

A Longitudinal Analysis of Burnout in the Health Care Setting: The Role of Personal Dispositions

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Burnout is frequently interpreted as a situationally induced stress reaction. However, the long-term stability of burnout scores and their correlations with subjective well-being measures suggest that burnout may also reflect enduring qualities of the individual. To assess the contribution of personality to the experience of burnout, an exploratory longitudinal study was done. At Time 1, 36 occupational therapists (32 women, 4 men) from two hospitals completed the Maslach Burnout Inventory (MBI; Maslach, 1982) and the NEO Personality Inventory (NEO-PI; Costa & McCrae, 1985; a measure of the five-factor model of personality). At Time 2, the MBI was again given along with the Work Environment Scale (Moos, 1981) to 29 of the original therapists. Moderately strong correlations were found between burnout scores and measures of the five factors both concurrently and longitudinally. Even when situational variables were controlled, personality continued to account for a significant portion of the variance in burnout scores. The implications of these findings are discussed.

The term *burnout* was originally proposed as a label for a state of emotional exhaustion brought about by overwork and resulting in a progressive inability to carry out the responsibilities of one's job (Freudenberger, 1974). Individuals suffering burnout are characterized by their emotional lability, cognitive rigidity, and interpersonal cynicism. Proposed at a time of increasing sensitivity to the effects of stress on both psychological and physical functioning, the term caught on and became a highly visible example of how certain working conditions can have a toxic impact on people. A number of researchers have since elaborated on the concept (e.g., Beehr & Newman, 1978; Golembiewski, Munzenrider, & Carter, 1983; Meier, 1983), attempting to clarify the antecedent and consequential conditions associated with burnout.

Perhaps one of the more widely known models is that proposed by Maslach (1982), who identified three major elements of the syndrome: emotional exhaus-

tion, depersonalization of others, and feelings of reduced personal accomplishment. This model has generated a large literature documenting the linkage of these constructs to a number of salient, work-related, personal criteria such as job satisfaction, desire for a job change, and family problems (Iwanicki & Schwab, 1981; Lee & Ashforth, 1990; Maslach & Jackson, 1981a, 1981b, 1982, 1984; Rafferty, Lemkau, Purdy, & Rudisill, 1986). Despite the relational fertility of this model, several important issues remain to be addressed. As Perlman and Hartman (1982) have noted, the concept of burnout has been used mostly as a descriptive term that provides little insight into its underlying causes and effects. The lack of much explanatory depth to the construct may be a result of the paucity of research studies aimed at identifying the personality correlates of burnout (Perlman & Hartman, 1982; Shirom, 1989). The absence of such foundational work deprives the construct of much explanatory precision and prevents its linkage to the larger established literature on occupational dynamics (Meier, 1983). Although burnout is most frequently perceived as an organizationally induced phenomenon (Maslach, 1981), this article will argue that our understanding of burnout may be enhanced by construing it to have trait-like properties as well. By evaluating Maslach's constructs within the context of a comprehensive personality taxonomy, some much needed interpretive meaning may be supplied to its motivational and interpersonal roots.

THEORETICAL BACKGROUND

Burnout as a Personality Construct

Burnout is most commonly conceptualized as a situationally induced stress reaction. Individuals, usually health care providers, begin to experience this malaise as the quality of their work environment deteriorates or as the demands of the job increase. Previously well-functioning individuals begin over time to experience somatic distress and psychological dysphoria (Freudenberger, 1974). Although research documents the association between various aspects of the work environment and burnout—factors such as caseload (Maslach & Jackson, 1984), work pressure (Rosenthal, Teague, Retish, West, & Vessell, 1983), and more difficult client problems (Pines & Maslach, 1978)—much of this research overlooks the potentially mediating effects of individual difference variables (Shirom, 1989). It is possible that individuals may vary in their sensitivity to stress; thus, these job characteristics may be more problematic for some than for others. Further, the reliance on concurrent correlational paradigms prohibits any causal inferences.

In a longitudinal study of teachers by Jackson, Schwab, and Schuler (1986), no job conditions predictive of later burnout were found. Such null results open the door for the hypothesis that qualities of the individual in addition to qualities of the job may predispose one to emotional burnout. Environmental factors may be relevant only to the degree that they enable individuals to express their own levels of distress. This is consistent with current longitudinal research that demonstrates

that temperamental dispositions are more powerful predictors of psychological distress than are environmental factors (Ormel & Wohlfarth, 1991).

Another indication that burnout may be related to personality centers on the temporal stability of the construct. In a number of longitudinal studies, 1-year stability coefficients were greater than .50, suggesting that burnout may reflect enduring aspects of the individual as well (Jackson et al., 1986; see Shirom, 1989, for a review of such studies). Although it could be argued that these high stability values reflect the chronicity of the poor work environment (i.e., individuals remain distressed because their jobs continue to be stressful), Costa and his colleagues (Costa, McCrae, & Zonderman, 1987; McCrae & Costa, 1988) have shown that certain individuals are able to adapt quite well to stressful conditions and are able to return quickly to their original levels of well-being. Others who have a lower intrinsic capacity for coping are not so resilient and remain distressed. Because these experiences of life satisfaction and coping ability are linked to enduring qualities of individuals, the stability of burnout scores may be due to stable dispositions as well as stable environments.

Finally, Costa and McCrae (1980, 1989a) have shown that levels of subjective well-being are strongly linked to specific personality dispositions, with environmental influences playing a very minor role. Because burnout has been linked to criteria associated with levels of well-being (such as job dissatisfaction, family problems, health difficulties; Maslach & Jackson, 1981a), it seems reasonable to conclude that burnout should also correlate with those personality dimensions that underlie well-being. These dimensions constitute part of what has come to be known as the Five-Factor Model of personality, to which we now turn.

Five-Factor Model of Personality (FFM)

Psychologists have long been interested in identifying the underlying dimensions of personality. Such an endeavor is noteworthy because it addresses the field at a very fundamental level: It provides a paradigm for evaluating, interpreting, and classifying the personal qualities of any psychological variable. Over the past 30 years, research has converged on the existence of five major dimensions of personality: Neuroticism (N), Extraversion (E), Openness to Experience (O), Agreeableness (A), and Conscientiousness (C); (Digman, 1990; John, 1989; McCrae & Costa, 1985, 1989a, 1989b). These dimensions have come to be seen by researchers from many different traditions as basic dispositions of personality. The five factors have been recovered from self-reports and ratings, in a variety of personality questionnaires from diverse theoretical orientations, in children, college students, and older adults, in men and women, and cross-culturally (John, 1990). These factors have evidenced convergent and discriminant validity across instruments and observers and remain stable across the adult life span (see McCrae & Costa, 1990 for a review of the evidence). Perhaps most important, they are comprehensive and represent the entire sphere of personality functioning (Piedmont, McCrae, & Costa, 1991).

Costa and McCrae (1985) provide the following definitions of these fundamental dimensions: N reflects adjustment versus emotional stability and identifies

individuals prone to psychological distress, unrealistic ideas, excessive urges, and maladaptive coping responses. E assesses the quantity and intensity of interpersonal interactions; activity level; need for stimulation; and capacity for joy. O measures the proactive seeking and appreciation of experience for its own sake; toleration for and exploration of the unfamiliar. A concerns the quality of one's interpersonal orientation from compassionate to antagonistic. Finally, C assesses the degree of organization, persistence, and motivation in goal-directed behavior. Each of these dimensions has been associated with a number of salient life outcomes. Both E and N have been linked to positive and negative affect, respectively, and hence to levels of subjective well-being (Costa & McCrae, 1980); N is also associated with increased somatic complaints and poorer personal adjustment (Costa & McCrae, 1987; Costa, McCrae, & Norris, 1981). Both E and A form the major axes of the Interpersonal Circumplex (McCrae & Costa, 1989c) and hence describe all forms of social interaction. O has been associated with ego development and creativity (McCrae, 1987; McCrae & Costa, 1980), whereas C has been shown to underlie successful job performance for a wide range of occupational groups (Barrick & Mount, 1991).

If Maslach and Jackson's (1981a) measures of burnout indeed capture aspects of personality, then we should expect meaningful correlations with specific dimensions of the FFM. Such associations would provide a new facet to the interpretations of scores from these scales. Specifically, it is hypothesized that the Emotional Exhaustion scale, which assesses feelings of being emotionally overextended and exhausted, should have a high association with N, itself an index of negative affectivity. The Depersonalization scale, which reflects an unfeeling and impersonal response toward recipients of one's care, should also show an association with N. Such bland affect and interpersonal uncaring can be indicative of emotional depression and hostility. It also may suggest an antagonistic orientation to others; thus, a negative correlation with A would be expected. Finally, the Personal Accomplishment scale reflects feelings of competence and successful achievement in work with others. Such a measure would have a strong correlation with C, a measure of desire to compete against personally meaningful standards of excellence.

The Role of the Situation in Burnout

Because burnout is frequently conceptualized as a situationally induced phenomenon (Freudenberger, 1974; Maslach, 1981), it could be argued that any association between burnout and personality is a result of the correlation of these two variables with a common environmental cause. From this perspective, stressful work conditions are seen as producing both burnout and certain changes in personality status (e.g., increased feelings of anxiety and depression). Therefore, individual-difference variables are not seen as providing any unique, predictive contributions to burnout.

Aside from placing Maslach's burnout indices within the fabric of the FFM, it therefore becomes necessary to demonstrate that any contribution personality

makes to explaining burnout occurs independent of situational influences. By using a standardized measure of environmental features at Time 2, namely the Work Environment Scale (Moos, 1981), an opportunity exists to evaluate the robustness of personality's predictive contribution. Using hierarchical multiple regression analyses, this study evaluated the relative predictiveness of the personality and situational variables. If personality plays an important role, then the multiple R between measures of the FFM and burnout scores should be significant, even after the situational variables are partialled. In other words, when the influence of the situation is controlled for, personality should continue to provide additional information about burnout.

PHASE 1

Method

Subjects

Subjects consisted of 41 occupational therapists from the Walter Reed Medical Hospital and the National Rehabilitation Hospital in Washington, DC. Thirty-six of these individuals were selected because of having worked in their field for 3 or more years, an interval sufficient to allow for potential dissatisfaction to develop and affect the individual (Cherniss, 1980; Edelwich & Brodsky, 1980). Subjects ranged in age from 26 to 48 ($M = 32$, $SD = 5.1$), were predominantly White (92%; 2 were Black and 3 Hispanic), and had at least a college degree (69% had a BA/BS, 28% had a masters, and for 1 individual this could not be determined). Subjects were predominantly female (32 women, 4 men). Concerning position, 75% were regular staff members, 19% were supervisors, and the remaining 6% were undetermined. All therapists did have patient contact.

Measures

MBI. Developed by Maslach and Jackson (1981a), this 22-item inventory consists of three subscales designed to capture the most salient aspects of burnout. The Emotional Exhaustion scale (EE: 9 items) elicits feelings that one's emotional resources are depleted and that one is unable to give emotionally to others. Items include "I feel emotionally drained from my work" and "I feel frustrated by my work." The Depersonalization scale (DP: 5 items) evaluates the presence of negative, cynical attitudes and feelings about one's clients, and is reflected in items such as "I worry that this job is hardening me emotionally" and "I feel I treat some recipients as if they were impersonal 'objects.'" Finally, the Personal Accomplishment scale (PA: 8 items) evaluates the degree of dissatisfaction with one's work accomplishments. A lowered sense of efficacy is associated with burnout. Items for this scale include "I feel very energetic" and "I have accomplished many worthwhile things in this job." Subjects indicate how frequently they experience each item on a 7-point Likert scale ranging from *never* (0) to *every day* (6). Given the nature of this sample, the Human Services Survey form was used. These scales

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have shown strong reliability coefficients in a number of environments (Gold, Bachelor, & Michael, 1989; Golembiewski, Munzenrider, & Carter, 1983; Iwanicki & Schwab, 1981; Maslach & Jackson, 1981a). A number of studies have documented the relations between scores on these scales and relevant, real-life variables (Belcastro & Gold, 1982; Jackson & Maslach, 1982; Jackson, Schwab, & Schuler, 1986; Maslach & Jackson, 1984; Nowack & Hanson, 1983).

NEO-PI. Developed by Costa and McCrae (1985), this 181-item questionnaire was developed through rational and factor-analytic methods to measure the five major dimensions of personality: N, E, O, A, and C. For N, E, and O, specific facet scales are designed to capture the qualities subsumed by these domains. Items are answered on a 5-point scale ranging from *strongly agree* (0) to *strongly disagree* (4), and scales are balanced to control for the effects of acquiescence. Internal consistency for the domain scales range from .76 to .93, and scores for adults are extremely stable, with 3- and 6-year retest coefficients ranging from .63 to .83 (Costa & McCrae, 1988). The NEO-PI has been extensively validated in studies with other self-report inventories (e.g., McCrae & Costa, 1989b) and with alternative measures of the FFM (e.g., Goldberg, 1989; Trapnell & Wiggins, 1990). Scales have shown evidence of convergent and discriminant validity across instruments, methods, and observers, and have been related to a number of life outcomes including somatic complaints, coping with stress, and response to psychotherapy (Costa & McCrae, 1989; Miller, 1991). Reviews of the NEO-PI are provided by Hogan (1989) and Leong and Dollinger (1990).

Procedure

Subjects completed these materials as part of a larger study on clinical reasoning. All materials were completed at home by the subjects in one sitting. Materials were mailed directly to the investigator. All subjects received feedback on the NEO-PI.

Results

Table 1 presents descriptive statistics for all the person and situation variables. There is a wide distribution of scores on each of the situational variables. Therapists have been in their field an average of more than 7 years and at their current positions an average of almost 3 years—sufficient time for any job-related stresses to accumulate. The *T*-score distributions on the NEO-PI scales show scores to be near average with respect to the adult normative sample; this occupational group evidences no particular personality profile. The MBI scores from the EE and PA scales are consistent with those obtained from other occupational therapist samples, whereas the DP scale appears slightly lower (Brollier, Bender, Cyranowski, & Velletri, 1987).

In order to evaluate the relations between the MBI scales and personality, scores from the three burnout scales were correlated with scores on the NEO-PI; the results are presented in Table 2. There are a number of significant associations.

TABLE 1
Descriptive Statistics for All Variables at Time 1

<i>Variable</i>	<i>Mean</i>	<i>SD</i>	<i>Minimum</i>	<i>Maximum</i>
Hours worked	42.2	6.8	24	60
Years in profession	7.6	5.2	3	25
Years on the job	2.8	2.5	1	15
Neuroticism*	52.2	8.9	30	69
Extraversion	54.6	8.3	31	73
Openness	53.9	10.7	30	74
Agreeableness	51.0	8.0	32	63
Conscientiousness	47.3	10.3	25	70
Emotional exhaustion	24.6	7.1	8	38
Depersonalization	5.4	3.6	0	13
Personal accomplishment	39.5	5.1	30	48

Note. $N = 36$.

*NEO-PI domain scores are expressed as T -scores ($M = 50$, $SD = 10$) based on adult normative data (Costa & McCrae, 1989b).

TABLE 2
Correlations Between the NEO-PI and the MBI Scales

<i>NEO-PI Scales</i>	<i>MBI Scales</i>		
	<i>Emotional Exhaustion</i>	<i>Depersonalization</i>	<i>Personal Accomplishment</i>
Neuroticism	.50**	.51**	-.20
Anxiety	.50**	.54**	-.07
Hostility	.22	.38*	-.10
Depression	.48**	.42**	-.27
Self-Consciousness	.26	.23	.12
Impulsiveness	.30	.32	-.25
Vulnerability	.47**	.33*	-.36*
Extraversion	-.04	-.04	.25
Warmth	-.23	-.26	.23
Gregariousness	.17	.01	.04
Assertiveness	-.13	.04	.17
Activity	-.15	-.03	.33*
Excitement Seeking	.42**	.23	-.12
Positive Emotions	-.25	-.17	.25
Openness	-.02	.19	.14
Fantasy	-.06	.14	-.06
Aesthetics	.10	.22	.12
Feelings	-.27	.02	.32
Actions	-.10	-.05	.08
Ideas	-.04	.10	-.07
Values	.24	.33*	.31
Agreeableness	-.36*	-.31	.35*
Conscientiousness	-.08	-.05	.46**

Note. $N = 36$.

* $p < .05$. ** $p < .01$. All two-tailed tests.

Both the EE and DP scales are strongly associated with N ($r_s = .50$ and $.51$, respectively; $p_s < .01$). Both scales capture aspects of anxiety, depression, and vulnerability to stress. The EE also correlates with Excitement Seeking, indicating that those high on EE seek out excitement and strong stimulation and like to take risks. There is also a significant correlation with A ($r = -.36, p < .05$). Low A reflects a more cynical, rude, suspicious, and manipulative orientation toward others. The DP scale also correlates significantly with the Values scale ($r = .33, p < .05$), suggesting that these individuals possess a readiness to reexamine their own value systems. Finally, the PA scale correlates negatively with Vulnerability ($r = -.36, p < .05$), and positively with Activity ($r = .33, p < .05$), A ($r = .35, p < .05$), and C ($r = .46, p < .01$). Individuals high on PA are hardy, stress-resistant individuals who have a high energy level, are self-disciplined, orderly, achievement oriented, and have a very altruistic, accommodating approach to others.

Discussion

This pattern of findings offers some new insights into the burnout phenomenon. Clearly, personality plays an important role in the experience of job-related distress. Not unexpectedly, high levels of N were associated with higher levels of EE and DP. Individuals who are anxious, depressed, and unable to deal with stressors are those who experience emotional exhaustion and depersonalization. More than likely, these same individuals also experience similar feelings in other aspects of their lives as well (e.g., at home, in relationships with others). The distress at work probably represents only one facet of an ongoing distressed life style. There is evidence showing those scoring high on burnout scales also score higher on indices of personal dysfunction, including increased drug and alcohol use, marital and family problems, and poor physical health (Bellecastro & Gold, 1982; Jackson & Maslach, 1982; Maslach & Jackson, 1981a).

It is clear that a large portion of the variance in the MBI scales is associated with enduring dispositions of individuals. Approximately 50% of the variance in the EE and DP scales was shown to relate to N, and more than 45% of the PA scale variance was associated with C, a substantial amount of overlap (Ozer, 1985).¹ These findings are indeed encouraging and suggest the potential for a significant explanatory gain to be had by using a person-centered research paradigm.

¹Although it is usual practice to square a correlation coefficient in order to determine the amount of variance held in common between two variables, Ozer (1985) demonstrates such may not always be appropriate. Ozer points out that there are two models for describing a relationship between two variables. The first model is referred to as variance decomposition. This model has as a predictor a variable that is fully contained as part of a larger, more inclusive criterion variable. In this model, r^2 gives the amount of explained variance. For example, correlating a composite rating to one of its constituent ratings falls in this category because the individual rating is part of a larger aggregate. If three individuals compose the composite, then the correlation between the composite and any one of the ratings will be $r = .574$. The square of this value is $.33$, indicating, rightly so, that any individual rating accounts for 33% of the variance in the larger composite. The second model occurs when two

Personological Evaluation of the MBI

The personality correlates to burnout offer some interesting insights and some intriguing speculations. Clearly, a personal sense of anxiety and hopelessness may be at the heart of burnout. High EE- and DP-scoring individuals may be experiencing their own personal affective dysphoria. Further, they may be unable to deal effectively with stress in their environments. The high NEO-PI Vulnerability scores suggest that these individuals become panicky, dependent, and despondent when confronted with stress. For high scorers on EE, the strong negative correlation with A is noteworthy. Low A reflects a manipulative, cynical, and uncooperative orientation to others and seems uncharacteristic for the group of human health care providers that constitute this sample. It may be possible, at least for this group, that the emotional exhaustion is linked to a bad person-job fit. The helping, caring, accommodating requirements of being an occupational therapist may be inconsistent with the cynical, manipulative, self-centered interpersonal orientation of the low Agreeable person, creating an intractable emotional conflict.

The DP scale has personality correlates similar to those of the EE scale, but it adds the components of Hostility and Openness to Values. The capacity to treat others as mere objects can certainly be fueled by anger and frustration. The high Values scores represent a readiness to reexamine religious, political, and moral value systems. The marginally significant, negative correlation with A fits well into this profile. Cynical, antagonistic individuals will tend to see others as objects and keep a distance from them because of their innate suspiciousness. Given the moderately high intercorrelations consistently found between the EE and DP scales (i.e., $> .5$), it is not particularly surprising that both these scales are highly similar personologically.

Finally, the correlates of the PA scale portray a high scorer as being hardy, active, agreeable, and motivated. The ambitious standards high PA scorers set for themselves are very *pro-person* in nature: helping, service-oriented, compassionate. Clearly, these individuals are the most fulfilled and actualized by reaching out and helping others; thus, the positive correlation of this scale with A makes conceptual sense for this sample. The secondary correlations of PA with Vulnerability and Activity may reflect additional coping resources of psychological resilience and

elements being correlated are each representatives of some third, larger, latent construct. This is referred to as the common variance model. Under these circumstances, the correlation coefficient is the amount of explained variance. The most common example of this model is the test-retest reliability coefficient. Whether the same or parallel forms are being given, both instruments are indicators of a common, latent variable. Thus the correlation between the two does not need to be squared because it directly represents the amount of shared variance (which is what a reliability coefficient represents). Similarly, in this study both the MBI scales and the NEO-PI domains are expressions of common latent traits; in the case of the EE and DP scales, they along with the N domain score are common elements of the larger Neuroticism dimension, whereas the PA and C scales are common elements of the latent dimension of Conscientiousness. Thus r and not r^2 is the more accurate percentage of explained variance.

personal energy to help manage the inevitable frustrations experienced in any treatment process.

PHASE 2

The previous phase was instrumental in identifying stable personality qualities underlying the experience of burnout. However, there are two important limitations to the investigation. First, the situational contribution was not evaluated and controlled. As noted earlier, the associations between the NEO-PI and burnout could be argued to be artifactual, with the correlations reflecting only the psychological sequelae of being in a toxic work environment. Statistically controlling for the work environment would thereby reduce these correlations to zero. In order to provide a systematic evaluation of working conditions, the Work Environment Scale (WES; Moos, 1981) was included in this phase. This measure is a psychometrically sound tool for abstracting information about interemployee relationships, growth potential, and job clarity and control. The WES dimensions have shown associations with MBI scores in a sample of mental health workers (Savicki & Cooley, 1987). Support for a personality component to burnout would be persuasively demonstrated by documenting, through a regression analysis, the continued predictiveness of the NEO-PI scores once the WES scales are covaried out.

The second limitation of the previous step was the relatively small sample size. Although the correlations between the NEO-PI and the MBI scales were of relatively large magnitude, such associations are notoriously unstable in small samples. Because an increase in sample size was not feasible in these circumstances, a longitudinal paradigm was implemented instead. Longitudinal analyses provide a number of advantages in this situation. First, multiple observations help compensate for the lower power inherent to a small sample. Second, they provide a rigorous test of the stability of the previous findings: If burnout represents a stable phenomenon associated with enduring qualities of the individual, then scores on the NEO-PI obtained at Time 1 should continue to correlate with burnout scores assessed later. In fact, obtaining cross-time correlations with the NEO-PI comparable with, or larger than, correlations found between the MBI and WES measured concurrently would provide a powerful replication of the original findings. Finally, the longitudinal design provides correlations based on observations made at different intervals. Such associations are less prone to inflation due to correlated error introduced by a common testing situation than are concurrently obtained self-report measures.

Based on the findings in Phase 1, the following hypotheses were made. First, high N and low A will continue to be significant predictors of the EE and DP scales, whereas high C will be significantly associated with PA scores. Second, in the hierarchical, step-wise regression analyses, the N, A, and C domains will continue to explain a significant amount of the variance in their respective MBI scales, in addition to any variance accounted for by the WES scales.

Method

Subjects

Subjects consisted of 29 of the 36 therapists used in Study 1. Of the 7 missing individuals, 4 were no longer at the institution, and 3 elected not to participate. The dropouts were not significantly different from those who continued to participate on any of the personality and burnout variables measured at Time 1.

Measures

MBI. This 22-item inventory was again used to assess levels of burnout at Time 2. Descriptive information is presented in the previous study.

WES. Originally developed by Moos (1981), this 90-item, true-false questionnaire is designed to measure the social environment of different types of work environments. The instrument contains 10 scales that assess three larger social climate dimensions. The Relationship dimension consists of the Involvement, Peer Cohesion, and Supervisor Support scales and assesses the degree to which the job environment fosters positive interpersonal relationships among employees. The Personal Growth dimension is measured by the Autonomy, Task Orientation, and Work Pressure scales and reflects the degree to which employees are encouraged to be self-sufficient, efficient, and task oriented. The System Maintenance/Change dimension consists of the Clarity, Control, Innovation, and Physical Comfort scales and assesses the amount of job definition and structure, amount of innovativeness, and the pleasantness of the working conditions. Alpha reliabilities for the 10 scales range from .69 for Peer Cohesion to .84 for Involvement, all quite within acceptable levels. Research has shown that qualities of the work environment captured by these scales predict job morale and performance among health care workers (Brady, Kinnaird, & Friedrich, 1980; Parkes, 1982). For the purposes of this study only the larger climate dimensions were used in all analyses.

Procedure

Seven months after their initial measurement, occupational therapists at the two hospitals were contacted and asked to complete the MBI and the WES. Materials were again completed at home and mailed to the investigator.

Results

Scores on the MBI obtained at Time 2 were correlated with MBI scores obtained 7 months earlier. Retest coefficients were .47, .59, and .62 for the EE, DP, and PA scales, respectively. Approximately half the variance of these scales remained constant over time. The magnitudes of these coefficients are consistent with previous research (Jackson et al., 1986).

Table 3 presents the correlations between the NEO-PI domains, measured at Time 1, with the MBI scales measured at Time 2. Because scores on the MBI scales are not perfectly stable and the sample size is relatively small, these correlations were adjusted for attenuation to compensate for the distortions introduced by the time lag between measurements.² As hypothesized, high N and low A significantly correlate with the EE and DP scales. High C is significantly associated with PA. These correlations replicate and extend the findings of Study 1: The personality dispositions of N, A, and C continue to play a significant role in predicting levels of burnout over time. None of the WES social climate dimensions was significantly associated with burnout.

In order to directly evaluate the predictive efficacy of the NEO-PI variables relative to the social climate dimensions, hierarchical, stepwise multiple regression analyses were performed that systematically varied the entry of these two sets of variables. Because the relations between the NEO-PI domains and the MBI were determined in Phase 1, only the N and A domains were used to predict the EE and DP scales, and the C domain was used to predict PA. Using only the conceptually predicted scales helps to conserve degrees of freedom and enhance the statistical

²Correlations between the NEO-PI domains and the MBI scales were corrected for attenuation by dividing each correlation by the square root of the retest reliability coefficient for the respective MBI scale. This procedure provides an unbiased estimate of the strength of the association between these two measures over time. These disattenuated correlations were also used in the regression analyses.

TABLE 3
Correlations Between the NEO-PI and WES Domains With the MBI Scales
Measured at Time 2

Domains	MBI Scales—Time 2		
	Emotional Exhaustion (.47) ^a	Depersonalization (.59)	Personal Accomplishment (.62)
NEO-PI, Time 1			
Neuroticism ^b	.31*	.35*	.13
Extraversion	-.38*	-.16	.14
Openness	-.12	-.18	-.08
Agreeableness	-.61**	-.44**	.06
Conscientious	-.12	.09	.37*
WES, Time 2			
Relationships	-.13	-.22	-.06
Personal Growth	-.15	.03	-.18
Systems	-.30	.01	-.26

Note. $N = 29$.

^aSeven-month test-retest coefficients for the MBI scales. ^bNEO-PI correlations with the MBI scales were corrected for attenuation.

* $p < .05$. ** $p < .01$. All one-tailed tests.

power of the regression analyses. All three WES dimensions were used in these analyses because no predictions about their relatedness to the MBI scales was made.

In the first phase of these analyses, the three WES scales were entered as one block of predictors for each of the MBI scales. The resulting multiple *R*s were all nonsignificant (all adjusted *R*s were .00). The second step simultaneously entered the relevant NEO-PI domain scales. The resulting multiple *R*s were all significantly increased: adjusted *R*s = .65, .33, and .28 for the EE, DP, and PA scales, respectively; partial *F*s (2, 23) = 10.13 and 3.08 for EE and DP, respectively; *F*(1, 24) = 3.48 for PA, all *p*s < .05. The NEO-PI domain scores measured at Time 1 significantly increased the amount of explained variance more than that accounted for by the WES dimension scores assessed concurrently at Time 2.

Discussion

The pattern of findings presented here clearly and persuasively replicated the findings of Study 1. Burnout represents a stable phenomenon that is clearly associated with enduring qualities of the individual. Levels of N and A remained significant predictors of distress, whereas C continued to underlie occupational therapists' sense of accomplishment. Such predictive consistency in this relatively small sample should provide convincing evidence of just how large a role personality plays in influencing perceptions, reactions, and interpretations of situational events in the work environment.

These results do not deny the reality that a situation can become so overwhelming that even the hardest of individuals would succumb to emotional and physical exhaustion. Accountants during tax season or hospital personnel during a prolonged medical emergency are two examples where the press of the situation might overshadow any expression of individual differences in coping ability; by the time circumstances abate, everyone may be burned out. Fortunately, such situations are not the norm for most employees. The correlations between personality and burnout demonstrate that in a given situation, individuals will vary in the degree to which they perceive and experience an event as being stressful. A moderate stressor will have a more disorienting effect on someone high on N than on someone who is low on the dimension.

The significant associations between personality and burnout open another window of insight into the potential motivational roots of the construct. As these results show, the FFM can serve as a useful empirical paradigm for outlining the kinds of qualities that may underlie the experience of burnout. Nonetheless, the findings presented in this study appear to be counterintuitive to traditional conceptualizations of burnout (e.g., Maslach, 1981), creating a need for a new approach to both defining and measuring the construct. Burnout can be thought of in two ways. One definition is operationalized by scales like the MBI, which captures the emotional/motivational qualities of the phenomenon. As this study showed, this definition is quite clearly associated with enduring personality characteristics of the individual and has little to do with the work situation. This explains why

research using the MBI finds no consistent situational predictors of burnout and why these scores remain fairly stable over time (e.g., Jackson et al., 1986).

The other way of defining burnout is in terms of the work environment. Such a definition would focus on *changes* in specific situational variables (e.g., number of hours worked per week, the degree of urgency to complete assigned tasks) over a particular time (e.g., 6 months). This perspective would view burnout explicitly as a shift in the work environment rather than an affective response. This approach is more consistent with the original conceptualization of burnout (Freudenberger, 1974), although current situational measures seem to capture more static aspects of the environment than change. Controlling for individual differences, a measure designed to assess shifts in job conditions would identify that point at which further demands in the job milieu will produce decrements in job satisfaction, productivity, and service delivery.

Each of these approaches to burnout takes differing perspectives on the phenomenon with correspondingly varying measurement implications. Because these two definitions are relatively independent, a synthesis of both approaches would provide the most comprehensive and explicit model for understanding and predicting burnout.

CONCLUDING COMMENTS

From an applied perspective, these results can be useful in the selection of potential health care workers. That there are personality correlates to burnout and job satisfaction suggests that some individuals either may be temperamentally unsuited for this occupation or may be at greater risk for experiencing the emotional and professional dysphoria associated with burnout. Personality assessment could therefore be useful both in alerting individuals to the potential risks they may face and as a selection device in recruitment. This would increase the likelihood of making a good person-job match.

From a career counseling standpoint, information about personality could be a useful starting point for discussing the kinds of needs a person may wish to fulfill in a career. Information about the personality profiles of various work groups also would be helpful for directing individuals to areas of vocational endeavor consistent with their own personality configurations (cf. Burke & Deszca, 1982). It is clear from this study that aspects of personality directly affect the quality of the work environment, and features of the individual have been linked to vocational interest (Costa, McCrae, & Holland, 1984). An integration of this information can help identify work paths typically followed by various kinds of individuals.

Finally, the small sample size of this study should suggest caution in accepting the null results found regarding the situational predictors of burnout. These WES variables could maintain small magnitude associations with burnout that are undetectable in this paradigm. Although this study cannot rule out a situational contribution to burnout, it does, nonetheless, clearly highlight burnout's relationships to enduring personological qualities of the individual. The value of this study

is found in its call to elucidate the kinds of personality variables that are involved in burnout. Motivational, aspirational, and interpersonal qualities as well as how they may interact with the situational influences all need to be further understood. The results of this study provide an orientation toward the kinds of personality qualities that may be most relevant.

ACKNOWLEDGMENTS

This research was supported by a grant from New Medico Head Injury Systems to the American Occupational Therapy Foundation.

I thank Robert R. McCrae and Gretchen Swanson for their helpful comments on an earlier draft of this article.

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Received January 13, 1993

