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Is Burnout a Depressive Condition? A 14-Sample Meta-Analytic and Bifactor Analytic Study

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Abstract

There is no consensus on whether burnout constitutes a depressive condition or an original entity requiring specific medical and legal recognition. In this study, we examined burnout–depression overlap using 14 samples of individuals from various countries and occupational domains (N = 12,417). Meta-analytically pooled disattenuated correlations indicated (a) that exhaustion—burnout's core—is more closely associated with depressive symptoms than with the other putative dimensions of burnout (detachment and efficacy) and (b) that the exhaustion–depression association is problematically strong from a discriminant validity standpoint (r = .80). The overlap of burnout's core dimension with depression was further illuminated in 14 exploratory structural equation modeling bifactor analyses. Given their consistency across countries, languages, occupations, measures, and methods, our results offer a solid base of evidence in support of the view that burnout problematically overlaps with depression. We conclude by outlining avenues of research that depart from the use of the burnout construct.

Keywords

burnout, depression, meta-analysis, bifactor analysis, occupational health

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Burnout has been regarded as a syndrome combining exhaustion (at physical, cognitive, and emotional levels), resentful detachment and withdrawal from work (e.g., "cynical" attitudes toward one's work, depersonalizing views of the people with whom one is working), and a negative self-evaluation of one's professional efficacy and organizational contribution (Maslach et al., 2001; Schaufeli & Taris, 2005). Exhaustion has been unanimously considered the core of burnout and is common to all definitions of the syndrome (Halbesleben & Demerouti, 2005; Kristensen et al., 2005; Maslach et al., 2016; Pines, 2004; Schaufeli, 2017; Shirom & Melamed, 2006). As noted by Maslach et al. (2001), "exhaustion is the central quality of burnout," and "when people describe themselves or others as experiencing burnout, they are most often referring to the experience of exhaustion" (p. 402). Exhaustion is also the only dimension of burnout that has been conclusively linked to a deterioration of objective job performance (Taris, 2006b).

From an etiological standpoint, burnout is thought to result from insurmountable, chronic workplace stress (Maslach et al., 2001; Shirom & Melamed, 2006; World Health Organization [WHO], 2019). In keeping with the

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general stress literature, burnout is assumed to involve a misfit between internal dispositions (i.e., the characteristics of the worker) and external conditions (i.e., the characteristics of the occupational environment; Maslach et al., 2001; Schaufeli & Enzmann, 1998). There is evidence that burnout is a risk factor for many pathologies (e.g., cardiovascular disease, diabetes) and bears on individuals' longevity (Ahola et al., 2010; Melamed et al., 2006; Toker et al., 2012). Although burnout is classed among the "factors influencing health status or contact with health services" in the latest revision of the International Classification of Diseases (WHO, 2019), neither the WHO (2019) nor the American Psychiatric Association ([APA]; 2013) has elevated burnout to the status of a medical condition. There are no commonly shared, clinically valid diagnostic criteria for burnout to date, a state of affairs that prevents any clear estimation of burnout's prevalence (Bianchi et al., 2019; Schwenk & Gold, 2018).

In a context in which job stress and sick leave for psychological reasons are eliciting growing concerns in Western countries (Health Promotion Switzerland, 2020; U.S. Bureau of Labor Statistics, 2020), the burnout phenomenon has become an object of focal interest among occupational health researchers and practitioners as well as decision-makers and regulators. The interest in burnout is, however, hampered by a lacunary characterization of the syndrome and persistent difficulties establishing the discriminant validity of the construct (Bianchi et al., 2019; Cox et al., 2005; Rotenstein et al., 2018; Schwenk & Gold, 2018; Taris, 2006a). Despite nearly 50 years of sustained research on burnout, there is little consensus on what the phenomenon fundamentally reflects. Whereas some investigators have argued that burnout is a unique condition not to be conflated with depression (e.g., Koutsimani et al., 2019; Maslach & Leiter, 2016; Melnick et al., 2017), others have suggested that burnout constitutes a depressive response to job stress and needs to be approached as such (e.g., Ahola et al., 2014; Bianchi et al., 2020; Wurm et al., 2016). These two positions contrast with each other, rendering the issue of burnout–depression overlap critical to clarifying burnout's status.

Depression and Burnout

Depression is a world leader in terms of disease burden (Gotlib & Hammen, 2014; James et al., 2018; WHO, 2017). In countries such as the United States, the lifetime prevalence of major depressive disorder exceeds 15%, and the economic cost of the affliction is in billions of dollars each year (Greenberg et al., 2015; Weinberger et al., 2017). Depressive conditions are primarily characterized by symptoms of anhedonia, such as loss of pleasure and interest, and dysphoria, also known as depressed mood (APA, 2013; Rolls, 2016; Wu et al., 2017). Fatigue and loss of energy constitute frequent presenting complaints in affected patients (APA, 2013). Overt irritability and anger, paranoid thinking, cynical hostility, loss of emotional involvement, reduced empathy, and interpersonal distancing are common signs of the social impairment associated with depression (Beck & Alford, 2009; Brown & Harris, 1978; Judd et al., 2013; Kupferberg et al., 2016; Nabi et al., 2009; Saarinen et al., 2018). Depressive conditions are reflective of an imbalance between positive and negative affect and have been found to develop when adverse experiences override gratifying ones (Bianchi et al., 2018a; Gilbert, 2006; Pryce et al., 2011; Rolls, 2016; Wu et al., 2017). Unresolvable stress, which generates a decrease in positive affective states and an increase in negative affective states (e.g., feelings of helplessness and hopelessness), has been identified as a basic depressogenic factor in individuals with no noticeable susceptibility to depression (Dohrenwend, 2000; Pryce et al., 2011; Seligman, 1975; Ursin & Eriksen, 2004; Willner et al., 2013). Depression has long been approached through nosological and diagnostic categories (APA, 2013). There is evidence, however, that depression is best conceived of as a phenomenon the severity of which varies along a continuum (i.e., as a dimensional variable), diagnosable depressive disorders standing at the upper end of that continuum (Haslam et al., 2012; Kotov et al., 2017; Wichers, 2014). Research on the dimensionality of depression has taken place in the context of a growing coordination between dimensional and categorical approaches in the science of psychopathology (Casey et al., 2013; Lupien et al., 2017; Pickles & Angold, 2003).

In recent years, the distinction made between burnout and depression has been increasingly called into question. From a theoretical standpoint, because depressive symptoms are common outcomes of unresolvable stress and burnout is supposed to result from unresolvable job stress, why one should expect burnout to stand outside the realm of depression has remained unclear (Bianchi et al., 2019, 2020). The job-related character of burnout has often been invoked in justifying the burnout–depression distinction (Maslach & Leiter, 2016; Shirom, 2005). However, some investigators have observed that burnout could be viewed as job-related *and* depressive in nature without any contradiction (Bianchi et al., 2020). The research literature suggests that both burnout and depressive symptoms can emerge as a result of insurmountable chronic stress in the workplace (Rydmark et al., 2006; Schonfeld & Chang, 2017); there is robust evidence that adverse psychosocial working conditions contribute to the development of depressive symptoms and disorders (e.g., Madsen et al., 2017; Melchior et al., 2007; Schonfeld et al., 2018). Furthermore, when approaching burnout and depression dimensionally, establishing the separateness of the continua of the two entities is theoretically challenging (Bianchi, 2020). Arguments in favor of the burnout–depression distinction have often relied on a comparison between burnout being treated *dimensionally* and depression being treated *categorically*. The view that burnout may be a phase in the development of a depressive disorder (e.g., Maslach et al., 2016), for instance, implies a reduction of depression to its clinical stage. Such a view becomes difficult to articulate when depression is approached dimensionally, with its continuum considered in its entirety.

From an empirical standpoint, burnout has been found to overlap with depression in terms of (a) basic etiology and symptoms (e.g., Ahola et al., 2014; Bianchi et al., 2020; Schonfeld et al., 2019a, 2019b; Wurm et al., 2016); (b) behaviorally assessed cognitive alterations in the processing of emotional stimuli (e.g., attention, interpretation, and memory biases; Bianchi & da Silva Nogueira, 2019; Bianchi & Laurent, 2015; Bianchi, Laurent, et al., 2018); (c) dispositional correlates and risk factors, such as neuroticism, borderline personality traits, histories of anxiety and depressive disorders, histories of stressful and traumatic life events, and a pessimistic attributional style (e.g., Bianchi, 2018; Bianchi, Rolland, & Salgado, 2018; Bianchi & Schonfeld, 2016; Mather et al., 2014; Prins et al., 2019; Rössler et al., 2015; Rotenstein et al., 2020; Swider & Zimmerman, 2010); (d) the extent to which individuals attribute symptoms to workplace stress (Bianchi & Brisson, 2019); (e) treatments used, such as antidepressant medication (e.g., Ahola et al., 2007; Leiter et al., 2013; Madsen et al., 2015); and (f) somatic outcomes, including cardiovascular disease and diabetes (e.g., Carney & Freedland, 2017; Hare et al., 2014; Melamed et al., 2006; Mezuk et al., 2008; Toker et al., 2012). Although early factor analytic studies of burnout–depression overlap concluded that burnout is distinct from depression (Bakker et al., 2000; Leiter & Durup, 1994), methodological problems (e.g., overlooking of divergent findings, treatment of ordinal data as interval, model fit issues, questionable exclusion of depressive symptom items) limit the applicability of those conclusions (see Schonfeld et al., 2019a, 2019b). Recent factor analytic research relying on more advanced statistical techniques has suggested that the discriminant validity of burnout as it relates to depression may be problematic; exhaustion, in particular, has been difficult to distinguish from depression (Bianchi et al., 2020; Schonfeld et al., 2019a, 2019b; Verkuilen et al., 2020). This being noted, the external validity of these factor analytic findings is currently limited.

In parallel, Koutsimani et al. (2019), on the basis of meta-analytic findings, concluded that the magnitude of the burnout–depression association, although substantial (e.g., correlation uncorrected for measurement error of .75 between depression and "total burnout scores," p. 9), was still compatible with the view that the two entities are distinct. Moreover, Maslach and Leiter (2016) contended that the presence of fatigue items in both burnout and depression scales likely "inflated" the correlations between the two entities. Empirical examinations of this contention, however, have suggested that the magnitude of the burnout–depression correlation barely changes when fatigue-related items are stripped out of depression scales (Bianchi et al., 2020; Schonfeld et al., 2019a, 2019b).

The issue of whether the nomological network of burnout differs from that of depression has been contentious as well. Although some differences have been documented (e.g., Bakker et al., 2000; Hakanen & Bakker, 2017), the extent to which the "triviality trap" (i.e., the problem of unnoticed content overlap in the measures of the independent and dependent variables; Kasl, 1978) accounts for these differences is unclear. Indeed, because burnout scales such as the Maslach Burnout Inventory (MBI) reference work and the impact of work on the individual (Maslach et al., 2016), they prepotently relate to self-report measures of occupational stressors.[1] The triviality trap has been a problem in burnout research (Guglielmi & Tatrow, 1998; Schaufeli & Enzmann, 1998).

Burnout as a Syndrome

Recently, the issue of burnout–depression overlap has been further addressed by examining the unity of burnout as a syndrome. By definition, a *syndrome* refers to a "grouping of signs and symptoms, based on their frequent co-occurrence" (APA, 2013, p. 830; see also Shirom, 2005). Following this definition, it has been reasoned that if burnout constitutes a syndrome that is distinct from depression, then burnout's components should cluster more closely with each other than with depressive symptoms (Bianchi et al., 2020; Verkuilen et al., 2020). Thus, for instance, if exhaustion—the core dimension of burnout—turned out to be more strongly associated with depressive symptoms than with detachment from work and professional inefficacy, the view that exhaustion forms a syndrome with detachment from work and professional inefficacy rather than with depressive symptoms could be regarded as problematic. This line of reasoning is particularly relevant in the case of burnout given that the concepts of exhaustion, detachment from work, and professional inefficacy have been specifically tailored for the purpose of defining the burnout phenomenon (Maslach et al., 2001). Pioneers of burnout research themselves stressed the importance of burnout's syndromal unity for burnout's discriminant validity as it relates to depression. Maslach et al. (2016) indicated that burnout's components were expected to be more closely tied to each other than to depression (p. 21). Maslach and Leiter (2008) relied on observations of the frequent co-occurrence of exhaustion and cynicism to advance the view that the two symptoms were key manifestations of the burnout syndrome (p. 501). On a related note, Maslach et al. (2001) made clear that exhaustion is a "central" and "necessary," but not a "sufficient," criterion for burnout, thereby warning against a potential neglect of the syndromal nature of the phenomenon (p. 403).

Previous investigations into the syndromal coherence of burnout have questioned the view that the burnout syndrome may exclude—or not primarily include—classical depressive symptoms (Verkuilen et al., 2020); burnout's main dimension—exhaustion—was found to relate more strongly to depression than to burnout's other components (Bianchi et al., 2020; Schonfeld et al., 2019b). However, only a few studies have examined burnout–depression overlap through the prism of burnout's syndromal coherence to date. The generalizability of the results obtained in those studies remains unclear in view of the limited number of countries, languages, occupations, and measures considered. It is noteworthy that in their meta-analysis, Koutsimani et al. (2019) did *not* compare the correlations among burnout's components with the correlations of burnout's components with depression, thereby leaving the issue of burnout's syndromal unity uninvestigated.

The Present Study

In this study, we addressed the issue of burnout–depression overlap using 14 different samples ($N = 12{,}417$) involving a variety of countries, languages, occupational groups, and measures of burnout and depression. In so doing, our aim was to overcome the limitations of past research in terms of external validity and reach generalizable conclusions. We developed the rationale of our study around the concept of syndrome and examined whether burnout forms a symptom complex that can be separated from depression. By relying on the concept of syndrome, we focused on the structure of burnout in relation to depression. In view of recent research, we expected burnout to show no distinctive unity as a syndrome. Specifically, we hypothesized that exhaustion—burnout's core—would (a) correlate more strongly with depression than with the other putative components of burnout and (b) exhibit problematic discriminant validity as it relates to depression. We adopted a two-lens approach. First, we relied on a meta-analytic approach to get a synoptic view of the correlations among burnout and depression scales and subscales throughout our 14 samples. Second, we relied on an exploratory structural equation modeling (ESEM) bifactor analytic approach to investigate the overlap of exhaustion with depression at an item level in each of our 14 samples. ESEM represents "an overarching integration of the best aspects of [confirmatory factor analysis/structural equation modeling] and traditional [exploratory factor analysis]" (Marsh et al., 2014, p. 85), and bifactor analysis is particularly well suited for addressing dimensionality issues (Rodriguez et al., 2016a, 2016b). Clarifying the status of burnout is key to our ability to assess, prevent, and treat the condition for the benefit of both individuals and organizations. Such clarification is pressing given that many occupational health specialists rely on the burnout construct to measure and make sense of work-related suffering.

Method

Study samples

The study included 14 samples pooled by our consortium of investigators ($N = 12{,}417$; *n*s range = 139–3,255). The samples came from six different countries, France ($n = 4{,}116$), Finland ($n = 3{,}255$), Switzerland ($n = 2{,}803$), Sweden ($n = 1{,}258$), Spain ($n = 611$), and New Zealand ($n = 374$), and involved seven different languages—French, Finnish, German, Italian, Swedish, Spanish, and English. A variety of occupational groups were represented, including health professionals and educational staff members. Health professionals and educational staff members have been among the earliest and most prominent targets of burnout research (Maslach et al., 2001). Our samples are described in Table 1. Overall, about 67% of the participants were women. The mean age in the overall sample was 42 years ($SD = 11$; range = 16–82 years). Data from 10 of our 14 samples were used in different analytic contexts in previously published studies (Table 1); data from the four remaining samples were not used in published studies to date. Each study was conducted in accordance with the ethical standards of the main investigators' home institution.

Measures of interest

Burnout symptoms were assessed with various versions of the MBI (Maslach et al., 2016) and the Shirom-Melamed Burnout Measure (SMBM; Shirom & Melamed, 2006); see Table 1. More specifically, we relied on:

Table 1. Characteristics of the 14 Study Samples

Sample	*N*	Country	Language	Domain of activity	Female (%)	Mean age (*SD*)	Age range	Burnout scale	Depression scale	Studies previously using (partly or entirely) the sample
1	3,255	Finland	Finnish	Dentists	72	46 (9)	23–82	MBI-22	BDI-SF	Ahola & Hakanen (2007); Ahola et al. (2014); Hakanen et al. (2005, 2011, 2018); Hakanen & Peeters (2015); Hakanen, Perhoniemi, & Toppinen-Tanner (2008); Hakanen & Schaufeli (2012); Hakanen, Schaufeli, & Ahola (2008); Rodríguez-Sánchez et al. (2013); Seppälä et al. (2015)
2	2,319	France	French	Schoolteachers	73	41 (9)	22–67	MBI-14	PHQ-9	
3	1,658	France	French	Schoolteachers	67	41 (10)	21–64	MBI-22	BDI-II	Bianchi et al. (2013)
4	1,258	Sweden	Swedish	Mixed occupations	53	43 (11)	20–60	MBI-GS-16	HADS-D	Boersma & Lindblom (2009); Jansson-Frojmark & Lindblom (2010); Lindblom et al. (2006)
5	663	Switzerland	German	Mixed occupations	51	32 (11)	16–62	MBI-GS-10	CES-D	Keller et al. (2020); Kuster et al. (2012, 2013); Meier & Cho (2019); Meier & Spector (2013); Orth et al. (2016, 2020)
6	611	Spain	Spanish	Schoolteachers	70	46 (9)	24–67	MBI-22	PHQ-9	Bianchi et al. (2021)
7	510	Switzerland	French	University students	77	21 (3)	17–52	SMBM-11	PHQ-9	Bianchi & Mirkovic (2020)
8	503	Switzerland	French	Schoolteachers	73	45 (10)	20–65	MBI-22	PHQ-9	Bianchi & Janin (2019)
9	468	Switzerland	French	Mixed health professionals	67	46 (12)	21–80	SMBM-14	PHQ-9	Bianchi & Brisson (2019)
10	374	New Zealand	English	Educational staff	80	48 (12)	23–71	SMBM-14	PHQ-9	
11	265	Switzerland	French	Mixed health professionals	53	39 (11)	18–67	MBI-22	PHQ-9	
12	229	Switzerland	German	General practitioners	24	54 (8)	34–71	MBI-22	CES-D	Meier et al. (2014)
13	165	Switzerland	Italian	University students	64	24 (4)	18–44	SMBM-11	PHQ-9	Bianchi & Mirkovic (2020)
14	139	France	French	Mixed health professionals	90	44 (11)	22–67	MBI-22	PHQ-9	

Note: Percentages of female participants, age-related means, and standard deviations are rounded to the nearest unit. BDI-II = Beck Depression Inventory–II (Beck et al., 1996, 1998); BDI-SF = Beck Depression Inventory–Short Form (Beck & Beck, 1972; Kaltiala-Heino et al., 1999); CES-D = Center for Epidemiologic Studies Depression scale (Hautzinger & Bailer, 1993; Radloff, 1977); HADS-D = depression subscale of the Hospital Anxiety and Depression Scale (Lisspers et al., 1997; Zigmond & Snaith, 1983); MBI = Maslach Burnout Inventory (Maslach et al., 2016); MBI-GS = Maslach Burnout Inventory–General Survey (Maslach et al., 2016); SMBM = Shirom-Melamed Burnout Measure (Shirom & Melamed, 2006).

- the full, 22-item version of the MBI (MBI-22), which includes three subscales, Emotional Exhaustion (nine items), Depersonalization[2] (five items), and Personal Accomplishment (eight items);
- a shortened, 14-item version of the MBI (MBI-14), which included only the Emotional Exhaustion and Depersonalization subscales of the MBI-22;
- the full, 16-item version of the MBI-General Survey (MBI-GS-16), which includes three subscales, Exhaustion (five items), Cynicism (five items), and Professional Efficacy (five items);
- a shortened, 10-item version of the MBI-GS (MBI-GS-10), which included only the Exhaustion and Cynicism subscales of the MBI-GS-16;
- the 14-item version of the SMBM (SMBM-14), which includes three subscales, Physical Fatigue (six items), Cognitive Weariness (five items), and Emotional Exhaustion[3] (three items); and
- a shortened, 11-item version of the SMBM, which included only the Physical Fatigue and Cognitive Weariness subscales of the SMBM-14.

The MBI has been the most widely used measure of burnout to date (Bianchi et al., 2020). The SMBM is an instrument of reference among the alternative measures of burnout available (Toker et al., 2012).

Depressive symptoms were measured with the Beck Depression Inventory–II (BDI-II; 21 items; Beck et al., 1996, 1998), the BDI-Short Form (13 items; Beck & Beck, 1972; Kaltiala-Heino et al., 1999), the Center for Epidemiologic Studies Depression scale (20 items; Hautzinger & Bailer, 1993; Radloff, 1977), the Hospital Anxiety and Depression Scale (seven items; Lisspers et al., 1997; Zigmond & Snaith, 1983), and the Patient Health Questionnaire (PHQ-9; nine items; Arthurs et al., 2012; Kroenke et al., 2001; see Table 1). All these measures have been extensively used in depression research (Gotlib & Hammen, 2014).

Data analyses

Meta-analytic approach. Our first goal was meta-analytic, which admits a certain degree of heterogeneity in the analysis. However, given that many different scales were used, we needed to make decisions about what scales were deemed comparable.

- The Emotional Exhaustion subscale of the MBI and Exhaustion subscale of the MBI-GS were deemed comparable. We used the label *Exhaustion* to refer to them. These subscales of the MBI and MBI-GS were meant to assess essentially the same phenomenon and share key items, such as "I feel emotionally drained from my work" (Maslach et al., 2016).
- The Depersonalization subscale of the MBI and the Cynicism subscale of the MBI-GS were deemed comparable. We used the label *Detachment* to refer to them. The depersonalization and cynicism constructs have both been developed with the intention to capture mental distancing and disengagement from work (Maslach et al., 2016).
- Because the Physical Fatigue and Cognitive Weariness subscales of the SMBM correlated strongly with each other and had nearly identical correlations with depression scales, we averaged correlations and αs for them and treated them as comparable with the Emotional Exhaustion and Exhaustion subscales of the MBI and MBI-GS, respectively. They were thus covered by the umbrella label *Exhaustion*. There is evidence that the Physical Fatigue and Cognitive Weariness subscales of the SMBM correlate strongly with the Exhaustion subscale of the MBI-GS (Qiao & Schaufeli, 2011; Shirom & Melamed, 2006), and, as previously mentioned, the content of the Exhaustion subscale of the MBI-GS is highly similar to the content of the Emotional Exhaustion subscale of the MBI.
- Despite the name, the Emotional Exhaustion subscale of the SMBM presents item content (e.g., "I feel I am not capable of being sympathetic to coworkers and recipients") that is consistent with the Depersonalization and Cynicism subscales of the MBI and MBI-GS, respectively, and was coded as such. The label *Detachment* thus covered it. The Emotional Exhaustion subscale of the SMBM, the Depersonalization subscale of the MBI, and the Cynicism subscale of the MBI-GS all intend to assess symptoms of mental distancing and disengagement from work (Maslach et al., 2001; Shirom & Melamed, 2006).
- The Personal Accomplishment and Professional Efficacy subscales of the MBI and MBI-GS, respectively, were deemed comparable. The label *Efficacy* was used to refer to them. These subscales of the MBI and MBI-GS share identical (e.g., "I have accomplished many worthwhile things in this job") or similar (e.g., "I feel exhilarated after working closely with my recipients" [MBI] and "I feel exhilarated when I accomplish something at work" [MBI-GS]) items. Moreover, from a theoretical standpoint, the two constructs are closely related (Maslach et al., 2016).
- All Depression scales were deemed comparable. We used the label *Depression* to refer to them.

For each scale and subscale, we computed domain scores (i.e., row means). Domain scores manage missing data, which are quite modest for these samples (< 5% overall, and most samples had only minimal missing data; see Table S1 in the Supplemental Material available online), without the complexity of multiple imputation, which would be needed if the rate were higher.

In addition, we used Cronbach's α reliability to disattenuate the correlations (e.g., McDonald, 1999). This correction is helpful to reduce heterogeneity induced by the fact that different scales have different lengths. Because Pearson correlations have sampling distributions that are non-Gaussian, we used Fisher's z transformation, $z = \text{atanh}(r)$, which has asymptotic variance $1 / (N - 3)$ after disattenuating. All averages and the ultimate meta-analytic pooling make use of Fisher's z rather than raw correlations. To convert back to the correlation metric, one inverts the transformation for any point estimates or confidence intervals using the fact that $r = \tanh(z)$. We used the same approach when it was necessary to pool Cronbach's α coefficients, which is one of the methods discussed in Sánchez-Meca et al. (2013). We used Stata (Version 16.0; StataCorp LLC, College Station, TX) to compute this information. Our code and the processed effect sizes are available on request from the corresponding author.

In pooling the correlations from the studies, we noted that each study potentially contributes up to six correlation coefficients—some studies have fewer because not all scales or subscales were administered in all samples. The dependence of effect sizes needs to be taken into account above and beyond that represented by the usual random effects meta-analysis applied to one measure at a time. Unfortunately, the sampling distribution of the effect sizes is awkward because it contains terms with unobserved population correlations. Indeed, in a discussion of pooling methods necessary before performing a meta-analytic structural equation model, Becker (2009) suggested that the covariance matrix of the correlation coefficients computed for each study is usually better replaced by an overall average.

In our study, we relied on a recent approach to handling dependent effect sizes that requires minimal assumptions and better adapts to differing numbers of effect sizes across studies. Hedges et al. (2010) showed that a pooling method using an extended DerSimonian-Laird method-of-moments approach with robust correction is effective even when the exact correlation structure among effect sizes is unknown. Using this approach sidesteps the awkward sampling distribution of the dependent effect sizes. It is very similar to the generalized least squares approach of Becker (2009) and also to the use of a three-level model as an approximation to multivariate meta-analysis using fixed effects to identify different effect sizes (Cheung, 2015), but it retains the advantages of the DerSimonian-Laird approach compared with parametric estimators.

Hedges et al.'s (2010) methods are implemented in the package *robumeta* (Version 2.0; Fisher et al., 2017) for the R software environment (Version 4.0.0; R Core Team, 2020) described in Fisher et al. (2017) and Tipton (2015). We used Tipton's small sample Satterthwaite correction and the hierarchical method, which assumes a random intercept structure for the study effect, but also considered the correlation method as a means to check the stability of the results. In addition, we considered the use of a subset analysis by scale type (e.g., MBI vs. SMBM) to assess how important scale type is for inducing heterogeneity. Our R code is available on request from the corresponding author.

Partial correlation analyses indicated that the raw associations between burnout's components and depression were essentially unchanged when sex was controlled for (mean difference in correlation coefficients = .01; see Table S2 in the Supplemental Material). In addition, α reliabilities were comparable across sexes (mean difference = .04; see Table S2 in the Supplemental Material).

ESEM bifactor analytic approach. To address the key question of exhaustion-depression overlap at a more granular level, we examined whether the items populating our measures of depression, emotional exhaustion (MBI), exhaustion (MBI-GS), and physical fatigue (SMBM) could be regarded as essentially unidimensional (Rodriguez et al., 2016a, 2016b). To this end, we conducted 14 ESEM bifactor analyses—one in each sample—and computed explained common variance (ECV) indices (Marsh et al., 2014; Rodriguez et al., 2016a, 2016b). ECV indices allow the investigator to estimate the proportion of the common variance extracted that is explained by the general factor in a bifactor model (Rodriguez et al., 2016a, 2016b). In addition, we computed omega hierarchical (ω_H), an index of total score reliability (Rodriguez et al., 2016a). We treated the items as ordinal. We relied on the weighted least squares—mean and variance adjusted—(WLSMV) estimator and used a bi-geomin rotation (for a general graphical representation of the ESEM bifactor model under consideration, see Fig. 1; see also Morin et al., 2016). By using a bi-geomin rotation, we adopted an approach that was primarily exploratory. We did so to be able to observe on which factors our depression and exhaustion items would "spontaneously" load (McDonald, 1999). Although our approach was primarily exploratory, we needed a theoretical basis for defining the number of specific factors. Our theoretical basis was the number of

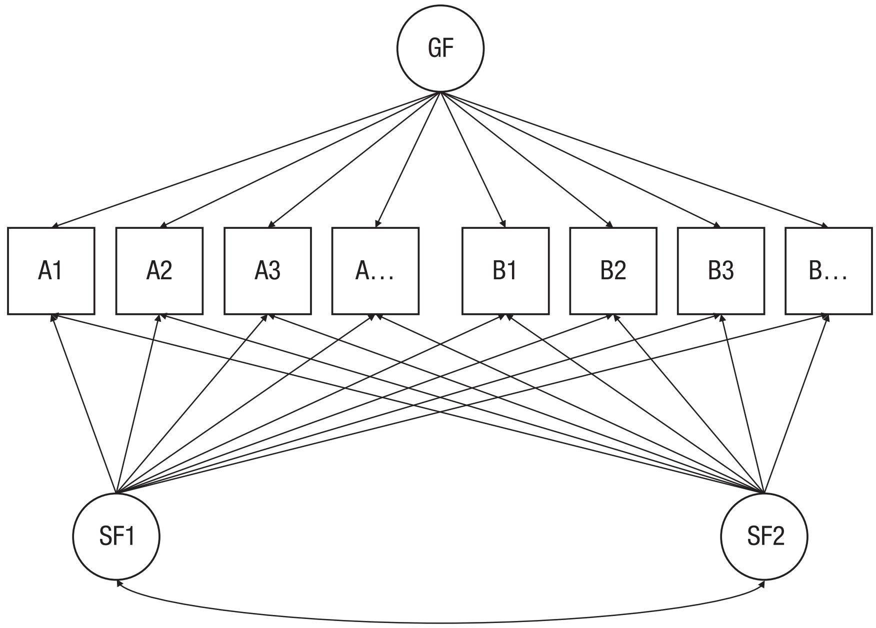

Fig. 1. General graphical representation of the exploratory structural equation modeling bifactor model under consideration. GF = general factor; SF1 = first specific factor; SF2 = second specific factor; A1–A . . . and B1–B . . . = items. Ovals represent latent factors, and squares represent observed variables.

scales or subscales involved. Two specific factors (one for exhaustion, one for depression) were thus extracted in addition to the general factor except for Sample 4, in which only one specific factor was extracted in addition to the general factor because a structure involving three factors was not identifiable. We ran these analyses with Mplus (Version 8; Muthén & Muthén, 2017).

To help ensure our calculations were sound, at least two authors independently checked all computations (meta-analytic and bifactor analytic).

Results

Meta-analytic results

Sample-specific correlations among depression and burnout's components, along with the Cronbach's α reliability coefficients, are presented in Table S3 in the Supplemental Material. All appear to be in line with expectations. Visual examination of these correlations shows they have a consistent pattern, with no obvious outliers, suggesting that meta-analytic pooling is likely to be effective.

We ran the meta-analysis and performed the sensitivity analysis recommended in the *robumeta* documentation. The model requires we run a metaregression with dummy variables entered as fixed effects for each of the six possible correlations, as per Cheung (2015). In this model, $\omega^2 = 0.014$ and $\tau^2 = 0.0045$, indexing the size of residual within- and between-studies variances, respectively. These indices are quite small, suggesting that the meta-analytic model fits well. However, from examining the correlation method and sensitivity analysis from *robumeta*, these values may be sensitive to estimation method given that the between-studies variance is somewhat larger. That said, the standard errors for predicting the relevant correlations, which was our primary interest, hardly changed.

Because the meta-analyses were conducted on the Fisher's *z* metric, which is not directly interpretable, we back-transformed them (Table 2). As a further quality check, we ascertained whether the resulting pooled correlation matrix was positive by computing its eigenvalues; it is. If one reverses the sign on Efficacy, the correlations forms a positive manifold. The correlation between Depression and Exhaustion was .80. All other correlations were lower. The correlation between Exhaustion and Detachment was the second highest in magnitude (.64). Depression correlated on average .60 with burnout's components, whereas burnout's components correlated on average .51 with each other. We incorporated the proportion of females in each sample in a metaregression model to check for potential moderation insofar as an interaction may account for heterogeneity among the correlations. We centered and standardized the proportion of females variable so that it would minimally disturb the other model coefficients. The mean was 65 with a standard deviation of 17. Using this variable in the metaregression showed it had a very small and statistically nonsignificant effect size.

Table 2. Meta-Analytically Pooled Disattenuated Correlations With 95% Confidence Intervals

	Pearson *r* metric		
		Confidence interval	
Terms	Estimate	LL	UL
Depression-exhaustion	.80	.75	.84
Depression-detachment	.53	.48	.58
Depression-efficacy	−.47	−.52	−.41
Exhaustion-detachment	.64	.61	.67
Exhaustion-efficacy	−.43	−.51	−.33
Detachment-efficacy	−.45	−.55	−.34

Note: LL = lower limit; UL = upper limit.

For verification purposes, we ran a second meta-analysis limited to the MBI samples—eight samples involved (Samples 1, 2, 3, 6, 8, 11, 12, 14). We examined the correlations among the Depression scales and the MBI's Emotional Exhaustion, Depersonalization, and Personal Accomplishment subscales. Results of that second meta-analysis were highly similar to those of the meta-analysis of the complete set of samples (see Table S4 in the Supplemental Material). We also considered further metaregressions to determine whether heterogeneity was induced by the use of different scales, but the results were inconclusive because of collinearity among predictors. As per *robumeta* documentation's recommendation, we do not report them.

ESEM bifactor analytic results

As shown in Table 3, the ECV indices ranged from .67 to .87 (*Mdn* = .82). In a vast majority of the samples, the ECV indices were close to or above .80—a threshold suggestive of essential unidimensionality (Rodriguez et al., 2016a, 2016b). Table 3 also shows that the mean loadings of the exhaustion and depression items on the general factor were similarly high, again suggesting that the two sets of items were likely to reflect the same underlying construct. Consistent with these findings, ω_H values linked to the general factor were all close to or above .80 (Table 3), indicating that an essential part of the systematic variance in unit-weighted total scores can be attributed to the individual differences on the general factor (Rodriguez et al., 2016a). Factor-loading matrices for each of the 14 samples as well as sample Mplus syntax are available in Supplemental Data S1 in the Supplemental Material.

Supplementary analyses

To clarify the extent to which burnout–depression overlap was dependent on the presence of fatigue-related items in depression scales, we computed disattenuated correlations among the burnout and depression scales and subscales with fatigue-related items (a) included in the depression scales and (b) excluded from the depression scales. The two sets of correlations were comparable in terms of their magnitude (see Table S5 in the Supplemental Material).

For checking purposes, we conducted three additional ESEM bifactor analyses. The first analysis involved the largest full-MBI sample (Sample 1; Finland); the second analysis, the largest full-MBI-GS sample (Sample 4; Sweden); and the third analysis, the largest full-SMBM sample (Sample 9; Switzerland). In the Finnish sample, we analyzed the 22 items of the MBI (assessing Emotional Exhaustion, Depersonalization, and Personal Accomplishment). In the Swedish sample, we analyzed the 16 items of the MBI-GS (assessing Exhaustion, Cynicism, and Professional Efficacy). In the Swiss sample, we analyzed the 14 items of the SMBM (assessing Physical Fatigue, Cognitive Weariness, and Emotional Exhaustion). In all analyses, we considered three specific factors (one for each dimension of each scale) in addition to the general factor. As was the case with our previous ESEM bifactor analyses, we relied on a bi-geomin rotation, treated the items as ordinal, and used the WLSMV estimator. Results showed that ECV indices were .45, .50, and .75 in the Finnish, Swedish, and Swiss samples, respectively. Expectedly, such ECV values fell far below the ECV values obtained when analyzing the Depression and Exhaustion items in the same samples (Table 3), illustrating again the syndromal incoherence of burnout. Further information (e.g., factor-loading matrices, fit indices, Mplus syntax) is available in Table S6 and Supplemental Data S2 in the Supplemental Material.

Discussion

The aim of this study was to examine whether burnout forms a syndrome distinct from depression. To address our research question, we used 14 different samples (N = 12,417) involving a variety of countries, languages, occupational groups, and measures of burnout and depression. As hypothesized, burnout lacked syndromal coherence and problematically overlapped with depression.

Main findings

First, we found that Exhaustion—burnout's core—was more closely associated with depressive symptoms than with the other dimensions of burnout—Detachment and Efficacy. This result suggests that if Exhaustion forms a syndrome with anything, it forms a syndrome with depressive symptoms. However, in view of the magnitude of the Exhaustion-Depression association, r = .80, Exhaustion itself could be considered to reflect a depressive condition. Indeed, correlations of the magnitudes

Table 3. Exploratory Structural Equation Modeling Bifactor Analysis of Exhaustion and Depression Items

	Sample													
Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
N	2,621	2,319	1,658	1,135	596	611	510	503	468	374	265	210	165	139
ECV	.79	.82	.85	.87	.67	.82	.80	.87	.87	.85	.77	.74	.82	.83
ω_H	.94	.94	.96	.76	.88	.96	.94	.96	.93	.95	.94	.90	.93	.96
ML-GF	.67	.69	.66	.73	.56	.71	.71	.76	.75	.74	.68	.58	.71	.74
ML-GF-D	.66	.70	.64	.73	.57	.73	.62	.72	.72	.69	.71	.58	.64	.74
ML-GF-E	.67	.67	.71	.72	.53	.70	.84	.79	.79	.82	.66	.57	.81	.75
RMSEA	0.05	0.08	0.05	0.06	0.04	0.08	0.04	0.06	0.04	0.05	0.05	0.06	0.04	0.07
CFI	.98	.97	.97	.99	.98	.97	1.00	.99	1.00	.99	.99	.95	1.00	.99
TLI	.98	.95	.96	.99	.97	.96	1.00	.98	.99	.99	.99	.93	.99	.98
χ^2 test of model fit	1,186.13	1,740.74	1,829.09	212.21	495.74	452.32	113.80	265.18	99.73	128.84	155.72	531.13	77.85	165.17
Degrees of freedom	168.00	102.00	348.00	43.00	228.00	102.00	63.00	102.00	63.00	63.00	102.00	322.00	63.00	102.00

Note: Only participants with zero missing response were examined. In samples in which the Maslach Burnout Inventory (MBI) and MBI-General Survey were employed, the exhaustion and emotional exhaustion items were included in the analyses. In samples in which the Shirom-Melamed Burnout Measure (SMBM) was employed, the physical fatigue items were included in the analyses because the physical fatigue subscale assesses a general form of exhaustion at work (e.g., "I feel burned out") as much as it assesses actual physical fatigue; the physical fatigue subscale of the SMBM is thus highly comparable with the emotional exhaustion and exhaustion subscales of the MBI and MBI-General Survey, respectively. When including both the physical fatigue and cognitive weariness items of the SMBM in the analyses, results led to substantially the same conclusions (.75 ≤ ECVs ≤ .81; .70 ≤ ML-GFs ≤ .75; .63 ≤ ML-GF-Ds ≤ .72; .73 ≤ ML-GF-Es ≤ .83; 0.03 ≤ RMSEAs ≤ 0.05; .99 ≤ CFIs ≤ 1.00; .99 ≤ TLIs ≤ 1.00). ECV = explained common variance index; ω_H = omega hierarchical; ML-GF = mean loading on the general factor; ML-GF-D = mean loading of depression items on the general factor; ML-GF-E = mean loading of exhaustion items on the general factor; RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index.

found here are commonplace among measures deemed to assess the same entity (e.g., Halbesleben & Demerouti, 2005; Verkuilen et al., 2020; Wojciechowski et al., 2000). In any case, burnout cannot be regarded as a syndrome distinct from depression if its core dimension, exhaustion, correlates more strongly with depression than with its other components (see also Bianchi et al., 2020).

Second, we found that Depression correlated substantially with Detachment (r = .53), a symptom consisting of affective withdrawal from work, coworkers, recipients, and so on. The Exhaustion–Detachment correlation, however, was larger (r = .64). We note that because the Emotional Exhaustion item "Working with people directly puts too much stress on me" cross-loads on the Depersonalization dimension of the MBI (see Maslach et al., 2016, pp. 15–16; see also Bakker et al., 2000, p. 255), the difference between the two correlations is likely to result from partial content overlap in the MBI's Emotional Exhaustion and Depersonalization subscales. The correlation between Detachment and Depression is consistent with the well-established association of depression with loss of emotional involvement, reduced empathy, and interpersonal distancing (APA, 2013; Beck & Alford, 2009; Kupferberg et al., 2016).

Third, we found that Efficacy, a symptom pertaining to how individuals evaluate their accomplishments at work, was associated to a similar extent with Exhaustion (r = −.43) and Depression (r = −.47). The link observed between Depression and Efficacy dovetails with the finding that depression darkens the appraisal of one's own competence and performance (LeMoult & Gotlib, 2019). Feelings of failure, worthlessness, and inadequacy are, in fact, common characteristics of individuals who suffer from depression (APA, 2013; Beck & Alford, 2009).

Fourth, ESEM bifactor analysis indicated that the items populating the measures of exhaustion and depression essentially form a single dimension. Both general factor loadings and ECV indices were supportive of essential unidimensionality (Rodriguez et al., 2016a). These results are consistent with our meta-analytic findings as well as with the conclusions of the few ESEM bifactor analytic studies of the burnout–depression distinction conducted to date (Bianchi, 2020; Schonfeld et al., 2019a).

In keeping with previous findings (Bianchi et al., 2020; Schonfeld et al., 2019a, 2019b), we found that the removal of fatigue-related items from the depression scales used had only a minor, when any, impact on the associations between burnout and depressive symptoms. Our findings thus confirm that burnout–depression overlap is not reducible to the presence of fatigue-related items in both burnout and depression scales.

Overall, our results suggest that burnout does not present the unity expected of a distinct syndrome. As a reminder, a syndrome refers to a "grouping of signs and symptoms, based on their frequent co-occurrence" (APA, 2013, p. 830; see also Shirom, 2005). Given the meta-analytic finding that burnout's core—Exhaustion—more frequently co-occurs with depressive symptoms than with either Detachment or Efficacy, the claim that Detachment and Efficacy are part of the burnout syndrome, whereas depressive symptoms are not, appears to be untenable. This claim is all the more fragile in a context in which, as previously noted, the theoretical foundations of the burnout–depression distinction are shaky. Furthermore, our ESEM bifactor analytic findings indicated that exhaustion and depression items are reflective of the same underlying construct; in other words, the core of the burnout syndrome is depressive in nature. In an extension of this line of reasoning, the correlation between Depression and Detachment can be considered to reflect the well-established association of depression with loss of emotional involvement, reduced empathy, and interpersonal distancing (APA, 2013; Beck & Alford, 2009; Kupferberg et al., 2016), whereas the correlation between Depression and Efficacy is in keeping with the fact that depressed individuals commonly experience feelings of failure, worthlessness, and inadequacy (APA, 2013; Beck & Alford, 2009). Our results are consistent with a growing body of findings calling the burnout–depression distinction into question (e.g., Ahola et al., 2014; Bianchi et al., 2020; Rotenstein et al., 2020; Verkuilen et al., 2020; Wurm et al., 2016). Together with the finding that an overwhelming majority of individuals at the high end of the burnout continuum are clinically depressed (Bianchi et al., 2014; Schonfeld & Bianchi, 2016), our results suggest that burnout is ineligible for status as a "new" medical condition in the *Diagnostic and Statistical Manual of Mental Disorders* or *International Classification of Diseases*.

Practical implications and avenues for future research

Given the present study, and in light of the recent evolution of research on burnout–depression overlap, the possibility of shifting the focus from burnout to depression can be envisioned. Such a shift may, in fact, have many advantages. Indeed, burnout not only lacks construct validity but also is undermined by several important problems (Bianchi et al., 2019; Schwenk & Gold, 2018).

First, clinically relevant levels of burnout symptoms remain ill characterized and cases of burnout unidentifiable and nonquantifiable (Bianchi et al., 2019; Rotenstein et al., 2018; Tyssen, 2018). A consequence of this state of affairs is that no reliable prevalence estimates can be produced when relying on the burnout construct (Bianchi et al., 2019; Schwenk & Gold, 2018). The absence of reliable prevalence estimates represents a major lack of information for decision-makers and regulators and hampers a rational allocation of often limited interventional resources. Current practices in research on burnout's "prevalence" have consisted in using clinically and theoretically arbitrary categorization criteria (Bianchi, 2015; Schaufeli & Enzmann, 1998; Schonfeld et al., 2019b). Such practices have been severely criticized, and not only on methodological grounds: They expose the produced estimates to easy rejection by any economic actor willing to oppose legal regulations in favor of a better protection of workers' health (Bianchi et al., 2019; Rotenstein et al., 2018). By focusing on depression instead of burnout, occupational health specialists could monitor workers' health using clear and shared diagnostic criteria. Subsequently, one would be able to identify individuals, organizations, and occupational domains in which interventions are most needed and make authoritative health policy decisions.

Second, assessments of burnout overlook critical signs of suffering such as suicidal ideation. Assessing symptoms such as suicidal ideation is key to identifying workers in urgent need of help (Center for Suicide Prevention, 2020). Assessments of depression typically address the issue of suicidality, consistent with the fact that suicidal ideation constitutes a diagnostic criterion for major depression (APA, 2013). Note that the state of the art indicates that there are no iatrogenic risks of assessing suicidality, thereby supporting the appropriateness of universal screening for suicidality (DeCou & Schumann, 2018).

Third, the line currently drawn between burnout and depression tends to suggest that burnout is not as serious a problem as depression (e.g., Ahola et al., 2005). As a result, many workers suffering from depression could minimize their condition when labeling it as burnout and soldier on instead of seeking help (Bianchi, 2020). Focusing on depression in the workplace could thus be fruitful in terms of incentives to seek care. In this process, it should be borne in mind that the etiology of depression is best understood through the dynamic interplay between internal (i.e., individual) dispositions and external (e.g., organizational, social, environmental) conditions (Bianchi et al., 2017; Gilbert, 2006; Ursin & Eriksen, 2004; Wichers, 2014; Willner et al., 2013). Substituting workplace depression for burnout should *not* lead investigators to "overindividualize" the question of job stress by disconnecting workers from the occupational context in which they are inserted (Schonfeld, 2018).

Our recommendation to shift the focus of occupational health research and practice from burnout to depression might be received with skepticism based on the view that the assessment tools for depression are generally "cause-neutral" and, therefore, do not capture burnout researchers' initial intent, which has been to examine forms of suffering that people specifically attribute to their work (Kristensen et al., 2005; Leiter & Durup, 1994). This concern is in fact addressed by the Occupational Depression Inventory (ODI), a newly developed measure (Bianchi & Schonfeld, 2020). The ODI is a dual-purpose instrument that (a) quantifies the severity of work-attributed depressive symptoms (dimensional approach) and (b) establishes provisional diagnoses of job-ascribed depression (categorical approach). The ODI captures burnout researchers' intention to examine forms of suffering that people specifically attribute to their work while overcoming the aforementioned problems posed by the burnout construct and the measures linked to it.

Occupational health specialists have persistently come up against the problem of how to characterize and diagnose burnout, as reflected in the nonrecognition of burnout at either a medical or a legal level. By repatriating the topic of job-ascribed suffering in the long-established framework of depression, one has an opportunity to deal more effectively with these forms of suffering. Ultimately, such a change may provide decision-makers and regulators with more reliable and valid information on which to base future occupational health policies.

Strengths and limitations

Our study included no fewer than 14 samples and 12,417 participants. Participants were recruited in six different countries, involving seven different languages. In addition, various occupational domains were represented. Such characteristics likely constitute assets in terms of external validity and within-studies replicability (Simons et al., 2017). Moreover, by using ESEM bifactor analysis, we relied on advanced statistical techniques that have been seldom used in burnout research. ESEM bifactor analysis allowed us to investigate the overlap between our entities of interest at a more granular level of analysis (item-level analysis) compared with our meta-analyses (subscale- and scale-level analysis). Still, our study also has limitations that should not be overlooked. First, the representativeness of most of our samples as it relates to their populations of reference is unclear (e.g., in terms of age or sex). The use of 14 different samples comprising individuals with low, medium, and high scores on burnout and depression scales and subscales mitigates this problem but does not entirely resolve it. Second, race/ethnicity questions were not investigated. We note, however, that we do not have clear reasons to expect that the overlap of burnout with depression is conditioned by race/ethnicity. Third, although our study involved various versions of two emblematic measures of burnout—the MBI and the SMBM—other measures of burnout, such as the Copenhagen Burnout Inventory (Kristensen et al., 2005), are available and would have been worth examining. Fourth, it might have been useful to complementarily use measures of burnout and depression in a hetero-administered fashion, with trained interviewers allowed to flexibly probe responses, restate questions, challenge respondents, and ask for clarification (Gotlib & Hammen, 2014).

Because our study was conducted using cross-sectional self-report data, it might be argued that our findings are threatened by the action of common method variance (CMV; Podsakoff et al., 2003). The evidence, however, suggests that such an argument does not apply to the findings described here. Even if the action of CMV were operant in our study, we would not expect it to bear more heavily on the correlations between depression and burnout's components than on the correlations among burnout's components themselves. In fact, for at least two reasons, we would expect CMV to especially operate on the items in the burnout subscales. First, the subscales of each burnout inventory have a common format (although the personal accomplishment and professional efficacy subscales are positively worded), a format that generally differs from that of the depression scales, possibly inflating the correlations among burnout subscales and deflating the correlations between burnout subscales and depression scales. Second, the time frames used in the depression scales are generally 1 to 2 weeks, whereas the time frame for the MBI and the MBI-GS is generally a year, again possibly inflating correlations among burnout subscales and deflating correlations between burnout subscales and depression scales. From a general standpoint, the problem of the monomethod bias has been overstated (Spector, 2006). Incidentally, we note that our use of a cross-sectional design was consistent with the very objective of our study, which was to examine the *co-occurrence* of burnout and depressive symptoms.

Concluding thoughts

The view that burnout is something different from depression is deeply ingrained. The present study does not support such a view. The consistency of our results across countries, languages, occupations, measures, and methods suggests that the observation of a problematic overlap between burnout and depression is robust and generalizable. It may be time to change the mind-set regarding the phenomenon referred to as *burnout*, not only for the sake of theoretical integration and conceptual clarity but also to promote occupational health more effectively.

Transparency

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Author Contributions
R. Bianchi developed the study concept. Data collection was performed by all authors. R. Bianchi, J. Verkuilen, and I. S. Schonfeld performed the data analysis and initial result interpretation. R. Bianchi drafted the manuscript. All of the authors reviewed and edited several versions of the manuscript and provided critical revisions. All of the authors approved the final manuscript for submission.
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Notes

1. For instance, psychological job demands, a predictor of burnout, are often assessed with items, such as the "work hard" and "excessive work" items of the Job Content Questionnaire (Karasek et al., 1998), that explicitly overlap with burnout scale items such as the "I feel I'm working too hard on my job" item of the MBI (Maslach et al., 2016). Because the measures of burnout and psychological job demands share common content, it is not surprising that they correlate. In a similar vein, it is unclear whether MBI's items such as "Working with people directly puts too much stress on me" assess burnout or workplace stress. The tautology implied by the "triviality trap" eventually entails a risk of producing self-fulfilling prophecies (Bianchi et al., 2018b).
2. The meaning of *depersonalization* in burnout research differs from the meaning of depersonalization in psychiatry. In psychiatry, depersonalization refers to psychotic/dissociative experiences (APA, 2013). In burnout research, depersonalization refers to an unfeeling and impersonal response toward the people with whom one is working (e.g., recipients, coworkers; Maslach et al., 2016).

3. Contrary to what its label suggests, the Emotional Exhaustion subscale of the SMBM is closer in its content to the Depersonalization subscale of the MBI than to the Emotional Exhaustion subscale of the MBI (see Bianchi et al., 2020).

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