Critical Appraisal of the Maslach Burnout Inventory

Jennifer Miller

University of Colorado College of Nursing

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Figaro Loresto, PhD, RN and Katherine Kissler, PhD, CNM

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Burnout is a syndrome of combined emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach & Jackson, 1981). Emotional exhaustion is the inability to give to others because of depleted emotional reserves. In depersonalization, one becomes unfeeling towards others. The reduced personal accomplishment is dissatisfaction with workplace competence and achievements. The Maslach Burnout Inventory (MBI) originally researched burnout within various occupations, including law enforcement, counselors, teachers, nurses, social workers, psychiatrists, attorneys, and physicians. This critical appraisal is focused on the original survey, the Maslach Burnout Inventory-Health Services Survey (MBI-HSS). The MBI-HSS is the most frequently used questionnaire for determining the presence and severity of burnout within occupational professionals.

Level of Measurement

The MBI-HSS is composed of 22, 7-point Likert scale items, ranging from 0 (never) to 6 (every day), an ordinal level of measurement, and takes between 10-15 minutes to administer (Maslach et al., 2018). The instrument uses three subscales: Personal Accomplishment (PA), Emotional Exhaustion (EE), and Depersonalization (DP). Theoretical foundations of the MBI-HSS are based on the tri-factor model of burnout comprising exhaustion, cynicism, and ineffectiveness (Dall'Ora et al., 2020). The frequency scale is labeled at each point and outlined in Figure 1 (Maslach et al., 2018). Table 1 explains the MBI-HSS scoring guide and shows that higher scores in EE and DP correspond to a higher degree of burnout, but a high score in PA corresponds to a lower degree of burnout.

Reliability of the MBI-HSS

Reliability is a vital component in evaluating the quality of research and focuses on the consistency of results if repeatedly tested (Portney, 2020). Reliable instrument outcomes will remain consistent under the same conditions, using the same methods, with different observers, or across differing aspects of the tool, with some limitations or minor levels of inconsistency. All research studies reviewed in this critical appraisal of the MBI-HSS met the criteria for reliability using Cronbach's α to measure internal reliability. Cronbach's α of 0.7-0.9 is considered internally consistent and indicates a correlation between item scores (Portney, 2020). Cronbach's α were as follows: EE = 0.855, DP = 0.823, and PA = 0.667 (Bassam et al., 2023). Cronbach's α for three dimensions was greater than 0.7 and showed good internal reliability in two other studies (Forné & Yuguero, 2022; Moalemi et al., 2018). In another study, the internal consistencies of the three factors in a modified three-factor model were satisfactory, as Cronbach's α met the criterion of 0.70, with levels at 0.87 for EE, 0.83 for DP and 0.81 for PA (Kanste et al., 2006). These results are consistent with the findings of previous studies reviewing the MBI-HSS in nursing and other healthcare-related occupations (Kanste et al., 2006).

Test-retest reliability refers to the extent to which scores remain consistent taken at different points in time (Portney, 2020). The results of the test-retest reliability assessment in one study demonstrated the robust reproducibility and excellent reliability of the MBI-HSS: EE, intraclass correlation coefficients (ICC) = 0.927, p-value < 0.0001; PA, ICC = 0.963, p-value < 0.0001; DP, ICC = 0.764, p-value < 0.0001 (Bassam et al., 2023; Koo & Li, 2016). Maslach & Jackson (1981) repeat tested at 2 and 4 weeks. The test-retest reliability coefficients for the subscales were 0.82 (frequency) and 0.53 (intensity) for EE, 0.80 (frequency) and 0.68 (intensity) for PA, 0.60 (frequency) and 0.69 (intensity) for DP. All coefficients are significant

beyond the 0.001 p-value and indicate good reliability (Koo & Li, 2016; Maslach & Jackson, 1981).

Validity of the MBI-HSS

Due to the historical application, research, and reputation of the MBI-HSS, face validity does not need discussion or measurement for the purposes of this appraisal. All studies reviewed in this appraisal of MBI-HSS support the three-dimensional factorial structure underlying the MBI-HSS as proposed by the original Maslach model. Exploratory factor analysis (EFA) attempts to identify common factors that establish clusters among the measured variables (Portney, 2020). Confirmatory factor analysis (CFA) compares the theoretical model to the relationship between the empirical understandings and the common factors (Portney, 2020). The EPA of the MBI-HSS yielded three sub-domains representing dimensions of factors EE, DP, and PA, which explained 57.8% of the instrument's total variance (Bassam et al., 2023). The CFA revealed that the 15-item model was the most fitting for the data (Bassam et al., 2023). In earlier factor analysis studies of the MBI-HSS, models were modified to obtain a better fit to the underlying data (Kanste et al., 2006), and in the modified three-factor model, EE and DP correlated positively, while DP and PA correlated negatively, suggesting PA is independent of the development of EE and DP (Bassam et al., 2023; Gil-Monte, 2005; Kanste et al., 2006).

Using Spearman's correlation coefficient between the items, the correlation coefficient of each item in a dimension was higher than 0.4, which indicates a strong correlation between items in Moalemi et al. (2018). Table 2 outlines more data related to the validity of the MBI-HSS instrument.

The MBI-HSS is the most studied, researched, and implemented instrument for measuring burnout in a variety of occupational settings. After reviewing the results of internal

reliability using Cronbach's α in multiple studies, this critical appraisal reveals that the MBI-HSS has a high degree of reliability. The MBI-HSS is also an adequately valid tool using EPA and CFA to retain and omit certain items in the tri-factor model, particularly items in the PA dimension. According to the psychometric properties and the studies reviewed, modified versions of the MBI-HSS are highly suitable for measuring burnout among healthcare professionals.

Table 1

MBI-HSS Scoring Guide

Burnout construct	**Cutoff score**		
Emotional Exhaustion (EE)	0–18	19–26	>27
9 items	Low	Moderate	High
Depersonalization (DP)	0–5	6–9	>10
5 items	Low	Moderate	High
Personal Accomplishment (PA)	0–33	34–39	>40
8 items	High	Moderate	Low

Table 2

Reliability and Validity of MB-HSS.

Study	Dimensions	Reliability		Validity			
	EE (9 items) DP (5 items) PA (8 items)	Internal Consistency (Cronbach's α)	Test/retest reliability	Factor Analysis	Convergent Validity	Discriminant Validity	Criterion validity
Moalemi et al., 2018	EE (9 items)	0.75		EFA, 22 retained	0.532-0.747	-0.113-0.646	
	DP (5 items)				0.550- 0.777	0.153 -0.515	
	PA (8 items)				0.479- 0.695	-0.088-0.425	
Bassam et al., 2023	EE (9 items)	0.75-0.79	ICC-0.927 p-value < 0.0001	EFA, 17 items retained CFA, 15 items retained			
	DP (5 items)		ICC = 0.764 p-value < 0.0001				
	PA (8 items)		ICC = 0.963 p-value < 0.0001				
Maslach & Jackson, 1981	EE (9 items)	0.71-0.90	ICC-0.82 p-value < 0.001				
	DP (5 items)		ICC = 0.60 p-value < 0.001				
	PA (8 items)		ICC = 0.80 p-value < 0.001				
Gil-Monte, 2005	EE (9 items)	0.58-0.85					
	DP (5 items)						
	PA (8 items)						
Forné & Yuguero, 2022	EE (9 items)	0.73-0.91		KMO- 0.898 p-value < 0.001 CFA, 22 items retained			$\chi^2/df = 1.72$
	DP (5 items)						
	PA (8 items)						
Kanste et al., 2006	EE (9 items)	0.81-0.87	ICC= 0.79	EFA, 18 items retained			X^2=367 modified 3-factor model
	DP (5 items)						
	PA (8 items)						

Figure 1

MBI Human Services Survey

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.

For Review Only

(Administrative use only)

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

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

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