI value (.002) between the present model and the less constrained was within the cut-off. This means that scalar invariance was also supported. However, strict invariance (tested by constraining error

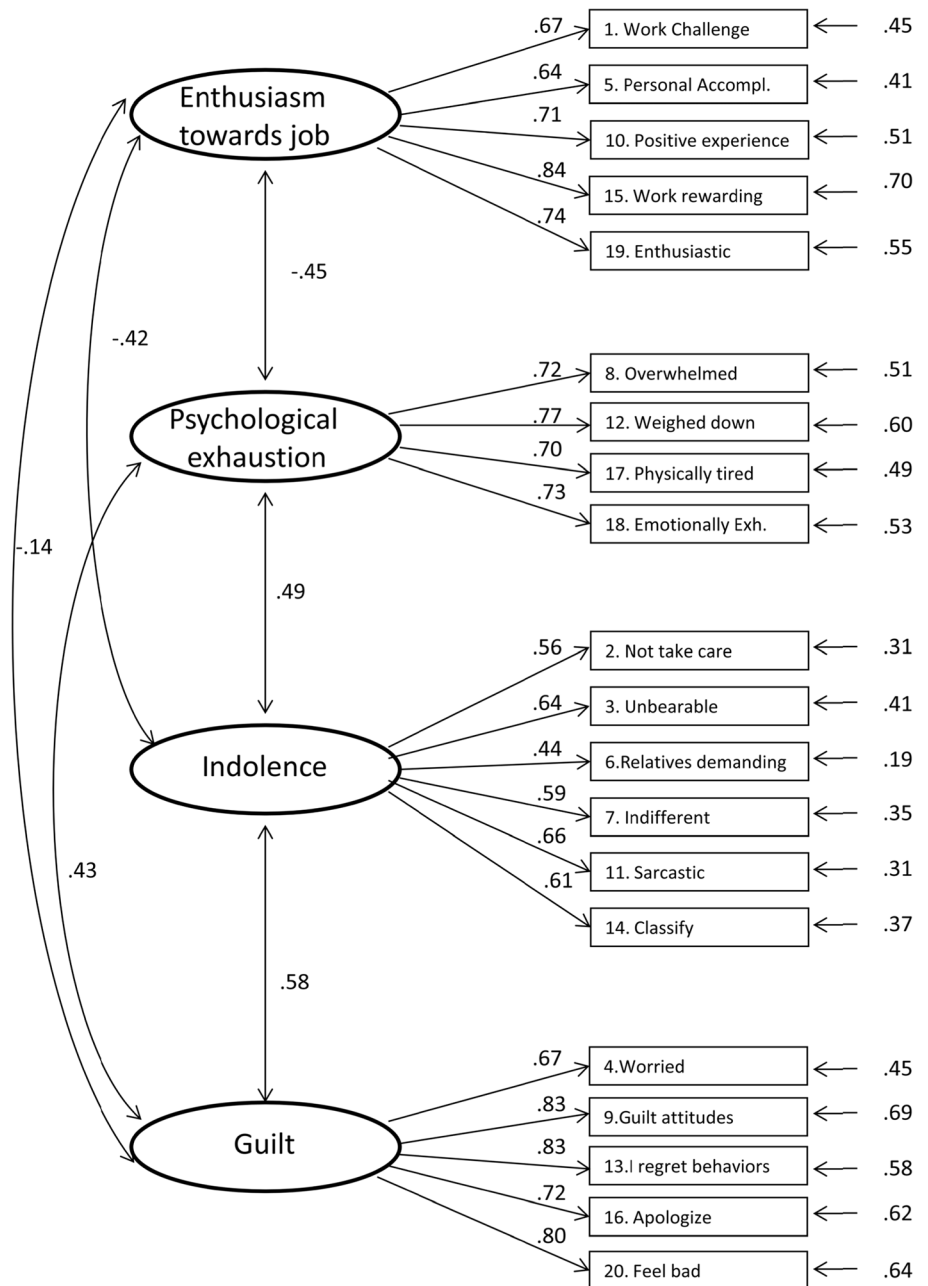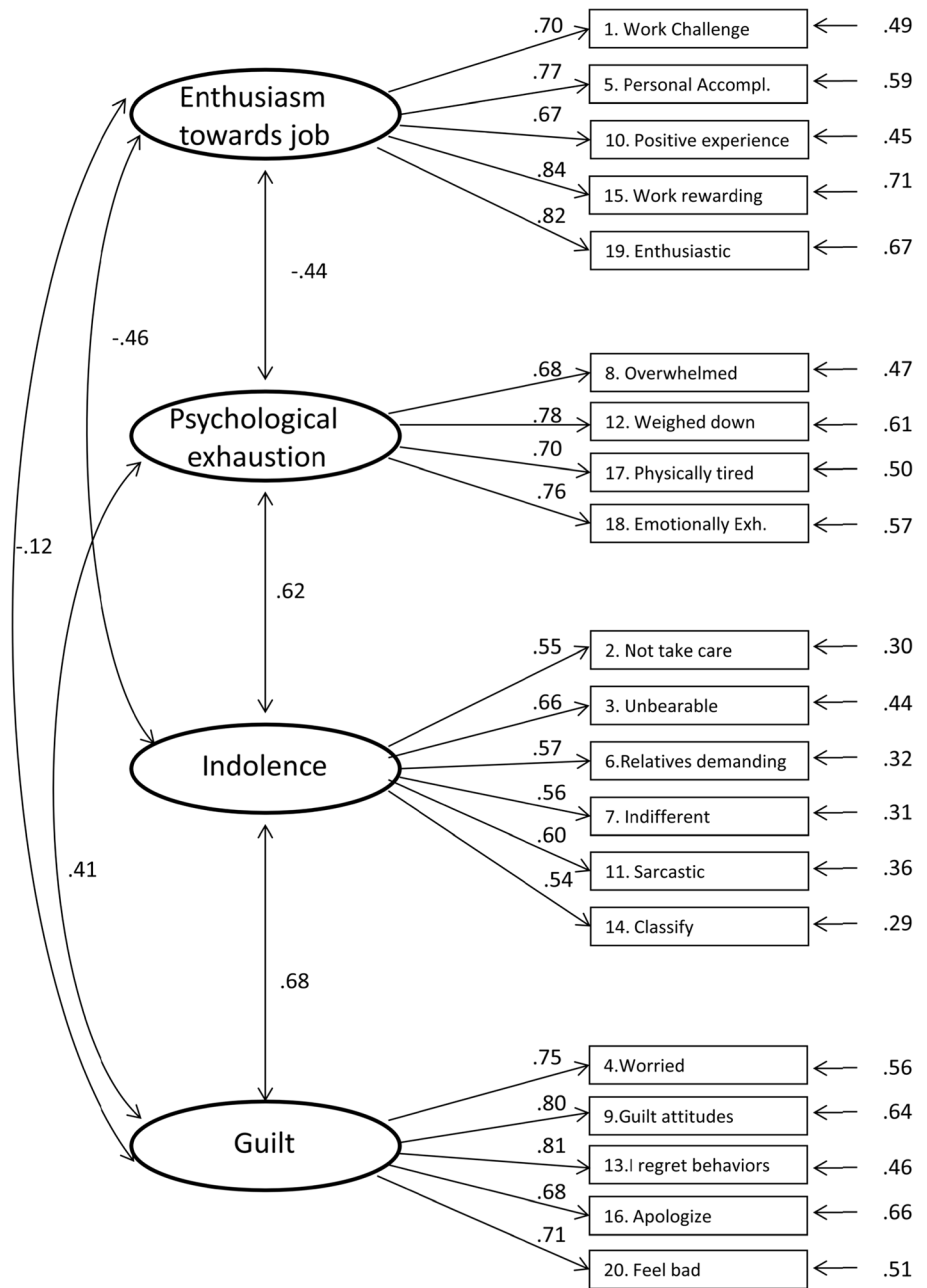**Fig. 1** Confirmatory factor analysis - primary school teachers

Fig. 2 Confirmatory factor analysis - middle school teachers

terms to be equal across subsamples) was not achieved, since CFI difference (.02) between the less constrained and the more constrained model was greater than .002.

Identification of Burnout Profile and Validation of Cluster Solution

Since the structure was found to be invariant across the two teacher subsamples, the cluster analysis was performed on the whole sample, without dividing for occupational subgroups. A subjective inspection of the different branches of the dendogram (Aldenderfer and Blashfield 1984) was made first to find the cluster solution that yielded an ideal number of profiles, ending up with a four-cluster solution. This seems to fit the theory behind the model (Gil-Monte and Olivares-Faundez 2011) and earlier research in the field (Gil-Monte 2012; Olivares-Faundez et al. 2014).

Table 3 represents the cluster solution depicting four different profiles of burnout based on standardized scores. Each profile characterizes a distinct group of teachers:

Cluster 1 (n = 109; 15.8%) intercepts those teachers with the highest levels of Enthusiasm toward the job, accompanied with the lowest levels of Psychological exhaustion, Indolence, and Guilt. This group was designated "Enthusiastic".

Table 3 Means and standard deviations of the variables in the profiles of teacher's burnout

Clusters		Enthusiasm toward the job	Psychological exhaustion	Indolence	Guilt
1 Enthusiastic	Mean	3.64	.61	.59	.47
	DS	.40	.38	.38	.48
2 Exhausted	Mean	3.39	1.84	.88	.94
	DS	.49	.55	.41	.59
3 Exhausted-Indifferent	Mean	2.93	2.35	1.63	.96
	DS	.42	.54	.37	.45
4 Exhausted-Guilty	Mean	2.96	2.33	1.77	2.05
	DS	.43	.62	.56	.44

Cluster 2 (n = 272; 39.4%) intercepts those teachers with lower levels of Enthusiasm toward the job, accompanied with higher levels of Psychological exhaustion, and low levels of Indolence and Guilt. Based on these characteristics, this group was designated "Exhausted".

Cluster 3 (n = 142; 20.60%) intercepts those teachers with lower levels of Enthusiasm toward the job, the highest level of Exhaustion, high levels of Indolence and low levels of Guilt. This group was designated "Exhausted-Indifferent".

Cluster 4 (n = 166; 24.1%) intercepts those teachers with the lowest levels of Enthusiasm toward the job, high levels of Psychological exhaustion, and the highest levels of Indolence and Guilt. This group was designated "Exhausted-Guilty".

One-way ANOVAs were performed in order to highlight significant differences in the level of sub-dimensions between the three clusters. *Post-hoc* Tamahane test was performed to determine between which means there were significant differences. As emerged from the plot in Fig. 3, the Enthusiastic cluster showed the highest levels of Enthusiasm toward the job when compared with the other three clusters. However, no differences were found between the clusters of Exhausted-Indifferent and Exhausted Guilty [Welch F (3, 327.243) = 90.280; p = .00]. Levels of Exhaustion did not

statistically differ between Exhausted-Indifferent and Exhausted-Guilty clusters, whereas differences were statistically significant between the other clusters, showing an improvement in the Exhausted cluster, if compared to the Enthusiastic cluster [Welch F (3, 332.350) = 413.896; p = .00].

The dimension of Indolence showed significantly different levels between the four clusters, where the Exhausted-Guilty group reports the highest levels, and the Enthusiastic group the lowest. The group of Exhausted-Indifferent reported significantly higher levels of Indolence in respect to the group of Exhausted [Welch F (3, 320.061) = 275.622; p = .00].

Guilt was significantly higher in the cluster of Exhausted-Guilty, if compared to the other three clusters. However, no differences were detected between the clusters of Exhausted-Indifferent and Exhausted. The Enthusiastic group showed the lowest values on this dimension if compared to the other clusters [Welch F (3, 327.055) = 317.830; p = .00].

Finally, several one-way ANOVAs were run in order to examine whether teachers displaying different profiles reported different levels of Commitment toward the job and Teacher stress. According to our data, distinct profiles are significantly associated with different levels of Commitment [F (3, 677) = 14.805; p = .00] and Teacher Stress [F (3, 682) = 41.579; p = .00]. *Post-hoc* analysis revealed that Commitment toward the job was significantly higher in the Enthusiastic group in respect to the other profiles. However, no significant differences between the

Fig. 3 Scores in sub-dimensions thorough the 3 clusters, as emerged from the ANOVA
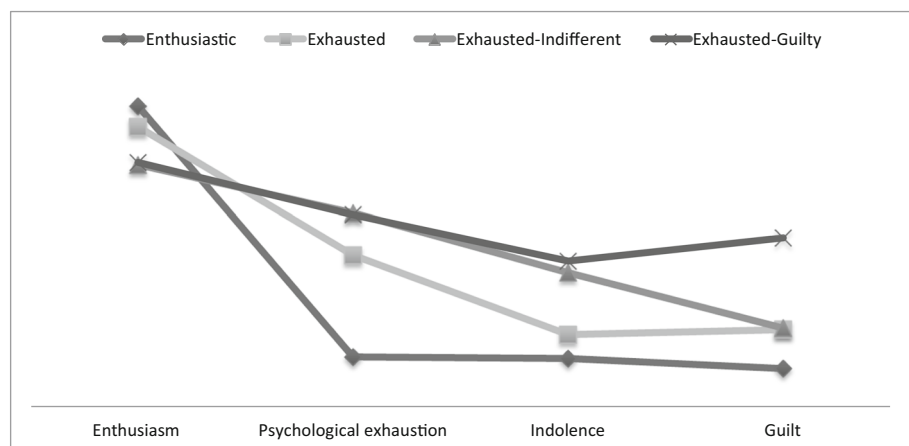
Exhausted-Guilty group and the Exhausted-Indifferent group were found. The group of Exhausted reported significantly lower levels of Commitment when compared to the Enthusiastic group, but higher if compared to Exhausted-Indifferent and Exhausted-Guilty.

Levels of Teacher Stress were significantly lower in the group of the Enthusiastic compared to the other profiles, and no significant differences in stress level were found between the Exhausted-Guilty and the Exhausted-Indifferent groups [$F(2, 683) = 41.282$; $p = .000$]. The cluster of Exhausted reports significantly higher Stress levels when compared to the Enthusiastic group, but lower when compared to Exhausted-Indifferent group and the Exhausted-Guilty group.

Discussion

The purpose of the current study was twofold. The first aim was the examination of the psychometric properties of SBI-Ita in the educational sector. The second aim was the individuation of groups of professionals based on the dimensions proposed in the burnout model by Gil-Monte (2005, 2012).

As regards the first aim, the results supported the four-factor model proposed by Gil-Monte. The model-of-fit-indeces of the CFAs carried out among the two subsamples were satisfactory and all items significantly loaded on the corresponding latent factors. All the sub-dimensions of SBI showed satisfactory internal reliability, well above the threshold of .70 (Nunnally 1970).

Moreover, in the subsequent multiple-group CFA analyses, evidence for metric invariance was found. This result supported factorial invariance of the SBI-Ita across primary and middle school teachers and indicates that the two occupational subgroups conceptualize burnout in a similar way. In addition, evidence for scalar invariance was found as well, indicating that the two occupational subgroups of teachers are invariant as regards the mean score reported both on the items and on the sub-dimensions.

Overall, these results suggest that the Italian adaptation of SBI developed for the teaching context reports satisfactory psychometric proprieties. SBI-Ita represent therefore an adequate instrument to assess job burnout among primary and middle school teachers.

Although the purpose of this study was not an analysis of the developmental model of burnout, in-depth inspection of these results could act as a stimulus for further research in the field. Firstly, in accordance with previous studies (Onder and Basim 2008; Ying Jin et al. 2015), higher levels of Psychological exhaustion are invariably associated with higher levels of detached behaviors and lower levels of enthusiastic attitudes, as burnout profiles report significantly higher levels of Indolence and lower of Enthusiasm, when compared with the Enthusiastic group. As suggested by the cluster

solution, Psychological exhaustion acts as a discriminant dimension between teachers who fell in the Enthusiastic group and who did not, highlighting that burnout syndrome is characterized by an increasing deterioration in physical and emotional resources. Secondly, as expected from theoretical assumptions, it could be state that Guilt represents a discriminant dimension in the recognition of the burnout profiles. According to the cluster analysis, Exhausted-Indifferent and Exhausted-Guilty groups seem not to differ as regards the levels of Psychological Exhaustion and Enthusiasm toward the job. However, ANOVAs reveal that the Exhausted-Guilty group reports the highest score on Indolence and Guilt. Therefore, it seems that higher levels of detached attitudes are prodromal symptoms in the onset of greater feelings of Guilt, intercepting professionals who react to the excessive detached behaviors, by experiencing self-blaming feelings.

These findings are consistent with the model proposed by the Author that describes burnout syndrome as a process that starts with decreasing Enthusiasm and increasing Exhaustion, which leads, in turn, to experiencing Indolence and, sometimes, Sense of Guilt.

Finally, validation analyses show that Exhausted, Exhausted-Indifferent and Exhausted-Guilty profiles were the most distressed and least committed to the job, if compared with the Enthusiastic cluster. These results are consistent with the wider burnout literature, which highlights that burnout represents a work-related risk factor in the onset of malaise.

The study, however, is not free of limitations. First of all, the sample was limited to one Italian region and, secondly, participants were selected in a non-random way. Therefore, the findings should not be considered representative of the entire Italian educational context. Finally, data were obtained from teachers' self-reports and, consequently, may reflect bias in reporting certain feelings.

Conclusion

The relevance of this study is that it provides evidence for the goodness of psychometric properties of a new tool in the assessment of burnout even in the Italian educational sector, offering a theoretical proposal to explain different types of burnout, taking into account the sense of guilt as a symptom of this syndrome.

The availability of an Italian version of the SBI for the educational sector offers to practitioners and occupational health researchers an expanded conceptualization of the burnout construct. Moreover, the reliability of this new operationalization clearly emerged from this study, indicating how a person-centered approach in the assessment of burnout could give new insights in the study of different burnout profiles and characteristics. Defining burned-out professionals in

distinct groups based on the levels of feelings of guilt could help the individuation of more targeted intervention programs.

Several recommendations for further studies can be provided. Longitudinal studies could foster the research on developmental trajectories of burnout in line with the theoretical assumption underlying the SBI. Moreover, given the relevance in the assessment of different profiles, future studies should inspect differences in personality factors and developmental trajectories of the syndrome. Finally, cluster analysis and CFA should be tested also in other type of professional in order to better evaluate the stability of the cluster solution and of the psychometric properties of the instrument across occupational profiles.

Compliance with Ethical Standards

Conflict of Interest   Each author declares that she/he has no conflict of interest.

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