

THE DISCRIMINANT VALIDITY OF BURNOUT AND DEPRESSION: A CONFIRMATORY FACTOR ANALYTIC STUDY¹

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Health care workers (N = 307) completed measures of burnout and depression as part of a study of personal and occupational sources of distress. A confirmatory factor analysis provided support for differentiating burnout and depression. The analysis confirmed the three-factor structure of the Maslach Burnout Inventory and a multiple factor structure for depression measures. The analysis also provided support for the existence of second-order factors of burnout and depression that accounted for the correlations among the primary factors within each syndrome. The implications of study for the construct validity of burnout and depression are discussed.

KEY WORDS: Burnout, depression, stress, health care, negative affectivity.

A clear differentiation between burnout and occupational stress has been described (Cox, Kuk, and Leiter 1993). A similar fundamental distinction is that of burnout from clinical syndromes, particularly depression and anxiety. Theories present burnout as providing a distinct perspective on crises that human service providers experience. They imply that frameworks provided by established perspectives of clinical psychology for explaining personal distress are not suited to explaining these largely interpersonal and organizational constructs. Increasing the precision with which an occupationally based experience of distress is defined, analyzed, and measured enhances the potential for identifying salient differences between organizational and clinical syndromes. Differentiating a measure of burnout from those of similar syndromes is intrinsic to developing the construct and evaluating its viability.

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Definitional Issues In Burnout Research

Relevant dimensions. Burnout has become the focus of considerable research. In a comprehensive bibliography on burnout, Kleiber and Enzmann (1990) list nearly 2500 articles between 1974 and 1989. The literature has included diverse definitions of the syndrome. Kahill (1988) in her review of the research provided a long list of burnout symptoms, as did Freudenberger (1974) in his early article on the syndrome. The extensive lists of burnout symptoms reported early in the literature arose in part from weak theoretical foundations that failed to differentiate among precursors, consequences, and indicators of burnout or phenomena sharing common causes with burnout. While these imprecise definitions were sufficient for identifying burnout as an occupational issue, they limited conceptual development.

Schaufeli, Kleiber, and Girault (1993) noted a convergence of theoretical and measurement development that led to a more precise definition of burnout. In the first large-scale review of burnout research, Perlman and Hartman (1982) defined the state as comprising exhaustion, depersonalization of professional relationships, and decreased job productivity in a manner consistent with Cherniss (1980). At roughly the same time, Maslach and Jackson (1982) independently published the Maslach Burnout Inventory (MBI), comprising three subscales — emotional exhaustion, depersonalization, and diminished personal accomplishment. The widespread use of the MBI as the preferred instrument for measuring burnout has furthered this three-factor model of the syndrome.

Unitary burnout construct. While Maslach and Jackson (1982, 1986) cautioned against summing the three subscales to produce a total MBI score, they used the term, burnout, to describe a state underlying the three dimensions assessed by the subscales. In a quest for unitary measures of burnout, researchers have at times limited their investigations to the emotional exhaustion subscale (Shirom, 1989; Gaines & Jermier, 1983) or have summed MBI subscales contrary to advice (Meier, 1984). Golembiewski and Munzenrider (1988) have developed a phase model based on median splits of the three dimensions. They define eight phases by weighting a high score on emotional exhaustion as four, a high score on personal accomplishment (reversed) as two, and a high score on depersonalization as one. By summing these weightings, they define eight phases. Leiter (1989, 1993) has criticized the weak theoretical basis for the phase definition and its reduction of the three factor model to an eight-step ordinal sequence in which emotional exhaustion predominates. To establish greater theoretical specificity Leiter (1991) advises the use of structural equation modelling to articulate distinct relationships between the burnout's component and environmental conditions, coping styles, and organizational outcomes as part of a process model. This approach encompasses the full syndrome as defined by the MBI, without requiring a unidimensional construct of burnout, *per se*.

Burnout and Depression

A similar tension persists between depression as a multifaceted syndrome and depression as a unitary construct. The Beck Depression Inventory (BDI) reflects a range of cognitive, physical, and emotional experiences as articulated by Beck and

associates (Beck, Steer, & Garbin, 1988; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Indeed, Tanaka and Huba (1984) confirmed a three-factor model of the BDI, comprising negative attitudes/suicidal thoughts, performance difficulties, and physiological symptoms on data from two independent clinical samples. Using confirmatory factor analysis, they identified a second-order factor of depression underlying these three primary factors of depressive manifestations. They concluded that "the model shows that it is theoretically acceptable to discuss either a general construct of depression or multiple facets of depressive symptomatology..." (p. 624). The multifaceted burnout construct may benefit for a similar reconciliation.

Similarities between burnout and depression. On the surface, depression and burnout share key characteristics. The symptoms of depression comprise — as part of a wide range of dysphoric experiences — fatigue, social withdrawal, and feelings of failure (Beck, 1970). Burnout comprises emotional exhaustion, depersonalization, and diminished personal accomplishment. The emotional depletion of burnout is similar to the sadness and fatigue of depression and depersonalization has a feature of social withdrawal. Depression includes an element of poor self efficacy or learned helplessness (Abramsen, Seligman, & Teasdale, 1978), that shares features with the burnout concept of reduced personal accomplishment. It is not surprising in light of these similarities that depression and burnout are generally found to be correlated with one another (Firth, McIntee, McKeown, & Britton, 1986; Maslach & Jackson, 1986; Meier, 1984). In fact, their consistent correlations, particularly those of emotional exhaustion with depression measures, have prompted questions as to their distinctness.

Differentiation of burnout and depression. The distinction between burnout and depression derives in part from differences in their attributional patterns, and their context specificity. Burnout is fundamentally a social construct, the definition of which is intrinsically enmeshed with a person's social and organizational context. Whereas depression has implications for social relationships, it essentially reflects personal thoughts and emotions. To illustrate, the items of the MBI attribute both negative and positive experiences to interactions with service recipients in the workplace (e.g. "I feel that *this job* is hardening me emotionally," "I feel exhilarated after *working* closely with *my recipients*," (Maslach & Jackson, 1986, emphasis added). Depression items, in contrast, attribute negative experiences to oneself and do not make direct reference to a specific context. In fact, more global attributions signify more intense depression on some items of the Beck Depression Inventory.

The global nature of depression is also evident in the Profile of Mood States (POMS) depression subscale (McNair, Lorr, & Droppleman, 1971) on which respondents indicate the intensity with which they experienced various feelings states, such as "miserable" or "sad." These one-word descriptions of emotions are without any attributional reference or considerations of social relationships or context.

Although debate continues on this issue (Maslach & Schaufeli, 1993), there is considerable agreement that burnout is an occupational issue specific to human service professionals. It assumes a desire to make a significant contribution to people experiencing distress, and the emotional demands of providing services to them. Soon after the syndrome was described in relation to human service workers,

researchers applied it to other occupations (*c.f.* Golembiewski & Munzenrider, 1988), but such efforts met with limited success. Depersonalization, in particular, did not generalize outside of human service professions (Evans & Fischer, 1989; Hillier, 1989; Lee and Ashforth, 1993). Depression, in contrast, is not limited in any way to an occupational context. Whereas it may have an impact on occupational performance, problems at work do not figure in its etiology to any greater extent than do problems in other life domains (Beck, 1970).

Relationship of burnout with depression. Thus, research to date has established that burnout and depression are correlated with one another. This investigation considers a few of the possible relationships that may exist between them, ranging from a one to a six factor model. A single factor model is most consistent with viewing the various aspects of burnout and depression as manifestations of a generalized negative affect (Watson & Clark, 1984) therefore not distinct from one another. One possible two factor model implies that burnout and depression are each unitary constructs when considered together. The most plausible three-factor model maintains depression as distinct from burnout, but differentiates a third factor related to within burnout personal accomplishment because it is the only construct measured in positive terms. Further, research by Lee and Ashforth (1990, 1993a, 1993b) and Leiter (1993) has confirmed models that have defined personal accomplishment as separate from the other two MBI subscales. The four factor model differentiates the MBI into the established three factors (Maslach & Jackson, 1986; Schaufeli & van Dierendonck, 1993) in conjunction with a unitary depression factor. The five factor model differentiates the POMS measure from the BDI, while the remaining factor model differentiates the BDI into its subscales.

Leiter (1991, 1993) summarized considerable research demonstrating that the three MBI factors are related to one another through paths from emotional exhaustion to depersonalization and from depersonalization to personal accomplishment. Research by Lee and Ashforth (1993a) and Evans and Fischer (1993) has supported this model in contrast to one by Golembiewski and Munzenrider (1988) who proposed an alternative structure with a path from depersonalization to personal accomplishment and a path from personal accomplishment to emotional exhaustion.

Emotional exhaustion plays a central aspect of Leiter's burnout model, mediating relationships of the occupational environment with a variety of psychological and physical outcomes (Leiter, 1992; 1993; Leiter, Dorward, & Cox, in press; Leiter, Clark, & Durup, in press). He proposed that this acute emotional environment is experienced as chronically exhausting, the strain is evident in more enduring problems, such as psychosomatic complaints. A more context free depression may also be associated with enduring experiences of exhaustion (Maslach & Schaufeli, 1993). Glass, McKnight, and Valdimarsdottir (1993) proposed that the issue of perceived job control played a role in the impact of emotional exhaustion on depression, with exhausted nurses perceiving themselves as less empowered. While it is reasonable to propose that generalized depression may increase vulnerability to emotional exhaustion at work, the consideration of reciprocal relationships is beyond the scope of this study.

Objectives of the present study. The primary aim of this study was to clarify the distinction between burnout and depression through a confirmatory factor analysis

(CFA) of the most widely used measure of burnout — the MBI — with widely used measures of depression — the BDI and the depression subscale of the POMS. A second aim of the study was to extend Tanaka and Huba's (1984) finding of a second-order factor of depression for the BDI to include the depressive mood construct of the POMS. A third aim was to test Maslach and Jackson's (1986) three-factor structure for the MBI items. A fourth goal was to test for a second-order factor for burnout underlying the three subscales of the MBI and to determine the extent to which it is distinct from the depression factor. Together, the analyses explored the construct validity of both depression and burnout.

METHOD

Participants

The setting for this study was an 800-bed, tertiary care teaching hospital in Eastern Canada. It is the major referral hospital for the region, providing highly specialized diagnostic and therapeutic services for the broader area, and general hospital services for people living in the immediate vicinity.

The participants were 307 full-time (271) and half-time (36) hospital workers, including 295 females and 12 males. All participants were human service professionals about whom the burnout syndrome was originally conceived (e.g. Cherniss, 1980). They were not a clinically depressed population. They included physiotherapists (28), occupational therapists (19), social workers (9), dietitians (18), pastors (6), and nurses (227) all of whom volunteered from twelve randomly chosen units in the hospital. Their ages ranged from 20 to 60 years (Mean, 35.01, S. D. 9.89). Most were married (188) with others single (69), divorced (19), widowed (3) or undetermined (28). Most earned salaries in the range from \$30,000 to \$45,000 Canadian, and had worked at this hospital from 1 to 30 years (Mean, 10.79; S. D. 7.82).

Measures

Burnout. The most commonly used measure of burnout is the Maslach Burnout Inventory (MBI) developed by Maslach and Jackson (1986). The MBI is a 22 item scale in which items are scored using a Likert-type scale ranging from (0) *never* to (6) *every day* and are summed to provide a single score for each of three subscales. High scores on emotional exhaustion indicate feelings of emotional over-extension and being worn out by work. High scores on depersonalization reflect an unfeeling or impersonal response towards service recipient. Low scores on personal accomplishment reflect feelings of ineffectiveness at work. The factor structure of the MBI has been replicated with only minor modifications (Lee & Ashworth, 1993a; Leiter, 1988). The Cronbach alpha levels for the subscales are generally in the .70 to .90 range (See Table 1a and 1b for the alpha levels for this sample).

POMS Depression Scale. The Profile of Mood States (POMS), a self report assessment of mood states (McNair, Lorr, & Doppleman, 1981), was used to measure depressive mood. The POMS is a 64-item inventory which can be completed in five minutes. Subjects are asked to rate on a 0 to 4 scale the extent to

Table 1a Correlations Among Burnout and Depression Measures

Variable	Mean	S.D.	α	2	3	4	5	6	7
1. Exhaustion	20.50	9.96	.89	.47**	-.18**	.39**	.47**	.25**	.33**
2. Depersonalization	5.22	4.65	.71		-.27**	.29**	.24**	.18**	.30**
3. Personal Acc.	35.91	7.15	.76			-.21**	-.14*	-.09	-.14*
4. BDI: Neg Attitudes	2.60	2.84	.77				.54**	.33**	.56**
5. BDI: Performance	2.27	2.05	.65					.45**	.31**
6. BDI: Physiological	0.52	0.80	.07						.15*
7. POMS Depression	6.43	7.44	.89						

Note: N = 307; * $p < .05$; ** $p < .01$.

Table 1b Correlations Among Burnout and Depression Measures

Variable	Mean	S.D.	α	2	3	4	5	6
1. Exhaustion	20.50	9.96	.89	.47**	-.18**	.40**	.46**	.31**
2. Depersonalization	4.81	4.25	.70		-.25**	.26**	.20**	.26**
3. Personal Acc.	35.91	7.15	.76			-.23**	-.11*	-.12*
4. BDI: Neg Attitudes	1.87	1.90	.71				.48**	.45**
5. BDI: Performance	2.07	1.92	.67					.28**
6. POMS Depression	3.94	4.51	.85					

Note: N = 307; * $p < .05$; ** $p < .01$.

which they felt each of the adjectives during the previous week. The scores are organized into six mood states: Tension-anxiety, depression-dejection, anger-hostility, fatigue-inertia, vigor-activity, and confusion. It has been standardized to both clinical and normal populations, and has been used extensively in both clinical and research settings. Only the depression-dejection subscale with an alpha of .89 was considered in this analysis.

Beck Depression Inventory. The BDI was developed to assess depression in people with clinical problems (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Steer, Shaw, Beck, & Fine, 1977). It has been widely used as a measure of subclinical depression in normal populations (e.g. Bumberry, Oliver, & McClure, 1978; Hammen, 1980) with some reservations. Tanaka and Huba (1984) reported support for a three-factor structure for the BDI: negative attitudes, performance difficulties, and physiological symptoms. In this sample, the alpha for the first factor was acceptable (.76), while that for performance difficulties (.65) was weaker than the preferred criterion level of .70. The alpha level for physiological symptoms (.07) indicated for this factor severe problems, leading to the removal of this factor from the analysis.

Procedure

Participants completed the measures of burnout and depression as part of a larger study of professional issues which included assessments of occupational and

personal environments. Contact was established with key individuals in middle and upper management positions who welcomed the study and offered support for this line of research in their departments and/or units. Participation in the study was completely voluntary.

Subjects were recruited first through an information letter which was distributed to the department heads and head nurses to be posted for the perusal of all staff members. Secondly, the researchers requested time at departmental and ward staff meetings to discuss the research during the weeks following distribution of the information letter, to answer questions. Each participant was requested to complete a participation form, which clarified aspects of confidentiality, and the general thrust of the study. Data collection was completed over a period of 3 weeks, during which time a researcher was available at the hospital to answer questions, assist subjects with unforeseen difficulties, and to collect the completed questionnaires.

Analysis

The CFA on the burnout and depression items included consideration of models with one to six factors. The fit of these models was assessed in relation to a null model that specified no relationships among the measures. In all models the PSI matrix was fixed at .7 for the main diagonal and zero for the off-diagonal cells. The main diagonal of the Theta Epsilon matrix was set with off-diagonal cells set to zero, except for correlation between the errors of MBI1 and MBI2 (TE 2 1). This correlation was sufficient to cause problems with the analysis when fixed at zero.

Goodness of fit was assessed by the Goodness of Fit Index (GFI) and the Adjusted Goodness of Fit Index (AGFI) from the LISREL program and the Delta2 Index (Bollen, 1989), that Gerbing and Anderson (1993) recommended as the best available index for assessing the relative fit of competing models. The Delta2 is not affected by sample size as are the other two indices. The AGFI and Delta2 provide a correlation for parsimony: the fit of any model improves as more parameters are freed; these two indices correct for this by assessing whether the improvement of fit is justified by the loss in degrees of freedom of the model.

RESULT

Preliminary Analysis and Adjustments

The PRELIS program (Jöreskog & Sörbom, 1988) computed a correlation matrix of the items from the MBI (22 items), the BDI (21 items) and the POMS (16 items). The skew and kurtosis coefficients computed by this program indicated a number of items violated assumptions of the LISREL factor analysis. Nearly half of the items on the two depression measures were excessively skewed toward the low end of the scale (floor effect), with most subjects scoring zero. These problems were not solely statistical aberrations; they indicated that these items were not relevant to the experiences of the large majority of the participants in the study. While a LISREL analysis may proceed with a few highly skewed items, it cannot accommodate data with many highly skewed items. To permit a meaningful analysis of the data, only items with both a skew coefficient and a kurtosis coefficient less than

| 3.00 | were used in the analysis. The standard was more generous than usual (i.e., | 2.00 |) in order to reduce distortion of the central constructs. This criterion included all items on the emotional exhaustion and personal accomplishments subscales of the MBI, four of the five depersonalization items, 11 of the 21 BDI items, and 9 of the 16 POMS depression items. For the BDI six of the items were from the negative attitudes subscale, while four were from the performance difficulty subscale. Only one of the three physiological symptoms items (self-imaged) met the criterion; whereas it cross-loaded with the performance difficulty factor in one of the Tanaka and Huba (1984) analyses, it was included with that factor for this analysis. Table 1a displays the means, standard deviations, alphas, and correlations of the subscales as originally defined. The problems for the physiological subscale in this sample are indicated by its extremely low alpha level (.07). Table 1b displays a similar table based on the items actually used in this analysis. It indicates no substantial differences in correlations other than the absence of the physiological symptoms factor. The depression and burnout factors are correlated with one another: emotional exhaustion has the strongest correlations with depression; personal accomplishment has the weakest.

Factor Analysis

The differentiation of burnout and depression was investigated in a series of factor analyses conducted with LISREL VII (Jöreskog & Sörbom, 1989). To investigate factor differentiation these analyses contrasted models specifying one to six factors for the items from the MBI, BDI and POMS. A null model specifying no loadings was used as a point of comparison.

These factor analyses included specifications of structural relationships among the factors consistent with the theoretical issues discussed above. Paths were specified from emotional exhaustion to depersonalization (Lee & Ashworth, 1993b; Leiter, 1991) and to the depression factor(s) based on Maslach & Jackson (1986) and Meier (1984). In addition, a path from depersonalization to personal accomplishment was specified (Leiter & Maslach, 1988). To account for the relationships among the depression factors, the models specified paths from the first BDI factor to the other depression factors. The number of structural relationships specified depended on the degree of differentiation in the factor structure. For example the two factor model specifies one structural relationship from burnout to depression, while the six factor model specified paths among the MBI subscales and among the depression factors as well as from emotional exhaustion to the BDI (See Figure 1).

Preliminary investigations revealed a considerable negative cross-loading of one MBI personal accomplishment item (MBI12) on the emotional exhaustion factor, as identified in Leiter (1988) with a Canadian sample and by Schaufeli and Dierendonck (1993) with all three of their European samples. In light of its persistence across diverse samples and ambiguities in its wording (as discussed later), this cross-loading was included in all models in which emotional exhaustion and personal accomplishment were differentiated. Further, a large correlation between the errors of MBI1 and MBI2, both of which were on the emotional exhaustion factor was specified. Ideally, these errors are uncorrelated. However, significant correlations are often found within factors of scales, especially those employing identical Likert-type rating scales (Byrne, 1989; Tanaka & Huba, 1984). The use of MBI1 to set the scale for the emotional exhaustion factor may also have

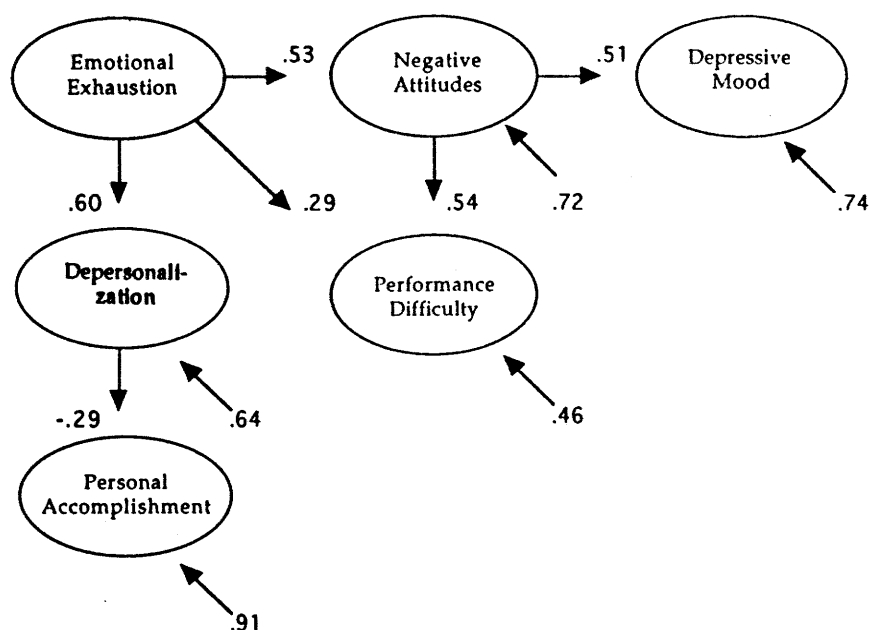


Figure 1. Structural Relationships Among Burnout and Depression: Six-Factor Model.

contributed to this correlation. This relationship (TE 2 1) was the only error correlation freed, and it was freed in all factor models investigated.

Differentiation of Burnout and Depression

The comparisons among the models (See Table 2) supports the proposed six-factor model. While the two-factor model, burnout vs. depression, represents a substantial increase over the one-factor model, the further elaboration into six factors decreases Chi-Square by 858.76 with only three fewer degrees of freedom. (The degrees of freedom associated with the models varies as the number of factors

Table 2 Contrasts of Models

Model		df	χ^2	GFI	AGFI	Delta2
Six Factor:	3 MBI, 2BDI, POMS	699	1244.52	.829	.809	.8636
Five Factor:	3 MBI, BDI, POMS	700	1310.99	.820	.799	.8471
Four Factor:	3 MBI, Depression	701	1579.71	.754	.727	.7801
Three Factor:	EE/Dp, PA, Depress	701	1744.00	.737	.707	.7390
Two Factors:	Burnout, Depress.	702	2103.28	.681	.646	.6492
One Factor		702	2596.39	.627	.585	.5258
Null		741	4697.05	.355	.321	

Note: Depress. = depression; EE = emotional exhaustion; Dp = depersonalization; PA = personal accomplishment.

increases the number of relationships specified among the factors in the structural equation.)

Contrasts between pairs of models in Table 2 highlighted substantive issues. For example, the four-factor model, which differed from the three-factor model only by differentiating emotional exhaustion and depersonalization, reduced Chi-Square by a further 164.29 while consuming only one more degree of freedom. The subsequent improvements in the five and six-factor models resulted from differentiating the BDI from the POMS, and the two BDI factors from one another respectively. The differentiation of depression factors reduced Chi-Square by a further 335.19, while consuming only 2 more degrees of freedom. Throughout the increasing differentiation of factors, the GFI, AGFI and DELTA2 indices improve. Although the Chi-Square value of the six-factor model is statistically significant, its ratio of Chi-Square to degrees of freedom (1.78) was considerably less than the 2.00 which Byrne (1989) noted as indicating an acceptable fit. Ideally, the DELTA2 would be greater than .90. One reason for the relatively small DELTA2 indices in this study may be the lack of consideration of errors among the items. A certain amount of correlated error is to be expected when assessing scales using a standard rating scale for all items. The fit could be improved by freeing more of these coefficients, but these improvements would be irrelevant to the primary purpose of this analysis.

The structural coefficients (all of which are statistically significant) for the six-factor model are displayed in Figure 1. The factor loadings of the items were all statistically significant and highly similar to those depicted later for the second-order factor model which are discussed next. They are omitted here in the interests of brevity.

Burnout and Depression as Second-Order Factors

A further analysis tested a model with two second-order factors — burnout and depression — following procedures outlined in Jöreskog and Sörbom (1989). The burnout factor was specified with the three MBI subscales, the depression factor by the two BDI factors and the POMS factor. No relationships were specified among the first-order factors, but the second-order factors were allowed to correlate with one another.

Table 3 contrasts the fit of the model with two second-order factors with a model with a single second-order factor (i.e. hypothesizing only one dimension underlying both burnout and depression). The model also displays statistics on four models with no second-order factors: the Six-Factor Structural Model described above with relationships specified among the first-order factors, a Six-Factor Structural

Table 3 Contribution of Second-Order Factors

Model	df	χ^2	GFI	AGFI	Delta2
Two Second-Order Factor Model	699	1232.16	.829	.810	.8666
Single Second-Order Factor Model	700	1268.94	.824	.804	.8574
Six-Factor Structural Model	699	1244.52	.829	.809	.8636
Six-Factor Structural (Leiter MBI)	704	1481.23	.799	.777	.8054
Six-Factor Structural (Golem. MBI)	704	1559.38	.788	.765	.7859
Six-Factor Orthogonal Model	706	1582.56	.782	.760	.7804

Model with only the two MBI relationships described by Leiter (1991); a Six-Factor Structural Model with only the two MBI relationships described by Golembiewski and Munzenrider (1988), and a Six-Factor Orthogonal Model with no relationships specified among the first-order factors.

The analysis indicated that the Two Second-Order Factor model provided a better fit than did the Single Second-Order Factor model. Designating burnout and depression to separate second-order factors decreased Chi-Square by 36.78 (1 df), which is a substantial and statistically significant difference (Bentler & Bonett, 1980). Both second-order factor models represented an improvement over the Six-Factor Orthogonal Model (Single Second-Order Factor model: χ^2 dif = 313.62, 6 df, $p < .001$; Two Second-Order Factor model: χ^2 dif = 350.40, 7 df, $p < .001$), as did the Six-Factor Structural model (χ^2 dif = 338.04, 7 df, $p < .001$). The differences of the second-order factor models from the structural model were much smaller. (The differences in Chi Square cannot be directly assessed, as the Six-Factor Structural model was not nested relative to the second-order factor models.) In comparison with the Orthogonal model, the Leiter MBI model reduced Chi-Square by 101 while the Golembiewski and Munzenrider model reduced it by only 23.

The full model of burnout and depression is displayed in Figure 2a and 2b. The correlation between the second-order factors was .72.

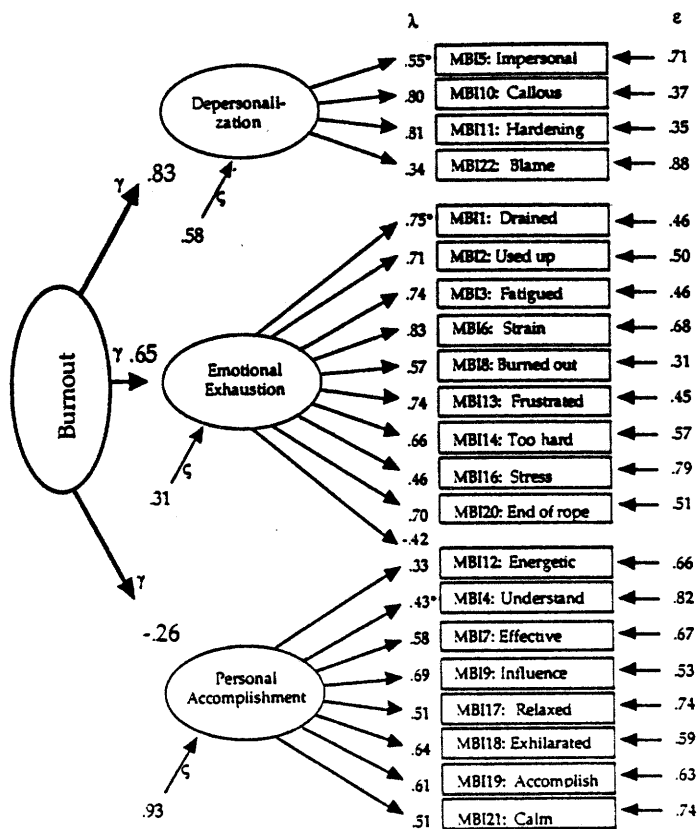


Figure 2a. Factor Loadings: Burnout.