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A five-sample confirmatory factor analytic study of burnout-depression overlap

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Abstract

Objective: It has been asserted that burnout—a condition ascribed to unresolvable job stress—should not be mistaken for a depressive syndrome. In this confirmatory factor analytic study, the validity of this assertion was examined.

Methods: Five samples of employed individuals, recruited in Switzerland and France, were mobilized for this study ($N = 3,113$). Burnout symptoms were assessed with the Shirom–Melamed Burnout Measure, the Maslach Burnout Inventory (MBI)—General Survey, and the MBI for Educators. Depressive symptoms were measured with the PHQ-9.

Results: In all five samples, the latent factors pertaining to burnout's components correlated on average more highly with the latent Depression factor than with each other, even with fatigue-related items removed from the PHQ-9. Second-order factor analyses indicated that the latent Depression factor and the latent factors pertaining to burnout's components were reflective of the same overarching factor.

Conclusions: This study suggests that the burnout-depression distinction is artificial.

KEYWORDS
burnout, confirmatory factor analysis, construct overlap, depression, dysphoria

1 | INTRODUCTION

Burnout has been regarded as a condition in which the individual is left exhausted and helpless by a long-term confrontation with insurmountable occupational adversity (Maslach, Schaufeli, & Leiter, 2001; Schaufeli & Enzmann, 1998; Shirom & Melamed, 2006). While exhaustion represents "the central quality of burnout" (Maslach

et al., 2001, p. 402; see also Schaufeli, 2017), other symptoms have been considered in the definition of the syndrome, most notably, cynicism and professional inefficacy (Maslach, Jackson, & Leiter, 2016; Schaufeli & Taris, 2005). Cynicism refers to a state of resentful detachment from work, involving loss of motivation and a tendency to "not care anymore"; cynicism has been viewed as "an immediate reaction to exhaustion" (Maslach et al., 2001, p. 403). Professional inefficacy reflects a negative self-evaluation of one's performance at work and a sense of diminished personal accomplishment (Maslach et al., 2016). Burnout symptoms are currently assessed with self-administered questionnaires, such as the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981; Maslach et al., 2001) and the Shirom–Melamed Burnout Measure (SMBM; Shirom & Melamed, 2006; Toker, Melamed, Berliner, Zeltser, & Shapira, 2012). The MBI was introduced in the early 1980s as the first standardized measure of burnout (see Maslach et al., 2001). The MBI has crystallized the dominant definition of the syndrome (Schaufeli & Enzmann, 1998). The measure has played a referential role in burnout research, influencing the development of other measures of burnout such as the SMBM. It is, however, noteworthy that "the MBI is neither grounded in firm clinical observation nor based on sound theori[z]ing" (Schaufeli, 2003, p. 3; see also Schaufeli & Enzmann, 1998). Instead, "it has been developed inductively by factor-analy[z]ing a rather arbitrary set of items" (Schaufeli, 2003, p. 3; see also Schaufeli & Enzmann, 1998).

While burnout has become popular among occupational health specialists (Schonfeld & Chang, 2017), the characterization of the syndrome and the (discriminant) validity of the construct are subject to dispute (Bianchi, Schonfeld, & Laurent, 2019; Cox, Tisserand, & Taris, 2005; Maslach & Leiter, 2016; Rotenstein et al., 2018; Schwenk & Gold, 2018). As an illustration, there is no established diagnosis for burnout (Bianchi, Schonfeld, & Laurent, 2017b; Mirkovic & Bianchi, 2019a) and burnout is not nosologically recognized, either by the American Psychiatric Association (2013) or by the World Health Organization (2016). A major object of controversy in this area of research concerns the overlap of burnout with a long-identified outcome of insurmountable adversity, namely, depression (Beck & Alford, 2009; Bianchi, Schonfeld, & Laurent, 2017a, 2018; Pryce et al., 2011; Rolls, 2016; Taris, 2006; Willner, Scheel-Krüger, & Belzung, 2013).

Depressive syndromes primarily entail dysphoria (also known as depressed mood) and anhedonia (i.e., loss of interest and pleasure), with feelings of exhaustion constituting frequent presenting complaints in clinical settings (American Psychiatric Association, 2013). Depressive symptoms have been etiologically linked to a discrepancy between positive, rewarding experiences on the one hand, and negative, punitive experiences on the other hand, and constitute a basic response to unresolvable stress in individuals with *no* noticeable susceptibility to depression (Bianchi, Schonfeld, et al., 2018; Dohrenwend, 1979; Pryce et al., 2011; Rolls, 2016; Wichers, 2014; Willner et al., 2013). Put differently, stressful situations in which no action can be taken to neutralize the stressors of interest (i.e., to inhibit aversive stimuli and restore a sense of control) have been identified as fundamentally depressogenic (Breier et al., 1987; Pryce et al., 2011; Rolls, 2016; Willner et al., 2013). Remarkably, chronic stress has been found to predict depressive symptoms more strongly than acute stress (McGonagle & Kessler, 1990; see also Pizzagalli, 2014), and interpersonal stress (e.g., related to caregiving) has been specifically linked to the development of depressive symptoms (Dura, Stukenberg, & Kiecolt-Glaser, 1990; Vrshek-Schallhorn et al., 2015). There is evidence that social functioning is impaired in depression, with overt irritability/anger, paranoid thinking, (cynical) hostility, loss of emotional involvement, and reduced empathy commonly observed (Beck & Alford, 2009; Brown & Harris, 1978; Judd, Schettler, Coryell, Akiskal, & Fiedorowicz, 2013; Kupferberg, Bicks, & Hasler, 2016; Nabi et al., 2009; Saarinen et al., 2018).

Although nosologically characterized and diagnosable (American Psychiatric Association, 2013), depression is best conceived of as a dimensional phenomenon, as demonstrated by taxometric research (Haslam, Holland, & Kuppens, 2012; Liu, 2016). Depressive symptoms vary from mild, short-lasting, and circumscribed—at the low end of the depression continuum—to severe, persistent, and generalized—at the high end of depression continuum, where a depressive disorder can potentially be diagnosed (Bianchi, Schonfeld, et al., 2018; Wichers, 2014). While the method of reference for establishing a formal diagnosis of depression is the structured clinical interview (Nezu, Nezu, Lee, & Stern, 2014), depressive symptoms can be quantitatively assessed (within a dimensional approach to

depression) using either clinician-administered (e.g., the Hamilton Depression Rating Scale) or self-report (e.g., the PHQ-9) inventories (Kroenke, Spitzer, & Williams, 2001; Trajković et al., 2011).

In recent years, the distinctiveness of burnout vis-à-vis depression has been increasingly called into question (for reviews, see Bianchi et al., 2019; Bianchi, Schonfeld, et al., 2018). From a theoretical standpoint, the rationale underlying the view that burnout is *not* a depressive condition is unclear. Indeed, based on the well-established finding that depressive symptoms constitute a basic response to unresolvable stress (either work-related or not) in *homo sapiens* (Bianchi, Schonfeld, et al., 2018; Pryce et al., 2011; Rolls, 2016; Wichers, 2014; Willner et al., 2013), and assuming that burnout is a product of unresolvable job stress (Maslach et al., 2001; Shirom & Melamed, 2006), one could expect burnout to be located inside, rather than outside, the spectrum of depression (Bianchi, Schonfeld, Vandel, & Laurent, 2017). The logic underlying the burnout phenomenon seems to be typically depressive (for a discussion of this issue, see Bianchi, Schonfeld, et al., 2018, pp. 191–192). In a related manner, the continuum of burnout appears to mirror the continuum of depression when both entities are approached dimensionally (Bianchi, Schonfeld, et al., 2018). In this respect, the claim that burnout may represent a phase in the development of a depressive disorder (e.g., Maslach et al., 2016) is problematic because it implies a reduction of depression to its clinical stage, at the high end of the depressive continuum.

At an empirical level, burnout has been found to overlap with depression in terms of symptoms (Ahola, Hakanen, Perhoniemi, & Mutanen, 2014; Bianchi, Schonfeld, & Laurent, 2014; Valente, Wang, & Menezes, 2018; Wurm et al., 2016), etiological pathways (through unresolvable [job] stress; Melchior et al., 2007; Niedhammer, Malard, & Chastang, 2015; Rydmark et al., 2006), cognitive processing of emotional information (e.g., Bianchi, Laurent, Schonfeld, Bietti, & Mayor, 2018; Bianchi, Laurent, Schonfeld, Verkuilen, & Berna, 2018), dispositional correlates (e.g., Bianchi & Janin, 2019; Bianchi & Schonfeld, 2016; Bianchi, Rolland, & Salgado, 2018; Swider & Zimmerman, 2010), and prescribed treatments (Ahola et al., 2007; Leiter et al., 2013). It is of note that such findings apparently contrast with results from factor analytic studies conducted in the mid-1990s and early 2000s, in which burnout and depression have been suggested to be distinct constructs (Bakker et al., 2000; Leiter & Durup, 1994). The studies in question, however, suffered from serious limitations, including model misspecification and the challenge of fitting ordinal item data into structural equation models during the era when the studies were conducted (for an examination of these limitations, see Schonfeld, Verkuilen, & Bianchi, 2019a, 2019b). Furthermore, basic findings were overlooked in these studies. In Bakker et al.'s (2000) study, for instance, (emotional) exhaustion——burnout's core——correlated more strongly with depressive symptoms than with the other components of burnout, questioning the authors' conclusion that burnout symptoms form an entity that is distinct from depression (for a similar problem, see Brenninkmeyer, Van Yperen, & Buunk, 2001). That burnout's components be more closely tied to each other than to depression has been considered crucial to establishing the discriminant validity of the burnout construct (Maslach et al., 2016). This view is consistent with the very definition of a syndrome: By definition, a syndrome refers to a combination of *co-occurring* symptoms (American Psychiatric Association, 2013; Schaufeli & De Witte, 2017; Shirom, 2005). Diverging from Leiter and Durup's (1994) and Bakker et al.'s (2000) conclusions, more statistically advanced factor analytic studies of burnout-depression overlap suggest that burnout's discriminant validity is highly problematic (Schonfeld et al., 2019a, 2019b).

The anchorage of burnout in the occupational domain has often been regarded as a distinctive feature of the phenomenon (Maslach et al., 2001; Shirom, 2005). However, because the burnout syndrome could be, without any contradiction, job-related *and* depressive in nature, the relevance of job-relatedness to the debate on the burnout-depression distinction is not clear (for a discussion of this issue, see Bianchi, Schonfeld, et al., 2018, p. 193). Moreover, the view that burnout is a "work-specific" condition has been empirically challenged (Bianchi et al., 2019; Hakanen & Bakker, 2017). As an illustration, Leiter and Maslach (2004) found an average correlation of 0.26 between scores on the MBI-General Survey (MBI-GS) and scores on the Areas of Worklife Scale——a measure supposed to comprehensively assess the "major organizational antecedents of burnout" (Maslach et al., 2001, p. 414). By comparison, correlations between burnout and "context-free" variables such as neuroticism have often

been found to be twice as high (Swider & Zimmerman, 2010). Interestingly, in a study that relied on relative weight analysis, neuroticism accounted for more variance in burnout than job-related effort-reward imbalance and social support at work combined (Bianchi, 2018). Correlations ranging from 0.42 to 0.58 have been observed between burnout and pessimistic attributions, ruminative responses, and dysfunctional attitudes—an array of characteristics reflective of a depressive cognitive style (Beck & Alford, 2009; Bianchi & Schonfeld, 2016; Michl, McLaughlin, Shepherd, & Nolen-Hoeksema, 2013; Peterson, Maier, & Seligman, 1993). Leiter and Durup (1994) indicated that the distinction between burnout and depression is related to "differences in their attributional patterns, and their context specificity" (p. 359). The only study that, to our knowledge, compared causal attributions in burnout and depression suggested that burnout and depressive symptoms are ascribed to work to a similar extent by affected respondents (Bianchi & Brisson, 2019).

Maslach and Leiter (2016) recently added to the ongoing debate about burnout-depression overlap. These authors claimed that the high correlation of burnout with depression may be accounted for by content overlap at the level of fatigue-related items in burnout and depression scales. Following Maslach and Leiter's (2016) line of argument, the burnout-depression redundancy may be essentially "technical" and should not lead investigators to conclude that burnout and depression reflect the same phenomenon. While Maslach and Leiter's (2016) argument has been strongly criticized (see Bianchi & Schonfeld, 2018), the extent to which the empirical overlap between burnout and depression can be imputed to the presence of fatigue-related items in burnout and depression scales remains unclear.

The present study addressed the issue of burnout's distinctiveness through the prism of burnout's syndromal unity. Based on the definition that a syndrome is a combination of co-occurring symptoms (American Psychiatric Association, 2013; Schaufeli & De Witte, 2017; Shirom, 2005), we examined whether burnout symptoms are more closely linked to each other than to depression. As per the aforementioned definition, if burnout symptoms form a syndrome that is distinct from depression, then burnout symptoms should be more strongly associated with each other than they are associated with depression. Though considered crucial to establishing burnout's discriminant validity (Maslach et al., 2016), this particular point has received limited attention to date. We capitalized on five samples from two countries. Participants worked in various occupational domains. Burnout symptoms were assessed with the SMBM in the first three samples, with the MBI-GS in the fourth sample, and with the MBI for Educators in the fifth sample. Depressive symptoms were assessed with the PHQ-9 in all samples. A confirmatory factor analytic approach was adopted to estimate the magnitude of the correlations among the latent factors linked to burnout and depression (sub)scales, controlling for measurement error, and ascertain whether the latent factors linked to burnout and depression (sub)scales were reflective of a common higher-order factor. Determining whether burnout is adequately characterized as a syndrome that is separate from depression is key to worker health protection. Indeed, if burnout turns out to be a depressive condition, failing to recognize this reality may impede our ability to (a) effectively treat affected individuals and (b) implement well-designed measures to promote healthy workplaces.

2 | METHODS

2.1 | Study samples and recruitment procedures

The first sample (Sample 1) involved 257 schoolteachers employed in the French-speaking region of Switzerland (M_{AGE} = 44.84, SD_{AGE} = 10.46). Seventy-six percent were women. Respondents' mean length of employment in the education field was 18.61 years (SD = 10.79). The sample is described in the article by Bianchi, Mayor, Schonfeld, and Laurent (2018).

The second sample (Sample 2) involved 1,163 French educational staff members (M_{AGE} = 42.96, SD_{AGE} = 9.73), a vast majority of whom were schoolteachers. Eighty-one percent were women. Respondents' mean length of

employment in the education field was 15.87 years (SD = 9.85). The sample is described in the article by Bianchi, Rolland, et al. (2018).

The third sample (Sample 3) was recruited in Switzerland in 2017. It involved 432 French-speaking individuals from a wide array of occupational groups (M_{AGE} = 41.71, SD_{AGE} = 11.87), mainly belonging to the service sector. Sixty-nine percent were women. Respondents' mean length of employment was 12.28 years (SD = 10.74). This sample has not been previously studied.

The fourth sample (Sample 4) was recruited in Switzerland in 2018 and involved 188 French-speaking individuals from various occupational domains (M_{AGE} = 40.31, SD_{AGE} = 12.56), a majority of whom were employees of the service sector. Sixty-five percent were women. Length of employment was not assessed. The sample is described in the article by Bianchi and da Silva Nogueira (2019).

The fifth sample (Sample 5) involved 1,073 French schoolteachers (M_{AGE} = 43.34, SD_{AGE} = 9.29). Eighty-three percent were women. Length of employment was not assessed. The sample is described in the article by Mirkovic and Bianchi (2019b).

Each sample was recruited in the context of online surveys conducted in accordance with the ethical standards of the institutional review board of the University of Neuchâtel. Informed consent was obtained in each survey. There is evidence that e-questionnaires are as valid and reliable as "traditional," paper-and-pencil questionnaires (Gosling & Mason, 2015). Importantly, in each of the five surveys, the instructions to respondents explicitly mentioned *work* as the context of reference of the burnout items.

The five samples under scrutiny were convenience samples, involving voluntary participation. Their representativeness (e.g., in terms of age and sex) vis-à-vis their populations of reference is therefore unclear. This being mentioned, the implementation of methods promoting sample representativeness such as random sampling is not only very costly but also frequently unfeasible in practice, for instance, because the population of interest cannot be accurately circumscribed or exhaustively contacted. Such practical obstacles were encountered in the recruitment process of the samples under consideration. Random sampling has been seldom used in burnout research (Schaufeli & Enzmann, 1998, p. 74; Sinclair, Wang, & Tetrick, 2013, p. 233).

2.2 | Measures

In Samples 1–3, burnout symptoms were assessed with the SMBM (Sassi & Neveu, 2010; Toker et al., 2012).[1] The SMBM comprises three subscales, namely, physical fatigue[2] (six items; e.g., "I feel physically drained"), cognitive weariness (five items; e.g., "I have difficulty concentrating"), and emotional exhaustion (three items; e.g., "I feel I am unable to be sensitive to the needs of coworkers and clients"). Participants were explicitly asked to indicate how they felt *at work* over the previous 2 weeks. Participants responded using a 4-point rating scale, from 0 for *not at all* to 3 for *nearly every day*. In sample 1, Cronbach's αs were .95, .96, and .92 for physical fatigue, cognitive weariness, and emotional exhaustion, respectively. In Sample 2, Cronbach's αs were .94, .96, and .90 for physical fatigue, cognitive weariness, and emotional exhaustion, respectively. In Sample 3, Cronbach's αs were .92, .94, and .90 for physical fatigue, cognitive weariness, and emotional exhaustion, respectively.

In Sample 4, burnout symptoms were measured with the MBI-GS (Maslach et al., 2016; Papineau, Plante, Desjardins, Aubin-Cantin, & Vachon, 2018).[3] The MBI-GS is made up of three subscales, namely, exhaustion (five items; e.g., "I feel emotionally drained from my work"), cynicism (five items; e.g., "I have become less enthusiastic about my work"), and professional efficacy (six items; e.g., "At my work, I feel confident that I am effective at getting things done"). By contrast with the exhaustion and cynicism items, the professional efficacy items are positively worded. As was the case with the SMBM, participants were asked about the symptoms that they possibly experienced in the context of their work over the previous 2 weeks and used a 4-point rating scale to respond (from 0 for *not at all*, to 3 for *nearly every day*). Cronbach's αs were .85, .81, and .86 for exhaustion, cynicism, and professional efficacy, respectively.

In Sample 5, burnout symptoms were assessed with the MBI for Educators (Dion & Tessier, 1994; Maslach et al., 2016).[4] The MBI for Educators comprises three subscales, namely, emotional exhaustion (nine items; e.g., "I feel used up at the end of the workday."), depersonalization (five items; e.g., "I don't really care what happens to some students."), and personal accomplishment (eight items; e.g., "I deal very effectively with the problems of my students."). By contrast with the emotional exhaustion and depersonalization items, the personal accomplishment items are positively worded. It is of note that the emotional exhaustion subscale of the MBI for Educators is largely similar to the exhaustion subscale of the MBI-GS. Importantly, despite an identical label, the emotional exhaustion subscale of the MBI for Educators markedly differs from the emotional exhaustion subscale of the SMBM. Somewhat counter-intuitively, the emotional exhaustion subscale of the SMBM, with its focus on interpersonal distance (e.g., "I feel I am unable to be sensitive to the needs of coworkers and clients"), is closer to the depersonalization subscale of the MBI for Educators. The rating scale employed with the MBI for Educators was identical to the rating scale used with the other burnout measures under scrutiny. As noted in the manual of the MBI (Maslach et al., 2016, pp. 15–16), emotional exhaustion item 8 ("Working with people directly puts too much stress on me.") and personal accomplishment item 4 ("I feel very energetic.") do not properly load on the intended dimensions. The two items were therefore excluded. A similar amendment was for instance made by Bakker et al. (2000). Cronbach's αs were .88, .79, and .82 for emotional exhaustion, depersonalization, and personal accomplishment, respectively.

In all samples, depressive symptoms were assessed with the PHQ-9 (Arthurs et al., 2012; Kroenke et al., 2001).[5] The PHQ-9 covers the main symptoms of major depression as defined in the latest edition of the *Diagnostic and statistical manual of mental disorders* (*DSM-5*; American Psychiatric Association, 2013). The PHQ-9 thus measures anhedonia, depressed mood, sleep disturbance, fatigue/loss of energy, appetite alteration, feelings of guilt and worthlessness, concentration impairment, psychomotor malfunction, and thoughts of self-harm. Consistent with the time window of our burnout measures, symptoms were reported over the previous 2 weeks. Again, each item was rated on a 4-point scale, from 0 for *not at all*, to 3 for *nearly every day*. Cronbach's αs for the PHQ-9 were 0.86 in Samples 1 and 2, 0.83 in Samples 3 and 4, and 0.85 in Sample 5.

2.3 | Data analyses

We relied on confirmatory factor analysis (CFA) in each sample. First-order CFAs were conducted to inspect the correlations among the latent factors linked to burnout and depression (sub)scales. Second-order CFAs were conducted to ascertain whether the latent factors linked to burnout and depression (sub)scales were reflective of the same overarching factor. Data were analyzed with Mplus 8 (Muthén & Muthén, 1998–2017). We relied on the weighted least squares—mean and variance adjusted—(WLSMV) method (DiStefano & Morgan, 2014). As currently recommended, we used an ordinal estimation for analyzing ordinal items; not adjusting for ordinality, especially for skewed items, can distort estimates (Li, 2016). Goodness of fit was assessed based on three complementary indices (Kline, 2016): The root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the Tucker–Lewis index (TLI).[6] In Samples 1–3, we created Physical Fatigue, Cognitive Weariness, and Emotional Exhaustion factors based on the items belonging to the original subscales of the SMBM. In Sample 4, we created Exhaustion, Cynicism, and Professional Efficacy factors based on the items belonging to the original subscales of the MBI-GS. In Sample 5, we created Emotional Exhaustion, Depersonalization, and Personal Accomplishment factors based on the items belonging to the amended subscales of the MBI for Educators.

In view of Maslach and Leiter's (2016) concern that the strong correlation between the scores on burnout and depression scales may be due to the presence of fatigue-related items in both types of scales, we proceeded with caution when creating the Depression factor. We deliberately excluded three PHQ-9 items pertaining to fatigue from our main analyses. The removed items were items 3 (sleep disturbance), 4 (fatigue/loss of energy), and 7

(concentration impairment). For comparative purposes, however, we conducted supplementary analyses in which we allowed the nine items of the PHQ-9 to load on the Depression factor.

Finally, in an effort to better contextualize our main findings, we examined in each sample one- and two-factor models as well as a bi-factor model. We treated the items as ordinal and used the WLSMV estimator. In one-factor models, all items were allowed to load on a single factor (the three fatigue-related items of the PHQ-9 were removed). In two-factor models, PHQ-9 items were allowed to load on a Depression factor (again, the three fatigue-related items of the PHQ-9 were removed) and burnout items were allowed to load on a Burnout factor. In the bi-factor analysis, one general factor and four bifactors—one for each scale or subscale—were extracted in each sample. A bi-geomin rotation was used. Given the nature of our bi-factor analysis, no PHQ-9 items needed to be removed——it was possible for the fatigue-related items of the PHQ-9 to load on any bifactor. We computed the explained common variance (ECV) index to estimate the proportion of common variance that was attributable to the general factor (Rodriguez, Reise, & Haviland, 2016).

3 | RESULTS

No modifications were made in any of the examined models. No anomalies were detected (e.g., communality estimate ≥ 1 or negative residual variance). Descriptive statistics for the five samples are available in Supporting Information 1. The raw correlations among the items of each of the burnout subscales under scrutiny are available in Supporting Information 2. The raw correlations among the items of the SMBM subscales were large, particularly for cognitive weariness and emotional exhaustion, consistent with the homogeneity of these subscales' content. The raw correlations among the items of the MBI subscales, though substantial, were comparatively less pronounced.

3.1 | Sample 1 (Swiss schoolteachers)

In our first-order CFA, we allowed PHQ-9 items 1, 2, 5, 6, 8, and 9 to load on a Depression factor, the six items of the SMBM's physical fatigue subscale to load on a Physical Fatigue factor, the five items of the SMBM's cognitive weariness subscale to load on a Cognitive Weariness factor, and the three items of the SMBM's emotional exhaustion subscale to load on an Emotional Exhaustion factor. The model showed a good fit: RMSEA = 0.065; CFI = 0.993; TLI = 0.992; χ^2(164) = 340.429. The four factors strongly correlated with each other (from 0.63 to 0.83; Table 1). The three burnout factors did not correlate more strongly with each other (0.71 on average) than with the Depression factor (0.74 on average).

A second-order model involving the Depression, Physical Fatigue, Cognitive Weariness, and Emotional Exhaustion factors as first-order factors fit the data well: RMSEA = 0.066; CFI = 0.993; TLI = 0.991; χ^2(166) = 349.924. All first-order factors strongly loaded on the higher-order factor—from 0.76 for Emotional Exhaustion to 0.90 for Depression (M = 0.86).

3.2 | Sample 2 (French educational staff members)

We conducted our first-order CFA following the same modus operandi as with Sample 1. The model showed an acceptable fit: RMSEA = 0.079; CFI = 0.990; TLI = 0.989; χ^2(164) = 1,342.754. The four factors strongly correlated with each other (from 0.61 to 0.82; Table 2). The three burnout factors did not correlate more strongly with each other (mean correlation: 0.67) than with the Depression factor (mean correlation: 0.76).

TABLE 1 Correlations among the latent depression and burnout factors in Sample 1 (Swiss schoolteachers)

Latent factors	Depression	Physical Fatigue	Cognitive Weariness	Emotional Exhaustion
Depression	–	0.83	0.76	0.63
Physical Fatigue	0.92	–	0.78	0.64
Cognitive Weariness	0.84	0.78	–	0.71
Emotional Exhaustion	0.65	0.65	0.71	–
		CFA involving the full version of the PHQ-9		CFA in which the fatigue items of the PHQ-9 were removed
Mean correlation of burnout's components with depression		0.80		0.74
Mean correlation among burnout's components		0.71		0.71

Note: Physical Fatigue, Cognitive Weariness, and Emotional Exhaustion were assessed with the Shirom–Melamed Burnout Measure; Depression was measured with the PHQ-9. Entries above the diagonal concern the CFA from which fatigue-related items 3, 4, and 7 were removed from the PHQ-9; entries below the diagonal concern the CFA in which the full version of the PHQ-9 was used. $N = 257$.
Abbreviation: CFA, confirmatory factor analysis.

A second-order model involving the Depression, Physical Fatigue, Cognitive Weariness, and Emotional Exhaustion factors as first-order factors fit the data in a satisfactory manner: RMSEA = 0.076; CFI = 0.991; TLI = 0.990; $\chi^2(166) = 1{,}280.012$. All first-order factors strongly loaded on the higher-order factor—from 0.73 for Emotional Exhaustion to 0.92 for Depression ($M = 0.85$).

3.3 | Sample 3 (Swiss mixed professionals)

We conducted our first-order CFA as per what we did with Samples 1 and 2. The model showed a satisfactory fit: RMSEA = 0.064; CFI = 0.987; TLI = 0.985; $\chi^2(164) = 458.181$. The four factors strongly correlated with each other

TABLE 2 Correlations among the latent depression and burnout factors in Sample 2 (French educational staff members)

Latent factors	Depression	Physical Fatigue	Cognitive Weariness	Emotional Exhaustion
Depression	–	0.82	0.78	0.67
Physical Fatigue	0.89	–	0.75	0.61
Cognitive Weariness	0.84	0.75	–	0.65
Emotional Exhaustion	0.66	0.61	0.65	–
		CFA involving the full version of the PHQ-9		CFA in which the fatigue items of the PHQ-9 were removed
Mean correlation of burnout's components with depression		0.80		0.76
Mean correlation among burnout's components		0.67		0.67

Note: Physical Fatigue, Cognitive Weariness, and Emotional Exhaustion were assessed with the Shirom–Melamed Burnout Measure; Depression was measured with the PHQ-9. Entries above the diagonal concern the CFA from which fatigue-related items 3, 4, and 7 were removed from the PHQ-9; entries below the diagonal concern the CFA in which the full version of the PHQ-9 was used. $N = 1{,}163$.
Abbreviation: CFA, confirmatory factor analysis.

(from 0.57 to 0.82; Table 3). The three burnout factors did not correlate more strongly with each other (0.65 on average) than with the Depression factor (0.73 on average).

A second-order model involving the Depression, Physical Fatigue, Cognitive Weariness, and Emotional Exhaustion factors as first-order factors also fit the data satisfactorily: RMSEA = 0.064; CFI = 0.987; TLI = 0.985; $\chi^2(166) = 457.145$. All first-order factors strongly loaded on the higher-order factor—from 0.69 for Emotional Exhaustion to 0.90 for Depression ($M = 0.83$; Figure 1).

3.4 | Sample 4 (Swiss mixed professionals)

In our first-order CFA, we allowed PHQ-9 items 1, 2, 5, 6, 8, and 9 to load on a Depression factor, the five items of the MBI-GS's exhaustion subscale to load on an Exhaustion factor, the five items of the MBI-GS's cynicism subscale to load on a Cynicism factor, and the six items of the MBI-GS's professional efficacy subscale to load on a Professional Efficacy factor. An acceptable fit was obtained: RMSEA = 0.065; CFI = 0.962; TLI = 0.957; $\chi^2(203) = 363.120$. The four factors correlated substantially with each other (from −0.49 to 0.76; Table 4). The three burnout factors did not correlate more strongly with each other (0.60 on average) than with Depression (0.71 on average). Exhaustion, which reflects the main characteristic of burnout (Maslach et al., 2001; Schaufeli, 2017), correlated more highly with Depression (0.76) than with either Cynicism (0.68) or Professional Efficacy (−0.49).

A second-order model involving Depression, Exhaustion, Cynicism, and Professional Efficacy as first-order factors fit the data well: RMSEA = .066; CFI = .960; TLI = .955; $\chi^2(205) = 373.667$. All first-order factors strongly loaded on the higher-order factor—from −0.70 for Professional Efficacy to 0.90 for Depression ($M = 0.81$; Figure 2).

3.5 | Sample 5 (French schoolteachers)

In the first-order CFA, we allowed PHQ-9 items 1, 2, 5, 6, 8, and 9 to load on a Depression factor, the eight items of the MBI for Educators' emotional exhaustion (amended) subscale to load on an Emotional Exhaustion factor, the five items of the MBI for Educators' depersonalization subscale to load on a Depersonalization factor, and the

TABLE 3 Correlations among the latent depression and burnout factors in Sample 3 (Swiss mixed professionals)

Latent factors	Depression	Physical Fatigue	Cognitive Weariness	Emotional Exhaustion
Depression	–	0.82	0.74	0.62
Physical Fatigue	0.88	–	0.75	0.57
Cognitive Weariness	0.78	0.75	–	0.62
Emotional Exhaustion	0.60	0.57	0.62	–
		CFA involving the full version of the PHQ-9	CFA in which the fatigue items of the PHQ-9 were removed	
Mean correlation of burnout's components with depression		0.75	0.73	
Mean correlation among burnout's components		0.65	0.65	

Notes: Physical Fatigue, Cognitive Weariness, and Emotional Exhaustion were assessed with the Shirom–Melamed Burnout Measure; Depression was measured with the PHQ-9. Entries above the diagonal concern the CFA from which fatigue-related items 3, 4, and 7 were removed from the PHQ-9; entries below the diagonal concern the CFA in which the full version of the PHQ-9 was used. $N = 432$.
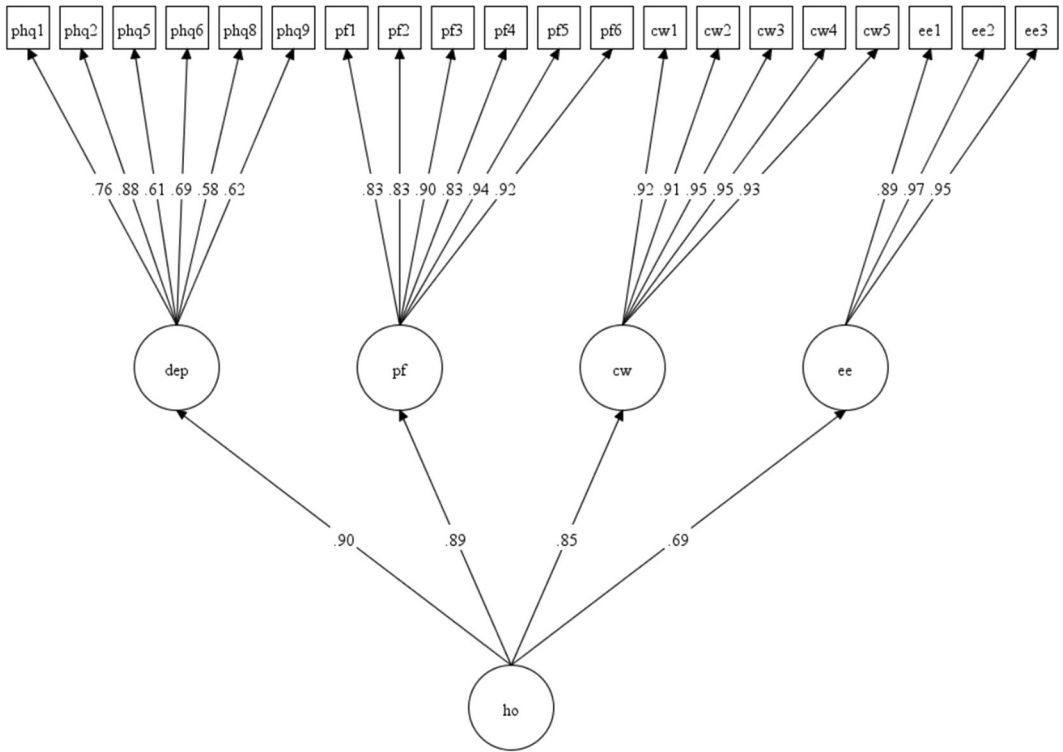Abbreviation: CFA, confirmatory factor analysis.

FIGURE 1 Graphical summary of the second-order factor analysis related to Sample 3 (Swiss mixed professionals; *N* = 432). "cw", Cognitive Weariness factor; "dep", Depression factor; "ee", Emotional Exhaustion factor; "ho", higher-order factor; "pf", Physical Fatigue factor

TABLE 4 Correlations among the latent depression and burnout factors in Sample 4 (Swiss mixed professionals)

Latent factors	Depression	Exhaustion	Cynicism	Professional Efficacy
Depression	–	0.76	0.73	−0.63
Exhaustion	0.81	–	0.68	−0.49
Cynicism	0.67	0.68	–	−0.64
Professional Efficacy	−0.56	−0.49	−0.64	–
		CFA involving the full version of the PHQ-9		**CFA in which the fatigue items of the PHQ-9 were removed**
Mean correlation of burnout's components with depression		0.68		0.71
Mean correlation among burnout's components		0.60		0.60

Note: Exhaustion, Cynicism, and Professional efficacy were assessed with the Maslach Burnout Inventory-General Survey; Depression was measured with the PHQ-9. Entries above the diagonal concern the CFA from which fatigue-related items 3, 4, and 7 were removed from the PHQ-9; entries below the diagonal concern the CFA in which the full version of the PHQ-9 was used. *N* = 188.
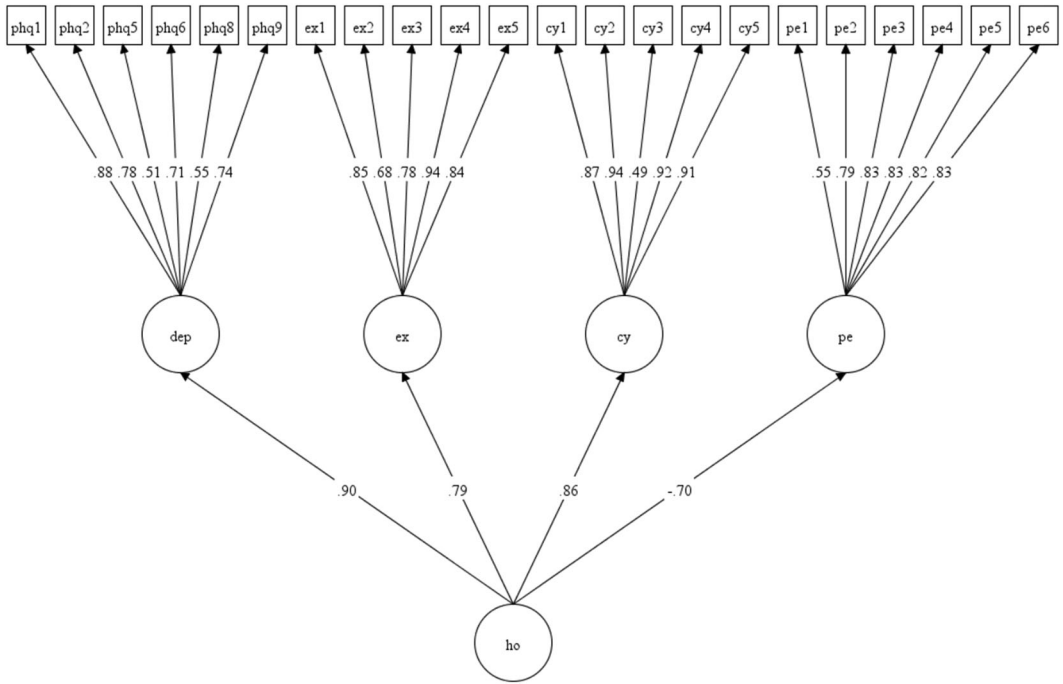
Abbreviation: CFA, confirmatory factor analysis.

FIGURE 2 Graphical summary of the second-order factor analysis related to Sample 4 (Swiss mixed professionals; N = 188). "cy", Cynicism factor; "dep", Depression factor; "ex", Exhaustion factor; "ho", higher-order factor; "pe", Professional Efficacy factor

seven items of the MBI for Educators' personal accomplishment (amended) subscale to load on a Personal Accomplishment factor. A satisfactory fit was obtained: RMSEA = 0.058; CFI = 0.952; TLI = 0.947; χ^2(293) = 1,363.045. Correlations among the four factors ranged from −0.35 to 0.87 (Table 5). The three burnout factors did not correlate more strongly with each other (0.46 on average) than with Depression (0.58 on average). Remarkably, Emotional Exhaustion correlated much more strongly with Depression (0.87) than with either Depersonalization (0.48) or Personal Accomplishment (-0.35).

A second-order model involving Depression, Emotional Exhaustion, Depersonalization, and Personal Accomplishment as first-order factors fit the data in an acceptable manner: RMSEA = 0.072; CFI = 0.926; TLI = 0.918; χ^2(295) = 1,946.762. All first-order factors loaded substantially on the higher-order factor—from −0.47 for Personal Accomplishment to 0.96 for Depression (M = 0.73; Figure 3).

3.6 | Supplementary analyses

The correlations among the factors linked to burnout and depression (sub)scales that we obtained when using the full version of the PHQ-9 are displayed in Tables 1–5. Overall, the correlations did not markedly change as a result of the inclusion of PHQ-9's fatigue-related items in the analyses.

In Sample 1, the mean correlation between the depression and burnout factors was 0.80—compared with 0.74 when fatigue-related items were excluded from the PHQ-9. In Sample 2, the mean correlation between the depression and burnout factors was also 0.80—compared with 0.76 when fatigue-related items were excluded from the PHQ-9. In Sample 3, the mean correlation between the depression and burnout factors was 0.75—compared with 0.73 when fatigue-related items were excluded from the PHQ-9.

TABLE 5 Correlations among the latent depression and burnout factors in Sample 5 (French schoolteachers)

Latent factors	Depression	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Depression	–	0.87	0.49	−0.39
Emotional Exhaustion	0.91	–	0.48	−0.35
Depersonalization	0.46	0.48	–	−0.54
Personal Accomplishment	−0.35	−0.35	−0.54	–
		CFA involving the full version of the PHQ-9	CFA in which the fatigue items of the PHQ-9 were removed	
Mean correlation of burnout's components with depression		0.57	0.58	
Mean correlation among burnout's components		0.46	0.46	

Note: Emotional Exhaustion, Depersonalization, and Personal Accomplishment were assessed with the Maslach Burnout Inventory for Educators (20-item, amended version); Depression was measured with the PHQ-9. Entries above the diagonal concern the CFA from which fatigue-related items 3, 4, and 7 were removed from the PHQ-9; entries below the diagonal concern the CFA in which the full version of the PHQ-9 was employed. N = 1,073.
Abbreviation: CFA, confirmatory factor analysis.

In Sample 4, the mean correlation between the depression and burnout factors was 0.68—compared with 0.71 when fatigue-related items were excluded from the PHQ-9. While the correlation between Depression and Exhaustion unsurprisingly increased as a result of the inclusion of PHQ-9's fatigue-related items in the analyses (from 0.76 to 0.81), the correlations between Depression and both Cynicism and Professional Efficacy decreased, leading to a reduction of the mean correlation between the depression and burnout factors.

In Sample 5, the mean correlation between the depression and burnout factors was 0.57—compared with 0.58 when fatigue-related items were excluded from the PHQ-9. The correlation between Depression and Emotional Exhaustion
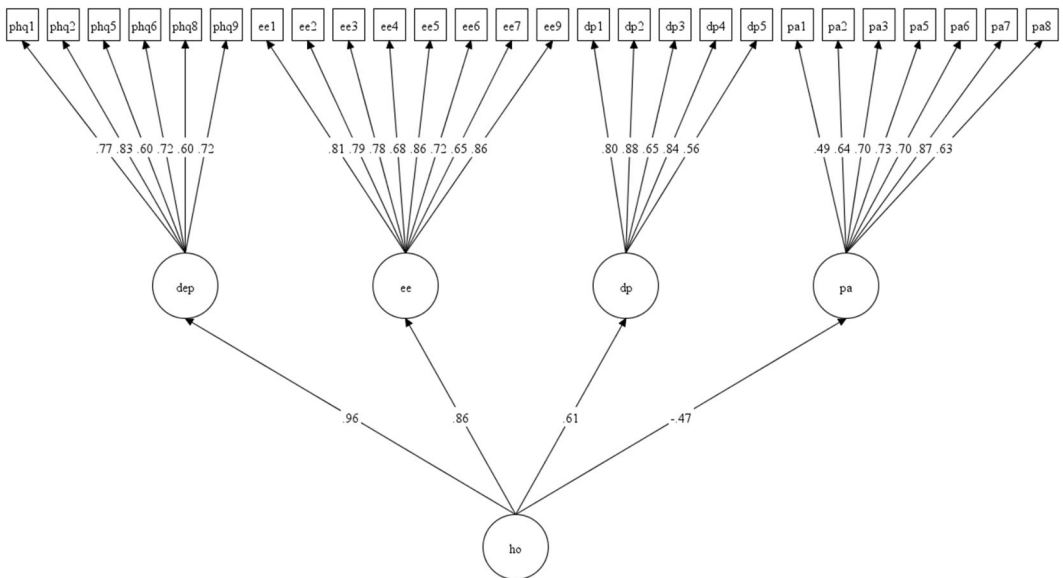

FIGURE 3 Graphical summary of the second-order factor analysis related to Sample 5 (French schoolteachers; N = 1,073). "dep", Depression factor; "dp", Depersonalization factor; "ee", Emotional Exhaustion factor; "ho", higher-order factor; "pa", Personal Accomplishment factor

expectedly increased as a result of the inclusion of PHQ-9's fatigue-related items in the analyses (from 0.87 to 0.91); however, because the correlations between Depression and both Depersonalization and Personal Accomplishment decreased in parallel, the mean correlation between the depression and burnout factors was slightly reduced.

In ancillary analyses, we examined the zero-order correlations of burnout with the fatigue-related items of the PHQ-9 (items 3, 4, and 7) and the other items of the PHQ-9 (items 1, 2, 5, 6, 8, and 9) in each of the five samples. Between-correlation differences were systematically tested (Steiger, 1980). Burnout did *not* correlate more strongly with the fatigue-related items of the PHQ-9 than with the other items of the PHQ-9 (Supporting Information 3). It is of note that in Samples 4 and 5, in which burnout was assessed with two different variants of the MBI, burnout correlated *less* strongly with the fatigue-related items of the PHQ-9 than with the other items of the PHQ-9, $ps < .01$.

The results linked to the one-factor, two-factor, and bi-factor models are summarized in Supporting Information 4. While the one- and two-factor models showed poor fits in all samples, the bi-factor models fit the data in a satisfactory manner ($0.031 \leq$ RMSEAs ≤ 0.053; $0.972 \leq$ CFIs ≤ 0.999; $0.958 \leq$ TLIs ≤ 0.998), with the general factor explaining way more than 50% of the common variance in each of the five samples ($0.58 \leq$ ECVs ≤ 0.74).

4 | DISCUSSION

Despite troubling similarities between burnout and depression, it has been recurrently claimed that one should not be conflated with the other (e.g., Iacovides, Fountoulakis, Kaprinis, & Kaprinis, 2003; Melnick, Powsner, & Shanafelt, 2017). The primary aim of this study was to examine whether burnout symptoms are more closely linked to each other than to depression, as would be expected if burnout symptoms indeed form a syndrome that is distinct from depression (Maslach et al., 2016). We addressed this research question by conducting CFAs in five different samples of employed individuals. Burnout symptoms were assessed with the SMBM and two different variants of the MBI. Depressive symptoms were measured with the PHQ-9. Our findings do *not* support the view that burnout is adequately characterized as an entity that is distinct from depression.

In each of the five samples under examination, burnout's components, on average, correlated *less* strongly with each other than with depressive symptoms. Thus, the findings did not depend on whether burnout was assessed with the SMBM, the MBI-GS, or the MBI for Educators. Remarkably, such results were obtained even with fatigue-related items removed from the PHQ-9, questioning Maslach and Leiter's (2016) claim that the strength of the burnout-depression association can be ascribed to explicit content overlap at the level of fatigue-related items in burnout and depression scales. In Samples 4 and 5—where burnout was measured with the MBI, the mean correlation between the depression and burnout factors was even slightly stronger when fatigue-related items were excluded from the PHQ-9. In sum, the link between burnout and depressive symptoms was profound and irreducible to the involvement of fatigue (see also Schonfeld et al., 2019a, 2019b).

Furthermore, the burnout and depression items were found to be reflective of the same overarching factor. Again, such results were obtained in the five samples, irrespective of the burnout measure employed. The symptoms assessed by burnout and depression scales could thus be considered manifestations of a single syndrome. All in all, our findings are consistent with the mounting evidence that burnout is a depressive condition (for reviews, see Bianchi et al., 2019, and Bianchi, Schonfeld, et al., 2018; for very recent findings, see Schonfeld et al., 2019a, 2019b).

It is noteworthy that the syndromal unity of burnout has been called into question in the past. For instance, the exhaustion and disengagement subscales of the Oldenburg Burnout Inventory—an alternative, two-component measure of burnout—were found to correlate 0.32 and 0.34 in two different samples of workers (Halbesleben & Demerouti, 2005), leading Shirom (2005) to ask: "If indeed these two dimensions have one underlying construct, why do they share only about 10% of their variance...?" (pp. 267–268). Another illustration of the questionable unity of the burnout syndrome can be found in the manual of the MBI, in which a mean correlation of only 0.33 is detectable among the three subscales of the MBI-Human Services Survey (another variant of the MBI; Maslach

et al., 2016, p. 16). Such correlations are unambiguously smaller than the correlations generally observed between depression and, for example, the MBI(-GS)'s (emotional) exhaustion component of burnout (for meta-analyses, see Koutsimani, Montgomery, & Georganta, 2019; Schonfeld et al., 2019b). When corrected for attenuation (McDonald, 1999), correlations between (emotional) exhaustion and depression are often ≥ 0.70. To take just a few examples, in Mosing, Butkovic, and Ullén (2018) study, the disattenuated correlation between exhaustion and depression was 0.70. The disattenuated correlation between emotional exhaustion and depression was 0.75 in the studies by Brenninkmeyer et al. (2001), Halpern, Maunder, Schwartz, and Gurevich (2012), and Kroska, Calarge, O'Hara, Deumic, and Dindo (2017), 0.79 in Johnson et al.'s (2017) study, and 0.82 in Schmidt and Diestel's (2014) study.

In this study, the exhaustion component of the MBI-GS correlated more strongly with depression than with either cynicism or professional efficacy (see also Hätinen, Kinnunen, Pekkonen, & Aro, 2004; Lindblom, Linton, Fedeli, & Bryngelsson, 2006). In a similar vein, the emotional exhaustion component of the MBI for Educators correlated more strongly with depression than with either depersonalization or personal accomplishment (see also Kroska et al., 2017; Schmidt & Diestel, 2014). As a reminder, (emotional) exhaustion, as conceptualized and operationalized in the MBI, is considered the core of burnout (Maslach et al., 2001; Schaufeli, 2017); if (emotional) exhaustion is associated with depression to a (much) higher degree than it is associated with cynicism/ depersonalization and professional inefficacy/personal accomplishment, the reason for including cynicism/ depersonalization and professional inefficacy/personal accomplishment in the definition of the burnout syndrome and excluding depression from the definition of the burnout syndrome is, to say the least, obscure. Indeed, a syndrome by definition refers to a "grouping of signs and symptoms, based on their frequent co-occurrence..." (American Psychiatric Association, 2013, p. 830).

Interestingly, in what is generally considered the inaugural article on burnout, Freudenberger (1974) already noted that the burned-out professional "looks, acts and seems depressed" (p. 161). In addition to exhaustion, Freudenberger (1974, 1975) mentioned (depressive) symptoms such as sadness, crying spells, resignation, discouragement, hopelessness, irritability, frustration, sleeplessness, and changes in weight as part of the burnout syndrome. Maslach (1976) linked burnout to suicide, a problem for which depression is a well-known prime risk factor (Chesney, Goodwin, & Fazel, 2014). Maslach (1976) also linked burnout to alterations in social functioning commonly observed in depression, such as irritability/anger, loss of emotional involvement, and reduced empathy (Beck & Alford, 2009; Brown & Harris, 1978; Judd et al., 2013; Kupferberg et al., 2016; Nabi et al., 2009; Saarinen et al., 2018). Farber (1983) pointed out that the overlap of burnout and depressive symptoms had often been noted in professional circles (p. 14). Maslach and Leiter (1997) underlined that (a) burnout is not only about the "presence of negative emotions" but also about the "absence of positive ones" and (b) in burnout, "positive feelings erode to the point that they no longer have the power to offset the negatives" (p. 28). Such a description is highly evocative of dysphoria and anhedonia, the two central symptoms of depression (American Psychiatric Association, 2013). Schaufeli and Enzmann (1998) indicated that "[f]irst and foremost, the burned-out professional feels helpless, hopeless, and powerless" (p. 25); such feelings are hallmarks of depression (Beck & Alford, 2009; Bianchi, Schonfeld, et al., 2018; Pizzagalli, 2014; Pryce et al., 2011). Schaufeli and Enzmann (1998) also noted that "[t]ypically, a gloomy, tearful and depressed mood is observed among those who suffer from burnout" (p. 25), along with (depressive) symptoms such as loss of interest, exacerbated guilt, cognitive impairment, social withdrawal, and demoralization. Building upon past reflections, Taris (2006) warned against the risk that burnout may constitute an "unnecessary variation" on the theme of depression (p. 101). Based on their experience as occupational health practitioners, Durand-Moreau and Dewitte (2015) concluded that the burnout-depression distinction is therapeutically inoperant and fueled by rhetorical contortions rather than sound clinical arguments. Bianchi et al. (2019) indicated that the dimensions and items of the MBI likely referred to depressive manifestations in a roundabout way (e.g., using a psychosocial, rather than medical, terminology). In a historical and sociological examination of so-called exhaustion syndromes, Schaffner (2016) observed that entities such as nervous weakness (described in the 18th century), neurasthenia (described in the 19th century), and burnout (described in the 20th century) could be regarded as successive avatars of *melancholic*

weariness, a depressive condition already theorized by physicians of the Hellenic and Roman eras. Our findings are consistent with this large body of observations.

Although pioneers of burnout research depicted their entity of interest in a way that was highly reminiscent of depression, they approached burnout as a new phenomenon, within a separate area of research. This original inconsistency may explain why post-festum attempts to justify the burnout-depression distinction so often turned into vain exercises in hair-splitting (for a detailed examination of such attempts, see Bianchi et al., 2019; Bianchi, Schonfeld, et al., 2018). The psychiatric connotation and stigmatizing character of the depression label might have played a role in the reluctance to identify burnout with depression, especially in an era—the 1970s—when radical antipsychiatry was popular among many psychology researchers and practitioners. Burnout might have been viewed as a convenient, "worker-friendly" euphemism for depression by investigators defining themselves as "social change agents" (Pines & Maslach, 1980, p. 7). In any case, a change in how a phenomenon is labeled should not be mistaken for a change in the phenomenon itself. A close examination of the genesis of the burnout construct may help us make sense of the problems encountered in burnout research for more than 40 years (Friberg, 2009). Genesis amnesia, by contrast, may deprive us of key answers.

Our study has several strengths, such as the reliance on five samples recruited in two different countries or the use of three widely-employed measures of burnout. However, our study also has limitations. First, as mentioned earlier, our samples were convenience samples having unclear representativeness (e.g., in terms of age and sex). Second, it would have been preferable if some of our samples had been larger——most notably, Samples 1 and 4. Third, only one measure of depressive symptoms, the PHQ-9, was examined in this study. Although the PHQ-9 is advantageous because it covers the main symptoms of major depression as defined in the *DSM-5* (American Psychiatric Association, 2013; Kroenke, Spitzer, Williams, & Lowe, 2010; Martin-Subero et al., 2017), replication studies focusing on other depression scales may be worth conducting. This being mentioned, the state of the art suggests that the use of other measures of depression may lead to similar findings. For instance, in the study conducted by Brenninkmeyer et al. (2001), which involved Dutch teachers, the three subscales of the MBI for Educators correlated on average 0.43 with each other and 0.58 with the Center for Epidemiologic Studies Depression Scale. In Lindblom et al.'s (2006) study, carried out in the Swedish working population, the mean correlation among the three subscales of the MBI-GS was 0.40 whereas the mean correlation of the three subscales of the MBI-GS with the depression subscale of the Hospital Anxiety and Depression Scale was 0.49. In a recent study of German employees conducted by Melchers, Plieger, Meermann, and Reuter (2015), the three subscales of the MBI-GS correlated on average 0.48 with the Beck Depression Inventory-II and only 0.36 with each other. Such examples could be multiplied. Overall, signs of the problematic character of burnout's syndromal unity appear to be detectable independently of the depression measure employed.

Given our reliance on cross-sectional self-report methodology, it might be argued that our conclusions are menaced by monomethod bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). We do not think that such a concern is justified. First, there is evidence that the problem of common method variance (CMV) has been overstated in psychological research. As underlined by Spector (2006), the view that "CMV automatically affects variables measured with the same method is a distortion and oversimplification of the true state of affairs, reaching the status of urban legend" (p. 221). Second, and even more important, there is no reason to think that the action of CMV would affect more strongly the correlations between burnout and depression than the correlations among burnout's components in this study. Because our conclusions are largely based on *comparative* correlational analyses, they are unlikely to be threatened by the problem of CMV. In addition, we note that (a) self-report measures are the only available measures for assessing burnout symptoms and (b) our use of a cross-sectional design was justified by the very objective of the study, which was to examine how burnout and depressive symptoms *co-occur* and combine.

On a different note, the reliance on a cross-sectional design might be criticized because it does not allow for an examination of potential cause–effect relationships between burnout and depression. Such criticism is ill-founded. Indeed, because burnout and depression involve not only similar symptoms but also similar etiological pathways

(e.g., through insurmountable [job] stress), there is no clear clinical or theoretical basis for the prediction that one entity causes the other (Bianchi et al., 2019; Schonfeld et al., 2019b).

The present study suggests that the burnout-depression separation is artificial. We recommend that occupational health practitioners systematically assess "classical" depressive symptoms in employees presenting with a complaint of burnout. Cultivating the idea that burnout should be separated from depression when burnout and depression appear to reflect, in essence, one condition may result in misguided intervention strategies and impede our ability to effectively help stressed-out workers. In view of (a) the problematic validity of the burnout construct, (b) the undiagnosable character of the burnout syndrome, and (c) the failure of burnout scales to reliably assess *work-attributed* symptoms (Bianchi & Brisson, 2019; Bianchi et al., 2019; Hakanen & Bakker, 2017; Schonfeld et al., 2019b; Schwenk & Gold, 2018), the development of a measure of occupational depression may be useful to epidemiologists and clinicians. By allowing us to assess symptoms such as job-related suicidal ideation, such a measure could enable us to better identify endangered individuals as well as depressogenic workplaces.

ENDNOTES

[1] The items of the SMBM can be found in Toker et al.'s (2012) article (p. 841) as well as at the following website: http://www.shirom.org/arie/index.html.

[2] The items of the physical fatigue subscale of the SMBM arguably reflect a general kind of ill-being at work (e.g., "I feel fed up"; "I feel burned out") as much as they reflect actual physical fatigue.

[3] The complete list of the items of the MBI-GS is available in the manual of the MBI (Maslach et al., 2016).

[4] The complete list of the items of the MBI for Educators is available in the manual of the MBI (Maslach et al., 2016) as well as in Maslach and Jackson's (1981) article, in a slightly different version (with the term "recipients" used instead of the term "students").

[5] The PHQ-9 is freely available in Kroenke et al.'s (2001) article as well as at the following website: https://www.phqscreeners.com/.

[6] For the RMSEA, values below 0.08, and preferably below 0.05, are suggestive of a satisfactory fit; for the CFI and the TLI, values greater than 0.90, and preferably greater than 0.95, are indicative of a satisfactory fit (e.g., Hu & Bentler, 1999).

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SUPPORTING INFORMATION

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