

The measurement of experienced burnout *

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SUMMARY

A scale designed to assess various aspects of the burnout syndrome was administered to a wide range of human services professionals. Three subscales emerged from the data analysis: emotional exhaustion, depersonalization, and personal accomplishment. Various psychometric analyses showed that the scale has both high reliability and validity as a measure of burnout.

INTRODUCTION

The professional staff in human service institutions are often required to spend considerable time in intense involvement with other people. Frequently, the staff-client interaction is centred around the client's current problems (psychological, social, and/or physical) and is therefore charged with feelings of anger, embarrassment, fear or despair. Solutions for these problems are not always obvious and easily obtained, thus adding ambiguity and frustration to the situation. For the helping professional who works continuously with people under such circumstances, the chronic stress can be emotionally draining and poses the risk of 'burnout'.

Burnout is a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do 'people-work' of some kind. A key aspect of the burnout syndrome is increased feelings of emotional exhaustion. As their emotional resources are depleted, workers feel they are no longer able to give of themselves at a psychological level. Another aspect is the development of negative, cynical attitudes and feelings about one's clients. Such negative reactions to clients may be linked to the experience of emotional exhaustion, i.e. these two aspects of burnout appear to be somewhat related. This callous or even dehumanized perception of others can lead staff to view their clients as somehow deserving of their troubles (Ryan, 1971), and the prevalence among human service professionals of this negative attitude toward clients has been well documented (Wills, 1978). A third aspect of the burnout syndrome is the tendency to evaluate oneself negatively, particularly with regard to one's work with clients. Workers feel unhappy about themselves and dissatisfied with their accomplishments on the job.

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The consequences of burnout are potentially very serious for the staff, the clients, and the larger institutions in which they interact. Our initial research on this syndrome (Maslach, 1976, 1978a, 1978h, 1979; Maslach and Jackson, 1978, 1979, in press; Jackson and Maslach, 1980; Maslach and Pines, 1977; Pines and Maslach, 1978, 1980) along with the work of Freudenberger (1974, 1975) suggests that burnout can lead to a deterioration in the quality of care or service that is 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 indices of personal distress, including physical exhaustion, insomnia, increased use of alcohol and drugs, and marital and family problems.

The initial research in this area was very exploratory, relying heavily on interviews, questionnaire surveys, and observations. Various stressors in the work environment, such as workload and ambiguity, were related to burnout, and some of these appeared to interact with individual ego level and personality characteristics (Gann, 1979). The generally consistent pattern of findings that emerged from these studies led us to postulate a specific syndrome of burnout and to devise an instrument to assess it. This measure contains three subscales tapping the different aspects of experienced burnout and has been found to be reliable, valid, and easy to administer.

CONSTRUCTION OF THE MASLACH BURNOUT INVENTORY

The items for the Maslach Burnout Inventory (MBI) were designed to measure hypothesized aspects of the burnout syndrome. The interview and questionnaire data collected during our earlier, exploratory research were a valuable source of ideas about the attitudes and feelings that characterized a burned-out worker. In addition, numerous established scales were reviewed for useful content material, although no items were borrowed outright. Items were written in the form of statements about personal feelings or attitudes. The general form of 'recipients' was used in the items to refer to the particular people for whom the subject provided service, care or treatment. Following the lead of the Hassles Scale (Lazarus and Cohen, 1977), each statement is rated on two dimensions: frequency and intensity. The frequency scale is labeled at each point and ranges from 1 ('a few times a year or less') to 6 ('every day'). A value of zero is given if the respondent indicates (by checking a separate box) that he or she never experiences the feeling or attitude described. The intensity scale ranges from 1 ('very mild, barely noticeable') to 7 ('major, very-strong'). It is not completed (and thus given a zero value) if the respondent checks 'never' on the frequency scale. The item format is as follows:

		A few times a year	Monthly	A few times a month	Every week	A few times a week	Every day
Never	How often:	1		3	4	5	6
	How strong:	1	2	3	4	5	6
		Very mild, barely noticeable			Moderate		Very strong, major

A preliminary form of the MBI, which consisted of 47 items with this two-scale format, was administered to a sample of 605 people (56 per cent male, 44 per cent female) from a variety of health and service occupations including: police, counsellors, teachers, nurses, social workers, psychiatrists, psychologists, attorneys, physicians, and agency administrators¹. The resulting data were subjected to a factor analysis using principal factoring with iteration and an orthogonal (varimax) rotation. Ten factors emerged for both the frequency and the intensity dimensions, of which four accounted for over three-fourths of the variance. A set of selection criteria was then applied to the items, yielding a reduction in the number of items from 47 to 25. Items were retained that met all of the following criteria: a factor loading greater than 0.40 on only one of the four factors, a large range of subject response, a relatively low percentage of subjects checking the 'never' response, and a high item-total correlation.

In order to obtain confirmatory data for the pattern of factors, the 25-item form was administered to a new sample of 420 people (69 per cent females, 31 per cent males) in the following occupations: nurses, teachers, social workers, probation officers, counsellors, mental health workers, and agency administrators. The results of the factor analysis on this second set of data were very similar to those of the first, and so the two samples were combined ($n = 1025$) for the final analyses reported below.

The 4-factor solution for a factor analysis of the 25 items, based on the combined samples ($n = 1025$) and using principal factoring with iteration plus an orthogonal rotation, is presented in Table 1. The factors that emerged were similar for both the frequency and the intensity ratings. Three of these factors had eigenvalues greater than unity and are considered subscales of the MBI. The 9 items in the Emotional Exhaustion subscale describe feelings of being emotionally overextended and exhausted by one's work. On this factor, the item with the highest factor loading (0.84 on frequency and 0.81 on intensity) is the one referring directly to burnout, 'I feel burned out from my work'. The 5 items in the Depersonalization subscale describe an unfeeling and impersonal response towards recipients of one's care or service. For both the Emotional Exhaustion and Depersonalization subscales, higher mean scores correspond to higher degrees of experienced burnout. Since some of the component items on each subscale had low loadings on the other, there is a moderate correlation between the two subscales (0.44 for frequency and 0.50 for intensity). Such a correlation is in accord with theoretical expectations that these are separate, but related, aspects of burnout.

The subscale of Personal Accomplishment contains 8 items that describe feelings of competence and successful achievement in one's work with people. In contrast to the other two subscales, lower mean scores on this subscale correspond to higher degrees of experienced burnout. It is important to note that the Personal Accomplishment subscale is independent of the other subscales

¹The occupations represented in both this and the second sample are ones that have a high potential for burnout according to previous research (Maslach, 1976, 1978b). In all of them, the worker must deal directly with people about issues that either are, or could be, problematic. Consequently, strong emotional feelings are likely to be present in the work setting, and it is this sort of chronic emotional stress that is believed to induce burnout.

Table 1. Item factor loadings for the Maslach Burnout Inventory

	Frequency				Intensity			
	I	II	III	IV	I	II	III	IV
1. Emotional Exhaustion								
I feel emotionally drained from my work	0.74	0.02	0.06	0.14	0.70	0.08	0.07	0.19
I feel used up at the end of the workday	0.73	0.03	0.04	0.08	0.70	0.05	0.11	0.13
I feel fatigued when I get up in the morning and have to face another day on the job	0.66	0.15	0.18	0.15	0.60	-0.11	0.26	0.21
Working with people all day is really a strain for me	0.61	-0.10	0.22	0.18	0.60	-0.06	0.20	0.21
I feel burned out from my work	0.84	-0.09	0.19	0.02	0.81	-0.02	0.23	0.07
I feel frustrated by my job	0.65	-0.12	0.23	0.04	0.64	-0.06	0.12	0.04
I feel I'm working too hard on my job	0.56	0.07	0.08	0.08	0.55	0.07	0.08	0.07
Working with people directly puts too much stress on me	0.54	-0.06	0.31	0.17	0.47	-0.05	0.31	0.16
I feel like I'm at the end of my rope	0.65	-0.08	0.21	0.11	0.60	-0.11	0.27	0.11
II. Personal Accomplishment								
I can easily understand how my recipients feel about things	0.11	0.50	-0.06	0.15	0.12	0.51	-0.10	0.26
I deal very effectively with the problems of my recipients	-0.01	0.54	-0.07	-0.04	0.03	0.58	-0.01	0.01
I feel I'm positively influencing other people's lives through my work	-0.02	0.58	-0.17	0.26	0.00	0.63	-0.15	0.13
I feel very energetic	-0.30	0.43	-0.04	0.01	-0.05	0.44	0.02	0.05

I can easily create a relaxed atmosphere with my recipients	-0.06	0.51	-0.08	-0.03	-0.04	0.55	-0.11	0.02
I feel exhilarated after working closely with my recipients	0.00	0.55	-0.23	0.28	0.10	0.52	-0.14	0.21
I have accomplished many worthwhile things in this job	-0.10	0.57	-0.17	0.18	-0.07	0.56	-0.13	0.04
In my work, I deal with emotional problems very calmly	-0.07	0.59	0.07	-0.15	-0.09	0.52	0.07	-0.14
III. Depersonalization								
I feel I treat some recipients as if they were impersonal 'objects'	0.11	-0.09	0.67	0.01	0.16	-0.10	0.62	0.10
I've become more callous toward people since I took this job	0.23	-0.13	0.66	-0.07	0.16	-0.12	0.74	-0.08
I worry that this job is hardening me emotionally	0.37	-0.10	0.55	0.05	0.27	-0.11	0.61	0.05
I don't really care what happens to some recipients	0.12	-0.16	0.62	-0.09	0.23	-0.11	0.52	-0.06
I feel recipients blame me for some of their problems	0.13	-0.04	0.41	0.02	0.21	-0.01	0.40	0.08
Optional items (fourth factor)								
IV. Involvement								
I feel similar to my recipients in many ways	0.17	0.18	-0.03	0.47	0.20	0.17	0.00	0.51
I feel personally involved with my recipients' problems	0.21	0.15	-0.10	0.55	0.25	0.20	-0.03	0.58
I feel uncomfortable about the way I have treated some recipients	0.28	-0.11	0.27	0.41	0.25	0.00	0.27	0.47

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and that its component items do not load negatively on them. In other words, Personal Accomplishment cannot be assumed to be the opposite of Emotional Exhaustion and/or Depersonalization. Indeed, the correlations between the Personal Accomplishment subscale and the others are quite low: for Emotional Exhaustion they are -0.17 (frequency) and -0.05 (intensity), and for Depersonalization they are -0.28 (frequency) and -0.22 (intensity).

A fourth factor consistently appeared in the factor analysis, but since the eigenvalue was less than unity, it has not been included as a subscale of the MBI. However, it has proved to be an interesting variable in other research on burnout (Barad, 1979; Gann, 1979) and so is presented here as an optional part of the MBI. This factor appears to tap a dimension of involvement with people, which could be a variable related to high emotional exhaustion. As expected, this involvement factor does show moderate correlations with the Emotional Exhaustion subscale (*0.40* for frequency and *0.44* for intensity). However, it has relatively low correlations with Personal Accomplishment (0.14 for frequency and 0.21 for intensity) and Depersonalization (0.09 for frequency and 0.17 for intensity).

The correlations between the frequency and intensity dimensions across items ranged from 0.35 to 0.73, with a mean of 0.56. These results suggest that while there is a moderate relationship between how often one experiences various feelings and how intensely they are felt, this relationship is far from perfect, since only about one-third of the variance of one dimension is accounted for by the other. Recent research on burnout (Gann, 1979; Jackson and Maslach, 1980) has found that these two dimensions sometimes reveal different patterns of correlations with situational and personality variables. In addition, subjects often indicated that they were pleased with the two-dimension format, since it allowed them to give a more differentiated response. Therefore, a two-dimension format for each item has been retained in the final version of the MBI. For each subscale, the mean of the component items is computed separately for frequency and for intensity, thus yielding two scores for each subscale. Table 2 presents the subscale means and standard deviations.

Table 2. Means and standard deviations for the subscales of the MBI

	MBI subscales			
	Emotional Exhaustion	Depersonalization	Personal Accomplishment	Involvement (optional)
Frequency (n = 420)				
M	2.71	1.57	4.23	2.29
SD	1.30	1.17	1.04	1.28
Intensity (n = 1025)				
M	3.33	2.13	5.02	2.92
SD	1.49	1.54	0.97	1.46

Summary statistics for intensity are based on both samples of respondents. Statistics for frequency are based on the second sample only since more response alternatives were available to the second sample than to the first.

RELIABILITY

Reliability coefficients for the MBI were calculated only for the second sample ($n = 420$). The first sample was not included because items had been selected partly on the basis of their intercorrelations in the first sample, and inclusion of these data could inflate the reliability estimates. Internal consistency was estimated by Cronbach's coefficient alpha, which yielded reliability coefficients of 0.83 (frequency) and 0.84 (intensity) for the 25-item scale. The reliability coefficients for the subscales were 0.89 (frequency) and 0.86 (intensity) for Emotional Exhaustion, 0.74 (frequency) and 0.74 (intensity) for Personal Accomplishment, 0.77 (frequency) and 0.72 (intensity) for Depersonalization, and 0.59 (frequency) and 0.57 (intensity) for Involvement.

Data on test-retest reliability of the MBI were obtained from a sample of graduate students in social welfare and administrators in a health agency ($n = 53$). The two test sessions were separated by an interval of 2-4 weeks. The test-retest reliability coefficients for the subscales were 0.82 (frequency) and 0.53 (intensity) for Emotional Exhaustion, 0.80 (frequency) and 0.68 (intensity) for Personal Accomplishment, 0.60 (frequency) and 0.69 (intensity) for Depersonalization, and 0.64 (frequency) and 0.65 (intensity) for Involvement. All of these coefficients are significant beyond the 0.001 level.

VALIDITY

Convergent validity

Convergent validity was demonstrated in several ways. First, an individual's MBI scores were correlated with behavioural ratings made independently by a person who knew the individual well (i.e. one's spouse or co-workers). Second, MBI scores were correlated with the presence of certain job characteristics that were expected to contribute to experienced burnout. Third, MBI scores were correlated with measures of various outcomes that had been hypothesized to be related to burnout. All three sets of correlations provided substantial evidence for the validity of the MBI.

External validation of personal experience

One type of 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 40 mental health workers were each asked to provide an anonymous behavioural evaluation of a designated co-worker who had also completed the MBI. The critical questions on this evaluation, in terms of validating the Emotional Exhaustion and Depersonalization subscales, 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 scored

higher on Emotional Exhaustion ($r = 0.41, p < 0.01$)[†] and on Depersonalization ($r = 0.57, p < 0.001$). Furthermore, people who were rated as appearing physically fatigued scored higher on Emotional Exhaustion (frequency only, $r = 0.42, p < 0.01$) and on Depersonalization ($r = 0.50, p < 0.01$). It had been expected that high scores on Depersonalization would be reflected in the behaviour of frequent complaints about clients. Co-workers' ratings of this behaviour were indeed correlated with Depersonalization scores ($r = 0.33, p < 0.05$). 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, and so spouse evaluations were collected via a questionnaire survey of 142 policemen and their wives (Maslach and Jackson, 1979; Jackson and Maslach, 1980). The wives were asked to indicate the frequency of several of their husband's behaviours that were predicted to be reflective of the Emotional Exhaustion and Personal Accomplishment dimensions of the MBI (since the wives did not see their husbands working with people on the job, they were not asked to rate behaviours reflecting Depersonalization). Each wife's ratings were compared with her husband's MBI scores, and the resulting correlations were in line with the predictions. Thus, police who scored higher on Emotional Exhaustion were rated by their wives as coming home: upset and angry ($r = 0.34, p < 0.001$), tense or anxious ($r = 0.25, p < 0.001$), physically exhausted ($r = 0.15, p < 0.05$), and complaining about problems at work ($r = 0.29, p < 0.001$). Police who scored higher on Personal Accomplishment were rated by their wives as coming home in a cheerful or happy mood ($r = 0.20, p < 0.05$, frequency only) and as doing work that was a source of pride and prestige for the family ($r = 0.25, p < 0.01$).

Dimensions of the job experience

The validity of the MBI is demonstrated further by data that confirm hypotheses about the relationships between various job characteristics and experienced burnout. Based on the findings of Maslach and Pines (1977), it was predicted that the greater the number of clients one must deal with, the higher the burnout scores on the MBI. Barad (1979) found precisely this pattern of response in a nation-wide survey of 845 public contact employees in the Social Security Administration. 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 and Jackson, in press) found that those who spent all or most of their working time in direct contact with patients scored higher on Emotional Exhaustion ($r = 0.30, p < 0.03$). Emotional Exhaustion scores were lower for those physicians who spent some of their

[†]In order to conserve on journal space and make the data presentation less cumbersome, only the intensity correlation will be cited (for each variable). Unless stated otherwise, the corresponding correlation for the frequency dimension displayed the same directional relationship and achieved statistical significance ($p < 0.05$), although it was different in magnitude.

working hours in teaching ($r = -0.33, p < 0.02$) or administration ($r = -0.36, p < 0.02$). Also as predicted from the Maslach and Pines (1977) research, Depersonalization scores were lower for physicians who spent relatively less time with patients and more time in administration ($r = -0.26, p < 0.05$, intensity only). However, Personal Accomplishment scores were unrelated to differences in the division of work duties.

A personal assessment of certain basic job dimensions is part of the Job Diagnostic Survey (JDS) (Hackman and Oldham, 1974, 1975). This measure and the MBI were completed by a sample of 91 social service and mental health workers. One dimension, 'feedback from the job itself, measures the degree to which carrying out the work activities (i.e. contact with recipients) gives the employee direct and clear information about job performance. As had been predicted from earlier research (Pines and Kafry, 1978), higher scores on this job dimension were correlated with lower scores on Emotional Exhaustion ($r = -0.38, p < 0.001$) and on Depersonalization ($r = -0.38, p < 0.001$), and higher scores on Personal Accomplishment ($r = 0.29, p < 0.01$). 'Dealing with others' assesses the degree to which the job requires the employee to work closely with people in carrying out the job activities. As predicted, high scores on this dimension were correlated with high scores on Involvement ($r = 0.23, p < 0.001$), but the correlation with Emotional Exhaustion fell short of statistical significance ($r = 0.15, p < 0.10$, for frequency only). On a third job dimension of 'task significance', which assesses the degree to which the job has a substantial impact on the lives of other people, high scores were correlated positively with Personal Accomplishment ($r = 0.18, p < 0.05$ intensity only), as had been predicted.

Personal outcomes

Additional validation of the MBI is provided by data that confirm hypothesized relationships between experienced burnout and various outcomes or personal reactions. Based on previous theorizing and research (Maslach, 1976), it was predicted that people experiencing burnout would be dissatisfied with opportunities for personal growth and development on the job. This hypothesis received support in a study of 180 nurses, social service and mental health workers. Scores on the JDS measure of 'growth satisfaction' were negatively correlated with Emotional Exhaustion ($r = -0.26, p < 0.001$) and Depersonalization ($r = -0.39, p < 0.001$), and positively correlated with Personal Accomplishment ($r = 0.29, p < 0.001$). Previous work also suggested that burnout would be associated with the belief that one's work is not very meaningful or worthwhile. In support of this hypothesis, people scoring low on the JDS subscale of 'experienced meaningfulness of the work' ($n = 91$) scored higher on Depersonalization ($r = -0.1, p < 0.05$) and lower on Personal Accomplishment ($r = 0.19, p < 0.05$). The correlation with Emotional Exhaustion fell short of statistical significance ($r = -0.16, p < 0.10$). Finally, the previous correlations of burnout with low feedback led to the prediction that employees who scored high on burnout would not know how effectively they were performing their job. And indeed, low scores on the JDS subscale of 'knowledge of results' ($n = 91$) were correlated with high scores on Emotional

Exhaustion ($r = -0.21, p < 0.05$) and Depersonalization ($r = -0.28, p < 0.01$), and with low scores on Personal Accomplishment (frequency only, $r = 0.20, p < 0.05$).

Previous theorizing (Maslach, 1976) led to the prediction that burnout would be related to the desire to leave one's job. Support for this hypothesis is found in the questionnaire survey of 142 police officers (Maslach and Jackson, 1979; Jackson and Maslach, 1980). The officer's **MBI** scores were highly predictive of intention to quit, $R(6, 135) = 0.68, p < 0.001$. Similarly, in the study of Social Security employees (Barad, 1979), higher burnout scores on the MBI subscales were correlated with the expressed intention to leave one's job within a year.

A related hypothesis was that people experiencing burnout would want to spend less time working with people. This desire would be manifested in more frequent breaks from work and greater absenteeism. Co-worker ratings of these behaviours ($n = 40$) provide supporting evidence for this prediction. Staff who took more work breaks scored higher on Emotional Exhaustion ($r = 0.29, p < 0.04$, intensity only). Absenteeism was correlated with higher scores on Depersonalization ($r = 0.30, p < 0.04$).

Another hypothesized outcome of burnout is an 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 ($n = 43$) were more likely to report that they wanted to get away from people ($r = 0.27, p < 0.05$). Mental health staff ($n = 40$) who scored high on Emotional Exhaustion were rated by their co-workers as having come to evaluate their clients more negatively over time ($r = 0.33, p < 0.05$, intensity only). With respect to the co-workers themselves, staff scoring low on the JDS subscale of 'peer and co-worker satisfaction' ($n = 180$) scored high on Emotional Exhaustion ($r = -0.19, p < 0.01$) and Depersonalization ($r = -0.36, p < 0.001$), and low on Personal Accomplishment ($r = 0.32, p < 0.001$).

The proposed relationship of burnout to difficulties with family and friends (Maslach, 1976) was tested in the study of 142 police officers and their wives (Maslach and Jackson, 1979; Jackson and Maslach, 1980). A police officer experiencing burnout was more likely to report that he gets angry at his wife or children (Depersonalization, $r = 0.28, p < 0.001$; Emotional Exhaustion, $r = 0.26, p < 0.001$). 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 ($r = 0.19, p < 0.02$). He perceived his children as being more emotionally distant from him if he was experiencing Depersonalization ($r = 0.24, p < 0.01$) or feelings of low Personal Accomplishment ($r = -0.39, p < 0.001$). When an officer scored high on the intensity dimension of Depersonalization, his wife reported that he did not share his feelings with her ($r = 0.19, p < 0.02$) and did not care as much about her ($r = 0.17, p < 0.03$). The officer scoring high on Depersonalization was also more likely to be absent from family celebrations ($r = 0.21, p < 0.01$). Reports of fewer friends were correlated with frequent feelings of Depersonalization ($r = 0.20, p < 0.05$). The officer's wife was also more likely to say that he and she did not share the same friends (Depersonalization, $r = 0.24, p < 0.01$).

Previous theorizing and research (Maslach, 1976) had suggested that burnout

could be linked to such stress outcomes as insomnia and increased use of alcohol and drugs. Some supportive evidence is also 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 ($r = 0.24, p < 0.01$). The officers themselves were more likely to report having a drink to cope with stress if they had high scores on Emotional Exhaustion ($r = 0.24, p < 0.01$) and to report taking tranquilizers when they scored low on Personal Accomplishment ($r = -0.21, p < 0.01$). This 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 ($r = -0.33, p < 0.001$) or high on Emotional Exhaustion ($r = 0.21, p < 0.01$).

discriminant validity

Further evidence of the validity of the MBI was obtained by distinguishing it from measures of other psychological constructs that might be presumed to be confounded with burnout. For example, it is possible that the experience of burnout may be nothing more than the experience of dissatisfaction with one's job. 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 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 moderate negative correlation with both Emotional Exhaustion ($r = -0.23, p < 0.05$) and Depersonalization (frequency only, $r = -0.22, p < 0.02$), as well as a slightly positive correlation with Personal Accomplishment (frequency only, $r = 0.17, p < 0.06$). However, since less than 6 per cent of the variance is accounted for by any one of these correlations, one can reject the notion that burnout is simply a synonym for job dissatisfaction.

It might also be argued that scores on the MBI are subject to distortion by a social desirability response set, since many of the items describe feelings that are contrary to professional ideals. To test this idea, a sample of 40 graduate students in social welfare was asked to complete both the MBI 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 and the SD Scale should be uncorrelated. Our results supported this hypothesis, since none of the MBI subscales were significantly correlated with the SD Scale at the 0.05 level.

DEMOGRAPHIC DATA

An analysis of the MBI scores of the entire sample ($n = 1025$) provides some indication of the relationship of certain demographic variables to the experience of burnout. As indicated earlier, the sample was drawn from a wide range of human service occupations within the United States. It is characterized by a

Table 3. Descriptive statistics for the intensity dimension of the four MBI subscales for several samples

Samples	N	MBI subscales							
		Emotional Exhaustion		Depersonalization		Personal Accomplishment		Involvement (optional)	
		M	SD	M	SD	M	SD	M	SD
Sex									
Male	(433)	3.02	1.46	2.33	1.56	5.05	1.00	2.79	1.49
Female	(492)	3.61	1.47	1.98	1.52	4.99	0.95	3.02	1.43
Race									
Caucasian	(818)	3.37	1.48	2.14	1.51	5.03	0.97	2.95	1.45
Black	(29)	2.76	1.51	1.39	1.50	5.07	1.10	2.33	1.58
Asian-American	(28)	3.27	1.54	2.21	1.41	4.75	0.98	2.45	1.23
Other	(47)	3.17	1.63	2.55	1.99	4.88	1.05	2.94	1.71
Age									
17-29	(219)	3.52	1.42	2.48	1.49	4.90	0.95	2.93	1.41
30-39	(376)	3.48	1.48	2.36	1.60	5.04	0.94	3.01	1.47
40-49	(162)	3.13	1.39	1.76	1.39	5.09	1.03	2.89	1.50
50-59	(104)	3.08	1.64	1.56	1.31	5.04	1.05	2.80	1.55
over 59	(24)	2.49	1.45	0.78	1.04	5.21	1.03	2.71	1.26
Marital status									
Single	(218)	3.63	1.39	2.14	1.53	5.01	0.92	3.05	1.39
Married	(554)	3.14	1.48	2.17	1.53	5.01	0.99	2.87	1.48
Divorced	(114)	3.74	1.52	2.18	1.60	5.13	0.98	2.88	1.56
Other	(31)	3.46	1.66	1.99	1.73	5.13	0.90	2.94	1.44
Education									
No college	(25)	3.59	1.64	2.57	1.90	5.01	0.99	3.07	1.68
Some college	(182)	3.18	1.55	2.69	1.70	4.89	1.07	2.62	1.60
Completed college	(149)	3.48	1.44	2.36	1.54	4.75	1.03	2.84	1.32
Postgraduate work	(455)	3.45	1.45	1.88	1.41	5.13	0.89	3.11	1.45
Other	(95)	2.83	1.52	1.87	1.43	5.26	0.92	2.81	1.37

relatively equal proportion of females (54 per cent) and males (46 per cent), a wide age range (18 to 70 years), and a relatively equal proportion of married (60 per cent) and non-married (40 per cent) respondents. It is also a predominantly Caucasian (89 per cent) and highly educated group (67 per cent of the total sample have completed college, and 50 per cent of the total sample have done additional postgraduate work). Table 3 presents the mean intensity scores on the MBI subscales according to sex, age, race, marital status, and education³.

Some interesting findings emerged from the demographic data analysis, but they must be interpreted with caution since some of the variables are clearly confounded with type of occupation. For example, physicians, police, and

³ Only intensity scores are presented here, for two reasons: (1) it simplifies the data presentation (since the frequency ratings show generally parallel patterns), and (2) the frequency ratings hard to be transformed to z-scores (since the earliest samples had been used a shorter response scale)

Psychiatrists are predominantly male, while nurses, social workers, and psychologists are predominantly female. Thus, it is possible that the sex differences found for this sample may actually reflect differences in occupations, but further research is needed to answer this question more precisely.

Differences between males and females were found for each of the MBI subscales. Females scored higher than males on Emotional Exhaustion, both for frequency, $F(1,928) = 44.49$, $p < 0.001$, and for intensity, $F(1,923) = 36.79$, $p < 0.001$. On the other hand, males scored higher than females on Depersonalization, both for frequency, $F(1,922) = 12.42$, $p < 0.001$, and for intensity, $F(1,923) = 6.33$, $p < 0.01$. Males also scored higher than females on Personal Accomplishment, both for frequency, $F(1,926) = 5.38$, $p < 0.005$, and for intensity, $F(1,923) = 3.80$, $p < 0.05$. Interestingly, females scored slightly higher than males on the optional fourth factor of Involvement, both for frequency, $F(1,944) = 4.03$, $p < 0.05$, and for intensity, $F(1,943) = 2.65$, $p < 0.06$.

Although no significant ethnic differences emerged from this analysis, this could be due to the relatively small number of ethnic minorities in the overall sample. Patterns of burnout did vary by age, however. Younger people scored higher than old people on Depersonalization, with a consistent decline in scores as a function of age group— $F(4,878) = 11.43$, $p < 0.001$ for frequency, and $F(4,879) = 16.30$, $p < 0.001$ for intensity. Older people scored higher on Personal Accomplishment than younger ones, but only for frequency, $F(4,880) = 4.70$, $p < 0.001$. On the other hand, younger people scored higher on Emotional Exhaustion, but only for intensity, $F(4,880) = 5.43$, $p < 0.001$. These results corroborate findings from earlier interviews (Maslach, 1976) that burnout is likely to occur within the first few years of one's career. If people have difficulty in coping effectively with burnout at this point, they may leave their profession entirely. Thus, the people in the older age range of our sample may be those who have survived the early stresses of their job and done well in their career. These findings are also in line with the positive correlations between age and job satisfaction that are commonly reported (see Weaver, 1980).

Marital status was significantly related to Emotional Exhaustion, but not to the other burnout subscales. People who were single or divorced scored higher than those who were married, both for frequency, $F(3,919) = 11.36$, $p < 0.001$, and for intensity, $F(3,913) = 8.91$, $p < 0.001$.

Differences by level of education were found for each of the MBI subscales. More education was associated with higher scores on Emotional Exhaustion, such that people who had completed college or done postgraduate work scored higher than those who had not completed college. This was true both for frequency, $F(4,909) = 5.40$, $p < 0.003$, and for intensity, $F(4,901) = 3.95$, $p < 0.01$. However, the reverse pattern was found for Depersonalization, where scores declined as a function of greater education, both for frequency, $F(4,901) = 7.82$, $p < 0.001$, and for intensity, $F(4,901) = 11.26$, $p < 0.001$. A somewhat different pattern emerged for Personal Accomplishment, with postgraduates scoring highest, followed by people who had not completed college and then by those who had— $F(4,906) = 5.86$, $p < 0.001$ for frequency, and $F(4,903) = 6.81$, $p < 0.001$ for intensity. Like the variable of sex, level of

education showed significant differences on both dimensions of the optional fourth factor of Involvement with postgraduates scoring higher than all others, $F(4,925) = 7.08$, $p < 0.001$ for frequency and $F(4,923) = 4.15$, $p < 0.001$ for intensity.

CONCLUSION

The development of the MBI was based on the need for an instrument to assess experienced burnout in a wide range of human service workers. Its inclusion in future research studies will allow us to achieve a better understanding of the personal, social and institutional variables that either promote or reduce the occurrence of burnout. In addition to the significance of this knowledge for theories of emotion and of job stress, such information will have the practical benefit of suggesting modifications in recruitment, training, and job design that may alleviate this serious problem.

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