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Maslach Burnout Inventory Manual

Fourth Edition

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FOURTH EDITION

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Acknowledgements

We thank our many generous colleagues for providing us with access to data they collected using the Maslach Burnout Inventory (MBI) in recent years. With their cooperation, this Fourth Edition of the MBI Manual includes new normative information for MBI users to consult when interpreting MBI scores in specific populations. We also thank Emily Rosado-Solomon for her assistance in locating research conducted since publication of the third edition of this manual.

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Overview of the Maslach Burnout Inventory

The Maslach Burnout Inventory (MBI) was initially published in 1981. At that time, there was an enormous amount of interest in the phenomenon of burnout, but very little in the way of guiding theory or empirical research. Along with some of the other initial researchers in the field, we recognized the need for a standardized measure of an individual's experience of burnout and took it upon ourselves to develop this instrument. Since publication of the original MBI, it has been administered to thousands of people working in a wide variety of settings and in many countries and in many languages. The MBI is now recognized as the leading measure of burnout.

Following publication of the original MBI in 1981, new versions of the MBI were gradually developed to fit different groups and different settings. Today, MBI users are able to select the most appropriate MBI version for their use from among several alternatives. This manual provides explanations of the development of each version as well as instructions for the appropriate scoring, interpretation and use of each version. Review copies of the MBI can be found in the Appendices. In addition to studying this Manual, users may wish to consult the MBI FAQs, which can be found in Appendix 6.

Burnout Definition¹

Burnout is a syndrome of three types of feelings, and each MBI version includes three scales to assess these experienced feelings. Although the essential elements of burnout are the same regardless of the specific work setting or occupation, the labels used to describe the three main types of feelings differ slightly across the many MBI versions. For the MBI-HSS and MBI-ES versions, the three types of feelings comprising burnout are emotional exhaustion, depersonalization, and low personal accomplishment. For the MBI-GS, the three types of feelings comprising burnout are exhaustion, cynicism and low professional efficacy. Across all MBI versions, burnout is conceptualized as a continuous variable, ranging from low to moderate to high degrees of experienced feeling. It is not viewed as a dichotomous variable, which is either present or absent. Detailed descriptions of the items used to assess burnout feelings are provided in the relevant subsequent sections of this manual.

Development of the MBI was grounded in a theoretical perspective that views burnout as a psychological response to aspects of one's daily experiences. Originally, the work experiences of human services employees were the sole focus of our concern, so the early burnout research that eventually resulted in creation of the MBI focused on occupational groups such as nurses, physicians, police officers, and teachers. Gradually we recognized that burnout is a phenomenon found in a wide range of work settings and populations. It can be experienced by many types of service providers as well as employees working in other settings characterized by intense interpersonal activity. Today, work-related burnout remains the primary focus of most research, and reducing such burnout is the aim of most interventions. However, as the development of new MBI versions for medical personnel and students attests, burnout can be experienced by people engaged in intense activities other than paid employment. Across all of these situations, however, the fundamental nature of burnout is the same.

¹ Some material in this section appeared originally in: Maslach, C. & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*. 2. 99-113. It is reprinted here with permission of the publisher, John Wiley & Sons, Ltd.

Versions of the MBI

This manual provides details about the three well-established primary versions of the MBI (MBI-HSS, MBI-ES, and MBI-GS). MBI users should refer to the relevant section of this manual to learn about the development, appropriate uses, psychometric properties, administration, and scoring of each MBI version.

MBI Human Services Survey (MBI-HSS)

The MBI-HSS is the original and most widely used version of the MBI. Designed for professionals in the human services, it is appropriate for respondents working in a diverse array of occupations, including nurses, physicians, health aides, social workers, health counsellors, therapists, police, correctional officers, clergy, and other fields focused on helping people live better lives by offering guidance, preventing harm, and ameliorating physical, emotional or cognitive problems. The MBI-HSS items have not changed since the original form was published in 1981. A review copy of the MBI-HSS can be found in Appendix 1. Note that a purchased license for the MBI is required for each use.

MBI for Medical Personnel (MBI-HSS (MP))

The MBI-HSS, adapted for Medical Personnel, or MBI-HSS (MP), has slightly different wording. Instead of referring to “recipients”, the MBI-HSS (MP), uses the term “patients.” This alternate wording is sometimes preferred in medical settings, but its use is not mandatory. A review copy of the MBI-HSS (MP) can be found in Appendix 2. Note that a purchased license for the MBI is required for each use.

MBI Educators Survey (MBI-ES)

The MBI Educators Survey is a version of the original MBI for use with educators, including teachers, administrators, other staff members, and volunteers working in any educational setting. Formerly known as MBI-Form Ed, the MBI-ES items are the same as the earlier version published in 1986. A review copy of the MBI-ES can be found in Appendix 3. Note that a purchased license for the MBI is required for each use.

MBI General Survey (MBI-GS)

The MBI-GS was designed for use with occupational groups other than human services and education, including those working in jobs such as customer service, maintenance, manufacturing, management and most other professions. The MBI-GS items have not changed since the original form published in 1996. A review copy can be found in Appendix 4. Note that a purchased license for the MBI is required for each use.

MBI General Survey for Students (MBI-GS(S))

An adaptation of the MBI-GS designed to assess burnout in college and university students has also been developed. The MBI-GS for Students, or MBI-GS (S) is available for use, but its psychometric properties are not yet documented. A review copy can be found in Appendix 5. Note that a purchased license for the MBI is required for each use.

The MBI and Areas of Worklife Survey (AWS)

The Areas of Worklife Survey (AWS) is a companion piece to the MBI. The combined AWS/MBI is a particularly powerful tool for assessing the workplace context and what attributes might be driving burnout: e.g., workload, control, reward, etc. Online survey and reports for the combined AWS/MBI are available from Mind Garden.

Translations

Reflecting worldwide interest in the topic of burnout, the MBI has been translated into more than thirty languages. A list of available translations and information about making a new MBI translation can be found on the MBI page at www.mindgarden.com.

Psychometric Properties of the MBI

The *reliability* of the three MBI scales in the various versions exceeds the recommended levels for research instruments. An analysis of 84 published studies that reported sample-specific reliability estimates for the three MBI scales (Wheeler, Vassar, Worley & Barnes, 2011) found that the reliability estimates for the Emotional Exhaustion scale average in the high .80s; for Depersonalization and Personal Accomplishment, average reliability estimates are in the mid-.70s. In this study, reliability estimates varied depending on the statistical estimation methods used. In addition, the authors found that studies using the MBI in translation tended to report lower scale reliabilities. Some variation in reliability estimates appeared to correspond with respondents' occupations, but no clear pattern was discernable. Thus, we recommend that users calculate and report internal reliability estimates when publishing the results of burnout research. For use in applied settings, a prudent approach when deciding to take action on the basis of burnout scores is to give the most weight to Emotional Exhaustion scores as they are the most reliable.

The *validity* of the MBI in its multiple versions has been demonstrated by numerous studies and meta-analytic reviews that confirm hypotheses about the relationships between job attributes and experienced burnout. A primary interest of researchers has been the association of burnout with job demands and resources, especially since the proposal of the Job Demands-Resources (JD-R) perspective of burnout (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). The JD-R perspective suggests that burnout is caused by an imbalance of demands and resources in the workplace, such that too few resources, or too many demands, results in high emotional exhaustion, high cynicism, and low professional efficacy. In his meta-analysis of the relationship between MBI-measured burnout and job demands and resources, Alarcon (2011) found that demands were most strongly related to Emotional Exhaustion, while resources were most strongly associated with Professional Accomplishment. Furthermore, Exhaustion and Cynicism were strongly negatively correlated with job satisfaction and organizational commitment, and had positive moderate correlations with turnover intentions.

Detailed descriptions of the development and psychometric properties of each version of the MBI are presented in subsequent sections of this Manual.

Administering the MBI

The MBI takes 10 to 15 minutes to complete. No special qualifications or procedures are required of a facilitator who administers the MBI. However, the facilitator should not be a supervisor or administrator who has direct authority over the respondents because this could

cause respondents to be less candid in their answers. Ideally, the facilitator should be seen as a neutral person. The major responsibilities of the facilitator are:

Provide Clear Instructions. Generally, the MBI is administered using electronic survey tools; alternatively, paper forms can be used. The instructions provided with the MBI survey should be given to respondents regardless of how the MBI is administered. Because some respondents might have questions, they should be offered a way to contact someone who can answer their questions.

Avoid Sensitization to Burnout. People have widely varying beliefs about burnout. To minimize the reactive effect of such personal beliefs or expectations, it is important that respondents be unaware that the MBI is a burnout measure and that they not be sensitized to the general issue of burnout. For this reason, the labels used on the survey do not include the word “burnout.” You will often see survey administrators use one of the following acceptable terms or similar wording on the survey or referring to it:

- MBI Assessment
- Wellness Survey
- Job Attitudes Assessment
- Employee Well-Being Survey

The scale should be presented as a survey of job-related attitudes and not be linked to burnout in any way. Of course, once the measure has been administered to all respondents, then an explanation about burnout and the use of the MBI to assess it is appropriate.

Minimize Response Bias. Response biases can be minimized in several ways. First, follow the guidelines for administering the MBI described above. Second, when introducing the survey to respondents, stress the importance of giving honest answers and reassure respondents about the confidentiality of the results.

Ensure Respondent Confidentiality. Because of the sensitive nature of some items, it is important that respondents are comfortable about expressing their true feelings. Ideally, they should be able to complete the MBI anonymously. If this is not possible because identification is required (for example, in a longitudinal study), then efforts should be made to use a form of identification that is not personally revealing, such as a code number or a label. Even if responses are not anonymous, respondents should be assured that their answers will be kept confidential and not be used in any way that might have adverse personal consequences for them.

Voluntary Participation. Ethical use of the MBI requires ensuring that respondents are providing their answers free of undue inducements or coercion. Respondents should be given sufficient information about how the data will be used so the respondent can make an informed choice to participate. Prospective respondents should be given information about any possible risks and the potential benefits of their involvement. Any questions they might have should be answered candidly. Adhere to all other applicable institutional guidelines.

Scoring and Interpreting the MBI

Detailed scoring instructions for each version of the MBI are included in subsequent sections of this Manual. In general, each respondent’s three MBI scale scores should be calculated and

interpreted separately. Note that responses to MBI items should not be combined to form a single “burnout” score.

Scores can be interpreted for individual respondents, or MBI scores for a group of respondents can be treated as aggregate data. Means and standard deviations for each scale can be computed for the entire group and compared to the normative data in this manual and to any local norms. MBI scores can be correlated with each other and with other information obtained from respondents, such as demographic data, job characteristics, job performance, personality or attitude measures, and health information. The conditions that best predict MBI scores and the outcomes associated with each scale can be assessed by multiple regression or other statistical techniques, as appropriate.

Electronic Scoring Service. Online scoring services are available from the MBI publisher, Mind Garden, Inc. Mind Garden’s online administration service creates a data file and calculates the scale scores using the procedures described in this Manual. Using the Mind Garden scoring services makes it easy to generate personalized reports that help each respondent understand the meaning of his or her MBI scale scores. Mind Garden can also generate group reports to assist organizations in understanding the relative degrees of burnout present across the organization, within various units, and for different demographic groups of employees. For more information about obtaining reports from the publisher, go to www.mindgarden.com.

Future Directions for Burnout Research

Although a significant amount of research has been conducted using the MBI, there are still many important topics to be studied. Among those that appear most important and promising are improving our understanding of the neurological and health outcomes associated with burnout, and developing interventions that can be used to effectively reduce the incidence of various negative outcomes associated with burnout. Regardless of the research question, strong research methodologies are essential. In particular, we encourage the use of longitudinal research designs that can shed light on how burnout develops and fluctuates over time, and how interventions can be used to impede the development of burnout and mitigate its potential negative consequences. Finally, more research that explores and takes account of the many different cultural and institutional contexts that shape the nature and experience of work is badly needed. Until such work is available, we caution MBI users to guard against the mistake of assuming that what has been learned about burnout so far is necessarily true in cultures that have not yet been studied.

Burnout and the Brain

A study using a combination of psychological measurements and MRI scans in 110 participants found that burnout can actually alter neural circuits in the brain, and that individuals who have high burnout may have a corresponding change in brain anatomy that relates to the amygdala (Golkar et al., 2014). This study found that such changes may be responsible for the inability of participants experiencing high degrees of burnout to adequately regulate their negative emotions.

Similar research using MRI tests to examine the cognitive differences of 80 participants (Savic, 2013) found an association between burnout, as measured by the MBI, and physical changes to the amygdala. The study also found an association between burnout and cortical thinning,

and found that burnout led to decreased fine motor function. Additional research on neurological consequences of burnout in a sample of 27 residents and internists (Durning et al., 2013) found that high scores in Depersonalization and Emotional Exhaustion were associated with differences in blood-oxygen-level-dependent (BOLD) signals measured while thinking about clinical problems. Interestingly, these changes were only found in the 10 medical residents in the sample, and no burnout-related differences in cognitive functioning were found in the 17 board-certified internists.

Another study found that stress was associated with diminished ability to shift attention from one stimulus to another in a sample of 40 healthy adults (Liston, McEwen, & Casey, 2009). Interestingly, these neurological effects of stress were temporary, and the high-stress group did not differ from the control (non-stressed) group after a four-week period of low stress.

Without question, such studies are intriguing, but there is much more we need to learn. So far, the current evidence suggests burnout is associated with cognitive changes such as diminished executive functioning, attention, and memory. However, the limited number of available studies on neurology and burnout underscore the need for more research to determine the implications of these observed relationships between burnout and cognitive functioning (Deligkaris, Panagopoulou, Montgomery, & Masoura, 2014)

Burnout and Health

More studies investigating the relationship between burnout and health would also be useful. Survey research has identified a strong and consistent relationship between Emotional Exhaustion and self-reports of a range of somatic symptoms, such as headaches and sleep disturbances (Burke & Greenglass, 1988; Dell'Erba, Venturi, Rizzo, Porcú & Pancheri, 1994; Kahill, 1988; Leiter, Clark & Durup, 1994). Repetti (1993) found a correspondence between exhaustion and symptoms on a day-to-day basis. Elevated rates of general physical illness appear to be more common in people experiencing higher degrees of burnout compared to people with lower degrees of burnout (Honkonen et al., 2006). A longitudinal study of 406 social workers (Kim et al., 2011) found that employees with higher initial levels of burnout ultimately had more health complaints later in the study. However, a review of research on biomarkers in burnout (Danhof-Pont et al., 2011) concluded that the large variation in how burnout has been measured in studies relating burnout to health and other physical outcomes makes it difficult to draw strong conclusions. Therefore, continued research on how burnout affects the short- and longer-term health of people would be a useful addition to the literature.

Burnout's Consequences for Other People

From the beginning, a key component of the interest in burnout has been a concern about its possible negative effects on other people, such as patients, students, clients, family members, and coworkers. Indeed, a detrimental impact on the quality of the service relationship has been a fundamental assumption in the literature (Cherniss, 1980; Maslach, 1982, 1993). The impact of burnout on a service provider's mood and social behavior has direct implications for their capacity to maintain the therapeutic relationship which provides the basis of much human services work. Service providers may withdraw from service recipients, and even enact verbal or physical abuse towards them (Kahill, 1988). How a person copes when experiencing burnout can have widespread consequences. For example, Lowenstein (1991) found that among teachers burnout was related to feelings of hopelessness, irritability, and impatience,

as well as alcohol and drug abuse. Other behavioral problems include absenteeism, increased turnover, and decreased job performance.

Stronger empirical evidence of the widespread consequences of burnout would bolster the case for taking action to prevent burnout and/or intervene to reduce it when it occurs. Research on this question requires information from multiple sources: evaluations from service providers, service recipients, colleagues, and supervisors, as well as information from the organization's existing performance appraisal systems. As more organizations collect increasing amounts of data and become skilled in the practice of data analytics, there will be many new opportunities for conducting such research.

Preventing and Alleviating Burnout and Its Negative Consequences

Ultimately, a better understanding of the burnout phenomenon may make it possible to prevent the development of extreme degrees of burnout, and alleviate burnout when it does occur. Evaluation studies that examine which interventions can be used to effectively reduce the negative consequences of burnout are especially needed. Studies that examine the effectiveness of both individual strategies and organizational interventions would be useful.

Individual Strategies for Managing Burnout Symptoms. A variety of stress management techniques have been studied to determine their usefulness for reducing specific stress symptoms. However, research is still needed to test the effectiveness of such techniques for mitigating the negative effects of burnout in particular. An evidence-based approach to choosing potentially effective individual strategies would begin by identifying the interventions that are most likely to be effective. According to one detailed review of the evidence (Varvogli & Darviri, 2011), several stress reduction techniques have been shown to be effective in lowering stress levels, which then results in improved health and quality of life. Among the individual strategies found to be effective for managing specific types of stress symptoms (e.g., pain, headaches, anxiety) are progressive muscle relaxation, biofeedback, guided imagery, diaphragmatic breathing, transcendental meditation, and mindfulness-based stress reduction. For example, an eight-week study of mindfulness meditation found that Emotional Exhaustion decreased significantly for participants in the meditation program (Galantino, Baime, Maguire, Szapary & Farrar, 2005). As another example, a study of 2,310 teachers found that teachers can be taught to reduce their levels of burnout through proactive regulation strategies (Pietarinen, Pyhalto, Soini & Salmela-Aro, 2013).

Organizational Interventions. Besides offering stress management training for their employees, organizations can help address burnout through interventions aimed at improving workplace conditions. One example of an effective organizational intervention involved the introduction of a structured process referred to as CREW, which refers to Civility, Respect, and Engagement at Work (see Osatuke, Mohr, Ward, Moore, Dyrenforth & Belton, 2009). CREW interventions build on the principle of respectful working relationships; the goal is to infuse qualities of civility into the natural style of work group interactions, including being attentive to colleagues, listening to their views and concerns, accommodating one another's preferences, and anticipating the impact of one's behavior on others. The CREW process relies on facilitators who lead regular sessions of work group members designed to help each work group reflect upon their usual mode of interacting and explore alternatives. A study using a waiting list control design demonstrated that CREW improved civility (replicating the Osatuke et al., 2009 findings), which in turn reduced burnout (Leiter, Laschinger, Day & Gilin-Oore, 2011).

One theoretical perspective that might guide future research on preventing burnout is the conservation of resources (COR) theory (Hobfoll, 1989), which argues that people strive to obtain, build, and protect valued resources. Such resources can include objects and money as well as personal characteristics (for example, emotional calm or stability) and favorable work and life conditions (such as being employed, receiving social support). When job demands threaten such resources, burnout or other forms of strain are likely to result. Furthermore, the fewer resources employees have at their disposal and the more demands placed on them, the more likely they will not be able to effectively cope with the situation. When employees face long stretches of low resources and high demands, it can lead to the erosion of energy, identification, and perceived efficacy—i.e., to burnout (Hobfoll & Freedy, 1993; Hobfoll & Shirom, 1993).

According to the COR theory, high resources in a high demand environment should lead to optimal functioning. In other words, a demanding job can be *good*—if resources are available to meet the demands. An important implication of the COR theory is that reducing demands is not the only type of intervention likely to be effective; even when the work situation is highly demanding, interventions that ensure employees have the resources needed to effectively meet and cope with the demands can help prevent burnout. Based on the evidence to date, some of the resources that interventions should target are increasing autonomy, creating more opportunities for development, and increasing job variety (Crawford, LePine & Rich, 2010).

Continued research on burnout interventions would be a useful contribution to existing research, and may also have significant practical utility. Yet, despite calls for intervention studies in nearly every review of burnout research, relatively few rigorous evaluation studies have been reported (Leiter & Maslach, 2014).

The lack of research evaluating interventions may be due to three major logistical problems. First, intervention research is costly. Second, it requires sufficient stability in the relationship between the researcher and the workplace to assess the immediate and long-term impact of interventions; effective collaboration between researchers and practitioners is essential (Maslach, Leiter & Jackson, 2012). Third, it requires the capacity to conduct interventions that are likely to make a consequential impact on the work life of study participants; small short-term workplace changes and one-off training or stress management sessions are not likely to be sufficient. Instead, meaningful interventions are likely to involve significant organizational change, including modifying management and personnel policies and practices (e.g., see Conway, Fu, Monks, Alfes & Bailey, 2015). The final point is the most substantial: outside researchers do not have control over the aspects of work that can impact burnout, according to the research discussed above. It is difficult for outside researchers to meaningfully adjust workload, role conflict, personal conflict among colleagues, the social support available, decision-making practices, and so on. Nevertheless, as evidence concerning the consequences of burnout mounts, it is likely that interest in finding ways to prevent or reduce burnout will grow too.

Burnout Profiles as a New Approach to Using MBI Scale Scores

Innovative research by Leiter and Maslach (2016) explores the multiple distinct patterns of burnout along the burnout-engagement continuum. This new work considers the different profile of MBI scale scores for a comparison of people who score, for example, high on all three MBI scales, or low on all three MBI scales, or high on one MBI scale but low on the other two scales. The research findings suggest that people with different MBI profiles have different

workplace experiences. This nuanced approach to using MBI scale scores to identify patterns of the burnout experience offers new opportunities for understanding both the causes and consequences of burnout and may have implications for the best interventions to prevent or reduce burnout.

The five profiles identified in this research (Leiter & Maslach, 2016) might be described in the following way (see Table 1). The “engaged” and “burnout” profiles are straightforward, as they represent people who score consistently across the three MBI scales. The other three profiles show inconsistency across the three MBI scales. For example, the “overextended” profile might fit a physician who is dedicated to her job and derives a strong sense of professional efficacy from her work, yet feels exhausted due to long work hours and disrupted recovery opportunities. Such a physician is fulfilled and involved, but very tired. The psychological experience of the overextended physician would be quite distinct from someone who fits the “ineffective” profile. The experience of being ineffective does not coincide with exhaustion or cynicism; instead it reflects a loss of confidence in one’s capabilities—perhaps as a result of work that feels tedious or an environment that offers little recognition for a job well done.

Table 1. Pattern of MBI Subscales across Profiles

Profile Types	Exhaustion	Cynicism	Efficacy
Engaged	Low	Low	High
Ineffective	Low to Moderate	Low to Moderate	Low
Overextended	High	Low to Moderate	Low to Moderate
Disengaged	Low to Moderate	High	Low to Moderate
Burnout	High	High	Low

An essential step for research on MBI Profiles is establishing the criteria for categorizing respondents by profile types. Leiter and Maslach (2016) defined profiles using standardized (z) values for the sample they examined. Specifically, they set the critical boundary for Exhaustion at $z = \text{Mean} + (\text{SD} * 0.5)$; they set the critical boundary for Cynicism at $z = M + (\text{SD} * 1.25)$; and they set the critical boundary Efficacy at $z = M + (\text{SD} * .10)$. More details about this approach to creating burnout profiles using the MBI-GS can be found by consulting the Leiter and Maslach research. Other approaches for defining profiles, such as Cluster Analysis and Latent Profile Analysis, use more complex, iterative processes that may also be of interest for some research questions. However, the latter methods rarely identify clear criteria for categorizing people into distinct profiles. The advantage of designating profiles using z -scores is its simplicity. However, a disadvantage of this method for creating burnout profiles is that it oversimplifies.

Using critical boundaries oversimplifies in that it fails to capture the subtle dependencies between the scale scores. This quality has special relevance to the Efficacy scale. Because the Efficacy scale correlates more weakly with the other two MBI subscales, Efficacy scores on the distressed profiles (Overextended, Disengaged, and Burnout) may spread more widely. Accordingly, Table 2 does not specify Efficacy for those three profiles, and this provides a better fit to the profile structure.

Table 2 conveys the criteria in standardized values. The critical boundary for Exhaustion is one half of a standard deviation above the mean, while the boundary for Cynicism is 1.25 standard deviations above the mean. By contrast, the level of Efficacy differentiates only between Engaged and Ineffective, referencing 0.10 standard deviation above the mean as the boundary value.

Table 2. Standardized Critical Boundaries for MBI Profiles

Profile	Exhaustion	Cynicism	Efficacy
Engaged	≤ 0.50	≤ 1.25	> 0.10
Ineffective	≤ 0.50	≤ 1.25	≤ 0.10
Overextended	> 0.50	≤ 1.25	Not Specified
Disengaged	≤ 0.50	> 1.25	Not Specified
Burnout	> 0.50	> 1.25	Not Specified

Table 3. MBI-GS Raw Scores for Determining Profiles

Subscale	Mean	SD	Exh + 0.5	Cyn +1.25	PEff + 0.1	N
Exhaustion	2.16	1.46	2.90			1766
Cynicism	1.41	1.16		2.86		1765
Efficacy	4.19	1.05			4.30	1765

Based on MBI-GS raw scores (Leiter & Maslach, Study 1, 2016).

Table 4. MBI-HSS Raw Scores for Determining Profiles

Subscale	Mean	SD	Exh + 0.5	Dep +1.25	PAcc + 0.1	N
Exhaustion	2.47	1.06	3.00			1104
Depersonalization	1.42	1.04		2.73		1104
Accomplishment	4.57	0.92			4.66	1104

Data based on Table 7 norms.

Note: this framework has not been extensively tested at this time. It is presented to encourage exploratory analyses.

Future research that uses both sophisticated statistical methods and this simpler approach would be quite useful for determining whether the statistical methods used for creating profiles have meaningful consequences for the conclusions drawn. For example, future research could investigate how profiles develop over time (e.g., see Maslach & Leiter, 2008), which could shed light on the pace and direction of changes that people experience as they move from one profile to another. Another important issue needing additional research is how a person's burnout profile affects their response to various types of interventions. For example, people who fit the "overextended" profile may be most responsive to workload-oriented interventions.

In contrast, people who fit the “disengaged” profile may benefit more from interventions designed to improve social relationships among coworkers. Research that combines new methods for defining these profiles with evaluating the effectiveness of person- and organization-focused interventions would greatly aid our understanding of the burnout phenomenon.

Longitudinal Research Designs

Regardless of the specific research question being investigated, longitudinal studies can improve our ability to draw firm conclusions about cause-and-effect relationships. To date, the majority of published research on burnout employs cross-sectional research designs. Increasingly, these studies avoid the problem of relying solely on the participants' self-reports; nevertheless, inferring the directionality of causal relationships continues to be difficult.

Conducting longitudinal research presents formidable logistical demands in terms of maintaining funding, a collaborative relationship with the participating organization, and participants' willingness to repeatedly complete questionnaires or subject themselves to physical tests. Although the turmoil currently experienced by many organizations raises concerns about staff members' susceptibility to burnout, organizational mergers and downsizing initiatives reduce the institutional stability necessary for enduring research relationships.

Longitudinal research encounters statistical as well as logistical challenges. For example, studies have found the MBI scale scores to be fairly stable over time spans of three months to one year with correlations in the .50 to .82 range (Leiter & Durup, 1996). The relative stability of the burnout scores presents problems for determining relationships over time (Leiter, 1993). In addition, the complexity of organizational settings presents challenges in interpreting longitudinal research. Over any six-month period in a large organization, a number of events may occur that have an impact on a staff member's relationship with work. Thus, a deeper understanding of burnout requires supplementing information from the MBI with data and perspectives from a variety of sources other than the respondent (e.g., co-workers, supervisors, clients, family members).

Burnout Around the World

Research using the MBI versions described in this manual has been conducted all around the world. At the publication of this Manual, most studies have been conducted using English language versions of the MBI, but very often the MBI is translated into the native language of respondents. The evidence suggests that, within occupational groups, there are country-level differences in responses to the MBI. However, it is not yet possible to determine the extent to which country-level differences in MBI scores are a function of cultural or organizational factors. For example, one study found that Finnish and Canadian civil service workers scored higher on Exhaustion and Professional Efficacy compared to Dutch civil service workers, while there were no differences in Cynicism (Schaufeli, Leiter & Kalimo, 1995). However, because the respondents were drawn from a convenience sample, it is not known whether their responses are representative of the civil service worker populations in each country. Perhaps more interesting than simple differences in the average MBI scores found across countries are questions such as: What cultural similarities and differences might exist in the coping strategies used by respondents in different countries? Do country-level differences in the

employment contracts, mandatory employee benefits and/or work arrangements account for observed country-level differences in burnout? Do variances in the government-sponsored services available to citizens in different countries account for country-level differences in burnout, and/or do such services help to mitigate the work-to-non-work spillover effects of employee burnout? Research that addresses these types of questions could provide new insights to inform the employment policies of both governments and employers for the benefit of workers worldwide.

Conclusion

The wealth of burnout research using the MBI is a significant resource in building understanding of the role of work in people's lives. The experience of burnout, the way it develops, and its broad implications for an individual's relationships reflect fundamental qualities of how people react to the fulfillment and the frustration of their aspirations. Understanding the process and consequences of burnout extends our understanding of people.

The MBI – Human Services Survey: MBI-HSS

Introduction

The MBI Human Services Survey (MBI-HSS) is the original version of the MBI. The items were designed to capture feelings of burnout among people working in job settings characterized as human services, where professionals in a variety of specific occupations spend considerable time interacting intensely with their clients. Frequently, the staff-client interaction is centered on the client's current problems (psychological, social, or physical) and may be charged with feelings of anger, embarrassment, fear, or despair. Because solutions for clients' problems are not always obvious and easily obtained, the situations faced are often ambiguous and frustrating. For the person who works continuously with people under such circumstances, the chronic stress can be emotionally draining and can lead to burnout.

The consequences of burnout are potentially very serious for human services workers, their clients, and the larger institutions in which they interact. Our findings suggest that burnout can lead to a deterioration in the quality of care or service provided by the staff: it appears to be a factor in job turnover, absenteeism, and low morale. Furthermore, burnout seems to be correlated with various self-reported indicators of personal dysfunction, including physical exhaustion, insomnia, increased use of alcohol and drugs, and marital and family problems.

Development of the MBI-HSS

The original MBI items were designed to measure hypothetical aspects of the burnout syndrome. Exploratory research involved conducting interviews and surveys to gather ideas about the attitudes and feelings that characterize burned out workers. Numerous existing items in other measures were reviewed for useful content material, also, although no items were incorporated outright.

Items were written in the form of statements about personal feelings or attitudes using the general term *recipients* to refer to the particular people for whom the respondent provides service, care, or treatment. Initially, respondents described their feelings and attitudes on two dimensions: frequency and intensity. Subsequent research revealed high correlations between the two dimensions, so now responses to the MBI-HSS items are given using only the frequency scale, which is labeled at each point and ranges from 0 ("Never") to 6 ("Every day"), as shown in Figure 1.

Figure 1. MBI-HSS Item Format

Item 8: I feel burned out from my work.							
	0	1	2	3	4	5	6
How often?	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

A preliminary form of the MBI that included 47 items was administered to a sample of 605 people (56% male, 44% female) from a variety of health and service occupations. The data from the first sample were subjected to a factor analysis using principal factoring with iteration and orthogonal (Varimax) rotation, which revealed ten factors that accounted for most of the variance. Selection criteria were applied to the items, reducing in the number of items from 47 to 25. Items that met all of the following criteria were retained: a single factor loading greater than .40, a large range of responses, a low percentage of "never" responses, and a high item-total correlation. To obtain confirmatory data for the pattern of factors, the 25-item form was administered to a new sample of 420 people (31% male, 69% female). The results of the factor analysis on this second set of data were very similar, as was a factor analysis of the 25 items using the combined samples. Across these analyses, three factors had eigenvalues greater than unity. The 22 items that performed consistently across these and several other smaller samples were retained and they now comprise the MBI-HSS. The factor analysis results obtained using responses to the final 22 items now included in the MBI-HSS are shown in Table 5.

Uses of the MBI-HSS

The MBI-HSS can be used for a variety of purposes. It is most appropriate for professionals and paraprofessionals in settings with direct contact between employees and their clients/patients. These settings include medical offices and hospitals; group homes and halfway houses; correctional, intellectual disability, and community mental health centers; family, child, and youth service agencies; and in organizations that offer services for dealing with alcoholism, drug abuse, family violence, and aging. Appropriate occupational groups include physicians, nurses, counselors, therapists, psychiatrists, lawyers, police, and clergy, among others.

Scholars can use the MBI-HSS to conduct basic research that illuminates the nature, causes, and consequences of burnout. The MBI-HSS can also be used in applied settings as a tool to identify work units where the level of burnout experienced is particularly high (or low). When interventions are planned, the MBI-HSS is an effective tool for conducting evaluation studies. Before an intervention, baseline levels of burnout can be assessed. After the intervention, the baseline scores can then be compared to subsequent burnout scores to determine whether the intervention was effective.

Table 5. Item Factor Loadings for the MBI-HSS

Scale Items	Factors		
	I	II	III
<i>I. Emotional Exhaustion</i>			
1. I feel emotionally drained from my work.	.74	.06	.02
2. I feel used up at the end of the workday.	.73	.04	.03
3. I feel fatigued when I get up in the morning and have to face another day on the job.	.66	.18	.15
6. Working with people all day is really a strain for me.	.61	.22	-.10
8. I feel burned out from my work.	.84	.19	-.09
13. I feel frustrated by my job.	.65	.23	-.12
14. I feel I'm working too hard on my job.	.56	.08	.07
16. Working with people directly puts too much stress on me.	.54	.31	-.06
20. I feel like I'm at the end of my rope.	.65	.21	-.08
<i>II. Depersonalization</i>			
5. I feel I treat some recipients as if they were impersonal objects.	.11	.67	-.09
10. I've become more callous toward people since I took this job.	.23	.66	-.13
11. I worry that this job is hardening me emotionally.	.37	.55	-.10
15. I don't really care what happens to some recipients.	.12	.62	-.16
22. I feel recipients blame me for some of their problems.	.13	.41	-.04
<i>III. Personal Accomplishment</i>			
4. I can easily understand how my recipients feel about things.	.11	-.06	.50
7. I deal very effectively with the problems of my recipients.	-.01	-.07	.54
9. I feel I'm positively influencing other people's lives through my work.	-.02	-.17	.58
12. I feel very energetic.	-.30	-.04	.43
17. I can easily create a relaxed atmosphere with my recipients.	-.06	-.08	.51
18. I feel exhilarated after working closely with my recipients.	.00	-.23	.55
19. I have accomplished many worthwhile things in this job.	-.10	-.17	.57
21. In my work, I deal with emotional problems very calmly.	-.07	.07	.59

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Note: Occupations represented in this scale development analysis included 142 police officers, 132 nurses, 125 agency administrators, 116 teachers, 97 counselors, 91 social workers, 68 probation officers, 63 mental health workers, 43 physicians, 40 psychologists and psychiatrists, 31 attorneys, and 77 others.

Scales of the MBI-HSS

The MBI-HSS assesses three core aspects of the burnout syndrome: emotional exhaustion, depersonalization, and lack of personal accomplishment. The frequency with which the respondent experiences feelings related to each scale is assessed using a seven-point, fully anchored response format, as shown in Figure 1. Each aspect is measured by a separate scale.

Emotional Exhaustion: The 9-item Emotional Exhaustion (EE) scale assesses feelings of being emotionally overextended and exhausted by one's work. Higher scores correspond to greater experienced burnout.

Depersonalization: The 5-item Depersonalization (DP) scale measures an unfeeling and impersonal response toward recipients of one's service, care, treatment, or instruction. Higher scores correspond to greater degrees of experienced burnout.

Personal Accomplishment: The 8-item Personal Accomplishment (PA) scale assesses feelings of competence and successful achievement in one's work with people. Lower scores correspond to greater experienced burnout. NOTE: We recommend reporting Personal Accomplishment scores as calculated, to avoid confusion, and this is the convention used for all data reported in the MBI Manual. However, some users may choose to reverse the coding scheme and then refer to this scale as "Diminished Personal Accomplishment."

Psychometric Properties of the MBI-HSS

Numerous studies have examined the psychometric properties of the MBI-HSS. Here we provide information about the factor structure of the MBI-HSS, correlations among the MBI-HSS scales, reliability estimates for the scales, and evidence regarding the validity of the MBI-HSS.

Factor Structure of the MBI-HSS

The MBI-HSS has been found to have a stable factor structure and to be consistently reliable and valid across a wide range of settings and occupational groups. The 22 items in the MBI-HSS were identified through several rounds of research and analysis, as described earlier. Subsequent to the analyses used to develop the MBI-HSS, the three-factor structure identified using principal component analyses in the initial developmental research has been verified in population samples of legal aid employees (Jackson, 1985), therapists (King & Beehr, 1983), and employees in a business organization (Golembiewski, Munzenrider & Carter, 1983).

This three-factor burnout model was further supported by a confirmatory factor analysis based upon three composite score indicators for each of the three scales (Lee & Ashforth, 1993). The Emotional Exhaustion and Depersonalization factors were distinct but correlated, and both of these scales were more highly correlated with measures of psychological and physiological strain than was Personal Accomplishment. In contrast, Personal Accomplishment was more closely related to control-oriented coping.

Some other studies that examined the 22 MBI-HSS items found noteworthy cross-loadings. Specifically, the Personal Accomplishment item "I feel very energetic," was found to load strongly (and negatively) on Emotional Exhaustion. Also, the Emotional Exhaustion item, "Working with people directly puts too much stress on me," loaded strongly on

Depersonalization. The other 20 items of the MBI-HSS loaded consistently and exclusively on the appropriate scales (Byrne, 1993; Leiter & Durup, 1996; Schaufeli & Van Dierendonck, 1993). In light of such evidence, MBI-HSS users are encouraged to check the factor structure for their particular sample of respondents when using statistical analyses that are sensitive to mild departures from the predicted factor structure, such as causal modeling. Even if one or two items are omitted for such analyses, however, MBI-HSS users are encouraged to report scale means computed from the full 22-item MBI-HSS to maintain consistency and comparability with prior research findings.

Relationships Among the MBI-HSS Scales

Consistent with the assumption that the three burnout components comprise an overall burnout syndrome, the three MBI-HSS scales are somewhat correlated, as shown in Table 6.

Table 6. Intercorrelations Among MBI-HSS Scales

	<i>Emotional Exhaustion</i>	<i>Depersonalization</i>
Depersonalization	.52	
Personal Accomplishment	-.22	-.26

Note: Occupations represented in this scale development analysis included 142 police officers, 132 nurses, 125 agency administrators, 116 teachers, 97 counselors, 91 social workers, 68 probation officers, 63 mental health workers, 43 physicians, 40 psychologists and psychiatrists, 31 attorneys, and 77 others.

Reliability of the MBI-HSS

Reliability coefficients were examined during the development of the MBI, as has been reported elsewhere (see Maslach & Jackson, 1981). Here we report evidence from samples that were not used in the item selections to avoid any improper inflation of the reliability estimates.

Internal Reliability. Using data from early samples that completed the original MBI, we estimated the internal reliability using Cronbach's coefficient alpha (Cronbach, 1976), which yielded estimates for the MBI-HSS scales as .90 for Emotional Exhaustion, .79 for Depersonalization, and .71 for Personal Accomplishment. The standard error of measurement for each scale is estimated as follows: 3.80 for Emotional Exhaustion, 3.16 for Depersonalization, and 3.73 for Personal Accomplishment. Additional evidence concerning reliability of the MBI-HSS comes from dozens of subsequent published studies conducted by other scholars. Across a wide range of samples, reliability coefficients have generally shown adequate internal consistency for each of the three MBI-HSS scales. However, it should be noted that a few studies reported somewhat lower reliabilities for the Depersonalization scale. For example, in a study of 1,849 intensive care nurses, the Cronbach alpha estimates for both Emotional Exhaustion (.79) and Personal Accomplishment (.73) had adequate reliabilities, but Depersonalization had a value (.61) lower than the traditionally recommended cutoff of .70 (Bakker, Le Blanc & Schaufeli, 2005).

In a study of 705 Spanish professionals a similar pattern emerged, in which the Cronbach alpha estimates for Personal Accomplishment (.71) and Emotional Exhaustion (.85) both showed good internal reliability, while Depersonalization had a lower Cronbach's alpha of .58 (Gil-Monte, 2005). Similarly, a three-wave study of 258 Dutch nurses found that while

Emotional Exhaustion had alpha coefficients ranging from .86 - .90, Depersonalization had coefficients ranging from .62 to .68 (Demerouti, Le Blanc, Bakker, Schaufeli & Hox, 2009).

Test-Retest Reliability. Data on test-retest reliability of the MBI-HSS have been reported for at least seven samples. For a sample of 53 graduate students in social welfare and administrators in a health agency, the two test sessions were separated by an interval of two to four weeks. The test-retest reliability coefficients for the scales were the following: .82 for Emotional Exhaustion, .60 for Depersonalization, and .80 for Personal Accomplishment. Although these coefficients range from low to moderately high, all are significant beyond the .001 level. Several other studies found test-retest correlations of .74, .72, and .65, respectively, for an eight-month interval (Lee & Ashforth, 1993); .59, .50, and .63 for a six-month interval (Leiter, 1990); .75, .64, and .62 for a three-month interval (Leiter & Durup, 1996). In more recent research, test stability was examined for a sample of 316 staff nurses with a *t*-test to assess whether mean scale scores differed significantly between the first and second test administrations conducted one year apart. A significant ($p < .001$) difference in means at the two times was found for the Emotional Exhaustion scale only. Neither the Personal Accomplishment scale nor the Depersonalization scale had significantly different means at the first and second test administration (Grau-Alberola, Gil-Monte, García-Juesas & Figueiredo-Ferraz, 2010). Finally, a three-wave study of 258 Dutch nurses found coefficients for the scales as follows: .66 - .71 for Emotional Exhaustion, and .55 - .64 for Depersonalization (Demerouti et al., 2009).

Overall, longitudinal studies of the MBI-HSS have found a high degree of stability; MBI-HSS scale scores do not vary markedly from a period of one month to a year. This stability is consistent with the MBI's purpose of measuring an enduring state.

Validity of the MBI-HSS

Convergent validity for the MBI-HSS has been demonstrated in several ways, including correlating scale scores with the observations of others, with job conditions that were hypothesized to be associated with burnout, and by relating burnout to other personal attitudes and reactions, and various longer-term outcomes.

Burnout Observed by Others. Perhaps the strongest validating evidence comes from outside observers whose independent assessments of an individual's experience corroborate the individual's self-rating. Within the job setting, a knowledgeable observer would be a person's co-worker. Accordingly, a group of 140 mental health workers were each asked to provide an anonymous behavioral evaluation of a designated co-worker who had also completed the MBI-HSS. The critical questions on this evaluation, in terms of validating the Emotional Exhaustion and Depersonalization scales, were ratings of how "emotionally drained" the person was, and how he or she reacted to clients. As predicted, people who were rated by the co-worker as being emotionally drained by the job or people who were rated as appearing physically fatigued scored higher on Emotional Exhaustion and Depersonalization. It was expected that high scores on Depersonalization would be reflected in the behavior of frequent complaints about clients. Co-worker ratings of this behavior were indeed correlated with Depersonalization scores. The predicted correlation between co-worker ratings of the individual's satisfaction with the job and scores on Personal Accomplishment failed to achieve statistical significance.

Within the home setting, a knowledgeable observer would be the person's spouse, so spouse evaluations were collected using a questionnaire survey of 142 policemen and their wives

(Jackson & Maslach, 1982; Maslach & Jackson, 1979). The wives were asked to indicate the frequency of several of their husbands' behaviors that were predicted to reflect the Emotional Exhaustion and Personal Accomplishment dimensions of the MBI-HSS. Because the wives did not see their husbands working with people on the job, they were not asked to rate behaviors reflecting Depersonalization. Each wife's ratings were compared with her husband's MBI-HSS scores, and the resulting correlations were in line with the predictions. Police who scored high on Emotional Exhaustion were rated by their wives as coming home frequently upset and angry, tense or anxious, physically exhausted, and complaining about problems at work. Police who scored high on Personal Accomplishment were rated by their wives as coming home frequently in a cheerful or happy mood, and as doing work that was a source of pride and prestige for the family.

Job Conditions Associated with Burnout. The validity of the MBI-HSS is demonstrated further by data that confirm hypotheses about the relationships between various job characteristics and experienced burnout. Based on a prior study of child care workers (Maslach & Pines, 1977), it was predicted that the greater the number of clients one must deal with, the higher the burnout scores on the MBI-HSS. This pattern of response was found in a nationwide survey of 845 public contact employees (Maslach & Jackson, 1984). When caseloads were very large (over 40 people served per day), scores were high on Emotional Exhaustion and Depersonalization, and low on Personal Accomplishment. A study of 43 physicians in a California health maintenance organization (cited in Maslach & Jackson, 1982) found that those who spent all or most of their working time in direct contact with patients scored high on Emotional Exhaustion. Emotional Exhaustion scores were lower for those physicians who spent some of their working hours in teaching or administration. Similar results have been reported in subsequent research by others.

Fifteen years after the MBI-HSS was published, a meta-analytic review of research using the MBI-HSS (Lee & Ashforth, 1996) found that job demands were related to the three dimensions of burnout. A more recent meta-analytic review covering 30 years of research about job conditions and burnout found that the job demands most consistently associated with elevated burnout, as measured by the MBI, were role ambiguity, role conflict, and workload (Alarcon, 2011). Research also suggests that employees who work in jobs that cannot be easily modified to reduce role conflict, ambiguity and overload might nevertheless be better able to cope with the strain of such jobs when they are given more control and autonomy (Crawford et al., 2010).

The association between job demands, job resources, and burnout is further explained by a partial relationship between burnout scales, such that demands are positively associated with Emotional Exhaustion, which in turn cause an increase in Depersonalization (Jourdain & Chênevert, 2010).

Longer-Term Outcomes Associated with Burnout. *Early* theorizing about burnout (Maslach, 1976) predicted that it would be related to the *desire to leave one's job*. Support for this hypothesis is found in the questionnaire survey of 142 male police officers (Jackson & Maslach, 1982; Maslach & Jackson, 1979). The officers' MBI-HSS scores were highly predictive of intention to quit, $R(6, 135) = .68, p < .001$. Similarly, a study of public contact workers (Maslach & Jackson, 1984) found that high burnout scores on the MBI-HSS scales were correlated with the expressed intention to leave one's job within a year. Numerous subsequent studies support the conclusion that the degree to which human services employees experience burnout is associated with their turnover intentions (Alarcon, 2011).

Across dozens of studies, meta-analysis revealed that Emotional Exhaustion and Depersonalization were most strongly associated with turnover intentions, while feelings of low Personal Accomplishment were less strongly associated with turnover intentions; the mean corrected effect sizes (ρ) reported by Alarcon (2011) were = .39, .32 and .24, respectively. More recent research has continued to find that Emotional Exhaustion and Depersonalization were associated with intentions to leave one's profession, but that the relationship was stronger between Emotional Exhaustion and intention to leave than between Depersonalization and intention to leave (Jourdain & Chênevert, 2010).

Another predicted outcome of burnout is the *impairment of one's relationships* with people in general, both on and off the job (Maslach, 1976). In line with this prediction, physicians scoring high on Emotional Exhaustion were more likely to report that they wanted to get away from people. Mental health staff who scored high on Emotional Exhaustion were rated by co-workers as evaluating their clients more negatively over time. With respect to the co-workers themselves, human services staff who scored low on measures of peer and co-worker satisfaction scored high on Emotional Exhaustion and Depersonalization and low on Personal Accomplishment. Subsequent research found that nurses who had experienced unpleasant interactions with their supervisors scored higher on Emotional Exhaustion, while those who had pleasant contacts with co-workers scored higher on Personal Accomplishment (Leiter & Maslach, 1988). A study of 697 physicians (Asai et al., 2007) found that professionals who had ample time to communicate with their patients had reduced levels of burnout. Specifically, physicians engaged in end-of-life care who had confidence in having enough time to communicate with patients reported lower Emotional Exhaustion, lower Depersonalization, and higher Personal Accomplishment. Disruption of interpersonal relationships in the workplace may partly explain why burnout is also associated with an increased incidence of patient-safety errors (for a review of the evidence, see Hall, Johnson, Watt, and colleagues, 2016).

The proposed relationship of burnout to *difficulties with family and friends* (Maslach, 1976) was tested in the study of 142 male police officers and their wives (Jackson & Maslach, 1982; Maslach & Jackson, 1979). A police officer experiencing burnout was more likely to report that he gets angry at his wife or his children. If he scored high on Emotional Exhaustion, he was also more likely to report that he wanted to be alone rather than spend time with his family. He perceived his children as being more emotionally distant from him if he was experiencing Depersonalization or feelings of low Personal Accomplishment. The officer scoring high on Depersonalization was also more likely to be absent from family celebrations. Reports of fewer friends were correlated with frequent feelings of Depersonalization, and the officer's wife was also more likely to say that she and her husband did not share the same friends. Similar research on nurses (N = 258; Demerouti et al., 2009) found a reciprocal relationship between Emotional Exhaustion and presenteeism, which is when employees come to work even though they are ill. This longitudinal research further found that presenteeism was predictive of Depersonalization.

Previous theorizing and research (Maslach, 1976) also suggested that burnout would be linked to such stress outcomes as *insomnia and increased use of alcohol and drugs*. Some supportive evidence is provided by the study of police couples. As predicted, a police officer scoring high on Emotional Exhaustion was rated by his wife as having more frequent problems with insomnia. The officers themselves were more likely to report having a drink to cope with stress if they had high scores on Emotional Exhaustion, and to report taking tranquilizers when they scored low on Personal Accomplishment. The use of tranquilizers was corroborated by

their wives, who were also more likely to report that their husbands used medications if they scored low on Personal Accomplishment or high on Emotional Exhaustion.

Burnout is associated with measures of physical well-being, as well. For example, a longitudinal study of 406 social workers found that those who initially reported high degrees of burnout subsequently report more *physiological health complaints* (Kim, Ji & Kao, 2011). Further, the physical well-being of social workers experiencing burnout deteriorated faster over time compared to social workers with low burnout scores. Another study of 1,636 nurses found that both Emotional Exhaustion and Depersonalization were associated with sleep, appetite, and health disturbances (Jourdain & Chênevert, 2010).

Discriminant Validity. The discriminant validity of the MBI-HSS has been shown by relating it to measures of other psychological constructs that might be presumed to be essentially the same phenomenon. In other words, can burnout be distinguished from job dissatisfaction, job stress, anxiety or depression? Some early theorizing argued either that burnout could not be distinguished between either job stress or depression (Scarfone, 1985) or that it was an amalgamation of depression, anxiety, and anger (Morgan & Krehbiel, 1985). However, the results of many studies have demonstrated that burnout, as measured by the MBI, is indeed a distinct construct (Schaufeli & Enzmann, 1998).

Although one would expect the experience of burnout to have some relationship to lowered feelings of job satisfaction, it was predicted that they would not be so highly correlated as to suggest that they were actually the same thing. A comparison of subjects' scores on the MBI-HSS and the JDS measure of "General Job Satisfaction" ($N = 91$ social service and mental health workers) provides support for this reasoning. Job satisfaction had a moderately negative correlation with both Emotional Exhaustion ($r = -.23, p < .05$) and Depersonalization ($r = -.22, p < .02$), as well as a slightly positive correlation with Personal Accomplishment ($r = .17, p < .06$). Relatively low correlations between the burnout scale scores and other measures of job satisfaction have been reported for samples of lawyers (Jackson, Turner & Brief, 1985), rehabilitation workers (Riggar, Godley & Hafer, 1984), mental health workers (Leiter, 1985), and public service employees (Zedeck, Maslach, Mosier & Skitka, 1988).

It might also be argued that scores on the MBI-HSS are subject to distortion by a social desirability response set because many of the items describe feelings that are contrary to professional ideals. To test this idea, 40 graduate students in social welfare were asked to complete both the MBI-HSS and the Crowne-Marlowe (1964) Social Desirability (SD) Scale. If reported burnout is not influenced by a social desirability response set, then the scores on the MBI-HSS and the SD Scale should be uncorrelated. Our results supported this hypothesis: none of the MBI-HSS scales were significantly correlated with the SD Scale at the .05 level.

Recognizing the differences between the concepts of burnout and occupational stress helps in identifying the value and potential limitations of approaches to preventing or alleviating burnout (Cox, Kuk & Leiter, 1993). The defining feature of occupational stress is an imbalance of occupational demands with available coping resources. It is evident in both experiential states as well as in various forms of physical and psychological distress. The opposite of occupational stress is a state of relaxation and emotional well-being. Burnout differs from established views of occupational stress in its specificity to work that requires intense involvement. Further, the burnout concept integrates feelings of exhaustion with staff members' involvement in their work, especially the people with whom they work, and their sense of

efficacy or accomplishment. As such, burnout is a more specific and complex phenomenon that stands in contrast to a sense of engagement with work.

Research on the distinction between burnout and depression has raised the question of whether burnout is a precipitating factor for depression, and thus is a predictor for it, or whether burnout is the same thing as depression, and thereby is itself a mental illness. Depression is a clinical syndrome, whereas burnout describes a crisis in one's relationship with work, especially the therapeutic relationship with service recipients. Depression is global, pervading every aspect of a person's life, whereas burnout is more a quality of the social environment of work. As such, these two concepts are clearly different psychologically. An empirical test of this theoretical distinction utilized a confirmatory factor analysis of scores on the MBI and several measures of depression and found that the scales for burnout and for depression loaded on separate second-order factors (Leiter & Durup, 1994); the results confirmed the interpretation of burnout as a complex three-factor syndrome, of which each component was more closely tied to one another than to any aspect of depression. Furthermore, the Profile of Mood States (POMS) depression scale showed the following pattern of correlations with the MBI-HSS: Emotional Exhaustion ($r = .33$); Depersonalization ($r = .30$); and Personal Accomplishment ($r = -.14$). A study using the Beck Depression Inventory also found that it correlated with Emotional Exhaustion (Firth, McKeown, McIntee, & Britton, 1987). Subsequent studies using the MBI-GS have also found parallel patterns of correlations between its scales and various measures of depression.

All of these results suggest that burnout and depression are linked to each other, but are not the same construct. A new understanding of this linked relationship comes from a longitudinal study in Finland, which found a reciprocal relationship between burnout and depression, with each predicting subsequent developments in the other. It was noteworthy that burnout fully mediated the relationship of workplace strains with depression: when problems at work contribute to depression, experiencing burnout is a step in the process (Ahola & Hakanen, 2007).

Administering the MBI-HSS

The MBI-HSS takes 10 to 15 minutes to complete. No special qualifications or procedures are required of a facilitator who administers the MBI-HSS. However, the facilitator should not be a supervisor or administrator who has direct authority over the respondents because this could cause respondents to be less candid in their answers. Ideally, the facilitator should be seen as a neutral person. The major responsibilities of the facilitator are:

Provide Clear Instructions. Generally, the MBI-HSS is administered using electronic survey tools; alternatively, paper forms can be used. The instructions provided with the MBI-HSS survey should be given to respondents regardless of how the MBI-HSS is administered. Because some respondents might have questions, they should be offered a way to contact someone who can answer their questions.

Avoid Sensitization to Burnout. People have widely varying beliefs about burnout. To minimize the reactive effect of such personal beliefs or expectations, it is important that respondents be unaware that the MBI-HSS is a burnout measure and that they not be sensitized to the general issue of burnout. For this reason, the labels used on the survey do not include the word "burnout." The scale should be presented as a survey of job-related attitudes and not be linked to burnout in any way. Of course, once the measure has been

administered to all respondents, then an explanation about burnout and use of the MBI-HSS to assess it is appropriate.

Minimize Response Bias. Response biases can be minimized in several ways. First, follow the guidelines for administering the MBI-HSS described above. Second, when introducing the survey to respondents, stress the importance of giving honest answers and reassure respondents about the confidentiality of the results.

Ensure Respondent Confidentiality. Because of the sensitive nature of some items, it is important that respondents are comfortable about expressing their true feelings. Ideally, they should be able to complete the MBI-HSS anonymously. If this is not possible because identification is required (for example, in a longitudinal study), then efforts should be made to use a form of identification that is not personally revealing, such as a code number or a label. Even if responses are not anonymous, respondents should be assured that their answers will be kept confidential and not be used in any way that might have adverse personal consequences for them.

Voluntary Participation. Ethical use of the MBI-HSS requires ensuring that respondents are providing their answers free of undue inducements or coercion. Respondents should be given sufficient information about how the data will be used so the respondent can make an informed choice to participate. Prospective respondents should be given information about any possible risks and the potential benefits of their involvement. Any questions they might have should be answered candidly. Adhere to all other applicable institutional guidelines.

Scoring the MBI-HSS

In general, each respondent's three MBI-HSS scale scores should be calculated and interpreted separately. Note that responses to MBI-HSS items should not be combined to form a single "burnout" score.

Scores can be interpreted for individual respondents, or MBI-HSS scores for a group of respondents can be treated as aggregate data. Means and standard deviations for each scale can be computed for the entire group and compared to the normative data in this manual and to any local norms.

A scoring key is provided with your purchase of the MBI-HSS License to Administer. You can score each respondent's survey form with the scoring key. Alternatively, you can use Mind Garden's online forms and reports which include scoring in the reports and data files. Learn about what is offered for online scoring by visiting the Mind Garden website at www.mindgarden.com.

Using the Mind Garden scoring service makes it easy to generate a personalized report that helps each respondent understand the meaning of his or her MBI-HSS scale scores. Mind Garden can also generate group reports to assist organizations in understanding the relative degrees of burnout present across the organization, within various units, and for different demographic groups of employees.

The Mind Garden scoring service calculates scale scores using two methods, described below. Both methods are appropriate and they yield the same information. Method 1 (SUM) is often used in scientific research, while Method 2 (AVE) is often used in applied situations to make interpretation of the scores easier for respondents.

Note of Caution: For both Method 1 and Method 2, each respondent's three scale scores should be determined and these scale scores should be interpreted separately. It is NOT appropriate to add the three scale scores to create a total burnout score.

Method 1 (SUM). For ease of comparing results to research reports that have been published during the past three decades, it is best to add responses to the MBI-HSS items for each scale and use the SUM as the scale score. This method was most often used in burnout research in the human services professions. This scoring method is as follows:

Emotional Exhaustion (SUM) = Items 1 + 2 + 3 + 6 + 8 + 13 + 14 + 16 + 20

Note: Higher scores indicate higher degrees of burnout.

Depersonalization (SUM) = Items 5 + 10 + 11 + 15 + 22

Note: Higher scores indicate higher degrees of burnout.

Personal Accomplishment (SUM) = Items 4 + 7 + 9 + 12 + 17 + 18 + 19 + 21

Note: Lower scores indicate higher degrees of burnout.

Method 2 (AVE). For ease of interpretation by respondents, it is useful to calculate the mean response for the items that make up each scale. For all scales, the mean scores can range from 0 (Never) to 6 (Daily). Using Method 2, simply begin by creating the scale Sum and then divide by the number of items in the scale, as follows:

Emotional Exhaustion (AVE) = [Items 1 + 2 + 3 + 6 + 8 + 13 + 14 + 16 + 20] ÷ 9

Note: Higher scores indicate higher degrees of burnout.

Depersonalization (AVE) = [Items 5 + 10 + 11 + 15 + 22] ÷ 5

Note: Higher scores indicate higher degrees of burnout.

Personal Accomplishment (AVE) = [Items 4 + 7 + 9 + 12 + 17 + 18 + 19 + 21] ÷ 8

Note: Lower scores indicate higher degrees of burnout.

Interpreting the MBI-HSS Scale Scores

Scores can be interpreted for individual respondents, or MBI-HSS scores for a group of respondents can be treated as aggregate data. With either approach, scores can be interpreted as absolute values or by comparing scores to those of a larger population to determine the individual's relative degree of burnout.

Note of Caution. It is important to understand that there is no definitive score that "proves" a person is "burned out."

Absolute Values. With this approach, the meaning of scores is straightforward. Simply use the MEAN scale score and consider where it falls along the 7-point response scale. For example, an Emotional Exhaustion MEAN scale score of 3.5 would be interpreted as indicating the respondent felt emotionally exhausted several times a month on average, but not every week; a score of 5.5 would indicate the respondent felt emotionally exhausted several times a week on average, but not every day. Using this method, judgments about whether the experience of each aspect of burnout is sufficiently frequent to be of concern and worth taking seriously are left to the respondent and/or others who are in a position to take corrective steps.

Degrees of Burnout Relative to Others. In some situations, when the responses of a large sample of respondents are available, it might be appropriate to compare an individual's score to the scores of other respondents in the sample. For example, Table 7 summarizes data from several large samples of respondents who completed the MBI-HSS. Using data such as these, a person's relative degree of burnout can be compared to the average for their group. Using the publisher's online scoring service, users can easily obtain reports that include normative data for their particular sample of users. Users who are interested in obtaining reports that include normative data should go to www.mindgarden.com.

As with Method 1, comparing a respondent's score to the scores of others leaves the responsibility for making judgments about whether the experience of each aspect of burnout is sufficiently frequent to be of concern with the respondent and/or other people who are in a position to take corrective steps.

Table 7. Means and Standard Deviations for the MBI-HSS Scales

	MBI-HSS Scales		
	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Occupational Subgroups ¹			
<i>Social Services (n=1,538)</i>			
M	21.35	7.46	32.75
SD	10.51	5.11	7.71
<i>Medicine (n=1,104)</i>			
M	22.19	7.12	36.53
SD	9.53	5.22	7.34
<i>Mental Health (n=730)</i>			
M	16.89	5.72	30.87
SD	8.90	4.62	6.37
<i>Other (n=2,897)</i>			
M	21.42	8.11	36.43
SD	11.5	6.15	7.00

Note: Scale scores were calculated using Method 1 (SUM).

The MBI for Medical Personnel: MBI-HSS (MP)

Among the many human services professions that have been studied using the MBI-HSS, one of the most studied occupational settings is health care, where the recipients of care are often referred to as patients. Besides the nature of the job itself, the work context for medical personnel has been changing rapidly. New technology requires continuous learning and adaption, evolving legislation has introduced new uncertainties over reimbursement and is exposing the profession to increased market pressure. New organizational forms and new care delivery models are changing the way medical personnel deliver care, as well as the way it is experienced by patients. Thus, it is perhaps not surprising that burnout appears to be high in health care settings (e.g., see Shanafelt, Sonja, Litjen, Dyrbye, Sotile, Daniel et al., 2012; Dyrbye, Massie, Eacker, Harper, Power, & Durning (2010); Soler, Yaman, Esteva, Dobbs, Asenova, Katic, et al. 2008; Sharma, Sharp, Walker, & Monson, 2008). Furthermore burnout among physicians may be on the rise and getting worse (Shanafelt, Hasan, Dyrbye, Sinsky, Satele, Sloan & West, 2015).

Among the reasons that burnout among medical personnel is of such concern is that it has the potential to put patients at risk. The problem of patients experiencing adverse events when seeking health care services is quite costly. According to some estimates, more than 3% of hospital patients in the USA, and perhaps as many as 16% of hospital patients in Australia experience harmful episodes. Prescription errors are estimated to occur as often as 5% of the time. In addition to the medical consequences of such events, the litigation that often follows is costly for everyone in society. For example, in the UK, medical errors and related litigation are estimated to cost the National Health Service more than £3 billion (Avery, Barber, Ghaleb, Franklin, Armstrong, Crowe, et al., 2012; Health Do, 2000).

A meta-analytic review to determine whether burnout is associated with patient safety outcomes located 24 studies that examined the relationship between patient safety and burnout (Hall & Johnson, 2016). Of those studies, most assess burnout using the MBI. Overall, the authors found strong evidence that patient safety is negatively correlated with burnout. Of the few studies that found no significant relationship between burnout and patient safety, one was conducted in France using a translated version of the MBI, and the others used only a single item from the Emotional Exhaustion scale.

To administer the MBI to people working with patients in health care settings (e.g., nurses, physicians), the MBI for Medical Personnel, or MBI-HSS (MP) can be used. All items in the MBI-HSS (MP) are the same as those in the MBI-HSS except that the term “patients” is used in place of “recipients”. To date, most burnout research conducted with medical personnel has used the MBI-HSS, and several of these studies are cited in the preceding MBI-HSS section of this Manual.

Psychometric Properties of the MBI-HSS (MP)

Definitive reliability and validity evidence are not yet available for the alternate wording used in the MBI-HSS (MP). However, studies using the MBI-HSS have found that the psychometric properties of that version are good when it is used with professionals working in medical settings. For example, a large multi-national study investigated the stability of the MBI’s factor structure by analyzing data collected from 54,734 nurses working in 646 hospitals in 8 countries (Armenia, Canada, Germany, Japan, New Zealand, Russia, USA, and United Kingdom), using language translations as needed (Poghosyan, Aiken & Sloane, 2009).

Although a few MBI items loaded somewhat differently across countries, and two items did not exactly replicate the MBI scales as originally designed, the authors concluded that the MBI provides useful scales that can be consistently defined in all countries.

Such evidence suggests that the psychometric properties of the MBI-HSS (MP) are likely to be quite good. Given that the MBI-HSS (MP) wording is modified to be easily understood and appropriate for people whose work involves primarily addressing medical concerns, we recommend using this version of the MBI for assessing burnout in physicians, nurses and other medical personnel. When doing so, however, users are advised to assess the factor structure and scale reliabilities before using the results.

Administering the MBI-HSS (MP)

The MBI-HSS (MP) takes 10 to 15 minutes to complete. No special qualifications or procedures are required of a facilitator who administers the MBI-HSS (MP). However, the facilitator should not be a supervisor or administrator who has direct authority over the respondents because this could cause respondents to be less candid in their answers. Ideally, the facilitator should be seen as a neutral person. The major responsibilities of the facilitator are:

Provide Clear Instructions. Generally, the MBI-HSS (MP) is administered using electronic survey tools; alternatively, paper forms can be used. The instructions provided with the MBI-HSS (MP) survey should be given to respondents regardless of how the MBI-HSS (MP) is administered. Because some respondents might have questions, they should be offered a way to contact someone who can answer their questions.

Avoid Sensitization to Burnout. People have widely varying beliefs about burnout. To minimize the reactive effect of such personal beliefs or expectations, it is important that respondents be unaware that the MBI-HSS (MP) is a burnout measure and that they not be sensitized to the general issue of burnout. For this reason, the labels used on the survey do not include the word “burnout.” The scale should be presented as a survey of job-related attitudes and not be linked to burnout in any way. Of course, once the measure has been administered to all respondents, then an explanation about burnout and the use of the MBI-HSS (MP) to assess it is appropriate.

Minimize Response Bias. Response biases can be minimized in several ways. First, follow the guidelines for administering the MBI-HSS (MP) described above. Second, when introducing the survey to respondents, stress the importance of giving honest answers and reassure respondents about the confidentiality of the results.

Ensure Respondent Confidentiality. Because of the sensitive nature of some items, it is important that respondents are comfortable about expressing their true feelings. Ideally, they should be able to complete the MBI-HSS (MP) anonymously. If this is not possible because identification is required (for example, in a longitudinal study), then efforts should be made to use a form of identification that is not personally revealing, such as a code number or a label. Even if responses are not anonymous, respondents should be assured that their answers will be kept confidential and not be used in any way that might have adverse personal consequences for them.

Voluntary Participation. Ethical use of the MBI-HSS (MP) requires ensuring that respondents are providing their answers free of undue inducements or coercion. Respondents should be given sufficient information about how the data will be used so the respondent can make an informed choice to participate. Prospective respondents should be given information about any possible risks and the potential benefits of their involvement. Any questions they might have should be answered candidly. Adhere to all other applicable institutional guidelines.

Scoring the MBI-HSS (MP)

In general, each respondent's MBI-HSS (MP) three scale scores should be calculated and interpreted separately. Note that responses to MBI-HSS (MP) items should not be combined to form a single "burnout" score.

Scores can be interpreted for individual respondents, or MBI-HSS (MP) scores for a group of respondents can be treated as aggregate data. Means and standard deviations for each scale can be computed for the entire group and compared to the normative data in this manual and to any local norms.

A scoring key is provided with your purchase of reproduction versions of the MBI-HSS (MP). You can score each respondent's survey form with the scoring key. Alternatively, you can use Mind Garden's online forms and reports which include scoring in the reports and data files. Learn about what is offered for online scoring by visiting the Mind Garden website at www.mindgarden.com.

Using the Mind Garden scoring service makes it easy to generate a personalized report that helps each respondent understand the meaning of his or her MBI-HSS (MP) scale scores. Mind Garden can also generate group reports to assist organizations in understanding the relative degrees of burnout present across the organization, within various units, and for different demographic groups of employees.

The Mind Garden scoring service calculates scale scores using two methods, described below. Both methods are appropriate and they yield the same information. Method 1 (SUM) is often used in scientific research, while Method 2 (AVE) is often used in applied situations to make interpretation of the scores easier for respondents.

Note of Caution: For both Method 1 and Method 2, each respondent's three scale scores should be determined and these scale scores should be interpreted separately. It is NOT appropriate to add the three scale scores to create a total burnout score.

Method 1 (SUM). For ease of comparing results to research reports that have been published during the past three decades, it is best to add responses to the MBI-HSS (MP) items for each scale and use the SUM as the scale score. This method was most often used in burnout research in the human services professions. This scoring method is as follows:

Emotional Exhaustion (SUM) = Items 1 + 2 + 3 + 6 + 8 + 13 + 14 + 16 + 20

Note: Higher scores indicate higher degrees of burnout.

Depersonalization (SUM) = Items 5 + 10 + 11 + 15 + 22

Note: Higher scores indicate higher degrees of burnout.

Personal Accomplishment (SUM) = Items 4 + 7 + 9 + 12 + 17 + 18 + 19 + 21

Note: Lower scores indicate higher degrees of burnout.

Method 2 (AVE). For ease of interpretation by respondents, it is useful to calculate the mean response for the items that make up each scale. For all scales, the mean scores can range from 0 (Never) to 6 (Daily). Using Method 2, simply begin by creating the scale Sum and then divide by the number of items in the scale, as follows:

$$\text{Emotional Exhaustion (AVE)} = [\text{Items } 1 + 2 + 3 + 6 + 8 + 13 + 14 + 16 + 20] \div 9$$

Note: Higher scores indicate higher degrees of burnout.

$$\text{Depersonalization (AVE)} = [\text{Items } 5 + 10 + 11 + 15 + 22] \div 5$$

Note: Higher scores indicate higher degrees of burnout.

$$\text{Personal Accomplishment (AVE)} = [\text{Items } 4 + 7 + 9 + 12 + 17 + 18 + 19 + 21] \div 8$$

Note: Lower scores indicate higher degrees of burnout.

Interpreting the MBI-HSS (MP) Scale Scores

Scores can be interpreted for individual respondents, or MBI-HSS (MP) scores for a group of respondents can be treated as aggregate data. With either approach, scores can be interpreted as absolute values or by comparing scores to those of a larger population to determine the individual's relative degree of burnout.

Note of Caution: It is important to understand that there is no definitive score that “proves” a person is “burned out.”

Absolute Values. With this approach, the meaning of scores is straightforward. Simply use the MEAN scale score and consider where it falls along the 7-point response scale. For example, an Emotional Exhaustion MEAN scale score of 3.5 would be interpreted as indicating the respondent felt emotionally exhausted several times a month on average, but not every week; a score of 5.5 would indicate the respondent felt emotionally exhausted several times a week on average, but not every day. Using this method, judgments about whether the experience of each aspect of burnout is sufficiently frequent to be of concern and worth taking seriously are left to the respondent and/or others who are in a position to take corrective steps.

Degrees of Burnout Relative to Others. In some situations, when the responses of a large sample of respondents are available, it might be appropriate to compare an individual's score to the scores of other respondents in the sample. Using the publisher's online scoring service, users can easily obtain reports that include normative data for their particular sample of users. Users who are interested in obtaining reports that include normative data can learn more at www.mindgarden.com.

As with Method 1, comparing a respondent's score to the scores of others leaves the responsibility for making judgments about whether the experience of each aspect of burnout is sufficiently frequent to be of concern with the respondent and/or other people who are in a position to take corrective steps.

The MBI for Educators: MBI-ES

Introduction

As soon as the MBI became known to scholars conducting educational research, concern about teacher burnout prompted adaptation of the original Maslach Burnout Inventory (the MBI-HSS) for use with educators (the MBI-ES). In addition to classroom stressors, teachers experience numerous sources of pressure and criticism from external sources such as parents and politicians. Burnout is a common response, which sometimes is followed by a decision to leave the teaching profession altogether.

There are many reasons for the continued interest in educator burnout, especially within the United States. First, the teaching profession is one of the largest and most visible professions in the United States. Second, the teaching profession has been subject to increased societal pressure to expand their roles beyond education. Teachers are often expected to correct social problems (for example, drug, alcohol, and sexual abuse), educate students in academic subjects while also developing job skills, provide enrichment activities, meet the individual needs of students with a wide range of abilities, and encourage students' moral and ethical development. Third, the human and financial resources required to meet these diverse expectations have not been forthcoming. Finally, teachers have found their credibility with the larger community has eroded. Politicians, corporate executives, and educational experts offer conflicting answers for correcting the ills of education. These assertions are often simplistic, neglecting the complex social constraints under which teachers work and often blaming the teachers for the problems they face. As a result of these pressures many educators are leaving the profession, suffering the consequences of job-related stress and experiencing burnout.

Longitudinal studies of burnout suggest that its prevalence among teachers may be on the rise, due in part to declining teacher trust in relationships with administrators, colleagues, parents, and students as accountability standards and other external factors have changed the teaching profession (Dworkin & Tobe, 2014).

Development of the MBI-ES

The MBI-ES measures the same three burnout scales as the MBI-HSS. As in other helping professions, an initial aspect of educator burnout, Emotional Exhaustion, is the tired and fatigued feeling that develops as emotional energies are drained. When these feelings become chronic, teachers find they can no longer give of themselves to students as they once could.

The MBI-ES is quite similar to the MBI-HSS, but with modification to the wording of some items. Specifically, in the MBI-ES, the word "student" is used in place of the word "recipient." In the teaching profession, students are the teachers' recipients. This change was made to insure clarity and consistency in the interpretation of the items. As described elsewhere in this Manual, several early studies established that the MBI-ES is a reliable and valid instrument for measuring teacher burnout.

Uses of the MBI-ES

The MBI-ES has been used extensively to identify burnout among teachers, education administrators, teaching assistants, counselors and health professionals who work in school settings, among others. Perhaps the most valuable use of the MBI-ES is when scores are aggregated to the school district level as a means for detecting potential system-wide problems. The MBI-ES is a useful tool for evaluating the organizational climate for teachers as well as students. The MBI-ES can be administered to all members of a school district anonymously, then analyzed by various populations. If a particular school, department, or grade has significantly higher scores, then follow-up organizational analyses assessing the relationship between organizational conditions and policies and each of the MBI-ES scales may help to guide interventions to enhance the organizational climate.

Although the MBI-ES is not designed as a clinical-diagnostic tool to label individuals as burned out, it may contribute to an educator's self-assessment. Individuals can compare their scores to the scores of other teachers to understand whether they are experiencing unusually high or low levels of burnout. Methods for making such comparisons are described in a later section, "Interpreting the MBI-ES Scale Scores." Such comparative information may contribute to individual educators' plans for seeking help to alleviate burnout symptoms and stimulate thoughts about how to manage their careers.

Scales of the MBI-ES

The MBI-ES assesses three core aspects of the burnout syndrome: emotional exhaustion, depersonalization, and lack of personal accomplishment. Each core aspect of burnout is measured by several items that are used to determine three scale scores:

Emotional Exhaustion. The Emotional Exhaustion (EE) scale assesses feelings of being emotionally overextended and exhausted by one's work. As in other helping professions, an initial aspect of educator burnout, Emotional Exhaustion, is the tired and fatigued feeling that develops as emotional energies are drained. When these feelings become chronic, educators find they can no longer give of themselves to students as they once could.

Depersonalization. The Depersonalization scale measures an unfeeling and impersonal response toward students. Educators who no longer have positive feelings about their students are experiencing the second component of teacher burnout, Depersonalization. Among the many ways educators can display indifferent, negative attitudes toward their students are by using derogatory labels (for example, "they are all animals"), exhibiting cold or distant attitudes, physically distancing themselves from students (for example, barricading themselves behind their desk), and tuning out students through psychological withdrawal.

Personal Accomplishment. The Personal Accomplishment scale assesses feelings of competence and successful achievement in one's work with students. A feeling of Personal Accomplishment is particularly crucial for educators. Most educators enter the profession to help students learn and grow. When educators no longer feel that they are contributing to students' development, they are vulnerable to experiencing profound disappointment. It is difficult for educators to relinquish their dedication to teaching, and the job may provide few other rewarding areas in which they can focus their accomplishments. For example, teachers rarely have the option of putting in more time to make more money, and administrative careers

are available to relatively few. A crisis in Personal Accomplishment for an educator may be both severe and enduring.

The frequency with which teachers, administrators or other respondents experience feelings related to each MBI-ES scale is assessed using a seven-point, fully anchored response format. Items are written in the form of statements about personal feelings or attitudes and using the general term *students*. Responses are given using a frequency scale, which is labeled at each point and ranges from 0 ("Never") to 6 ("Every day"), as shown in Figure 2.

Figure 2. MBI-ES Item Format

Item 8: I feel burned out from my work.							
	0	1	2	3	4	5	6
How often?	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

Psychometric Properties of the MBI-ES

Development of the MBI-ES assessed its psychometric properties to ensure they were comparable to the MBI-HSS. A cross-validation study examined the construct validity of the MBI for teachers using principal factor analysis (Iwanicki & Schwab, 1981). The results mostly replicated the three-factor structure identified in studies of other human services workers. When employed with teachers, the MBI measures the same basic constructs or factors as those identified through studies in the helping professions — Emotional Exhaustion, Depersonalization, and Personal Accomplishment. Although this early study found that items in the Depersonalization scale did not load consistently on one factor, the reliabilities obtained were nevertheless similar to those reported for helping professionals in general. Subsequent studies of burnout in educational settings have typically reported acceptable internal reliability estimates for the three MBI scales as originally designed, and numerous other studies have reported evidence supporting the construct validity of the MBI for educational settings as described below.

Reliability of the MBI-ES

The three MBI-ES scales generally show good internal reliability and some stability over time.

Internal Reliability. Cronbach alpha estimates have been reported of: .90 for Emotional Exhaustion, .76 for Depersonalization, and .76 for Personal Accomplishment (Iwanicki & Schwab, 1981); .88, .74, and .72, respectively (Gold, 1984);, and .87, .76, and .84, respectively, in a recent study of 492 teachers (Chang, 2013). Some studies have found that the Depersonalization scale yields somewhat lower reliability estimates, however. For example, in a study of 771 Greek Cypriot teachers, the internal reliability estimate for Depersonalization was somewhat lower ($\alpha = .63$), while the reliabilities for Emotional Exhaustion ($\alpha = .85$) and Personal Accomplishment ($\alpha = .79$) were adequate (Kokkinos, 2006).

Test-Retest. Test-retest reliability estimates are somewhat lower than internal reliability estimates, as would be expected given the changing work situations teachers often face. In a sample of 248 teachers, two testing sessions were separated by an interval of one year. The test-retest reliabilities for the three scales were the following: .60 for Emotional Exhaustion, .54 for Depersonalization, and .57 for Personal Accomplishment (Jackson, Schwab & Schuler, 1986). Several subsequent studies that assessed teacher burnout over time have begun to provide useful insights into the reasons for increasing or decreasing degrees of burnout over the course of a school year (e.g., see Hultell, Melin & Gustavsson, 2013; Pas, Bradshaw & Hershfeldt, 2012; Schwarzer & Hallum, 2008).

The stability of educator burnout scores over time is a topic needing additional research. On the one hand, many teachers do not see students for several weeks during each year—for example, during a summer break—so teachers have more time to recover from feelings of burnout compared to many other human service professionals. On the other hand, so-called summer breaks can be tumultuous times during which employment contracts are negotiated, funding levels are determined, and major changes are introduced. To the extent that burnout develops in response to organizational conditions and administrative concerns, rather than to interactions with students, the ebb and flow of change that characterizes educational employment may itself be an additional source of stress.

Validity of the MBI-ES

Job Conditions Associated with Burnout. Evidence supporting the validity of the MBI-ES comes primarily from studies that have assessed the relationships between burnout scales and various aspects of the work experience. For example, in a study of full-time elementary ($n = 1203$), intermediate ($n = 410$), and secondary teachers ($n = 1431$), working conditions characterized by role conflict, work overload, classroom climate and social support from peers were correlated with Emotional Exhaustion, Depersonalization, and reduced Personal Accomplishment as predicted across the three groups (Byrne, 1994). Consistent with research using other MBI scales, a study of 175 physical education teachers in Greece found a strong negative relationship between the three burnout scales (treated as a set) and several job conditions including the work setting, the job itself, supervision, and the organization as a whole (Koustelios & Tsigilis, 2005).

Another important correlate of burnout for teachers is student misbehavior. In a study of 492 teachers (Chang, 2013), episodic unpleasant emotion resulting from student misbehavior was moderately associated with Emotional Exhaustion ($r = .36, p < .01$), Depersonalization ($r = .29, p < .01$) and reduced Personal Accomplishment ($r = .33, p < .01$). Additionally, in a study of 806 teachers (Fernet, Guay, Senécal & Austin, 2012), individual changes in students' disruptive behavior, and in principals' leadership behavior were indirectly related to all three components of burnout, mediated by feelings of lower self-efficacy. Apparently, students' disruptive behavior causes teachers to experience feeling of lower self-efficacy, and this leads to teachers experiencing feelings of lower personal accomplishment, greater depersonalization, and increased emotional exhaustion. This interpretation is consistent with a study of 521 elementary school teachers (Lambert, McCarthy, O'Donnell & Wang, 2009), which found that teachers of children with behavior problems reported greater Emotional Exhaustion ($r = .36, p < .05$), greater Depersonalization ($r = .20, p < .05$) and lower feelings of Personal Accomplishment ($r = .27, p < .05$). The study found that burnout was associated with other classroom features, including having more special needs students. Similarly, a study of 351 teachers (Astrauskaite, Perminas & Kern, 2010) found that teachers who were harassed

by their co-workers reported higher Emotional Exhaustion; also, Emotional Exhaustion was higher among teachers who had witnessed co-workers being harassed, compared to teachers who had not witnessed harassment ($p < .01$).

Additional validity evidence is provided by a meta-analysis that examined the relationship between workplace demands, resources, and experienced burnout. The analysis included a total of 116 studies involving teachers from public elementary, middle, and/or secondary schools. Consistent with Conservation of Resource Theory (Hobfoll, 1989), workplace demands were positively associated with emotional exhaustion, while workplace resources were associated with lower depersonalization and higher personal accomplishment.

Longer-Term Outcomes Associated with Burnout. Further evidence of MBI-ES validity comes from studies that correlate burnout scale scores with burnout predicted outcomes. For example, in a unique mixed-methods study of 65 elementary school teachers and their 461 students (Hoglund, Klinge & Hosan, 2015), Emotional Exhaustion, Depersonalization, and (reduced) Personal Accomplishment of teachers were predictive of less improvement in the quality of the instructor-child relationship (measured by ethnographic observation), and the literacy skills of the student. These findings demonstrate the potential costs for teachers who experience feelings of burnout at work, which affect not only the instructors' personal well-being, but also the learning experiences of the students they teach.

Administering the MBI-ES

The MBI-ES takes 10 to 15 minutes to complete. No special qualifications or procedures are required of a facilitator who administers the MBI-ES. However, the facilitator should not be a supervisor or administrator who has direct authority over the respondents because this could cause respondents to be less candid in their answers. Ideally, the facilitator should be seen as a neutral person. The major responsibilities of the facilitator are:

Provide Clear Instructions. Generally, the MBI-ES is administered using electronic survey tools; alternatively, paper forms can be used. The instructions provided with the MBI-ES survey should be given to respondents regardless of how the MBI-ES is administered. Because some respondents might have questions, they should be offered a way to contact someone who can answer their questions.

Avoid Sensitization to Burnout. People have widely varying beliefs about burnout. To minimize the reactive effect of such personal beliefs or expectations, it is important that respondents be unaware that the MBI-ES is a burnout measure and that they not be sensitized to the general issue of burnout. For this reason, the labels used on the survey do not include the word "burnout." The scale should be presented as a survey of job-related attitudes and not be linked to burnout in any way. Of course, once the measure has been administered to all respondents, then an explanation about burnout and use of the MBI-ES to assess it is appropriate.

Minimize Response Bias. Response biases can be minimized in several ways. First, follow the guidelines for administering the MBI-ES described above. Second, when introducing the survey to respondents, stress the importance of giving honest answers and reassure respondents about the confidentiality of the results.

Ensure Respondent Confidentiality. Because of the sensitive nature of some items, it is important that respondents are comfortable about expressing their true feelings. Ideally, they should be able to complete the MBI-ES anonymously. If this is not possible because identification is required (for example, in a longitudinal study), then efforts should be made to use a form of identification that is not personally revealing, such as a code number or a label. Even if responses are not anonymous, respondents should be assured that their answers will be kept confidential and not be used in any way that might have adverse personal consequences for them.

Voluntary Participation. Ethical use of the MBI-ES requires ensuring that respondents are providing their answers free of undue inducements or coercion. Respondents should be given sufficient information about how responses will be used so the respondent can make an informed choice to participate. Prospective respondents should be given information about any possible risks and the potential benefits of their involvement. Any questions they might have should be answered candidly. Adhere to all other applicable institutional guidelines.

Scoring the MBI-ES

In general, each respondent's MBI-ES scale scores should be calculated and interpreted separately. Note that responses to MBI-ES items should not be combined to form a single "burnout" score.

Scores can be interpreted for individual respondents, or MBI-ES scores for a group of respondents can be treated as aggregate data. Means and standard deviations for each scale can be computed for the entire group and compared to the normative data in this manual and to any local norms.

A scoring key is provided with your purchase of reproduction versions of the MBI-ES. You can score each respondent's survey form with the scoring key. Alternatively, you can use Mind Garden's online forms and reports which include scoring in the reports and data files. Learn about what is offered for online scoring by visiting the Mind Garden website at www.mindgarden.com.

Using the Mind Garden scoring service makes it easy to generate a personalized report that helps each respondent understand the meaning of his or her MBI-ES scale scores. Mind Garden can also generate group reports to assist organizations in understanding the relative degrees of burnout present across the organization, within various units, and for different demographic groups of employees.

The Mind Garden scoring service calculates scale scores using two methods, described below. Both methods are appropriate and they yield the same information. Method 1 (SUM) is often used in scientific research, while Method 2 (AVE) is often used in applied situations to make interpretation of the scores easier for respondents.

Note of Caution: For both Method 1 and Method 2, each respondent's three scale scores should be determined and these scale scores should be interpreted separately. It is NOT appropriate to add the three scale scores to create a total burnout score.

Method 1 (SUM). For ease of comparing results to research reports that have been published during the past three decades, it is best to add responses to the MBI-ES items for each scale and use the SUM as the scale score. This method was most often used in burnout research in the human services professions. This scoring method is as follows:

Emotional Exhaustion (SUM) = Items 1 + 2 + 3 + 6 + 8 + 13 + 14 + 16 + 20

Note: Higher scores indicate higher degrees of burnout.

Depersonalization (SUM) = Items 5 + 10 + 11 + 15 + 22

Note: Higher scores indicate higher degrees of burnout.

Personal Accomplishment (SUM) = Items 4 + 7 + 9 + 12 + 17 + 18 + 19 + 21

Note: Lower scores indicate higher degrees of burnout.

Table 8 shows mean scores and standard deviations calculated using Method 1 (SUM) for teachers from several samples.

Table 8. Means and Standard Deviations for the MBI-ES Scales

	MBI-ES Scales		
	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Occupational Subgroups			
Primary and Secondary Teachers (n=4,163)			
M	21.25	11.00	33.54
SD	11.01	6.19	6.89
Postsecondary Teachers (n=635)			
M	18.57	5.57	39.17
SD	11.95	6.63	7.92

Note: Scale scores were calculated using Method 1 (SUM).

Method 2 (AVE). For ease of interpretation by respondents, it is useful to calculate the mean response for the items that make up each scale. For all scales, the mean scores can range from 0 (Never) to 6 (Daily). Using Method 2, simply begin by creating the scale Sum and then divide by the number of items in the scale, as follows:

Emotional Exhaustion (AVE) = [Items 1 + 2 + 3 + 6 + 8 + 13 + 14 + 16 + 20] ÷ 9

Note: Higher scores indicate higher degrees of burnout.

Depersonalization (AVE) = [Items 5 + 10 + 11 + 15 + 22] ÷ 5

Note: Higher scores indicate higher degrees of burnout.

Personal Accomplishment (AVE) = [Items 4 + 7 + 9 + 12 + 17 + 18 + 19 + 21] ÷ 8

Note: Lower scores indicate higher degrees of burnout.

Interpreting the MBI-ES Scale Scores

Scores can be interpreted for individual respondents, or MBI-ES scores for a group of respondents can be treated as aggregate data. With either approach, scores can be interpreted as absolute values or by comparing scores to those of a larger population to determine the individual's relative degree of burnout.

Note of Caution. It is important to understand that there is no definitive score that “proves” a person is “burned out.”

Absolute Values. With this approach, the meaning of scores is straightforward. Simply use the MEAN scale score and consider where it falls along the 7-point response scale. For example, an Emotional Exhaustion MEAN scale score of 3.5 would be interpreted as indicating the respondent felt emotionally exhausted several times a month on average, but not every week; a score of 5.5 would indicate the respondent felt emotionally exhausted several times a week on average, but not every day. Using this method, judgments about whether the experience of each aspect of burnout is sufficiently frequent to be of concern and worth taking seriously are left to the respondent and/or others who are in a position to take corrective steps.

Degrees of Burnout Relative to Others. In some situations, when the responses of a large sample of respondents are available, it might be appropriate to compare an individual's score to the scores of other respondents in the sample. For example, using data such as that shown in Table 8, a person's relative degree of burnout can be compared to the average for their group. Using the publisher's online scoring service, users can easily obtain reports that include normative data for their particular sample of users. Reports include both normative comparisons to the norm tables in this Manual and if a norm group is set up, normative comparisons based on your participants. Users who are interested in obtaining reports that include normative data should go to www.mindgarden.com.

As with Method 1, comparing a respondent's score to the scores of others leaves the responsibility for making judgments about whether the experience of each aspect of burnout is sufficiently frequent to be of concern with the respondent and/or other people who are in a position to take corrective steps.

The MBI General Survey: MBI-GS

Introduction

The original MBI (MBI-HSS) was developed to measure burnout as an occupational issue for people providing human services (Maslach & Jackson, 1981). Even after its original release, however, the MBI was used to assess burnout in people who were not human services providers. As we have described, first it was adapted for use with teachers. But as interest in burnout among other groups mushroomed, it became clear that interpretation of the original MBI scales was not always straightforward for other groups. In particular, for some other occupational groups, the Depersonalization and Emotional Exhaustion scales were not as easily interpreted as distinct dimensions of burnout (Leiter, Clark & Durup, 1994). Therefore, we undertook the task of developing an alternate form of the MBI for use with a broader array of occupational groups.

Development of the MBI-GS

When developing the MBI-GS, the goal was to adapt the MBI to occupations that do not involve much direct personal contact with service recipients. Thus, burnout as measured by the MBI-GS shares many features with burnout as measured by the MBI-HSS, with the major difference being that the MBI-GS focuses on the performance of work in general regardless of the specific nature of that work. The MBI-GS defines burnout as a crisis in one's relationship with work, and does not specifically focus on one's relationships with people at work. As a result of this adaptation work, the three scales were modified in appropriate ways, and renamed as Exhaustion, Cynicism, and Professional Efficacy.

Multicultural Foundation. Development of the MBI General Survey (MBI-GS) proceeded from a multicultural base with the scale administered to participants in their native languages in Canada (English), Holland, and Finland (Schaufeli, Leiter & Kalimo, 1995). Subsequent studies tested the MBI-GS with staff members of a tertiary care medical hospital and staff members of a residential mental health facility (Leiter & Schaufeli, 1996). Together these studies provided an opportunity to assess the degree of the differentiation between the factors across settings, occupational groups, and countries.

Factor Structure. The factor structure of the MBI-GS was established by conducting a confirmatory factor analysis using LISREL (Jöreskog & Sörbom, 1989) for responses given by samples in Canada, Holland, and Finland (Schaufeli, Leiter & Kalimo, 1995). Initially, respondents in these samples completed a 28-item survey. Then we identified and retained 24 items that met criteria regarding skewness and kurtosis (less than |2.00|) and frequency of missing responses (less than 3%). A series of regression and factor analyses reduced the number of items to the 16 shown in Table 9. The factor structure in Table 9 was confirmed for each of the three samples, and was invariant across the three countries.

The same factor structure was confirmed for two additional Canadian samples ($N_s = 3312$ and 415), as described by Leiter and Schaufeli (1996). To determine the extent to which the MBI-GS was appropriate for use in a variety of disciplines, including service providers and people performing other functions in a tertiary care hospital, a confirmatory factor analysis was repeated with each of the four occupational groups: managers, clerical and maintenance workers, technologists and therapists, and nurses. The three-factor structure of the MBI-GS was confirmed with each of the four groups, indicating that it is applicable to a wide range of

occupations. The factor loadings in Table 9, based upon these samples, are the Lambda Y coefficients from the causal model that provided the best fit in all samples investigated: items loaded on the MBI-GS scales as indicated in Table 9 with a path from Exhaustion to Cynicism and a path from Cynicism to Professional Efficacy.

Table 9. MBI - General Survey Items with Factor Loadings

	Item	Y^a	Scale^b
1.	I feel emotionally drained from my work.	.70	EX
2.	I feel used up at the end of the workday.	.71	EX
3.	I feel tired when I get up in the morning and have to face another day on the job.	.80	EX
4.	Working all day is really a strain for me.	.69	EX
5.	I can effectively solve the problems that arise in my work.	.51	PE
6.	I feel burned out from my work.	.82	EX
7.	I feel I am making an effective contribution to what this organization does.	.70	PE
8.	I have become less interested in my work since I started this job.	.81	CY
9.	I have become less enthusiastic about my work.	.89	CY
10.	In my opinion, I am good at my job.	.65	PE
11.	I feel exhilarated when I accomplish something at work.	.51	PE
12.	I have accomplished many worthwhile things in this job.	.70	PE
13.	I just want to do my job and not be bothered.	.53	CY
14.	I have become more cynical about whether my work contributes anything.	.71	CY
15.	I doubt the significance of my work.	.85	CY
16.	At my work, I feel confident that I am effective at getting things done.	.60	PE

^aLambda Y loadings from Leiter & Schaufeli (1996).

^bEX = Exhaustion, CY = Cynicism, PE = Professional Efficacy.

Together, the scales of the MBI-GS provide a three-dimensional perspective on burnout. In a manner similar to the MBI-HSS, a high degree of burnout is reflected in high scores on Exhaustion and Cynicism and low scores on Professional Efficacy.

Uses of the MBI-GS

The MBI-GS is appropriate for use with respondents whose activities at work involve only limited and/or casual contact with people. To date, it has been used to understand the reactions of people in a wide range of occupations and settings, including those working in jobs such as customer service, maintenance, manufacturing, management and most other professions. The MBI-GS can also be used in healthcare settings (as an alternative to the MBI-HSS) and educational settings (as an alternative to the MBI-ES) if it is important to produce MBI scores that can be compared across a wide range of occupational groups using the same metric. However, users are advised to carefully weigh the value of using the occupationally-specific MBI versions, which were designed to fit those particular groups, versus the value of having comparable scores produced by the GS version. Finally, a version of the MBI for Students, the MBI-GS (S), is available also. However, the psychometric properties of the MBI-GS (S) have not yet been established.

Scales of the MBI-GS

The MBI-GS assesses three core aspects of the burnout syndrome as it is experienced by people working in occupations other than human services: exhaustion, cynicism, and lack of professional efficacy. The frequency with which the respondent experiences feelings related to each scale is assessed using a seven-point, fully anchored response format, as shown in Figure 3. Each aspect is measured by a separate scale.

Exhaustion. The Exhaustion scale assesses feelings of exhaustion, in general. The wording of these items is generally similar to other MBI versions. However, whereas other MBI versions refer specifically to exhaustion due to interactions with people, the MBI-GS Exhaustion items do not make to direct references to people as the source of such feelings. As an example of how the GS differs from other versions, compare this item from the MBI-GS, "Working all day is really a strain for me," to the original item from the MBI-HSS, "Working with people all day is really a strain for me."

Cynicism. The Cynicism scale assesses feelings of indifference or a distant attitude towards work; it represents dysfunctional coping with job strains. The items are somewhat similar to Depersonalization items in other MBI versions, with the important difference being that other MBI versions refer to personal relationships at work rather than to the work itself. An example of a Cynicism item is: "I have become less enthusiastic about my work."

Professional Efficacy. The Professional Efficacy scale assesses an individual's feelings of effectiveness at work. It is similar in many ways to Personal Accomplishment as measured by the MBI-HSS but it encompasses both social and nonsocial aspects of occupational accomplishments. Like the Personal Accomplishment items in other MBI versions, Professional Efficacy items refer to satisfaction with past and present accomplishments. An example of a Professional Efficacy item is: "At my work, I feel confident that I am effective at getting things done."

Item 6: I feel burned out from my work.							
How often?	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

Figure 3. MBI-GS Item Format

Psychometric Properties of the MBI-GS

Development of the MBI-GS assessed its psychometric properties to ensure they were comparable to the MBI-HSS. Additionally, several studies have established the reliability and validity of the MBI-GS.

Relationships Among the MBI-GS Scales

Consistent with the assumption that the three burnout components comprise an overall burnout syndrome, the three MBI-GS scales are somewhat correlated, as shown in Table 10.

Table 10. Inter-correlations among MBI-GS Scales

National Samples	N	$r_{EX,CY}$	$r_{EX,PE}$	$r_{CY,PE}$
Dutch				
Civil Servants	556	.59	-.34	-.57
Rural Workers	761	.44	-.23	-.35
Finnish				
Computer Jobs	289	.44	-.29	-.34
Canadian				
Military	147	.51	-.09	-.57
Clerical	609	.48	-.04	-.38
Technologists	515	.44	-.23	-.44
Nursing	1,257	.58	-.24	-.44
Management	310	.47	-.16	-.38
Psychiatric Workers	415	.61	-.34	-.46

Note: EX = Exhaustion, CY = Cynicism, PE = Professional Efficacy, r is Pearson coefficient.

Reliability of the MBI-GS

Across many samples, reliability coefficients for internal consistency and stability over time are generally adequate for each of the three MBI-GS scales.

Internal Reliability. For a large sample of 12,140 employees from varied organizations, Cronbach's alpha values were .88 for Exhaustion, .76 for Cynicism, and .76 for Professional Efficacy (Leone, Huibers, Kottner & Kant, 2007). Consistent with this finding, a sample of 9,055 forest industry employees had Cronbach's alpha values of .86 for Exhaustion, .75 for Cynicism, and .83 for Professional Efficacy (Schutte, Toppinen, Kalimo & Schaufeli, 2000). In a sample of 3,312 employees from four occupational groups, Cronbach's alphas ranged between .87-.90 for Exhaustion, .74-.80 for Cynicism, and .70-.77 for Professional Efficacy (Leiter & Schaufeli, 1996). In a sample of 2,431 working adults, the alpha coefficients were .83 for Exhaustion, .79 for Cynicism and .74 for Professional Efficacy (Halbesleben & Demerouti, 2005). Similar results were found for numerous smaller samples (e.g., see Schaufeli, Salanova, Bakker & Gonzales-Roma, 2002; Wu, Zhu, Wang, Wang & Lan, 2007; Leiter, Price & Spence Laschinger, 2010).

Test-Retest. Test-retest reliability of the MBI-GS has been reported for three samples. For a sample comprised of 694 police officers, air traffic controllers, journalists, and construction managers, the two test sessions were separated by an interval of six months. The test-retest reliability coefficients for the scales were the following: .72 for Exhaustion, .61 for Cynicism, and .58 for Professional Efficacy (Richardsen & Martinussen, 2005). In a study of 219 nurses, the interval between studies was two weeks. The test-retest reliability coefficients were as follows: .74 for Exhaustion, .67 for Cynicism, and .71 for Professional Efficacy, and all coefficients were significant at a level of $p < .01$ (Wu, Zhu, Wang, Wang & Lan, 2007). A Dutch civil service sample ($N=1,018$) provided longitudinal data at a one-year interval. The three scales had stability coefficients of .65 for Exhaustion, .60 for Cynicism, and .67 for Professional Efficacy (Leiter & Schaufeli, 1996).

Validity of the MBI-GS

The validity of the MBI-GS has been demonstrated in several ways. First, MBI-GS scores were correlated with the presence of certain job conditions that were expected to contribute to burnout. Second, MBI-GS scores were correlated with measures of various outcomes that had been hypothesized to be related to burnout. Third, to establish convergent validity of the MBI-GS scales, burnout scores were correlated with responses on other measures of instruments that assess constructs that are similar but distinctly different from burnout.

Job Conditions Associated with Burnout. Consistent with the expectation that burnout is likely to be heightened in work settings with greater job demands and scarcer job resources, a study of 266 educators showed that Exhaustion was correlated with control ($r = -.35, p < .01$), growth ($r = -.33, p < .01$), and job demand overload ($r = .50, p < .01$). Cynicism was correlated with a lack of growth opportunities ($r = .43, p < .01$), as was Professional Efficacy ($r = .43, p < .01$) (Jackson & Rothmann, 2005).

With regard to positive contextual factors, a study of 81 firefighters found that positive leader-member exchange (LMX) was negatively associated with Exhaustion ($\beta = -.47, p < .001$) and Cynicism ($\beta = -.47, p < .001$). In other words, employees who had a positive relationship with their supervisor had lower levels of Exhaustion and Cynicism (Becker, Halbesleben & O'Hair,

2005). In a sample of 157 aircraft maintenance technicians, perceived control over accidents was associated with Professional Efficacy ($r = .16, p < .05$); hazard-related training was negatively related to Exhaustion ($r = -.20, p < .05$) and positively related to Professional Efficacy ($r = .17, p < .05$) (Leiter & Robichaud, 1997).

Longer-term Outcomes Associated with Burnout. The MBI-GS was found to be consistently related to various longer-term personal and organizational consequences, similar to findings for other MBI versions (Schaufeli, Leiter, & Kalimo, 1995). Professional Efficacy was related to satisfaction, organizational commitment, job involvement, and access to resources. Cynicism was primarily related to the same constructs as Exhaustion, but with negative secondary loadings on the attitudinal constructs associated with Professional Efficacy. Additionally, a study of 277 female nurses found that Exhaustion was significantly associated with turnover in the following year; however, neither Cynicism nor Professional Efficacy was predictive of turnover.

Another consequence of burnout is work-to-family interference. In a study of 174 workers in a Dutch governmental organization, work-to-family interference was strongly associated with Exhaustion ($r = .64, p < .01$) and moderately associated with Cynicism ($r = .32, p < .01$) (Montgomery, Panagopoulou, de Wildt & Meenks, 2006). This finding is consistent with the majority of findings, which show that demands of many types are positively associated with Exhaustion and Cynicism.

Several studies have examined the relationship between burnout and physical health symptoms. A survey of 3,895 employees from a variety of industries found relatively small but statistically significant relationships between number of sick days taken and feelings of Exhaustion ($r = .20, p < .001$), Cynicism ($r = .17, p < .001$) and lack of Professional Efficacy ($r = .14, p < .001$) (Toppinen-Tanner, Ojajärvi, Väänänen, Kalimo & Jäppinen, 2005). Similarly, a study of 3,368 employees who participated in Finland's "Health 2000 Study" found that all three dimensions of burnout were associated with increased prevalence of musculoskeletal disorders among women and cardiovascular diseases among men (Honkonen et al., 2006). A study of 266 educators found somewhat stronger associations between burnout and physical health: Exhaustion alone predicted 16% of the variance in physical ill-health, while the three MBI-GS scale scores together explained 38% of the variance in psychological ill-health (Jackson & Rothmann, 2005). In a study of 383 male middle managers, those managers who had high burnout at Time 1 were more likely to have increased waist circumference, weight, and body mass index (BMI) at Time 2, approximately 4-5 years after their initial burnout measurement (Kitaoka-Higashiguchi et al., 2009). However, findings on the physiological correlates of burnout are somewhat mixed (Danhof-Pont, van Veen & Zitman, 2011). For instance, in a study of 88 managers, burnout was not significantly associated with differences in cortisol production or salivary dehydroepiandrosterone-sulfate (DHEAS), which counterbalances cortisol (Langelan, Bakker, Schaufeli, van Rhenen & van Doornen, 2006).

Discriminant Validity. Further evidence of the validity of the MBI-GS was obtained by distinguishing it from measures of other psychological constructs that might be presumed to be confounded with burnout. For instance, it is possible that the experience of burnout may be nothing more than the experience of occupational stress. Although a relationship between the two constructs is expected, they should not be so highly correlated as to suggest that they are actually the same phenomenon. Consistent with this hypothesis, a study of 495 nurses showed that the MBI-GS Exhaustion scale had moderate correlations ($r = .42$ to $-.40, p < .01$) with various indicators of occupational stress, while Cynicism had moderate and low

correlations with stress indicators ($r = .39$ to $-.28$, $p < .01$), and Professional Efficacy had relatively low correlations with stress indicators ($r = .27$ to $-.33$, $p < .01$) (Wu et al., 2007). These correlations show that, although the MBI-GS scales are significantly correlated with occupational stress, the two constructs are distinctly different.

Similarly, it might be assumed that burnout is simply indicative of an employee's intention to leave their organization. However, in a sample of 477 nurses, turnover intention only had moderate correlations with the MBI-GS scales of Exhaustion ($r = .45$, $p < .05$) and Cynicism ($r = .47$, $p < .05$) (Leiter et al., 2010).

Additionally, it is possible that burnout is simply a manifestation of low engagement. To test this possibility, a study of 1,698 employees in various occupations completed the MBI-GS and the Utrecht Work Engagement Scale (UWES). A confirmatory factor analysis was performed to see if the items loaded on a single "well-being" factor, or whether they fit the data better with a two-factor model, in which one factor represented burnout and the other factor represented engagement. The two-factor model fit the data significantly better, and thus burnout is not merely indicative of low engagement (Schaufeli & Bakker, 2004).

Conversely, it may be argued that burnout is a manifestation of overwork, or workaholism. To test this possibility, a study of Dutch ($N = 1,406$) and Japanese ($N = 2,024$) employees completed the MBI-GS as well as scales that measured (1) working excessively and (2) working compulsively (Schaufeli, Shimazu & Taris, 2009). For the Dutch sample, the correlations between working excessively and Exhaustion ($r = .27$, $p < .01$), Cynicism ($r = .05$, $p < .05$), and Professional Efficacy ($r = .11$, $p < .01$) were all low; for the Japanese sample the correlations between working excessively were moderate for Exhaustion ($r = .46$, $p < .01$), low for Cynicism ($r = .29$, $p < .01$), and nonsignificant for Professional Efficacy ($r = .04$, $p > .05$). With respect to working compulsively, for the Dutch sample the correlations were moderate for Exhaustion ($r = .43$, $p < .01$) and low for Cynicism ($r = .30$, $p < .01$) and Professional Efficacy ($r = -.25$, $p < .01$); similarly, for the Japanese sample the correlations between working compulsively and burnout were moderate for Exhaustion ($r = .36$, $p < .01$), low for Cynicism ($r = .25$, $p < .01$), and nonsignificant for Professional Efficacy. Thus, it is clear that burnout is not merely representative of employees who work too hard and are consequently fatigued.

Convergent Validity. Since the development of the MBI-GS, several other instruments have been developed to measure burnout. Comparison of these measures to the MBI-GS can be used as one method of measuring convergent validity. One such alternative measure is the Shirom-Melamed Burnout Measure (SMBM; Shirom & Melamed, 2006). A sample of 434 employees (198 individuals in human services and 236 individuals in other service professions) completed both measures. Although the different factor structure of the SMBM makes it impossible to directly compare correlations between scales, the correlation of composite scores on the MBI-GS and the SMBM was .79. Similarly, the MBI-GS was compared to the Oldenburg Burnout Inventory (OLBI; Demerouti, Bakker, Vardakou & Kantas, 2003) using a multitrait-multimethod analysis (MTMM) in a sample of 232 Greek employees from various industries. The OLBI has two scales instead of three: Exhaustion and Disengagement. The exhaustion scales of the MBI-GS and the OLBI correlated at .60, and the MBI-GS Cynicism scale correlated with the conceptually similar OLBI Disengagement scale at .60. A subsequent study found similar results in a sample of 2,431 working adults, with a slightly higher correlation between the two exhaustion scales ($r = .65$) and a slightly lower correlation between Disengagement and Cynicism ($r = .48$; Halbesleben & Demerouti, 2005). In a sample of 168 fire department employees, the correlations between the two measures

were $r = .72$ for the two exhaustion measures and $r = .67$ for MBI-GS Cynicism and OLBI Disengagement (Halbesleben, 2005).

Administering the MBI-GS

The MBI-GS takes 5 to 10 minutes to complete. To encourage valid responses, respondents should be encouraged to complete the MBI-GS in a quiet and private setting.

Instructions for Respondents. Generally, the MBI-GS is administered using electronic survey tools; alternatively, paper forms can be used. Because some respondents might have questions, they should be offered a way to contact someone who can answer their questions.

Respondent Confidentiality. Because of the sensitive nature of some items, it is important that respondents are comfortable about expressing their true feelings. Ideally, they should be able to complete the MBI-GS anonymously. If this is not possible because identification is required (for example, in a longitudinal study), then efforts should be made to use a form of identification that is not personally revealing, such as a code number or a label.

Avoid Sensitization to Burnout. People have widely varying beliefs about burnout. To minimize the reactive effect of such personal beliefs or expectations, it is important that respondents be unaware that the MBI-GS is a burnout measure and that they not be sensitized to the general issue of burnout. For this reason, the labels used on the survey do not include the word “burnout”. The scale should be presented as a survey of job-related attitudes and not be linked to burnout in any way. Of course, once the measure has been administered to all respondents, then an explanation about burnout and use of the MBI-GS to assess it is appropriate.

Scoring the MBI-GS

In general, each respondent's MBI-GS scale scores should be calculated and interpreted separately. Note that responses to MBI-GS items should not be combined to form a single “burnout” score.

Scores can be interpreted for individual respondents, or MBI-GS scores for a group of respondents can be treated as aggregate data. Means and standard deviations for each scale can be computed for the entire group and compared to the normative data in this manual and to any local norms.

A scoring key is provided with your purchase of reproduction versions of the MBI-GS. You can score each respondent's survey form with the scoring key. Alternatively, you can use Mind Garden's online forms and reports which include scoring in the reports and data files. Learn about what is offered for online scoring by visiting the Mind Garden website at www.mindgarden.com.

Using the Mind Garden scoring service makes it easy to generate a personalized report that helps each respondent understand the meaning of his or her MBI-GS scale scores. Mind Garden can also generate group reports to assist organizations in understanding the relative degrees of burnout present across the organization, within various units, and for different demographic groups of employees.

The Mind Garden scoring service calculates scale scores using two methods, described below. Both methods are appropriate and they yield the same information. Method 1 (SUM) is often

used in scientific research, while Method 2 (AVE) is often used in applied situations to make interpretation of the scores easier for respondents.

Note of Caution: For both Method 1 and Method 2, each respondent's three scale scores should be calculated and interpreted separately. It is NOT appropriate to add the three scale scores to create a total burnout score.

Method 1 (SUM). For ease of comparing results to some research reports that have been published during the past two decades, some users may wish to add responses to the MBI-GS items for each scale and use the SUM as the scale score. This scoring method is as follows:

Exhaustion (SUM) = Items 1 + 2 + 3 + 4 + 6

Note: Higher scores indicate higher degrees of burnout.

Cynicism (SUM) = Items 8 + 9 + 13 + 14 + 15

Note: Higher scores indicate higher degrees of burnout.

Professional Efficacy (SUM) = Items 5 + 7 + 10 + 11 + 12 + 16

Note: Lower scores indicate higher degrees of burnout.

Method 2 (AVE). For ease of interpretation by respondents and for researchers comparing results to many recent publications, it is useful to calculate the mean response for the items that make up each scale. For all scales, the mean scores can range from 0 (Never) to 6 (Daily). Using Method 2, begin by creating the scale Sum and then divide by the number of items in the scale, as follows:

Exhaustion (AVE) = [Items 1 + 2 + 3 + 4 + 6] ÷ 5

Note: Higher scores indicate higher degrees of burnout.

Cynicism (AVE) = [Items 8 + 9 + 13 + 14 + 15] ÷ 5

Note: Higher scores indicate higher degrees of burnout.

Professional Efficacy (AVE) = [Items 5 + 7 + 10 + 11 + 12 + 16] ÷ 6

Note: Lower scores indicate higher degrees of burnout.

Interpreting the MBI-GS Scale Scores

Scores can be interpreted for individual respondents, or MBI-GS scores for a group of respondents can be treated as aggregate data. With either approach, scores can be interpreted as absolute values or by comparing scores to those of a larger population to determine the individual's relative degree of burnout.

Note of Caution. It is important to understand that there is no definitive score that "proves" a person is "burned out."

Absolute Values. With this approach, the meaning of scores is straightforward. Simply use the AVE scale score and consider where it falls along the 7-point response scale. For example, an Exhaustion AVE scale score of 3.5 would be interpreted as indicating the respondent felt emotionally exhausted several times a month on average, but not every week; a score of 5.5 would indicate the respondent felt emotionally exhausted several times a week on average, but not every day. Using this method, judgments about whether the experience of each aspect of

burnout is sufficiently frequent to be of concern and worth taking seriously are left to the respondent and/or others who are in a position to take corrective steps.

Degrees of Burnout Relative to Others. In some situations, when the responses of a large sample of respondents are available, it might be appropriate to compare an individual's score to the scores of other respondents in the sample. As with Method 1, comparing a respondent's score to the scores of others leaves the responsibility for making judgments about whether the experience of each aspect of burnout is sufficiently frequent to be of concern with the respondent and/or other people who are in a position to take corrective steps.

Table 11 uses the Means and Standard Deviations to summarize data from several large samples of respondents who completed the MBI-GS. Attributes of the respondents included in the Schaufeli and Leiter databases are described in Table 12. Using data such as these, a person's relative degree of burnout can be compared to the average for their group. Using the publisher's online scoring service, users can easily obtain reports that include normative data for their particular sample of users. To learn more about how to obtain reports that include normative data, go to www.mindgarden.com.

Table 11. Means (M) and Standard Deviations (SD) for the MBI-GS Scales Using Method 2 (AVE) for Scoring

Occupational Subgroups ¹	MBI-GS Scales		
	Exhaustion	Cynicism	Professional Efficacy
<i>Schaufeli Database</i>	<i>N = 28,018</i>	<i>N = 28,036</i>	<i>N = 28,018</i>
M	2.12	1.72	4.29
SD	1.44	1.35	1.22
<i>Leiter Database</i>	<i>N = 19,782</i>	<i>N = 19,716</i>	<i>N = 19,825</i>
M	2.45	1.76	4.42
SD	1.50	1.36	1.10
<i>Combined</i>	<i>N = 47,800</i>	<i>N = 47,752</i>	<i>N = 47,843</i>
M	2.26	1.74	4.34
SD	1.47	1.36	1.17

¹These databases combine data that several international scholars collected and were shared with the authors, Leiter and Schaufeli, from 1996 to 2015.

Table 12. Comparison of Respondents in the Schaufeli and Leiter Databases

Respondents	Representation in the Databases			
	Schaufeli		Leiter	
Gender	N	%	N	%
Women	16,089	59.7	6,815	32.7
Men	10,848	40.3	13,884	66.6
Country				
Australia	363	1.3		
Belgium	1,904	6.7		
Canada	267	0.9	6,501	29
China			235	1
Finland	7,080	24.7	1,705	7.6
France	221	0.8		
Germany	2,969	10.4	190	0.8
Greece	325	1.1		
Italy			6,077	27.1
Mexico			261	1.2
Netherlands	8,441	29.5		
Norway	233	0.8		
South Africa	2,547	8.9		
Spain	1,853	6.5	1,826	8.1
Sweden	386	1.3		
Turkey			185	0.8
United States			5,428	24.2

Table 12. Comparison of Respondents in the Schaufeli and Leiter Databases (Cont.)

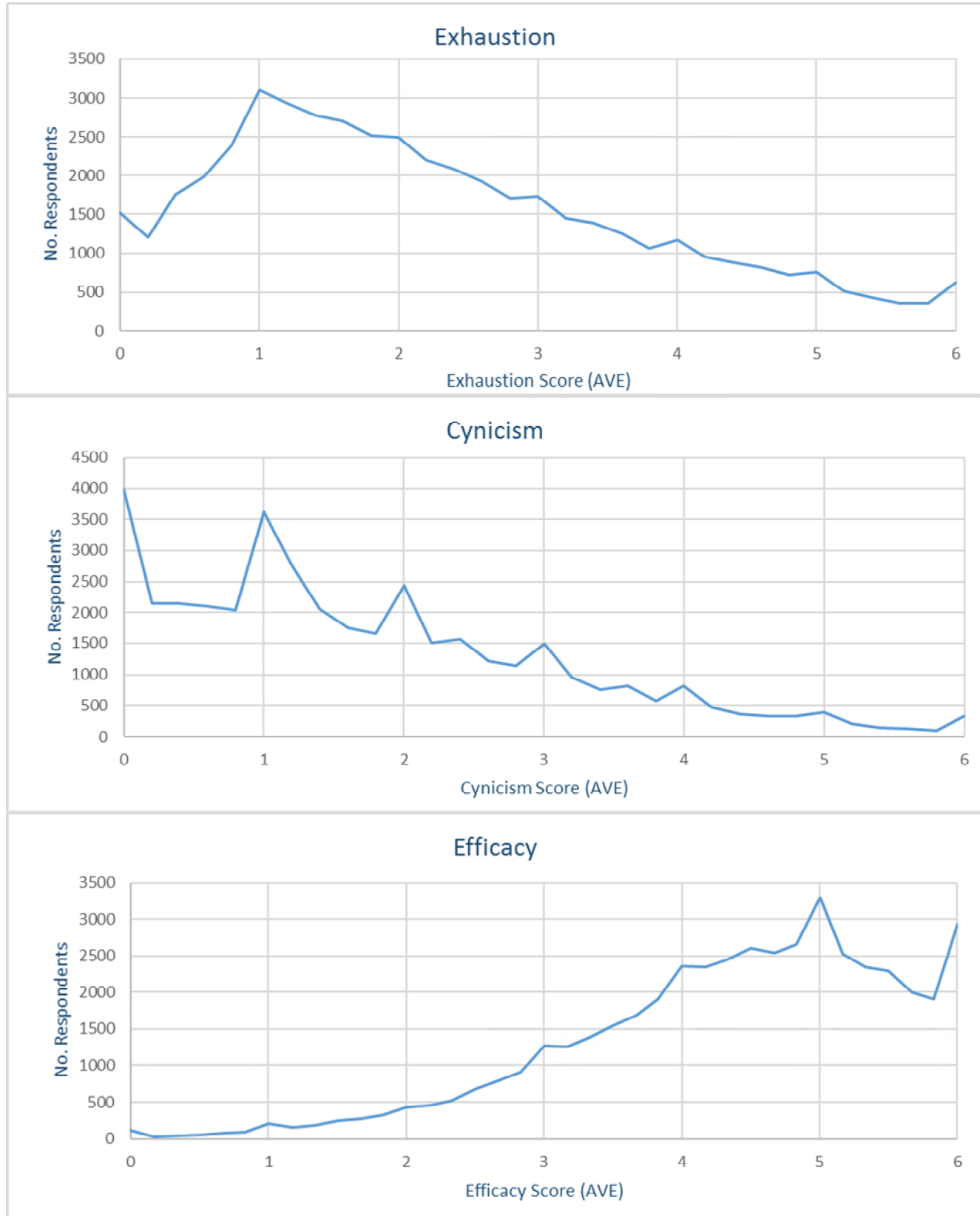
Respondents	Representation in the Databases			
	Schaufeli		Leiter	
Occupation	N	%	N	%
Administrative	64	0.2	595	5.9
Blue Collar	990	3.5		
Civil Servant	227	0.8		
Clerical			335	3.3
Communications Director			1	0
Dentist	2,773	9.8		
Development			15	0.1
Doctor	332	1.2		
Educator			420	4.2
Engineer/technician	527	1.9		
Entrepreneur	7	0		
(Ex) burnout patient	148	0.5		
Farmer	7	0		
Government	414	1.5		
Health Care			2,496	24.7
Home Care	3	0		
Hospital Staff	697	2.5		
Judge	699	2.5		
Lawyer			2	0
Librarian			47	0.5
Library Assistant			141	1.4
Manager	1,385	4.9		
Marketing			19	0.2
Nurse	2,719	9.6	4,038	40.0
Operations/Policy			34	0.3
Paramedic	40	0.1		
Physician			647	6.4
Police Officer	5,689	20.2		
Professional/Administrative			595	5.9
Public Service			129	1.3
Sales			82	0.8
Salvation Army	360	1.3		
Scientists/Researchers			66	0.7

Table 12. Comparison of Respondents in the Schaufeli and Leiter Databases (Cont.)

Respondents	Representation in the Databases			
	Schaufeli		Leiter	
	N	%	N	%
Service Worker			272	2.7
Social Worker	157	0.6		
Teacher	2,646	9.4		
Technical Service			168	1.7
University Staff	1,432	5.1		
White Collar (non-profit)	1,664	5.9		
White Collar (profit)	4,175	14.8		
Other	1,035	3.7	584	5.8

Additional information for use in interpreting MBI-GS scale scores is presented in Figure 4, which shows detailed frequency distributions for each MBI-GS scale. The data for Figure 4 is the same as in Table 11. Using information such as this, respondents can assess their percentile score relative to a large and very diverse (multiple countries and multiple occupations) sample of other respondents.

Figure 4. Frequency Distributions for the MBI-GS Scales



Note: See Table 11 for the source of the data in Figure 4.

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Conduct a survey with report output and receive the interpretative MBI Individual Report or MBI Group Report.



Conduct a survey with data output and receive a csv data file including raw data and raw scale scores.

Option 2 Conduct a survey online via another platform or via paper/pen. You will receive one copy with a license to administer the instrument (up to the number purchased).



Order a License to Administer (PDF), electronic delivery (no additional shipping costs). Shortly after ordering, you will receive login and retrieval instructions.

Appendix 1. Review Copy: MBI Human Services Survey

MBI Human Services Survey

Christina Maslach & Susan E. Jackson

The purpose of this survey is to discover how various people working in human services or the helping professions view their job and the people with whom they work closely.

Because people in a wide variety of occupations will answer this survey, it uses the term *recipients* to refer to the people for whom you provide your service, care, treatment, or instruction. When answering this survey please think of these people as recipients of the service you provide, even though you may use another term in your work.

Instructions: On the following pages are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about *your* job. If you have *never* had this feeling, write the number "0" (zero) in the space before the statement. If you have had this feeling, indicate *how often* you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. An example is shown below.

Example:

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How often
0-6

Statement:

1. _____ I feel depressed at work.

If you never feel depressed at work, you would write the number "0" (zero) under the heading "How often." If you rarely feel depressed at work (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week but not daily), you would write the number "5."

Review Copy: MBI Human Services Survey

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How often
0-6

Statements:

1. _____ I feel emotionally drained from my work.
2. _____ I feel used up at the end of the workday.
3. _____ I feel fatigued when I get up in the morning and have to face another day on the job.
4. _____ I can easily understand how my recipients feel about things.
5. _____ I feel I treat some recipients as if they were impersonal objects.
6. _____ Working with people all day is really a strain for me.
7. _____ I deal very effectively with the problems of my recipients.
8. _____ I feel burned out from my work.
9. _____ I feel I'm positively influencing other people's lives through my work.
10. _____ I've become more callous toward people since I took this job.
11. _____ I worry that this job is hardening me emotionally.
12. _____ I feel very energetic.
13. _____ I feel frustrated by my job.
14. _____ I feel I'm working too hard on my job.
15. _____ I don't really care what happens to some recipients.
16. _____ Working with people directly puts too much stress on me.
17. _____ I can easily create a relaxed atmosphere with my recipients.
18. _____ I feel exhilarated after working closely with my recipients.
19. _____ I have accomplished many worthwhile things in this job.
20. _____ I feel like I'm at the end of my rope.
21. _____ In my work, I deal with emotional problems very calmly.
22. _____ I feel recipients blame me for some of their problems.

(Administrative use only)

EE Total score: _____

DP Total score: _____

PA Total score: _____

EE Average score: _____

DP Average score: _____

PA Average score: _____

Appendix 2: Review Copy: MBI-HSS for Medical Personnel

MBI-HSS for Medical Personnel

Christina Maslach & Susan E. Jackson

The purpose of this survey is to discover how various persons in the human services or helping professions view their job and the people with whom they work closely.

Instructions: On the following pages are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about *your* job. If you have *never* had this feeling, write the number “0” (zero) in the space before the statement. If you have had this feeling, indicate *how often* you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. An example is shown below.

Example:

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How often
0-6

Statement:

1. _____ I feel depressed at work.

If you never feel depressed at work, you would write the number “0” (zero) under the heading “How often.” If you rarely feel depressed at work (a few times a year or less), you would write the number “1.” If your feelings of depression are fairly frequent (a few times a week but not daily), you would write the number “5.”

Review Copy: MBI-HSS for Medical Personnel

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How often
0-6

Statements:

1. _____ I feel emotionally drained from my work.
2. _____ I feel used up at the end of the workday.
3. _____ I feel fatigued when I get up in the morning and have to face another day on the job.
4. _____ I can easily understand how my patients feel about things.
5. _____ I feel I treat some patients as if they were impersonal objects.
6. _____ Working with people all day is really a strain for me.
7. _____ I deal very effectively with the problems of my patients.
8. _____ I feel burned out from my work.
9. _____ I feel I'm positively influencing other people's lives through my work.
10. _____ I've become more callous toward people since I took this job.
11. _____ I worry that this job is hardening me emotionally.
12. _____ I feel very energetic.
13. _____ I feel frustrated by my job.
14. _____ I feel I'm working too hard on my job.
15. _____ I don't really care what happens to some patients.
16. _____ Working with people directly puts too much stress on me.
17. _____ I can easily create a relaxed atmosphere with my patients.
18. _____ I feel exhilarated after working closely with my patients.
19. _____ I have accomplished many worthwhile things in this job.
20. _____ I feel like I'm at the end of my rope.
21. _____ In my work, I deal with emotional problems very calmly.
22. _____ I feel patients blame me for some of their problems.

(Administrative use only)

EE Total score: _____ DP Total score: _____ PA Total score: _____

EE Average score: _____ DP Average score: _____ PA Average score: _____

Appendix 3: Review Copy: MBI for Educators Survey

MBI for Educators Survey

Christina Maslach, Susan E. Jackson & Richard L. Schwab

The purpose of this survey is to discover how educators view their job and the people with whom they work closely.

Instructions: On the following pages are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about *your* job. If you have *never* had this feeling, write the number “0” (zero) in the space before the statement. If you have had this feeling, indicate *how often* you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. An example is shown below.

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

Example:

How often
0-6

Statement:

1. I feel depressed at work.

If you never feel depressed at work, you would write the number “0” (zero) under the heading “How often.” If you rarely feel depressed at work (a few times a year or less), you would write the number “1.” If your feelings of depression are fairly frequent (a few times a week but not daily), you would write the number “5.”

Review Copy: MBI for Educators Survey

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How often
0-6

Statements:

1. _____ I feel emotionally drained from my work.
2. _____ I feel used up at the end of the workday.
3. _____ I feel fatigued when I get up in the morning and have to face another day on the job.
4. _____ I can easily understand how my students feel about things.
5. _____ I feel I treat some students as if they were impersonal objects.
6. _____ Working with people all day is really a strain for me.
7. _____ I deal very effectively with the problems of my students.
8. _____ I feel burned out from my work.
9. _____ I feel I'm positively influencing other people's lives through my work.
10. _____ I've become more callous toward people since I took this job.
11. _____ I worry that this job is hardening me emotionally.
12. _____ I feel very energetic.
13. _____ I feel frustrated by my job.
14. _____ I feel I'm working too hard on my job.
15. _____ I don't really care what happens to some students.
16. _____ Working with people directly puts too much stress on me.
17. _____ I can easily create a relaxed atmosphere with my students.
18. _____ I feel exhilarated after working closely with my students.
19. _____ I have accomplished many worthwhile things in this job.
20. _____ I feel like I'm at the end of my rope.
21. _____ In my work, I deal with emotional problems very calmly.
22. _____ I feel students blame me for some of their problems.

(Administrative use only)

EE Total score: _____ DP Total score: _____ PA Total score: _____

EE Average score: _____ DP Average score: _____ PA Average score: _____

Appendix 4: Review Copy: MBI-General Survey

MBI-General Survey

Wilmar B. Schaufeli, Michael P. Leiter, Christina Maslach & Susan E. Jackson

*The purpose of this survey is to discover how staff members
view their job, and their reactions to their work.*

Instructions: On the following page are 16 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about *your* job. If you have *never* had this feeling, write the number "0" (zero) in the space before the statement. If you have had this feeling, indicate *how often* you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. An example is shown below.

Example:

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How often
0-6

Statement:

1. _____ I feel depressed at work.

If you never feel depressed at work, you would write the number "0" (zero) under the heading "How often." If you rarely feel depressed at work (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week but not daily), you would write the number "5."

Review Copy: MBI-General Survey

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How often
0-6

Statements:

1. _____ I feel emotionally drained from my work.
2. _____ I feel used up at the end of the workday.
3. _____ I feel tired when I get up in the morning and have to face another day on the job.
4. _____ Working all day is really a strain for me.
5. _____ I can effectively solve the problems that arise in my work.
6. _____ I feel burned out from my work.
7. _____ I feel I am making an effective contribution to what this organization does.
8. _____ I have become less interested in my work since I started this job.
9. _____ I have become less enthusiastic about my work.
10. _____ In my opinion, I am good at my job.
11. _____ I feel exhilarated when I accomplish something at work.
12. _____ I have accomplished many worthwhile things in this job.
13. _____ I just want to do my job and not be bothered.
14. _____ I have become more cynical about whether my work contributes anything.
15. _____ I doubt the significance of my work.
16. _____ At my work, I feel confident that I am effective at getting things done.

(Administrative use only)

EX Total score: _____ CY Total score: _____ PE Total score: _____

EX Average score: _____ CY Average score: _____ PE Average score: _____

Appendix 5: Review Copy: MBI-General Survey for Students

MBI-General Survey for Students

Wilmar B. Schaufeli, Michael P. Leiter, Christina Maslach & Susan E. Jackson

The purpose of this survey is to discover how university students view their studies, and their reactions to their academic work.

Instructions: On the following page are 16 statements of university-related feelings. Please read each statement carefully and decide if you ever feel this way about *your* academic work. If you have *never* had this feeling, write the number “0” (zero) in the space before the statement. If you have had this feeling, indicate *how often* you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. An example is shown below.

Example:

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How often 0-6	Statement:
------------------	------------

1. _____ I feel depressed by my studies.

If you **never feel** depressed by your studies, you would write the number “0” (zero) under the heading “How often.” If you **rarely feel** depressed by your studies, (a few times a year or less), you would write the number “1.” If your feelings of being depressed by your studies are **fairly frequent** (a few times a week but not daily), you would write the number “5.”

Review Copy: MBI-General Survey for Students

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How Often 0-6	Statements:
1. _____	I feel emotionally drained by my studies.
2. _____	I feel used up at the end of the day at the university.
3. _____	I feel tired when I get up in the morning and have to face another day at the university.
4. _____	Attending classes all day is really a strain for me.
5. _____	I can effectively solve the problems that arise in my studies.
6. _____	I feel burned out from my studies.
7. _____	I feel I am making an effective contribution in class.
8. _____	I have become less interested in my studies since my enrollment.
9. _____	I have become less enthusiastic about my studies.
10. _____	In my opinion, I am a good student.
11. _____	I feel exhilarated when I accomplish something at the university.
12. _____	I have accomplished many worthwhile things in my studies.
13. _____	I just want to get my work done and not be bothered.
14. _____	I have become more cynical about whether my university work contributes anything.
15. _____	I doubt the significance of my studies.
16. _____	While working at the university, I feel confident that I am effective at getting things done.

(Administrative use only)

EX Total score: _____ CY Total score: _____ PE Total score: _____
EX Average score: _____ CY Average score: _____ PE Average score: _____

Appendix 6: Frequently Asked Questions

Which MBI form should I use?

MBI Human Services Survey (MBI-HSS)

The original and most widely used version of the MBI. For professionals in the human services, e.g. nurses, physicians, health aides, social workers, health counselors, therapists, police, correctional officers, clergy, and others focused on helping people live better lives by offering guidance, preventing harm, and treating physical, emotional or cognitive problems.

MBI-HSS for Medical Personnel (MBI-HSS (MP))

Includes slightly modified wording: instead of referring to “recipients”, the MBI-HSS (MP) uses the term “patients”.

MBI Educators Survey (MBI-ES)

Used with educators, including teachers, administrators, other staff members, and volunteers working in any educational setting.

MBI General Survey (MBI-GS)

Designed for use with occupational groups other than human services and education, including customer service, maintenance, manufacturing, management and most other professions.

MBI-GS for Students (MBI-GS (S))

For adult students such as those enrolled in college and university programs.

What is the relationship between the MBI scales?

The following answer is from Leiter, M. P., & Maslach, C. (2016). Latent burnout profiles: A new approach to understanding the burnout experience. *Burnout Research*, 3, 89-100.

The first phase of research on the phenomenon of burnout involved a lot of exploratory, qualitative field studies, which amassed many descriptions of the burnout phenomenon based on observations, interviews, case studies, and personal experience (for example, see Cherniss, 1980; Edelwich & Brodsky, 1980; Freudenberger & Richelson, 1980; Maslach, 1982; Pines, Aronson, & Kafry, 1981). Based on this exploratory work, psychometric research was carried out to establish a method for assessing the burnout experience. That research identified three basic dimensions: *exhaustion* (also described as wearing out, loss of energy, depletion, debilitation, and fatigue); feelings of *cynicism* and detachment from the job (also described as depersonalization, negative or inappropriate attitudes, detached concern, irritability, loss of idealism, and withdrawal); and a sense of professional *inefficacy* and lack of accomplishment (also described as reduced productivity or capability, low morale, and an inability to cope). The measure that emerged from that

psychometric research was the Maslach Burnout Inventory (MBI), which assessed these three dimensions and has been used in many research studies over the years (Maslach & Jackson, 1981; Maslach, Jackson, & Leiter, 1996).

The potential of having three interrelated dimensions of burnout was first discussed in terms of a sequence of stages over time. For example, the transactional model of burnout (Cherniss, 1980) proposed a first stage of an imbalance between work demands and individual resources (*job stressors*), a second stage of an emotional response of exhaustion and anxiety (*individual strain*), and a third stage of changes in attitudes and behavior, such as greater cynicism (*defensive coping*). A process model, which emerged from the earlier qualitative work, proposed a first stage of *emotional exhaustion*, in response to work demands that taxed people's emotional resources; a second stage of *depersonalization*, as people tried to cope by withdrawal and negative, cynical reactions; and a third stage of *reduced personal accomplishment*, when people began to experience inefficacy and failure (Maslach, 1982). A third approach was the phase model, in which the three burnout dimensions were split into high and low categories, yielding eight different patterns, or phases, of burnout (Golembiewski & Munzenrider, 1988). The phase model hypothesized that cynicism is the early minimum phase of burnout, followed by the additions of inefficacy, and finally by exhaustion.

What is noteworthy about all of these early approaches is the explicit assumption that people could experience various *patterns* of burnout, which might change at different points in time. However, the potential of these varying patterns has not been exploited very much in the more recent empirical literature. If anything, there has been a move towards simplifying burnout to a one-dimensional construct of exhaustion. Exhaustion is often considered the strongest, primary element of burnout, and thus a suitable proxy for the entire phenomenon. A single dimension is easier to measure, and exhaustion is easier to fit within existing systems of medical diagnosis and disability. But a focus on just exhaustion may ignore other aspects of the burnout experience, which go beyond chronic fatigue. People experiencing burnout are not simply exhausted or overwhelmed by their workload. They also have lost a psychological connection with their work, which has implications for their motivation and their identity. The cynicism and inefficacy aspects of burnout capture both people's disaffection with work and a crisis in their work-based efficacy expectations.

The three dimensions of exhaustion, cynicism and inefficacy do not always move in lock-step, which means that they are not so highly correlated as to constitute a single, one-dimensional phenomenon. The advantage of such distinct, but interrelated, burnout dimensions is that there could be several different patterns that are shown by people at varying times. In some instances, due to situational factors or personal qualities or their interaction, distinct patterns could emerge. Identifying these intermediate patterns would

allow a clearer definition of the entire territory between the negative state of burnout and the positive state of engagement. For example, it may be that some people maintain a neutral stance towards work, experiencing neither joy nor despair. The exceptionally motivated condition of engagement might stand in contrast to both a humdrum existence as well as to chronic distress. Other person-centered patterns may identify distinct forms of distress, of which burnout represents only one particularly grievous state. Some progress on this point has been made by contrasting burnout and engagement with workaholism (e. g., Schaufeli, Taris, & Van Rhenen, 2008), suggesting the potential for further conceptual development.

Why isn't there a single burnout score, or can I just use the Emotional Exhaustion scale?

The Emotional Exhaustion dimension captures the problem of lacking sufficient energy to make a useful and enduring contribution at work. But it is the Cynicism (Depersonalization) dimension that captures the difficulty in dealing with other people and activities in the work world. Furthermore, Professional Efficacy captures the self-evaluation people make regarding the value of their work and the quality of their contribution. To ignore these core aspects of the burnout experience would truly be a "misdiagnosis" that could have important ramifications for both policy and practice.

New research (Leiter & Maslach, 2016) has begun to focus on an innovative use of the three burnout dimensions, which allows for multiple distinct patterns along the Burnout-Engagement continuum. In addition to the two standard endpoint patterns of burnout (high in Emotional Exhaustion and Cynicism; low in Professional Efficacy) and Engagement (low in Emotional Exhaustion and Cynicism; high in Professional Efficacy), this approach can identify people who are only experiencing one of the dimensions, rather than all of them. A particularly relevant comparison is between people with the complete Burnout profile and those with only high Emotional Exhaustion (the Overextended profile). Research shows that these two patterns are quite different in workplace experience, so it is clear that exhaustion alone is not a proxy for burnout. Instead, the Cynicism-only profile (Disengaged) comes closer to the negative endpoint of Burnout which suggests that cynicism may be more a core part of burnout than is exhaustion. Cynicism is more clearly linked to the job environment, with poor quality of social relationships at work and lack of critical resources, which lead to reduced job satisfaction and poor job performance.

Can I use cut-scores to identify a state of burnout?

The MBI was developed as a research instrument to assess burnout as a continuum, ranging from low to high, on three different dimensions: Emotional Exhaustion, Depersonalization, and reduced Personal Accomplishment. For example, it can be used to assess the patterns of burnout within groups of physicians.

However, the research perspective of a continuum is fundamentally different from that of a practitioner who views burnout as a discrete state – either someone is burned out, or is not. The perspective that burnout is a dichotomy makes it more like a medical disease, rather than a continuum of experience. And it has led people to want a measure that will provide a dichotomous “diagnosis” of burnout.

The challenge has been to identify how to translate the continuous scores of a research measure into a dichotomous burnout classification. As an analogy, what is the temperature on a continuous thermometer scale that signals the presence or absence of fever? For burnout, what is the pattern of MBI scores that predict certain diagnostic criteria (such as impaired work performance, or absenteeism, or poor health)? Unfortunately, such diagnostic criteria have not been well-specified, so the necessary clinical research has not been done. However, researchers in the Netherlands have used work-related neurasthenia as the equivalent of clinical burnout, and have established that high scores on **two** of the burnout dimensions (Emotional Exhaustion plus one other) are correlated with high scores on neurasthenia.

Another approach has been to use arbitrary, statistical “cut-off” scores to identify which people are “high” in burnout. Although useful for assessing the overall pattern of a group, such arbitrary “cut-off” scores do **not** have any diagnostic validity. In other words, the upper third of a large population is not a definition of people experiencing a severe case of burnout. A different approach has been to simplify the MBI assessment by using only the Emotional Exhaustion dimension. However, this simplification runs the risk of converting the phenomenon of burnout into exhaustion alone, and ignoring the relevance of depersonalization and professional inefficacy.

Why do I need to look at the person’s life context and not just their burnout level?

We would caution you not to focus on just the MBI scores alone. The MBI is a research measure from which we can learn about the causes and outcomes of burnout, but it is not a clinical diagnostic tool. Research on burnout risk factors (e.g., inadequate staffing for the number of patients), or research on burnout likely outcomes (e.g., patient dissatisfaction, higher rates of patient mortality and in-hospital infections) is what is most significant.

The MBI and Areas of Worklife Survey (AWS). The Areas of Worklife Survey (AWS) is a companion piece to the MBI. The combined AWS/MBI is a particularly powerful tool for assessing the workplace context and what attributes might be driving burnout: e.g., workload, control, reward, etc. Online survey and reports for the combined AWS/MBI are available from Mind Garden.

How can burnout be prevented or reduced?

The MBI Individual and Group reports include some suggestions for easing burnout and the combined reports with the *Areas of Worklife Survey* include suggestions for changing aspects of the work environment that might contribute to burnout.

Resources:

Burnout and Engagement in the Workplace: New perspectives

http://openhealthpsychology.net/ehp/issues/2011/v13iss3_September2011/13_3_Maslach.pdf

Demerouti, E. (2014). Individual strategies to prevent burnout. In M. P. Leiter, A. B. Bakker, & C. Maslach (Eds.), *Burnout at work: A psychological perspective* (32-55). London, UK: Psychology Press.

Leiter, M. P., & Maslach, C. (2005). *Banishing Burnout: Six strategies for improving your relationship with work*. San Francisco, CA: Jossey-Bass.

Leiter, M. P., & Maslach, C. (2010). Building Engagement: The design and evaluation of interventions. In A. B. Bakker and M. P. Leiter (Eds.), *Work Engagement: A handbook of essential theory and research* (164-180). New York, NY: Psychology Press.

Leiter, M. P., & Maslach, C. (2014). Interventions to prevent and alleviate burnout. In M. P. Leiter, A. B. Bakker, & C. Maslach (Eds.), *Burnout at work: A psychological perspective* (145-167). London, UK: Psychology Press.

Maslach, C., & Goldberg, J. (1998). Prevention of burnout: New perspectives. *Applied and Preventive Psychology*, 7, 63-74.

Maslach, C., & Leiter, M. P. (1997). *The Truth About Burnout: How organizations cause personal stress and what to do about it*. San Francisco, CA: Jossey-Bass.

Maslach, C., Leiter, M. P., & Jackson, S. E. (2012). Making a significant difference with burnout interventions: Researcher and practitioner collaboration. *Journal of Organizational Behavior*, 33, 296-300.



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