Leadership Behavior and Subordinate Stress: A 360° View

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Relationships between leader behavior and subordinate work stress were examined from the perspectives of 343 leaders, their bosses, and their subordinates. Leader behaviors did relate to stress experienced by staff; however, leaders' views of what related to subordinate stress did not always coincide with the factors that subordinates themselves associated with stress. The relationships of leader delegation and subordinate participation to lower subordinate reports of stress were particularly underestimated by leaders. Implications for developing leaders as agents for employee stress reduction are discussed.

Employee stress management is a critical issue for those interested in occupational health and well-being. Increasing evidence links work stress with negative health outcomes, both psychological and physiological (e.g., Ganster & Schaubroeck, 1991; Keita & Jones, 1990; Offermann & Armitage, 1993). Yet stress management interventions have often overly focused on changing individual coping at the expense of the organizational and interpersonal factors that potentially may buffer, moderate, or even provide antidotes to work stress (Kahn & Byosiere, 1992; Ivancevich, Matteson, Freedman, & Phillips, 1990). This focus on the stressed individual may cause those in positions to create and modify worker stress to underestimate the importance of their own behaviors in ameliorating stress for others. Organizationally, one such group may be those in leadership positions.

The goal of this study is to examine the relationship between leadership behaviors and subordinate work stress from multiple perspectives: from leaders themselves, from their bosses, and from the leader's professional and clerical subordinates. Past research in leadership and subordinate stress has focused on subordinates' perspective of their own stress and support. This perspective is obviously important; indeed, self-reported stress has been shown to relate to meaningful physical changes in blood pressure or cortisol levels (Ganster & Schaubroeck, 1991). Yet hope of developing leaders as stress moderators also

requires a simultaneous examination of the leader's perspective as to what relates to subordinate stress as well as whether employees are even perceived to be exhibiting stress. Use of multiple perspectives can enable one to map similarities and differences in perceptions that can provide powerful tools for individual and organizational application (Tornow, 1993).

Social psychological theory and research in social cognition provide a strong theoretical basis for predictions of differences in perspectives of leaders and subordinates on the issue of subordinate stress. As observers of subordinates, leaders may make fundamental attribution errors (e.g., Fiske & Taylor, 1984) in attributing stress responses to the subordinates themselves rather than to the organizational environment (structural and human) in which the subordinate works. Furthermore, the workings of self-serving biases (e.g., Gioia & Sims, 1985) to promote favorable self-images may inhibit leaders from acknowledging the full impact of their behaviors in producing, maintaining, or failing to take action against the stress experienced by their subordinates. Subordinates, as actors, will likely be far more aware of the impact of the external organizational environment—including the impact of their leaders—on their stress levels. These psychological processes are predicted to be reflected in a consistent pattern of leader underestimation of the relationship of their own behaviors to subordinate stress in comparison with the subordinate perspective.

Leader Behavior as a Source of Subordinate Stress

Consistent evidence is beginning to accumulate on the importance of certain key variables in worker stress, particularly worker control or discretion (e.g., Fox, Dwyer, & Ganster, 1993; Quick, Murphy, &

Hurrell, 1992; Sauter, Murphy, & Hurrell, 1990), as well as role clarity and performance pressure (e.g., Kahn, Wolfe, Quinn, & Snoek, 1964; Sauter, Murphy, & Hurrell, 1990). For all of these variables, leaders are in positions to affect their presence or degree. For example, worker control in its most common forms, such as delegation of authority, participation in decision making, or both, often exists at the pleasure and initiative of the leader of the group. Therefore, to remediate worker stress one needs to understand leadership practices. Specifically, leaders who have nonparticipative, controlling styles, who fail to clarify organizational goals and responsibilities, and who exert undue pressure may be expected to have work groups who report greater tension and stress. Such enhanced stress levels have organizational as well as individual ramifications, as groups with greater stress have also been found to have lower performance (Shipper & Wilson, 1992) and job commitment (Shipper & Wilson, 1992; Spector, 1986). We hypothesize that greater subordinate-rated stress will be associated with leaders offering little worker control and participation, low goal clarity, and high performance pressure and that leaders will underestimate the strength of these relationships in comparison with subordinates' estimates. Further, we predict that subordinate-rated stress will be negatively related to unit morale and commitment as perceived by subordinates.

Leader Support as a Moderator of Subordinate Stress

Theorists have long argued that supportive leadership is critical in situations of high job stress (House & Mitchell, 1974). Leader support has been found to relate to greater subordinate satisfaction and tendency to stay on the job longer (LaRocco & Jones, 1978), as well as buffer the effects of job demands on both depression and job dissatisfaction (Karasek, Schwartz, & Theorell, 1982). Leader support has also been shown to have an inverse relationship with subordinate burnout (Golembiewski, Munzenrider, & Stevenson, 1986; Seltzer & Numerof, 1988). The literature gives little guidance, however, as to what specific leader behaviors are considered supportive under stress, with previous work operationalizing leader support in numerous ways. Most commonly, leader support has been measured by combining both instrumental (i.e., making one's work life easier) and emotional (i.e., ease of talking with) elements (e.g., LaRocco & Jones, 1978). Yet general admonitions to leaders to be more considerate or supportive are unlikely to be useful. Greater specificity in operationalizing leader supportiveness and separating instrumental and emotional support is needed if leaders are to be cultivated as sources of employee stress reduction.

Therefore, we predict that both instrumental and emotional support from leaders is associated with lower levels of subordinate stress, with the relationships again perceived more strongly by subordinates than leaders. Subordinate perceptions of supportive leadership are expected to be associated with higher unit morale and commitment.

Leader Accuracy at Perceiving Subordinate Stress

Leader skills at perceiving subordinate stress are unknown. Examination of referral patterns in employee assistance programs (EAPs) indicate that supervisory referrals account for only 14.3% of EAP usage, with the remaining help seekers being self-referred (Martin, Heckel, Goodrick, Schreiber, & Young, 1985). Whether this reflects a lack of supervisor awareness, inaction, or more subtle supervisor suggestions resulting in self-referrals is unclear. From findings that managers often have higher levels of stress tolerance than the general work population (Yukl, 1994), it is possible that managers may be less likely to perceive work stress than their less stress-tolerant employees and may be unaware of many subordinate stress problems. Further, employees may believe it to be in their best economic interest to hide their experiences of stress from their managers. For these reasons, it may be expected that confidential subordinate ratings of their own stress would be higher overall than the levels perceived by their managers.

Leader behaviors themselves may be associated with greater or less accuracy in diagnosing subordinate stress levels. We predict that leaders who are trusted and approachable, who enjoy better communication with subordinates, and who exert less control over them would display assessments of subordinate stress that have greater convergence with subordinate views.

Method

Participants

The focal leaders in this study consisted of 343 mid-level managers (314 men, 29 women) of a multinational bank.

The average age of the leaders was 46.1 years. Most leaders (91%) had advanced degrees beyond college. Leaders had been with the organization for an average of 13.4 years.

Measures

The Survey of Management Practices (SMP; Wilson & Wilson, 1991) was used to get a 360° evaluation of leader behavior and subordinate-group responses. The focal leader, up to four professional-level and four clerical-level subordinates, and the boss each completed the survey, giving their perceptions of the leader's behavior and the level of stress, morale, and commitment experienced by the leader's work group. Leader behaviors were rated on 7-point scales ranging from 1 (never) to 7 (extremely great extent). Group responses were rated on 7-point scales ranging from 1 (none) to 7 (all).

Previous research provides evidence of SMP reliability and construct and criterion-related validity (Wilson, O'Hare, & Shipper, 1990). There are 11 leader behavior scales: Clarification of Goals and Objectives, Upward Communications and Participation, Orderly Work Planning, Expertise, Work Facilitation, Feedback, Time Emphasis, Control of Details, Goal Pressure, Delegation, and Recognition for Good Performance. In terms of our research hypotheses about leader behaviors and subordinate stress, the Upward Communications–Participation and Delegation scales served as our measures of leader–subordinate control. Clarification of Goals and Objectives was the measure of goal clarity, Goal Pressure was the measure of performance pressure, and Work Facilitation measured instrumental support. The four SMP interpersonal relations scales were used as measures of leader emotional support: Approachability (which includes ease of talking with), Team building (including the desire for group members to get along well), Interest in Subordinate Growth, and Building Trust. Subordinate group stress was measured by the SMP six-item Tension Level scale, with items measuring stress in the work itself, stress in the work group, pressure from management, and feeling in a constant state of crisis. Morale and commitment (both job and organizational) were also assessed by five- and six-item scales, respectively.

Procedure

The SMP was given to leaders at a pretraining course session, with instructions to complete it themselves and to request that their boss and subordinates complete it about them prior to training. It is possible that some bosses may have been asked to report on more than one leader; however, because boss' names were not collected, the extent of this practice is unknown. Bosses in this organization typically had considerable incentive and opportunity to observe and monitor the behavior of both leaders and staff. Leaders with more than four subordinates at either level were told to choose the four with whom they worked most closely. Subordinates were informed that all data given to managers would use only mean subordinate ratings, therefore protecting their anonymity. Leaders were assured that all data collected on them were completely confidential and could neither help nor hinder their careers. Leaders received feedback on their own results during a subsequent week-long leadership development training program. Be-cause all data were collected prior to training, the content and format of this development program could not affect results.

Results

Preliminary Analyses

As an initial step, SMP scale reliabilities were calculated for the sample. Reliabilities for all scales were uniformly high, with a range of .79 to .97 for all raters combined. Means, standard deviations, and reliabilities for all scale variables appear in Table 1. Intraclass correlations for the subordinate raters of leader behavior and subordinate stress using Shrout and Fleiss's (1979) formula ranged from .48 to .64 with a mean of .55, indicating a level of interrater agreement similar to other managerial assessment instruments used for multiple subordinate ratings (Holt & Hazucha, 1991). In terms of professional-level raters, 89% of the leaders ($n = 305$) had four professional-level subordinate raters; in 33 cases there were three professional-level raters, and 5 leaders had two raters at this level. In terms of clerical-level raters, 277 leaders had four raters, 50 had three, and 13 had two raters.

Table 1

Reliabilities, Means, and Standard Deviations for Leader Behaviors From the Professional Staff Perspective (N = 342)

Leader variable	α	M	SD
Instrumental behaviors			
Clarification of Goals and Objectives	.94	4.66	0.70
Upward Communications, Participation	.94	5.10	0.73
Orderly Work Planning	.97	4.48	0.86
Expertise	.88	4.95	0.67
Work Facilitation	.92	4.59	0.67
Feedback	.95	4.67	0.73
Recognition for Good Performance	.97	5.09	0.82
Time Emphasis	.92	4.85	0.67
Control of Details	.84	3.89	0.66
Goal Pressure	.83	2.98	0.79
Delegation	.85	4.79	0.64
Emotional support behaviors			
Approachability	.93	5.53	0.79
Team Building	.93	4.78	0.74
Interest in Subordinate Growth	.96	4.77	0.77
Building Trust	.92	5.24	0.73
Tension	.79	3.61	0.70
Morale	.92	4.80	0.72
Commitment	.85	5.23	0.49

Correlational Analyses

To control for potential response biases created by correlating measures gathered from the same respondents, subordinate responses were split within each work group for both professional and clerical levels.[1] Half of the subordinates' ratings for a given leader within a given staff level (professional or clerical) were used as the measure of subordinate stress, whereas ratings from the other half served as measures of leader behavior. In cases where three raters were available, two of the three were randomly selected and then split. Pearson correlation coefficients were computed for the leader behavior and support variables, with ratings of subordinate stress calculated separately for each of the four rating sources: leader, boss, professional staff, and clerical staff. As shown in Table 2, results generally support our first hypothesis: Greater subordinate-perceived stress was associated with lower levels of subordinate participation and leader delegation as well as higher levels of leader goal pressure. For clerical staff only, goal clarity was also associated with higher stress. In the case of participation, the strength of the relationships was significantly greater from the perspectives of the clerical staff in comparison with the leader's own perspective as predicted but not for professional staff.

Comparisons across rating perspectives show that all rating sources significantly associated stress with greater performance pressure (rs ranging from .17 to .38), and all except professional staff associated stress with reduced goal clarity (rs ranging from −.09 to −.23). Interestingly, hypothesized relationships between use of delegation (a method for sharing control) and reduced stress were found only for the two subordinate perspectives ($rs = −.16$ and −.17), and both of these perspectives were marginally greater than the leader's. Leaders and bosses did not significantly associate delegation with stress levels. Similarly, leaders did not associate greater use of subordinate participation with reduced stress levels either, although their bosses as well as professional and clerical staff did ($rs = −.25$, −.17, and −.21, respectively). These, then, are important areas in which leaders may be unaware of their impact on subordinate stress.

As predicted, work group stress was found to be negatively associated with unit morale and commitment for both professional staff ($rs = −.46$ and −.22, respectively, $ps < .001$) and clerical staff ($rs = −.45$ and −.22, respectively, $ps < .001$). The data also support our hypothesis that perceived leader support

behaviors are associated with lower subordinate-reported stress. Instrumental support through work facilitation was acknowledged by all raters to be significantly related to subordinate stress, with rs ranging from −.16 (professional staff) to −.26 (boss), $ps < .01$. All forms of emotional support assessed—approachability, team building, interest in subordinate growth, and building trust—were also significantly related to subordinate-rated stress levels, rs from −.12 to −.24, $ps < .05$. Contrary to prediction, staff did not generally report significantly greater relationships between leader support behaviors and stress than did their leaders, with one exception: Clerical staff perceived leader team building to be marginally more related to their stress than did leaders or professional staff. Interestingly, this latter view was shared by bosses as well.

Further, as predicted, for clerical staff, all forms of leader support were significantly correlated with unit morale ($rs = .23–.24$, $ps < .01$) and commitment ($rs = .13–.20$, $ps < .02$). For professional staff, instrumental support was not significantly associated with either morale or commitment ($rs = .09$ and .04, respectively). Emotional support was significantly related to unit morale for professional staff ($rs = .12–.16$, $ps < .05$) but not significantly related to commitment ($rs = .03–.11$).

Factor Analysis and Regression

Because of intercorrelations of the 11 SMP leader behavior variables in the sample, a principal-components factor analysis with varimax rotation was conducted. Given differences in the nature of the work performed as well as the relationship with the leader, identical factor structures for professional and clerical staff would not be expected. Thus, for subsequent analyses, we chose the perspective of professional staff because this subordinate group reported the greatest stress ($M = 3.61$ vs. 3.44 for clerical staff) and typically had the closest working relationships with their managers. As shown in Table 3, two factors with eigenvalues of greater than 1 emerged.

The first factor combined leadership behaviors with a common element of leader communication skills, including the first seven variables of Table 2: Clarificatication of Goals and Objectives, Participa-

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[1] This control was available only for subordinate perspectives. For leader and boss perspectives, only a single individual rater was available from each level, and correlating perceptions across different staff levels was deemed inappropriate.

Table 2

Correlations of Leader Instrumental Behaviors and Emotional Support Behaviors With Stress as Perceived by Different Categories of Staff (N = 342)

	Stress perceived by			
Leader variable	Leader	Boss	Professional staff	Clerical staff
Instrumental behaviors				
Clarification of Goals and Objectives	−.13*	−.23**	−.09	−.20**
Upward Communications, Participation	−.06	−.25***a	−.17**	−.21***a
Orderly Work Planning	−.14*	−.25**	−.10*	−.22**
Expertise	−.15**	−.26**	−.15**	−.19**
Work Facilitation	−.20**	−.26**	−.16**	−.20**
Feedback	−.16**	−.23**	−.12*	−.19**
Recognition for Good Performance	−.06	−.21***a	−.10	−.19**b
Time Emphasis	.05	−.07	.15**	−.04
Control of Details	−.02	−.06	−.01	−.09
Goal Pressure	.21**	.38***a	.17**	.20**
Delegation	−.03	−.10	−.16**b	−.17**b
Emotional support behaviors				
Approachability	−.14*	−.29***a	−.20**	−.20**
Team Building	−.10	−.34***a	−.12*	−.23**b
Interest in Subordinate Growth	−.11*	−.20**	−.12*	−.19**
Building Trust	−.20**	−.33**	−.24**	−.24**

[a] Significantly greater (*p* < .05) than leader's perspective. [b] Marginally greater (*p* < .09) than leader's perspective.
p < .05. **p* < .01.

tion, Orderly Work Planning, Expertise, Work Facilitation, and Feedback. The second factor represented a leadership phase of "making control adjustments" (Wilson & Wilson, 1991), including the next three variables of Time Emphasis, Control of Details, and Goal Pressure. These two factors, Communication and Control, were created by unit weighting strongly

Table 3

Rotated Factor Pattern for Leader Behavior Variables for Professional Staff

Leader variables	Communication	Control
Work Facilitation	.91*	−.30
Clarification of Goals and Objectives	.90*	.13
Feedback	.85*	.40
Recognition for Good Performance	.82*	−.19
Upward Communications, Participation	.82*	−.35
Expertise	.79*	.11
Orderly Work Planning	.73*	.27
Control of Details	.26	.84*
Time Emphasis	.27	.82*
Goal Pressure	−.42	.76*
Delegation	.60*	−.67*

p < .05.

loading scale scores. Delegation loaded on both factors and is a leader behavior that may have positive or negative effects, depending on the other behaviors that accompany it (Wilson & Wilson, 1991). For example, delegating after clarifying objectives would be reasonable; delegation without clarification of goals and objectives may be risky. Hence, because of this dual loading and relevance to our specific hypotheses, Delegation was treated as a separate, third factor that was examined individually and in interaction with the first two factors.

To examine the effects of the three leader behavior factors on stress, we performed a hierarchical regression. The three factors were entered into the model as a set and were significant, with a global $F(3, 338) = 27.77$, $p < .0001$. The second step allowed stepwise entry of two interaction terms: Communication × Delegation and Control × Delegation. The interaction of Control × Delegation entered the model, with a significant global $F(4, 337) = 22.91$, $p < .0001$, but Communication × Delegation did not. As shown in Table 4, examination of the unique contributions of each of the four predictors revealed that they were all significant.

Lower subordinate stress was significantly predicted by higher leader scores on Communication and

Table 4

Set Regression for Communication, Control, Delegation, and Delegation × Control for Professional Staff Stress

Leader factor	df	Sums of squares	F
Set 1			
Communication	1	10.481	27.05***
Control	1	4.256	10.98**
Delegation	1	2.359	6.09*
Set 2			
Delegation × Control	1	2.669	6.89**
Error	337	130.584	
Total	341	166.092	

Note. Delegation × Communication failed to enter the model.
*p < .05. **p < .01. ***p < .001.

lower scores on Control. To examine the interaction between Control and Delegation on subordinate-rated stress, median splits were performed on Communication and Control scores. Examination of means revealed that, although high Delegation was associated with less perceived stress for the staff than low Delegation, the difference between high and low Delegation was greater when leader control was high than when it was low. Thus, in keeping with our hypothesis, the greatest stress was reported by staff who had little authority delegated to them but experienced high leader pressure and control (*M* = 3.88). The least stress was reported by staff receiving high levels of delegated authority, regardless of level of leader control (*M*s = 3.38 and 3.40 for high and low control, respectively).[2]

Leader Accuracy in Perceiving Stress

Examination of overall assessments of mean group stress levels revealed no significant differences between leader and subordinate responses (*M*s = 3.55 and 3.61, respectively). However, differences between individual leaders and their own subordinate group were found. To examine potential effects of overrating, underrating, or consistent stress ratings across perspectives, the methodology of Assor, Tzelgov, Thein, Ilardi, and Connell (1990) was used, with subordinate stress perceptions as "actual" ratings and leader stress perceptions as "perceived" ratings. This method takes into account the fact that errors of over- or underrating are confounded with level of subordinate stress assessment. For example, when subordinate stress is highest, leaders can only

err by underestimating, whereas when subordinate stress is lowest, leaders can only err by overestimating. Therefore, the following analyses examined over- and underrating within level of assessment. Subordinate and leader perceptions of group stress level were each split into thirds representing the upper, middle, and lower portions of the score distribution for their perspective, thus creating a 3 × 3 design with nine cells. Three of these cells represent consensus or agreement between leader and group perceptions of group stress levels, and 43.6% of all work groups fell into one of these matched cells. The other six cells represent varying degrees of mismatch between leader and staff perceptions (see Table 5).

Analyses of variance with this 3 × 3 design on the measures of leader communication, control, approachability, and trust behaviors consistently revealed a significant main effect of subordinate stress perception on leadership evaluations, $Fs(2, 333)$ = 17.94, 5.90, 16.25, 11.13, respectively, all ps < .005. Examination of means revealed a stable pattern of less favorable leadership ratings under increasing levels of subordinate stress. As suggested by Assor et al. (1990), planned comparisons were then conducted within each level of subordinate stress to test our hypotheses that leader accuracy at subordinate stress detection is associated with more favorable leadership ratings, now controlling for subordinate stress level. Comparisons therefore contrasted the three matched rating cells (high leader perceived stress–high subordinate perceived stress; moderate leader–moderate subordinate; and low leader–low subordinate) with the two other mismatched cells within the same level of subordinate stress. Comparisons revealed no significant differences between matched and mismatched cells for measures of leader communication, approachability, or trust, although means in the low subordinate stress conditions were in the predicted direction. For the measure of leader control, the difference between matched and mismatched cells was significant when subordinate-perceived stress was low (*p* = .01) but not when subordinate stress was moderate or high.

Results of these analyses suggest that when

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[2] Parallel factor analysis and regression analysis run with clerical staff similarly identified Communication and Control for clericals as core factors, with Communication subsuming delegation (positively loading) and pressure (negatively loading), whereas planning for clericals loaded on the factor of Control. Regression results showed that lower clerical stress was predicted by higher scores on Communication (*p* < .05) as for professional staff, but not on Control, underscoring the greater relevance of control and delegation issues for professional rather than clerical staff.

Table 5

Subordinate Ratings of Leader Control Broken
Down by Leader–Subordinate Agreement in
Subordinate Stress Ratings

Subordinate perceived stress	Leader perceived stress		
	Low	Medium	High
High	(7) 4.01	(8) 4.16	(9) 3.98
Medium	(4) 4.03	(5) 3.95	(6) 3.74
Low	(1) 3.62	(2) 3.85	(3) 3.97

Note. Cell numbers (in parentheses) are consistent with the numbering system of Assor et al. (1990). Cells 1, 5, and 9 represent leader–subordinate agreement. Within any row, cells with lower cell numbers than the agreement cell reflect underrating, whereas cells with higher cell numbers than the agreement cell reflect overrating.

subordinates perceive themselves to be under moderate or high stress, leader behavior ratings consistently suffer, regardless of whether the leader is accurate or inaccurate (either through over- or underestimation) in perceiving group stress in the way that staff themselves perceive it. For those staff reporting lower levels of stress in their work units, congruence between leader and staff perceptions of stress was associated with significantly more favorable (in this case, lower) ratings of leader control ($M_{low/low}$ = 3.62, $M_{low/moderate}$ = 3.85, and $M_{low/high}$ = 3.97).

Discussion

The results of this study present consistent verification that leader behaviors do relate to the degree of stress experienced by their staffs. In the case of some leader behaviors, such as work facilitation and applying pressure, leaders make the same associations of their behavior to stress as do their staffs. For emotional support behaviors, the relationship of leader emotional support with subordinate stress is significant from all perspectives on all measures except team building, where only leaders do not show an association.

For some behaviors, however, leaders do not see a relationship between their own behavior and the stress experienced by staff in areas where staff do perceive an association. Specifically, leaders did not associate stress with limited participation or team building, although their bosses and staff did. Further, neither leaders nor their bosses significantly associ-

ated delegation with stress overall, whereas staff associated increased delegation with reduced stress.

These data imply that leaders' implicit theories of what relates to subordinate stress may not always coincide with the factors that subordinates themselves perceive as enhancing or reducing stress. Leaders who exhibit high controlling behaviors may not associate their behavior with greater subordinate stress because in their minds the details and time limits have been specified, and they will monitor and remind subordinates of what needs to be done, thus "relieving" them of responsibility. Our data suggest that such relief does not relieve stress but may increase it. In contrast, our data suggests that leaders who delegate and encourage participation need not be concerned that these actions are stressing subordinates by adding responsibility. From the subordinate perspective, the opposite is experienced—delegation and participation are associated with reduced stress, and leader control was associated with more stress. These findings highlight the importance of considering multiple perspectives in understanding the connections between leader behaviors and subordinate stress.

It would be useful for future research to consider the impact of these factors on unit performance. Although some leaders may believe that stress-inducing leader behaviors are needed to assure performance, past research does not support these beliefs (Shipper & Wilson, 1992). This study further suggests that higher levels of stress are also associated with reductions in leadership ratings, individual morale for all staff, and commitment for nonprofessional staff, all of which may affect staff willingness to stay in the organization. Future longitudinal studies are needed to fully understand causal relationships between leadership and subordinate stress.

Examination of correlational results broken down by staff level—professional or clerical—provides other interesting information. With the exception of leader time emphasis, clerical staff showed even stronger relationships between leader behavior and their perceptions of stress than did professional staff. Given that reported stress levels were higher for professional staff, this difference does not appear to be due to the amount of stress experienced but rather may be due to a greater dependence of clerical staff on their manager for the provision of leadership behaviors that moderate or reduce stress. Kerr and Jermier (1978) have long argued that in certain situations, substitutes for leadership may exist, that is, characteristics of the staff member, task, or organiza-

tion that tend to neutralize or suppress the need for a leader to produce maximum performance effectiveness. In their model, professional orientation, greater ability, experience, training, and knowledge, as well as more intrinsically satisfying tasks, are all potential leadership substitutes, and all of these characteristics differentiate our professional and clerical samples. For example, professional staff did not significantly relate goal clarity to their stress levels, although both leaders and clerical workers showed this association. If leaders failed to provide enough clarity in goals, professional staff probably had the knowledge and autonomy to set their own (and may in fact have preferred to do this). Professional staff typically enjoyed extensive networks of relationships with clients and their own professional peers inside and outside the organization that provided them opportunities for recognition independent of their manager, opportunities that did not exist for clerical staff. From our findings of differences across staff levels, future research should consider carefully the role of the leader in the work lives of different types of staff members as we examine leader impact on staff stress.

Our results are based solely on group-level ratings of perceived stress without objective assessment of either individual stress or occupational demands. Although leaders who underestimate subordinate stress might feel their view to be more accurate in terms of objective demands and that subordinates may be too sensitive to stress, research has shown that self-appraisals of stressors can provide more consistent predictors of physiological outcomes than objective indicators of occupational demands (Fox, Dwyer, & Ganster, 1993). The better-designed stress studies do show a significant relationship between self-reported stressors and physiologically meaningful outcomes, such as changes in diastolic blood pressure or cortisol levels (Ganster & Schaubroeck, 1991). Thus, what subordinates "should" feel in terms of stress levels based on objective demands may be less relevant in terms of adverse health outcomes than what they report experiencing.

Practically, our data suggest that training those in leadership roles may be a viable intervention option for organizations seeking to alleviate employee stress. The traditional approach to reducing stress by modifying individual stress appraisal and coping strategies rather than organizational or situational stressors (Ivancevich et al., 1990) places exclusive responsibility for stress management on the employee. Yet organizations may realize more benefit in including a preventive view and promoting organizational interventions designed to change the system

producing the stress before the stress occurs. In particular, leader behavior is an organizational variable that should be amenable to change and thus is a prime target for efforts to ameliorate unhealthy levels of work stress. Results of this study suggest that leader training focus on helping leaders understand how their behaviors affect their subordinates and how they can recognize and buffer employee stress. Leader support in five specific areas—work facilitation, approachability, team building, interest in subordinate growth, and building trust—was shown to be significantly and negatively related to subordinate stress and to represent specific guidelines for leader efforts to reduce staff stress. In addition, Table 2 results suggest that most of the Communication variables might profitably be considered as related to the provision of instrumental support. Finally, leaders need to be more aware of the importance of leader power sharing through delegation of authority and encouraging participation as well as providing emotional support to minimizing levels of worker stress. What leaders do not know may not hurt them, but it may hurt those around them.

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