

The Effects of Emotional Support on Perceived Job Stress and Strain

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This article uses a national sample of social workers to examine the relationship between work stress, strain, and emotional support. These results indicate negative associations between support and perceived stress and strain. The authors, however, found no evidence for the buffering effects of emotional support. The authors discuss the implications of these findings.

This article examines the relationship between emotional support and perceived work stress and strain among a group of mental health professionals. Behavioral scientists have identified job stress as an important determinant of job dissatisfaction and burnout, and have recognized support as one environmental factor that could help one deal with — or even inhibit — the perceived strain resulting from job stress (see, for example, Cherniss, 1980; House, 1980; House & Wells, 1978; LaRocco, House & French, 1980; Maslach, 1976; Pines, Aronson

& Kafry, 1981; Pines, 1983; Pinneau, Note 1).

While a burgeoning body of literature deals with the relatively “new” phenomenon of burnout, much of this literature tends to be experiential and nonempirical (see, for example, Barrett & McKelvey, 1980; Daley, 1979; Harrison, 1980; Karger, 1981; Maslach, 1976). Most authors concur that burnout is a multidimensional phenomenon, but no unitary or consensual definition of it exists. In general, the various definitions identify stressful aspects of the work environment as causal factors, relating these fac-

tors to deterioration in the physical and mental health of the practitioner and to deleterious effects on service delivery (see, for example, Cherniss, 1980; Daley, 1979; Jayaratne & Chess, 1983; Maslach, 1976; Pines et al., 1981; Pines & Maslach, 1978).

In contrast to burnout, the job satisfaction literature is considerably more substantive and theory-based, and certainly more empirical (see, for example, Caplan, Cobb, French, Van Harrison, & Pinneau, 1975; Cobb, 1976; Kahn, 1970; Quinn & Shepard, 1974; Quinn & Staines, 1978). Like burnout, job satisfaction has been conceptualized as a multidimensional construct, and while it has produced many definitions and differences of opinion on conceptual bases, behavioral scientists share a greater consensus on the term's meaning (Locke, 1976; Nord, 1977). They have typically associated lack of satisfaction with the job with work stress, and have identified the effects of stress as problems related to the physical and mental well-being of the worker (see, for example, Caplan et al., 1975; Jayaratne & Chess, 1982, 1983; Kahn, 1970; LaRocco, House & French, 1980).

A major drawback in the job satisfaction literature, however, is the lack of attention paid to mental health professionals. Much of this research has made blue-collar workers and managers its primary target groups. Because of this, the strain variables typically employed in these studies have been such intrapersonal factors as anxiety and depression. Researchers have said little about such interpersonal factors as depersonalization or emotional exhaustion — variables associated with burnout (Maslach, 1976; Maslach & Jackson, 1981; Pines

et al., 1981). In view of these limitations, some concern exists regarding the applicability of the conceptual models developed in the job satisfaction literature to mental health professionals in general.

We have little doubt that some phenomenological and definitional overlap occurs between the dimensions of burnout and job satisfaction, although behavioral scientists have not delineated the exact nature of the similarities and differences. Burnout researchers have noted these similarities and suggest that the two are different but interrelated phenomena (Harrison, 1980; Jayaratne & Chess, 1983; Maslach & Jackson, 1981). In the present study, we do not attempt to elaborate on the definitions or further differentiate the phenomena, but instead employ the existing measures of burnout and job satisfaction, thereby accepting their conceptual bases.

Within the conceptual framework presented in Figure 1, the central issue in this article deals with the ability of emotional support to "buffer" or "moderate" the impact of work stress. Research on the effects of buffering has been inconclusive. Cassel (1976) and Cobb (1976), for example, have argued that the buffering effects of social support have been adequately demonstrated. Other researchers, however, have suggested that only partial or minimal support exists for the buffering hypothesis (see, for example, Pinneau, Note 1; Lin, Ensel & Kuo, 1979). Regardless of the theoretical state of this concept, one can clearly see that researchers have not systematically investigated the notion of buffering within the helping profession — an area in which it may have extreme importance. When it has been studied, the conceptuali-

zation and analyses differ considerably from the more widely recognized model we present here (Pines, 1983; Pines et al., 1981).

The present research effort differs from prior research on buffering in several ways. First, the respondents in this study are social workers, a group of mental health professionals whose job experiences probably differ somewhat from the blue-collar workers who provided data for much of the prior work. Since the original conceptions were based on the latter population, one must determine the generality of the model. Second, the present study incorporates measures of burnout. The potential mediating effects of support are uniquely important to the mental health professional because worker burnout has a negative impact on service delivery. But researchers have only minimally investigated the effects of support on burnout. Third, we have restricted our analyses to work-related sources of support and have not included other sources of support, such as family and friends. While this aspect limits the study, we must point out that prior research considered work-related sources more important than outside sources (LaRocco, House & French, 1980; Pinneau, Note 1).

CONCEPTUAL MODEL AND HYPOTHESES

The conceptual model upon which we base this study has been articulated by a number of authors (see, for example, Harrison, 1980; House, 1980; Kahn, 1970; McGrath, 1970). Figure 1 illustrates the model employed. The solid arrows marked A and B represent the "main effects" that social support would have on perceived stress and

strain. By main effects we mean the anticipated negative relationship between the existence of support and perceptions of stress and strain; the higher the support, the lower the stress and strain one feels. The solid arrow C represents the main effects of stress on strain; the higher the stress, the greater the strain when support is held constant. Stress could arise from a variety of sources, ranging from organizational structural variables to interpersonal relations among co-workers to client characteristics. Workers can control and change some of these sources of stress, while others — such as client characteristics — constitute an inherent part of the job. In the present study we employ a somewhat narrow definition of stress; the only stressors we use in this analysis are role ambiguity and role conflict, two variables presumably controlled by the organizational structure. Therefore, our results would apply only to situations in which stress seems to arise from these two sources. We guided our decision in this instance by the use of role theory in our model and by the centrality of these two stressors in the literature dealing with job satisfaction and burnout (Harrison, 1980; Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964; Rizzo, House & Lirtzman, 1970).

A growing body of literature suggests that work stress has deleterious effects on health, job satisfaction, and work performance (see, for example, Caplan et al., 1975; House, 1980; McLean, 1979; Pinneau, Note 1). The present study, therefore, measures strain both in terms of "work-related strain" — i.e., job satisfaction, depersonalization, emotional exhaustion, and "health-related strain" — i.e., anxiety, depression, irritability, somatic complaints.

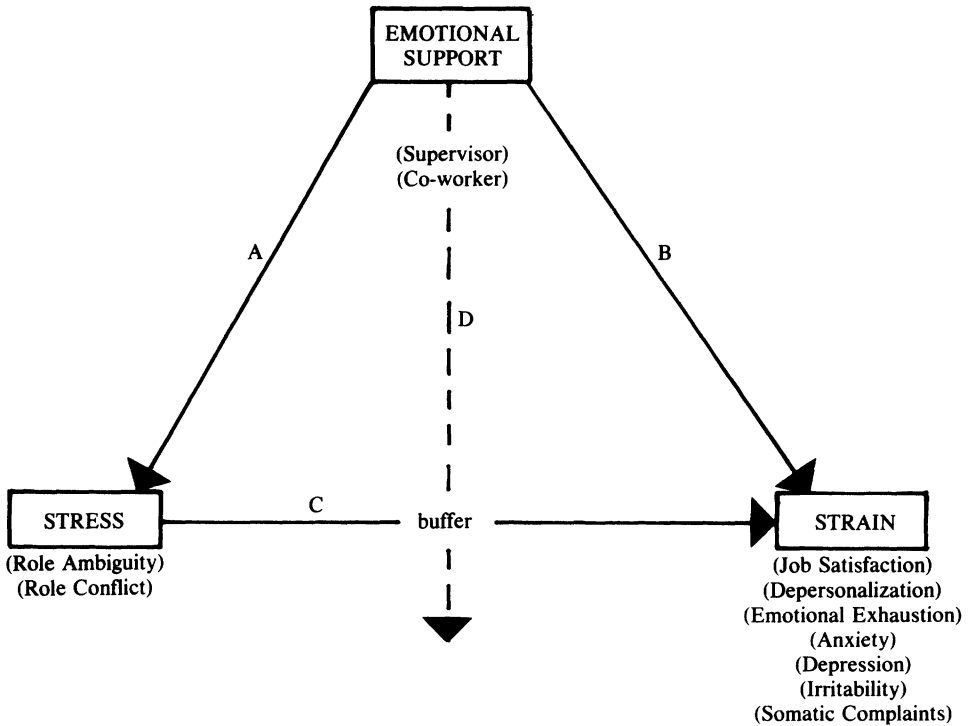


Figure 1. Study model showing main effects and buffering effects of emotional support.

The “broken-line” arrow D represents the “moderating” or “buffering” effects of social support. We consider buffering a function of the “interactive effects” — as distinguished from the main effects — of social support and stress in that the extent of buffering would act as a multiplicative function of these two dimensions. This means that we would expect the degree of strain to vary in accordance with the amount of experienced stress and perceived support. If buffering occurs, stress should diminish since support would act as a “screen” (see House, 1980).

In line with this conceptual model, we make the following hypotheses:

HYPOTHESIS 1. Perceived emotional support has a negative effect on perceived stress (arrow A).

HYPOTHESIS 2. Perceived emotional support has a negative effect on work-related strain (arrow B).

HYPOTHESIS 3. Perceived emotional support has a positive effect on health-related strain (arrow B).

HYPOTHESIS 4. Perceived emotional support buffers the relationship between job stress and work-related strain (arrow D).

HYPOTHESIS 5. Perceived emotional support buffers the relationship

between job stress and health-related strain (arrow D).

These hypotheses have evolved out of the literature testing the buffering hypothesis and, therefore, resemble those proposed by LaRocco, House, and French (1980) and relate to those explicated by Pinneau (Note 1) and House and Wells (1978).

STUDY VARIABLES

The measurement strategy used in this study relies on the respondents' perceptions of their work situations — i.e., we rely on the person's subjective assessment of the work environment, which is similar to what Lewin (1951) referred to as the "psychological environment." All of the indices employed in this study have been used in national studies on quality of work and worker health (for details on scale construction, see Caplan et al., 1975; Quinn & Shepard, 1974; Quinn & Staines, 1978). The burnout indices are modifications of the Maslach Burnout Inventory (Maslach, 1976; Maslach & Jackson, 1981). We will explain the nature of the modifications in the context of that discussion.

Stress

We use two different indices to measure stress. *Role ambiguity* is a measure of the worker's perceptions of the clarity of the work situation and constitutes a four-item index with a score ranging from 4–20, with higher scores indicating higher ambiguity. For example, one item asks: "How often are your work objectives well defined?" ($r = .84$) (Caplan et al., 1975). *Role conflict* is a measure of the

conflicting demands that a worker sees as present in the job. This, too, constitutes a four-item index with a score ranging from 4–16, with higher scores reflecting higher levels of conflict. One item, for example, states: "To satisfy some people on my job, I have to upset others" ($r = .62$) (Quinn & Staines, 1978).

Health-related strains

This dimension consists of three indices of mental health — *anxiety*, *depression*, and *irritability* — and one measure of physical health — *somatic complaints*. The anxiety, depression, and irritability indices measure the person's self-reports about the extent of these feelings. One item asks, for example, "How much of the time do you feel nervous?" ($r = .75$ for anxiety, $r = .83$ for depression, and $r = .80$ for irritability) (Caplan et al., 1975). The somatic complaints measure lists physical symptoms and asks the respondent to agree or disagree. One item asks, for example: "How often have you had trouble getting to sleep in the last year?" ($r = .76$) (Caplan et al., 1975). In all instances, the higher the score, the greater the perceived strain.

Work-related strain

For this variable we measured two primary dimensions. We measured *job satisfaction* by the single item that asks, "All in all, how satisfied would you say you are with your job?" ($r = .77$) (Quinn & Shepard, 1974; Quinn & Staines, 1978). The response options consist of a four-item Likert scale ranging from "very satisfied" to "not at all satisfied," with lower scores representing greater satisfaction.

We mentioned earlier that we measured burnout by using a modified form of the Maslach Burnout Inventory. *Emotional exhaustion* was measured with the single item that states, "I feel burned out from my work." We felt that we would get a reasonable representation of this dimension from this single item because of the very high factor loading (.81) of this item with the full scale (Maslach & Jackson, 1981). The response options consist of a seven-point scale ranging from "strongly agree" to "strongly disagree," which thereby measures the intensity of this feeling. When measuring *depersonalization*, we employed the full scale but used only the intensity dimension; for example, one item states, "I have become more callous toward people since I took this job" ($r = .59$). In view of these changes, one cannot directly compare our data to scores obtained by using the Maslach scales in their original form. In both scales used in this study, the higher scores represent higher levels of burnout.

Emotional support

We measured this dimension by a four-item index with scores ranging from 4–16, with higher scores indicating greater support ($r = .87$). The respondents answer the same set of questions, first about their supervisors and then about their co-workers. Caplan et al. used this index (1975) in their study of adherence to medical regimens. We use the term emotional support to refer to the provision of empathy, caring, trust, and concern. One item states, for example: "My supervisor shows understanding when I am upset or irritable."

We must point out that we have used a measure of emotional support

rather than a more broadly defined "social support" index. House (1980) has argued that, given the multidimensional nature of social support, to equate social support with emotional support is an error. Much of the literature, however, does indeed use the terms interchangeably. Social support, according to House, consists of four different dimensions — emotional, appraisal, informational, and instrumental support. The current study, therefore, represents only the emotional support dimension of this multifaceted construct. Naturally, this is a limitation of this study. One must note, however, that all of the studies we cited within the context of the buffering hypothesis use either an emotional support scale or some composite scale containing items related both to emotional support and to some of the other dimensions. We opted to use a more limited approach using only the emotional support dimension for purposes of conceptual clarity.

STUDY DESIGN AND SAMPLE

Social workers constitute a significant portion of the mental health delivery system and they serve as "line workers" in a wide range of settings. Since we wished to obtain a diverse sample of social workers, we randomly sampled the *Directory of the National Association of Social Workers*. We mailed a 10-page questionnaire, cover letter, and commitment-to-cooperate postcard to a sample of 1,173 respondents. After a follow-up mailing, 858 persons returned questionnaires, a response rate of 72.7%.

We have restricted the present analysis to respondents who possessed a master's in social work (MSW) degree and worked full time — i.e., 40 hours

per week or more. The application of these criteria resulted in a sample size of 553 persons and a relatively homogeneous sample, based on the assumption that part-time workers and non-MSW personnel may have somewhat different perceptions of their work situations compared to full-time MSW workers. The majority of social workers in our analytic sample were predominantly white (87.0%) and female (57.7%). Slightly fewer than two-thirds were married (61.7%), and the majority (60.5%) earned more than \$20,000 per year from their social-work jobs. These figures are similar to those reported in other NASW membership surveys (Hardcastle & Katz, 1979; Kirk & Fischer, 1976). Slightly more than half (55.8%) of the respondents had worked in their current positions for more than three years; 51.9% of the respondents had received their MSW degrees in or after 1971. More than 50% of the sample had held four or more social-work positions, with 35.6% having occupied five or more social-work jobs.

ANALYTIC PROCEDURES

Since we conceived this study as a partial replication of prior research — and as one designed to test the generality of a model — we have employed the analytic procedures used in the previous research. To examine the effects of support on stress and strain (Hypotheses 1–3), we performed correlational analyses of the different support measures and their effects on different stress and strain variables. These data analyses produced the information for the main effects, which are represented by arrows A and B in Figure 1.

For the buffering effects analyses, we performed the moderated regression procedures conducted in the prior research replicated here (LaRocco, House & French, 1980; Pinneau, Note 1) and suggested by Saunders (1956) and Zedeck (1971). This procedure has been recommended whenever one views the moderating variable — e.g., support — as continuous. While optional analytic procedures are available for this purpose, because of the goals of this research we deemed it desirable to employ the same methods of estimation used in the previous research (see, for example, Cohen & Cohen, 1975).¹

Our central concern here is the extent to which health-related and work-related strain varies in relation to perceptions of stress and support. For theoretical reasons, we have included age and gender as control variables in the equations. Maslach and Jackson (1981) observed that females score higher on the *emotional exhaustion* scale and males higher on the *depersonalization* scale, thereby producing a gender effect in this particular dimension. Similarly, these authors noted that younger people score higher on both the *emotional exhaustion* and *depersonalization* scales, thus producing an age effect. Therefore, at least on the burnout dimension, gender and age could act as intervening variables. For similar reasons, LaRocco, House, and French (1980) controlled for age in their buffering analyses, assuming that it could act as an intervening factor in support. This would produce the following regression equation:

$$Y = a + b_1C_1 + b_2C_2 + b_3X + b_4S + b_5SX$$

Here, C_1 refers to age, C_2 to gender,

Y to work-related and health-related strain, X to stress, and S to support. The term SX refers to the multiplicative function of support and stress. If buffering occurs, we would expect the coefficient b_5 to differ significantly from zero, and the partial correlation to add significantly to the amount of explained variance.

We chose a probability level of $p \leq .10$ for the buffering phenomenon for two reasons. First, this was the probability level employed in the previous research efforts; second, LaRocco et al. (1980) argue that this analytic procedure yields a conservative estimate: "The regression procedures used here essentially assigns [sic] to the additive effects all of the variance that cannot be unequivocally attributed to the interaction effects" (p. 209). One sees evidence of the extent of buffering in the number of significant findings in column b_5 in Table 2.²

RESULTS

Overall, the workers report high levels of support from supervisors and co-workers. Slightly more than 49% of the workers indicated that they consider their supervisors very supportive, while 15.3% reported that they receive little support from this source. The data on co-worker support is even more highly skewed in the positive direction, with 58.9% reporting high support and only 3.4% indicating low support.

Table 1 presents the data from the correlation analyses performed to examine the relationship between stress, strain, and support. With the exception of anxiety and depression, all of the correlation coefficients between the two support sources and the stress/strain variables are significant

($p \leq .01$ or better) in the predicted direction — i.e., the higher the level of support, the lower the level of stress and strain. The magnitude of the relationships appear to be similar for supervisors and colleagues. These findings generally support the results reported by LaRocco et al. (1980) and Pinneau (Note 1), who employed similar measures with blue- and white-collar workers. House (1980) also noted the existence of a weak relationship between support and health-related strain. Our data also tend to support this contention because anxiety and depression — two of our four variables in the health-related area — are the only two nonsignificant relationships in this analysis.

In general, our data corroborate the existence of the main effects of support. Both supervisor and co-worker support can help the practitioner cope with stress on the job and the strain that may result from this stress. Any organizational strategy that would result in increasing the supportive base available to a line worker would clearly be highly desirable. In contrast to these main effects, the extent to which buffering occurs may have even greater importance. If buffering occurs, so would a reduction in perceived stress and strain.

For purposes of information, we have presented the partial correlations rather than the coefficients for all of the factors in the regression equations and the variance explained (R^2). Evidence of the extent of buffering appears in the number of findings in which the coefficient (b_5) differs significantly from zero. Only three of 28 possible analyses emerge statistically significant, clearly indicating a lack of buffering. Furthermore, the increase in R^2 produced by including SX in the

Table 1
Zero-Order Correlations of Major Variables

1. Job Satisfaction	—												
2. Depersonalization	.25	—											
3. Emotional Exhaustion	.42	.42	—										
4. Anxiety	.05	.22	.07	—									
5. Depression	.22	.13	.20	.26	—								
6. Irritability	.56	.29	.41	.13	.28	—							
7. Somatic Complaints	.31	.29	.40	.26	.19	.40	—						
8. Role Ambiguity	.34	.21	.21	.15	.03	.28	.22	—					
9. Role Conflict	.15	.15	.26	.09	.01	.25	.20	.22	—				
10. Co-Worker Support	-.38	-.35	-.29	-.09	-.07	-.35	-.35	-.36	-.18	—			
11. Supervisor Support	-.45	-.17	-.19	-.03	-.03	-.37	-.20	-.41	-.19	.48	—		
	1 2 3			4 5 6 7				8 9		10	11		
	work-related strain			health-related strain				stress					

equation is minimal. In 25 of 28 equations, for example, the additional explained variance is less than 1%. If emotional support does moderate the deleterious effects of stress, no evidence of this appears in the present research. Interestingly, the three significant findings concern burnout.

DISCUSSION

The data from this study suggest that emotional support is negatively associated with perceived stress and strain. These findings support all of the previous research on this issue. In contrast, we did not find that buffering effects occur with either work-related strain or health-related strain; these findings contradict those reported recently by LaRocco, House, and French (1980) and Pinneau (Note 1). According to our data, if emotional support can reduce stress — and, thereby, the strain one feels — it certainly has not demonstrated its potential.

A simple explanation would lie in the differences in populations and

measures used in the various studies. While all of the prior studies employed somewhat similar indices and measurement strategies, the respondent groups in the previous research were primarily blue-collar workers. Note also that the present study did not use nonwork sources of support in the analyses. Given the relatively autonomous and independent nature of mental health practice, one can understand that these practitioners may depend considerably less on their supervisors and co-workers for support. Nonwork sources of support may possibly have greater relevance in this context. To the extent that this proposition is true, then one must examine more systematically the generality of the findings with regard to the value of work-based support compared to nonwork support within the mental health profession.

In the current study we consider two organizational stressors within our conceptual model. The literature consistently presents these two stressors as important correlates of job satisfaction and burnout. Some have ar-

Table 2
 Partial Correlations and R² for 28 Regression Equations

<i>Dependent Variable</i>	<i>Support Variable</i>	<i>Stress Variable</i>	<i>b</i> ₁	<i>b</i> ₂	<i>b</i> ₃	<i>b</i> ₄	<i>b</i> ₅	<i>R</i> ²
Job Satisfaction	Co-Worker Supervisor	RA	-.121*	.100*	.080	-.097*	-.003	.23
		RC	-.095*	.065	.081	-.142*	-.024	.25
	Co-Worker Supervisor	RA	-.144*	.077	.005	-.112*	-.021	.17
		RC	-.116*	.035	.005	-.140*	.036	.20
Depersonalization	Co-Worker Supervisor	RA	-.187*	-.019	-.023	-.143*	.053	.15
		RC	-.222*	.019	.161*	-.118*	-.112**	.11
	Co-Worker Supervisor	RA	-.199*	-.021	.002	-.106	.025	.16
		RC	-.249*	.003	-.053	-.114*	.096**	.10
Emotional Exhaustion	Co-Worker Supervisor	RA	-.086	.029	.160*	-.183*	-.122**	.10
		RC	-.231*	.105*	-.003	-.033	-.002	.08
	Co-Worker Supervisor	RA	-.115*	.005	.062	-.054	-.005	.14
		RC	-.152*	.010	.058	-.044	.021	.10
Anxiety	Co-Worker Supervisor	RA	-.064	-.032	-.040	-.055	.067	.02
		RC	-.093*	-.045	-.003	-.034	.046	.03
	Co-Worker Supervisor	RA	-.082	-.062	.055	.034	-.033	.02
		RC	-.112*	-.057	.060	.030	-.030	.03
Depression	Co-Worker Supervisor	RA	.003	.046	.049	.037	-.039	.01
		RC	-.035	.019	.027	.006	.001	.01
	Co-Worker Supervisor	RA	.017	.051	-.026	-.034	.027	.01
		RC	-.026	.022	.008	.009	-.013	.01
Irritability	Co-Worker Supervisor	RA	-.136*	.117*	.062	-.086	-.009	.18
		RC	-.165*	.084	.007	-.175*	-.078	.22
	Co-Worker Supervisor	RA	-.163*	.096*	.035	-.094*	.018	.19
		RC	-.200*	.060	.009	-.138*	-.054	.22
Somatic Complaints	Co-Worker Supervisor	RA	-.040	.171*	-.011	-.110*	.051	.10
		RC	-.062	.169*	.019	-.073	.042	.09
	Co-Worker Supervisor	RA	-.077	.143	.076	-.013	-.041	.11
		RC	-.097*	.151*	.036	-.045	.013	.08

* $p \leq .05$

** $p \leq .10$

gued that organizational stressors — role ambiguity and role conflict — are unfortunate and need not exist, and that they could be and should be eliminated by organizational restructuring. Others have argued, however, that such stress is inevitable and workers must somehow be taught to cope effectively. Much of the literature on burnout appears to have taken this inevitability position, at least on face value, and has emphasized stress

workshops, teaching people to cope with stress, home-relaxation programs, and the like (see, for example, Barrett & McKelvey, 1980; Karger, 1981; Pines & Kafry, 1978).

In this context the buffering or protective character of support emerges in importance. As Pinneau (Note 1) points out, "If social support can reduce the ability of stresses to produce strain, then we may hope to reduce high strains in some occupations even

though the stresses in those occupations are themselves difficult to alter” (p. 37). In the present analysis, we see quite clearly that emotional support alone does not buffer the impact of stress, although the existence of emotional support can help the worker cope with stress and strain better. Therefore, while the development of sources of emotional support within the work place may be of importance, it is apparently insufficient if the goal is to reduce strain.

The potential power that support in all of its manifestations could display within a given environment, however, has a great deal of practical appeal. One has only to look at the vast number of workshops dealing with stress now cropping up throughout the country. Unfortunately, many of these workshops appear to emphasize individual coping rather than methods and tactics for changing the supervisory behavior bringing about organizational change. The power of social support alone to remedy the stress present in a work situation may be oversold.

The reader should remember that the model tested in this research study is rather limited. The emotional dimension of support may, for example, have less significance in dealing with these stressors compared to other dimensions of support for this population. The positive buffering findings in some of the previous research may result from some of the other dimensions included in the social support measure. This means that a “mixed model” of this sort minimizes the potential for discriminative analyses. The testing of a more inclusive and clearly defined model of social support may reveal a different pattern of buffering. Because of this, we strongly

encourage future researchers to incorporate the multidimensional model of social support proposed by House (1980).

In a somewhat different vein, French (Note 2) has argued that buffering may really reflect a mobilization of support — i.e., support may exist in the environment, but individuals may not use it until or unless they perceive it as something that could in fact alleviate stress and strain. This may result in the institutionalization of formal support systems and mechanisms within agencies and educating workers on their use in these contexts.

Much more work must be done in this area. Researchers should pay much more attention to the dimensions of stress, strain, and support experienced by mental health workers. We are, however, reluctant to believe that stress workshops provide the answer, or, for that matter, even good stop-gap measures. Such an emphasis may merely lead one astray, causing one to pay attention to individual functioning while neglecting the environment in which the individual functions.

NOTES

1. Since we have multiple independent variables and multiple dependent variables, a more efficient analysis would use a canonical correlation procedure. When we conducted canonical analyses, we obtained essentially the same results with no evidence of buffering effects, although the total R^2 value was somewhat higher. Given our specific hypotheses and our model, however, we decided to present the data from our moderated regression procedures rather than the canonical analyses. We wanted to determine whether or not buffering occurs with each of the dependent measures rather than the dependent measures together. The moderated regression procedure most clearly answers our question. Further, the conceptual model presented in Figure 1 has a causal direction built in

because of the arrows. In view of this implied causality, we believe it more desirable to use the regression procedure rather than canonical methods.

2. The rationale for using a probability level of .10, as stated in the text, is based on the conservative nature of the statistical procedures employed here. Nevertheless, this level of probability may increase the likelihood of Type I error, thus increasing the probability of recording chance findings. The results indicate that even with this relatively low probability level we find minimal support for the buffering hypothesis. Even if we were to employ a more stringent criterion — e.g., .05 or .01 — our results and conclusions would essentially remain the same. If anything, it should cause one to reject the notion of buffering even more strongly.

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