Burnout in Spurned Medical Caregivers and the Impact of Job Expectancy Training

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This study represents an extrapolation to the practical realm of a theoretical model that has been supported thus far only by laboratory studies. The model regards the rejection of help by people in need as being stressful for caregivers partly because it violates their expectations of acceptance and threatens their self-image as competent caregivers. It was hypothesized that high levels of perceived rejection by patients and others at work would contribute to burnout in medical caregivers. It was also predicted that high levels of stress preparation in caregivers' training with regard to job expectancies and patient (non)compliance would lessen burnout and buffer the effects of spurning. Responses to a questionnaire by a sample of physicians and hospital nurses revealed a direct association of perceived spurning, as well as an inverse association of stress preparation with burnout, and gave some indication of buffering, as hypothesized. Expressions of violated expectancies and of job disillusionment were directly associated with burnout and inversely associated with stress preparation. Informal job expectancy shaped by coworkers was found to be directly associated with burnout in physicians, but it was inversely associated with burnout in nurses. The implications of these findings are considered.

There are two key components of effective helping that seem applicable in most contexts: The person needing help must be receptive to being helped, and the help that is offered must ultimately meet his or her needs. Of the two, receptivity to being helped takes precedence, at least in time. Until recently, such receptivity has escaped systematic attention by investigators of helping behavior, except from the perspective of the person needing help (Fisher, Nadler, & DePaulo, 1983; Nadler & Fisher, 1986; Rosen, 1983). The perspective of the rejected helper has been neglected as a problem area deserving systematic inquiry in its own right.

This led us to investigate the consequences of nonreceptivity for would-be helpers (e.g., Rosen et al., 1989; Rosen, Mickler, & Collins, 1987; Rosen, Mickler, & Spiers, 1986). The practical implications were initially suggested by the widespread phenomenon of patient (or client) noncompliance (Meichenbaum & Turk, 1987; Raven & Litman-Adizes, 1986), by the considerable interest expressed by practitioners in seeking how to overcome it

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(Meichenbaum & Turk, 1987), and especially by the fact that such noncompliance has been cited (Farber, 1983; Meichenbaum & Turk, 1987; Ort, Ford, & Liske, 1964) as being particularly stressful for medical personnel.

Rejection of their help may be stressful for would-be caregivers. This stressful state may activate various coping attempts to restore control, with the eventual goal of reaffirming or restoring their prior sense of being sufficiently efficacious and caring to be helpful. Sufficient efficacy signifies the possession of both the relevant technical resources or nonpersonal competence and the interpersonal resources or social competence (e.g., skills in inducing acceptance of help) for meeting the recipients' perceived needs. Sufficient caring signifies empathic concern and motivation for extending help to recipients in need.

The strength of the caregiver's cognitive, affective, evaluative, and behavioral coping attempts may be mediated by the degree to which the rejection violates prior expectations that recipients would accept offers of help. The coping attempts would be moderated by such situational factors as the nature of the helper-recipient relationship, the perceived importance of the help for the recipient, and the perceived importance of acceptance for the caregiver's own private and public self-image as an efficacious and caring person. The coping would also be moderated by such personal factors as individual differences, to the extent the caregiver had perceived himself or herself beforehand as being efficacious and caring.

Until recently, we sought and obtained support for this theorizing through laboratory experiments with lay peer helpers (mainly undergraduates) on achievement-related tasks. Our research indicated, for example, that rejected (compared with accepted) helpers ventilate negative affect; claim, after the fact, to have had relatively little control over the decision to offer help; admit to failure to meet the recipient's needs; devalue the rejector much more than the self; attribute the rejection to an unflattering profile of recipient characteristics; give a pessimistic prognosis regarding the recipient's future progress; and are disinclined to associate further with the recipient.

This research also indicated that prospective helpers clearly hold prior expectations that their help will be accepted and regard its subsequent rejection as more of an expectancy violation than they do its acceptance. The posited mediational role of violated expectancy of acceptance was supported by the fact that, when the extent of the helpers' surprise at rejection was controlled statistically, the strength of their coping reactions was considerably reduced, if not eliminated. Reactions were tempered when the recipient was a friend rather than a stranger (Cheuk & Rosen, 1992), and reactions were amplified when the rejector's unsatisfactory task performance was purported to be highly important for his or her academic future and, when acceptance was purported to be

highly diagnostic of the helper's social competence at helping (Cheuk & Rosen, 1989).

In addition, we found evidence that individual differences in helpers' self-perceptions could moderate the effects of rejection: Those who had viewed themselves beforehand as being highly efficacious and caring were more likely than their counterparts to express relatively higher prior expectations of acceptance and higher expectancy violation after rejection but lower expectancy violation after acceptance. Although their immediate reactions to rejection were more extreme, their long-term reactions were more confrontational, problem-oriented, optimistic, and less distancing (e.g., they expressed greater willingness to continue association with their rejector; Cheuk & Rosen, 1993).

Research must go beyond merely noting suggestive parallels to the problems of real world caregivers to demonstrate that these laboratory findings can be extrapolated to applied settings. Lab participants in prior studies were untrained innocents exposed to an isolated, contrived rejection of their offer of help. Do their reactions resemble those of trained and experienced professionals who have to deal with recurrent spurning or resistance by patients or clients? Accordingly, the present study investigates the key proposition that the perceived spurning of their help is conducive to burnout in professional caregivers.

Inasmuch as patient or client resistance has been cited as a prime stressor for professional caregivers,[2] we chose physicians and nurses as our target population in this initial attempt at external validation of prior laboratory findings. Maslach and Jackson (1982) noted (see also Kasl, 1975), that medical caregivers become frustrated when medical interventions cannot help their patients. Perhaps even greater discouragement occurs when patients do not comply with treatments that could benefit their own health. According to Maslach and Jackson, the practitioner's control over the course of treatment "... may be sabotaged by an uncooperative patient who refuses to follow prescribed treatments" (p. 236). Such observations have not resulted in the systematic investigation of this subject. At best, dealing with difficult clients tends to be represented by an isolated item or two in the numerous stress/strain inventories presently available (Wolfgang, 1988).

[2]The organizational context in which many professional caregivers work may add other possible stressful antecedents of burnout such as relative lack of power over personnel with superior authority or lack of control over policy, poor relationship with supervisor, bureaucratic hassles, role conflicts, and other stressors encountered outside the workplace. We were prompted, however, by the conviction that experiencing resistance to being helped was an important stressor for professional caregivers that deserved investigation in its own right.

Based on previous research alleging adverse consequences of patient noncooperation for the helper-client relationship (Lorber, 1975; Wills, 1978) and the suggestion of patient noncompliance as an antecedent of caregiver burnout, we predicted that the spurning of caregivers' help would be related to burnout. It should be noted that other investigators (Cherniss, 1980) have found an inverse relationship between (client) resistance and the helper's sense of professional efficacy or competence. This, of course, is consistent with our initial theorizing with respect to the adverse implications of spurning for the helper's self-image. Still other investigators have posited (Harrison, 1983) and found (Burke, Shearer, & Deszca, 1984) an inverse relationship between perceived social competence and burnout. Our present concern, however, is with demonstrating a direct link between perceived resistance or spurning and burnout.

Burnout has been described (Maslach & Jackson, 1982) as a syndrome involving depersonalization (negative, callous attitudes toward those with whom one works), a reduced sense of personal accomplishment (implying negative self-evaluation), and emotional exhaustion (feeling depleted of emotional resources). Our laboratory measures of reactions to rejection were suggestive of these components of burnout: Indices of the perceived low sociability and competence of the rejector and low desire for further association with him or her could be short-term analogs of depersonalization. Rejected helpers' admission of their failure to meet recipients' needs and their tendency for self-devaluation might be considered to be comparable to a reduced sense of personal accomplishment. Affective reaction scales tapping distress, irritation, and (lack of) joy at rejection provided insight into emotional responses but did not explicitly address emotional exhaustion since it would not have been applicable, given the transitory nature of the laboratory helping situation.

Some investigators regard expectancy violation as an antecedent of burnout, especially among the more idealistic novices in the helping professions (Harrison, 1983; Maslach & Jackson, 1982). This suggests that initial job expectancy may be a relevant predictor. Accordingly, we sought to explore the extent to which medical professionals had received prior instructions regarding what to expect on the job and the impact, if any, of such job expectancy training on both burnout and the spurning-burnout relationship.

In particular, we sought to explore the possible contributions to burnout and to the moderation of the spurning-burnout linkage of both formal and informal sources of prior instruction that medical professionals may have received regarding what to expect on the job. The formal source was any initial professional training given about how to deal with rejection. Such training may have an attenuating (main) effect on burnout, to the extent that it provides advance technical preparation on how to cope with the job stress that might arise from resistance to, or rejection of, help. It might also have a buffering effect on the

spurning-burnout association to the extent that it prepares caregivers, in part, to expect that patients often will resist being helped and teaches them what to do when that occurs. Such training could be regarded as a form of stress inoculation for coping with future stresses in dealing with patients (Ceslowitz, 1989; Janis & Rodin, 1979; Meichenbaum & Cameron, 1983). For example, leading trainees to believe at the outset that client resistance is the norm would tend to legitimize situational attributions, rather than unfavorable self-attributions, as to why their help was rejected. We referred to this formal source of expectancy indoctrination as *stress preparation* and predicted that it would reduce the impact of spurning on burnout.

The informal source of job expectancy training that suggested itself was peers (coworkers).[3] Yet we were uncertain how, if at all, peer-based job expectancy might affect the spurning-burnout relationship. Previous research concerning the favorability of the impact of peer influence seemed quite equivocal (Anderson, 1991; Dakof & Taylor, 1990; Rook, 1984) because of the possible operation of a variety of idiosyncratic factors, (a) including the peer culture with regard to caregiver-patient relationships, (b) the structure of the existing peer communication network, (c) the centrality of the particular informants' positions in that network, (d) to what extent the more knowledgeable informants were accessible, and (e) whether the informants were unduly optimistic or pessimistic, or themselves burnt out. In the absence of this information, no specific prediction about the effect of peer influence was made.

Method

Samples

To secure a sample of physicians, a 4-page questionnaire that addressed the variables of interest was mailed to each member of a county-wide medical society. Each registered nurse at a county hospital in the same Northeast locale received the questionnaire along with a monthly pay envelope. The present data, collected during a 1-month period, are based on the 80 physicians and 57 nurses who returned their questionnaires. The overall return rate of 68% (61% for nurses and 76% for physicians) was considered sufficient for present purposes. As expected, the physician sample was predominantly male (90%); the nurse sample was overwhelmingly female (98%). Physicians were older

[3]Golembiewski et al. (1983), who were studying individual burnout in commercial settings, felt that alluding to the target people in the items as "coworkers" was more appropriate than as "people" and "clients," as Maslach and Jackson had referred to them. We felt, similar to Maslach and Jackson, that "people" and "patients" were more appropriate designations, given our medical practitioner samples.

(M = 49.99, SD = 12.15) than nurses (M = 40.87, SD = 8.81; combined sample M = 46.22, SD = 11.75). They also reported more years of specialization (M = 17.70, SD = 11.89) than did nurses (M = 10.45, SD = 7.55; combined sample M = 14.79, SD = 10.93).

Materials

The questionnaire included items regarding the extent of perceived spurning of the respondent's help, burnout, extent of formal and informal job expectancy training, violated expectancy, job disillusionment, and the control variables of respondent age and years in the area of medical specialization. In the case of both the spurning and burnout items, we employed the response format used extensively by Golembiewski, Munzenrider, and Carter (1983) in measuring burnout. Their scales call for responses ranging from *applies very little to me* (1) to *applies very much to me* (7). They reported obtaining correlations in the .90s between burnout component scores based on this format and corresponding scores based on the intensity format associated with the original Maslach Burnout Inventory (MBI), Maslach and Jackson (1981). We opted to use the Golembiewski et al. (1983) format for both spurning and burnout because we felt that this format better tapped the extent to which both sets of experiences were perceived as relatively chronic problems by these professional helpers. Using one format also permitted us to merge both sets of items and, in so doing, reduce the likelihood that our interest in the spurning-burnout association would become apparent to the respondents.

Spurning. We constructed a 12-item measure of spurning by having the respondents rate the extent to which patients and others resist or fail to avail themselves of the respondents' offers of help, on scales which ranged from *applies very little to me* (1) to *applies very much to me* (7). Items were empirically and theoretically derived. From our first study of the spurned helper phenomenon (Rosen et al., 1986), the participants' causal attributions for why their help was refused served as a basis for item construction. In addition, literature on both the status implications of helping and being helped (Rosen, 1984), and professional life and bureaucracy (Blau, 1964), contributed to item generation.

A principal components factor analysis of the spurning items yielded four factors with eigenvalues greater than 1.00, which accounted for 59% of the variance. Varimax rotation identified four items as loading at least .50 on the first factor and at least .30 more than on any other factor: (a) No matter how I try, I can't get patients who need my help to accept it; (b) Even though they know my door is open to them, people who could use my help very badly usually avoid coming in to receive it; (c) It seems as though the patients who

need my help the most are the ones who are the most resistant to it; and (d) Patients turn down my advice because they question how good it is. Cronbach's alpha for the internal consistency of the four items included in this factor was .69.

Factor 2 contained two such high-loading items ($\alpha = .68$): (a) People come to me when they have problems or need advice; and (b) My fellow professionals think I am good at helping people with their problems and at offering people the advice they need. Factor 3 also contained two high-loading items ($\alpha = .43$): (a) Patients feel more reluctant to approach me for help than to approach my fellow professionals; and (b) Most people feel uncomfortable about telling me their troubles. Factor 4 contained only one item: People I see on the job get good ideas from me about how to solve their problems or to do things.

In view of the apparent lack of any meaningful conceptual distinctions between these factors and the fact that internal consistency across the 12 items ($\alpha = .66$) was considered of sufficient magnitude at this stage of development, there was no reason to employ separate subindexes. Accordingly, a composite measure was constructed through simple summation, after reverse keying the four favorably worded items. There were no significant differences between the nurse and physician samples on perceived spurning.

Burnout. To measure burnout in this study, we selected a substantial number (16) of the original MBI items. The reduction helped to shorten the length of the questionnaire packet and, in turn, reduce our concerns about securing an adequate return rate. Item deletion was based, in part, on a decision that several were less directly reflective than others of the burnout construct and its components. For instance, we deleted the three item subset that Maslach and Jackson had called Personal Involvement ("feel similar to them," "feel uncomfortable about the way I treat them," and "feel personally involved with them"). All three were later dropped by Maslach and Jackson (1984) when they pared their original set to 22 items. We omitted the item *feel burned out*, by reasoning that, as the term has become a part of the vernacular—certainly of those in the helping professions—its use might bias our participants' responses. Of the items retained, five were selected to represent *emotional exhaustion* (feel frustrated, used up, fatigued in morning, emotionally drained, and working with these people takes a lot out of me). Six items represented *personal accomplishment* (accomplished worthwhile things, positive influence on lives of my patients, feel very energetic, deal effectively with people I see at work, feel exhilarated, and can create relaxed atmosphere for patients). Five items represented *depersonalization* (don't care what happens to people I see at work, working with others is too much strain, this job is hardening me emotionally, feel more callous toward patients, and patients blame me for their failures).

A principal-components factor analysis of these burnout items yielded four factors with eigenvalues exceeding 1.00 that jointly accounted for 59% of the variance. Varimax rotation indicated that items we had classified under emotional exhaustion loaded highly on Factor 1 and the items classified underpersonal accomplishment loaded highly on Factor 2. Of the five items classified under depersonalization, only two loaded highly on the third factor and low on the other factors. Additionally, one item (patients blame me for their failures) loaded highly on the fourth factor but low on the other factors, whereas the remaining two high-loading Factor 4 items also loaded highly on Factor 1. However, since these items were specified by Maslach and Jackson (1981) in their depersonalization subscale, we continued to use all five factors even though they did not conform to the expected factor structure.

The intercorrelations among the three component scores were as follows: for depersonalization and reversed personal accomplishment, $r(137) = .361$, for depersonalization and emotional exhaustion, $r(137) = .610$. For reversed personal accomplishment and emotional exhaustion, $r(137) = .359$. Others also have found the emotional exhaustion depersonalization correlation to be appreciably greater than the other two correlations (Golembiewski et al., 1983; Green, Walkey, & Taylor, 1991). The magnitude of those correlations suggests that the components made sufficiently independent contributions to warrant analyses of effects on both the total burnout score and each component score.

Burnout and component scores were obtained through simple summation (after appropriate keying): for the total set of 16 burnout items, $\alpha = .69$ ($M = 46.89$, $SD = 14.56$, in the combined sample). For emotional exhaustion, $\alpha = .82$ ($M = 18.81$, $SD = 8.02$). For personal accomplishment, $\alpha = .70$ ($M = 32.12$, $SD = 5.37$). For depersonalization, $\alpha = .59$ ($M = 12.04$, $SD = 4.92$). Other investigators (Golembiewski et al., 1983; Green et al., 1991) also obtained their highest reliability coefficients on emotional exhaustion and their lowest on depersonalization. There were no significant differences between the two samples on total burnout or on any of the burnout components.

Sources of training in job expectancy. The formal source, *stress preparation*, was measured by an index ($\alpha = .61$, $M = 7.38$, $SD = 3.51$) based on the summed responses to three 7-point scales: the extent to which the formal training received before beginning professional work (a) included explicit reference as to what to expect on the job; (b) called attention to the likelihood that many, if not most, patients would resist efforts to help them; and (c) gave explicit instruction in methods for coping with job stress. The informal source of training, *peer influence*, was measured via a single 7-point rating scale concerning the extent to which initial job expectations were shaped by what the respondent had heard from peers and from the grapevine ($M = 3.62$, $SD = 1.78$).

Supplementary measures. An index of *expectancy violation* was constructed through simple summation of responses to two 7-point scales ($r[140] = .66$, $p < .0001$): to what extent (a) their current professional experiences differed from what they had expected at the outset of their professional work and (b) they were surprised by the difference. An inverse measure of *job disillusionment* was based on responses to one 7-point scale indicating the extent to which they would have pursued their medical career if they had known beforehand what it would entail. The physicians reported significantly less expectancy violation, $t(131) = 2.95$, $p < .005$, and significantly less job disillusionment, $t(134) = 2.23$, $p < .05$, than did the nurses.

Results

Hierarchical regression analyses via maximum R^2 were performed to test the hypotheses regarding the predictors of burnout. The first stage addressed predictor main effects. The Spurning × Stress Preparation and Spurning × Peer Influence interactions were then added as successive steps to test for their possible buffering effects. A description of the results in the text proper is based primarily on total burnout scores in the combined sample. For details of main analyses on the separate samples and on the burnout components, see Tables 1 through 4. Profession (physician vs. nurse sample) was added as a predictor in regression analyses on the combined sample.

Main Effects on Burnout

Effects of spurning. Consistent with our predictions, the association of spurning with total burnout scores was significantly positive in the combined sample, $\beta = .323$, $F(1, 130) = 17.56$. $p < .0001$, and in each sample (see Table 1). Spurning also showed a significantly negative relationship with nonreversed (i.e., positively keyed) personal accomplishment in the combined sample and in each sample (Table 2). It showed a significantly positive relationship with depersonalization, largely due to its impact in the nurse sample (Table 3). There was no main effect spurning on emotional exhaustion (Table 4).

Effects of stress preparation. Consistent with the hypothesis, stress preparation was negatively associated with burnout, $\beta = -.208$, $F(1, 130) = 7.18$, $p < .01$; this was largely due to its impact in the nurse sample. The effect of stress preparation on nonreversed personal accomplishment in the combined sample was significantly positive, although nonsignificant in the separate samples. Its effect on depersonalization was significantly negative in both the combined and separate samples, but showed no main effect on emotional exhaustion.

Table 1

Effects of Spurning, Job Expectancy Training, and Other Factors on Burnout

Predictor	Nurses		Physicians		Combined	
	β	*F*	β	*F*	β	*F*
Spurning	.397	11.25**	.237	5.40*	.323	17.56***
Training source:						
Stress preparation (formal)	-.273	5.56*	-.146	1.95	-.208	7.18**
Peer influence (informal)	-.131	1.25	.217	4.30*	.029	<1
Age	-.315	5.61*	-.340	3.66	-.407	11.17**
Years in specialization	.061	<1	-.004	<1	.104	<1
Profession	—	—	—	—	.002	1
R^2	.333		.290		.275	
	$F(5, 51) = 5.10$***		$F(5, 74) = 6.04$***		$F(6, 130) = 8.23$***	

*$p < .05$. **$p < .01$. ***$p < .001$.

Table 2

Effects of Spurning, Job Expectancy Training, and Other Factors on Personal Accomplishment[a]

Predictor	Nurses		Physicians		Combined	
	β	*F*	β	*F*	β	*F*
Spurning	-.462	16.36***	-.401	14.17***	-.427	31.25
Training source:						
Stress preparation (formal)	.174	2.43	.179	2.68	.202	6.90**
Peer influence (informal)	.330	8.79**	.034	<1	.183	5.60*
Age	.290	5.12*	.411	4.90*	.389	10.41**
Years in specialization	-.067	<1	-.343	3.56	-.270	5.36*
Profession	—	—	—	—	-.058	<1
R^2	.380		.224		.289	
	$F(5, 51) = 6.26$***		$F(5, 74) = 4.28$***		$F(6, 130) = 8.80$***	

[a]Nonreversed.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 3

Effects of Spurning, Job Expectancy Training, and Other Factors on Depersonalization

Predictor	Nurses		Physicians		Combined	
	β	*F*	β	*F*	β	*F*
Spurning	.464	17.36***	.170	2.63	.324	17.59***
Training source:						
Stress preparation (formal)	-.278	6.56*	-.216	4.08*	-.223	8.24**
Peer influence (informal)	-.075	<1	.243	5.13*	.074	<1
Age	-.396	120.07**	-.060	<1	-.361	8.76**
Years in specialization	.218	3.03	-.208	1.36	.104	<1
Profession	—	—	—	—	-.135	2.64
R^2	.411		.254		.274	
	$F(5, 51) = 7.12$***		$F(5, 74) = 5.03$***		$F(6, 130) = 8.18$***	

*$p < .05$. **$p < .01$. ***$p < .001$.

Table 4

Effects of Spurning, Job Expectancy Training, and Other Factors on Emotional Exhaustion

Predictor	Nurses		Physicians		Combined	
	β	*F*	β	*F*	β	*F*
Spurning	.156	1.34	0.52	<1	.107	1.65
Training source:						
Stress preparation (formal)	-.235	3.19	-.006	<1	-.108	1.67
Peer influence (informal)	.029	<1	.244	4.90*	.130	2.38
Age	-.160	1.12	-.289	2.38	-.263	4.01*
Years in specialization	-.067	<1	-.093	<1	-.053	<1
Profession	—	—	—	—	-.042	<1
R^2	.137		.211		.158	
	$F(5, 51) = 1.62$		$F(5, 74) = 3.96$**		$F(6, 130) = 4.07$***	

*$p < .05$. **$p < .01$. ***$p < .001$.

Peer influence. The lack of main effect of peer influence on burnout in the combined sample, $\beta = .029$, $F < 1.00$, masks the fact that the coefficient was significantly positive in the physician sample, $\beta = .217$, $F(1, 74) = 4.30$, $p < .05$, but was nonsignificantly negative in the nurse sample, $\beta = -.131$, $F(1, 51) = 1.25$, *ns*. This difference between the two samples was significant, $z = 2.53$, $p < .02$, two-tailed. The physician sample also revealed significantly positive main effects on both depersonalization and emotional exhaustion but essentially no effect on personal accomplishment. In contrast, the nurse sample revealed no significant main effects on depersonalization and emotional exhaustion but a significantly positive effect on nonreversed personal accomplishment.

Age. The control variable of age yielded a significantly negative association with burnout in the combined sample, $\beta = -.407$, $F(1, 130) = 11.17$, $p < .01$, mainly due to the nurse sample. Its association with nonreversed personal accomplishment was significantly positive in both the combined sample and the separate samples. It also showed a significantly negative association with depersonalization, primarily within the nurse sample. Its association with emotional exhaustion was significantly negative in the combined sample but nonsignificant in the separate samples.

Years in specialization. The control variable of years in area of specialization showed no association with burnout either in the combined sample or in the separate samples. Its association with nonreversed personal accomplishment, however, was significantly negative in the combined sample, $\beta = -.270$, $F(1, 130) = 5.36$, $p < .05$, although it was nonsignificant in the separate samples. Its associations with depersonalization and emotional exhaustion were nonsignificant.

Spurning × Training Interaction Effects

Spurning × Stress Preparation effects. The Spurning × Stress Preparation interaction effect on burnout in the combined sample failed to reach the .05 level of significance, $\beta = -.121$, $F(1, 128) = 2.40$, *ns*. Because the negative sign of this coefficient in both the combined sample and the separate samples was consistent with the buffering hypothesis, we examined the pattern further. Guided by the procedure described by Aiken and West (1991) for examining interaction effects in multiple regression analyses, we carried out separate regression analyses involving stress preparation a standard deviation above and below to represent high and low levels, respectively. Consistent with the stress-buffering hypothesis, the spurning-burnout coefficients in the combined sample tended to be smaller at the high level, $\beta = .216$, $F(1, 120) = 2.05$, $p < .05$, than at the low level, $\beta = .454$, $F(1, 120) = 4.13$, $p < .0001$. (The

intermediate level was represented by the overall β of -.121.) The corresponding βs in the physician sample were .083 and .414, respectively (*F*s: = 1.99, 3.10; *p*s: *ns*, < .003). The corresponding βs in the nurse sample were .294 and .476, respectively (*F*s: = 1.72, 2.29; *p*s: < .10, .03).

The only Spurning × Stress Preparation interaction to approach significance in the case of the burnout components occurred on emotional exhaustion, β = -.021, $F(1, 119) = 2.09$, $p < .05$. This was due to the physician sample, β = -.039, $F(1, 68) = 2.76$, $p < .01$. The spurning-burnout βs at the high and low levels, respectively, of stress preparation in the physician sample were -.233 and .324, *F*s(1, 69) = 1.50, 2.33; *p*s < .15, .03. The absence of spurning and stress preparation main effects in the case of emotional exhaustion was masked by this disordinal pattern of difference, a pattern consistent with the buffering hypothesis.

Spurning × Peer Influence. No buffering hypothesis was advanced regarding a Spurning × Peer Influence interaction. No interaction effects were found.

Supplementary Analyses

Product-moment correlations involving the supplementary measures were computed to determine their associations with one another and with the primary variables of interest. As anticipated, expectancy violation was positively associated with burnout, $r(133) = .283$, $p < .001$, and negatively associated with low job disillusionment, $r(132) = -.460$, $p < .0001$. In turn, (low) job disillusionment was negatively associated with burnout, $r(136) = -.591$, $p < .0001$. It is also noteworthy that stress preparation was negatively associated with expectancy violation, $r(131) = -.205$, $p < .02$.

Wolfgang (1988) found perceived job stress to be a powerful determinant of job dissatisfaction among nurses and pharmacists. Since job disillusionment is conceptually related to job dissatisfaction, we carried out hierarchical regression analyses to explore the possible impact of our predictors on low job disillusionment. Low job disillusionment was positively associated with age, β = .340, $F(1, 123) = 6.52$, $p < .02$, and stress preparation, β = .180, $F(1, 123) = 4.36$, $p < .04$. These effects were largely due to the nurse sample, in which the respective *F*s for age and stress preparation were .373 and .363, *F*s(1, 49) = 7.37, 8.82; *p*s < .01, .005. The effect of spurning on low job disillusionment in the nurse sample was in the appropriate direction but was nonsignificant, β = -.206, $F(1, 49) = 2.50$.

Predictors of Spurning

A hierarchical regression analysis was also conducted with spurning as the

criterion and with stress preparation, peer influence, and the control variables of age and years of specialization as predictors. Only the control variables yielded significant effects in the combined sample. Age showed a positive association, $\beta = .299$, $F(1, 131) = 4.84$, $p < .05$, whereas years of specialization showed a negative association, $\beta = -.320$, $F(1, 131) = 5.96$, $p < .025$. These significant effects were contributed mainly by the physician sample.

Discussion

Perceived spurning was found to be predictive of burnout, thus providing some external validity for the underlying theoretical model concerning the stressful reactions of spurned caregivers. The results indicate that spurning was the strongest predictor of burnout, contributing in particular to a low sense of personal accomplishment and to depersonalization.

We obtained significant support for the hypothesis that stress preparation (the formal source of training regarding job expectancies) would lessen the extent of burnout. Consideration of the burnout components revealed that those with more stress preparation expressed a greater sense of personal accomplishment and less depersonalization.

We proposed that stress preparation would attenuate the stressful effects of spurning on burnout. Although the Spurning × Stress Preparation interaction effect in the combined sample and in the separate samples fell short of significance, examination of the interaction patterns revealed that the impact of spurning on burnout tended to be greater when stress preparation was low than when the preparation was high. The interaction effect was significant for the emotional exhaustion component. It would be desirable, in the future, to employ larger samples and the complete MBI so as to investigate these trends with greater statistical power.

The present results regarding stress preparation are consistent with our reasoning that it has preventive value and suggest that it may also have some buffering value. It is noteworthy that those with more stress preparation were less likely to report that their job-relevant expectancies had been violated and that they were disillusioned with the job. Furthermore, greater expectancy violation and job disillusionment were both associated with greater burnout. It must be noted, however, that both these supplementary variables were measured in a rather limited fashion. Thus, we can draw no firm conclusion regarding expectancy violation as a mediator of spurned caregivers' coping reactions. Yet, other investigators have reported negative associations between job satisfaction and burnout (Burke et al., 1984; Lazaro, Shinn, & Robinson, 1984; Maslach & Jackson, 1984) and between the perceived quality of job preparation and burnout (Maslach & Jackson, 1984).

We noted earlier that there was no clear rationale for positing stress-relevant benefits of peer influence, the informal source of job expectancy training. Our results reinforce that position, but in an unanticipated manner. Overall, peer influence appeared to have no effect on burnout. Closer examination revealed, however, that its effect depended on the particular sample and burnout component under consideration. In the case of the physicians, the more they reported that peer influence had initially shaped their job expectancies, the more depersonalization and emotional exhaustion they experienced; personal accomplishment was unaffected. The nurses appeared to have benefited from peer influence, but only in that their sense of personal accomplishment was enhanced; depersonalization and emotional exhaustion were unaffected.

We can only speculate as to why physicians were affected so differently by peer influence than were nurses. Recall that type of profession was almost entirely confounded with such differences as sex, status level both in society at large and in the medical field, relative authority and autonomy on the job, and work setting (the nurses worked exclusively in one hospital). Furthermore, we are limited by a lack of knowledge about what specific information was transmitted via peer influence and whether the information differed systematically by profession.

It may be that the nurses reacted to peer influence in an accommodating, communal perspective (Bakan, 1966) and regarded it as supportive. It seems plausible, too, that the nurses constituted relatively more cohesive groups than did the physicians, possibly because the job setting made their roles more interdependent and kept them working together longer. A plausible consequence of such cohesiveness may have been that such informal training tended to promote groupthink rather than to suggest effective problem-solving techniques, a state of affairs that may have left them with a relatively illusory sense of personal accomplishment. In this regard, Janis and Rodin (1979) warned of the hazards of groupthink emerging in the deliberations of highly cohesive professional teams.

Physicians may have regarded their peers primarily from an agentic, competitive perspective (Bakan, 1966) due perhaps to their professional (and even preprofessional) socialization. This perspective may have led them to discount peer influence, possibly because appearing to be receptive would put them at a status disadvantage (Blau, 1964; Rosen, 1984), undermine the public facade of self-sufficiency and expertise that some physicians may feel it necessary to maintain, and threaten their public self-image as competent professionals (Cherniss, 1980; Nadler & Fisher, 1986; Rosen, 1983). At the same time, such influence may have served to legitimize depersonalization as a coping mechanism and to foster emotional exhaustion by sensitizing them to the emotional costs rather than the rewards of close contact with patients.

Of the two control factors, age and years in specialization, only age was significantly associated with all three components of burnout. That older professionals indicate less burnout is also reported by other investigators (Maslach, 1982; Russell, Altmaier, & Van Velzen, 1987). Various explanations have been advanced for this relationship, but empirical support for any of them is still lacking.

It seemed plausible that preprofessional training regarding patient resistance, and in strategies for coping with it, would have reduced the incidence of perceived spurning (as had been suggested by DiNicola & DiMatteo, 1982). We found no such evidence. Instead, only age and years in specialization were significant predictors of spurning. Older professionals, primarily among the physicians, reported more spurning. Perhaps age, per se, simply provided more opportunities to accumulate rejection experiences. Although other studies found a negative association between age and self-reported stress (Kobasa, 1982; Russell et al., 1987), they may not be directly comparable with ours because of the nature of our particular stressor.

As for years in specialization, it seems that those with more years reported *less* spurning. An optimistic explanation might be that more years permit the development of greater technical efficacy in medical service delivery, thus endowing the specialists with greater credibility and status for dealing with patients and facilitating the development of better interpersonal control strategies (e.g., a more polished bedside manner) for inducing acceptance. An alternative possibility is that those with more years of specialization are more motivated to employ the threat-coping strategy of underreporting or denying spurning (DiNicola & DiMatteo, 1982). It may also be that the specialists tend increasingly to underestimate the extent of spurning partly because they are less likely over the years to be directly involved in monitoring patient compliance than are the other personnel to whom they explicitly or implicitly delegate that onerous responsibility (Raven & Litman-Adizes, 1986).

Issues for Further Study

It has been suggested that the perceived magnitude of a stressor is more consequential for burnout than its objective level (cf. Rodin & Salovey, 1989). It would be desirable to determine whether individual differences in perceived spurning accurately reflect their actual differences in spurning.

It may be that the particular antecedents and consequences of underreported spurning may differ from those of overreported spurning. If so, the particular remedies called for to reduce underreporting might be inappropriate for dealing with overreporting.

If the magnitude of perceived spurning is paralleled by actual spurning, it would also be important to know whether these caregivers' unsuccessful attempts to elicit compliance reflect influence styles and bases of power that may have been inappropriate for the situations and parties in question (Raven & Litman-Adizes, 1986).

It would be beneficial also to determine the possible association between perceived causal locus of spurning and the magnitude of spurning. To whom or what do these professional caregivers attribute the responsibility for the spurning, and do these attributions systematically differ with the magnitude of perceived spurning? If, in fact, they do vary, this would suggest a difference in cognitive coping styles.

We noted before that others (e.g., Cherniss, 1980) have found an inverse relationship between client resistance and the helper's sense of professional efficacy or competence. This suggests the desirability of determining whether preexisting, chronic differences in this sense of professional efficacy—and for that matter even chronic differences in generalized self-esteem—subsequently influence the differences in spurning.

Up to now we have not directly addressed the question of whether the direction of causality inherent in our hypotheses is defensible, in light of our obtained results. In fact, the present empirical study only suggests that this may be one possibility. All of the measures were based on self-reported responses obtained at a single point in time. Moreover, the measures of spurning and of job expectancy training were retrospective rather than prospective and, therefore, subject to distortion and biased recall. The only prospective support for our theoretical model was based on laboratory experiments in which a number of the key variables were conceptually but not operationally similar to some of the central variables of the present correlational study.

Therefore, we should not rule out the possibility that other theoretical models might be appropriate in the present context. One plausible rival, for instance, is that caregivers, seeking an explanation for being burned out, come to infer that it was due to noncompliance. Perhaps they tell themselves and us (in self-serving fashion) that it is not they who have distanced themselves from clients but rather that it is the clients who have become distant. Another plausible model might build on the assumption that, with passing time, professional caregivers no longer accurately recall the specific details of their stress preparation. This faulty memory may permit those who are burned out to infer, by way of explanation, that the preparation must have been inadequate; otherwise, the burnout would not have ensued and the spurning experience would not have been stressful.

In the last analysis, a resolution of the causal issue will depend on the design and execution of relevant prospective studies. It would be highly desirable to

supplement such studies with field experiments that included, at the outset, a systematic manipulation of stress preparation that anticipated and addressed the issue of noncompliance as part of the formal professional training of human service caregivers.

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