

Relationships Between Supervisor Behavior, Family Support and Perceived Time Management Ability

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The effect of work and family environment on perceived time management ability was investigated. One hundred and sixty-four managers and administrative staff completed scales measuring supervisor behavior, family support, and perceptions of time management ability. Aspects of supervisory style in the areas of task clarification were found to be significantly related to perceived time management ability. Family support, in terms of emotional sustenance was also found to predict employee persistence with work related tasks. The results are discussed in terms of the possible influence of supervisory style on employee's ability to adopt, and to continue to use, time management behaviors.

Time is a resource that every organization has, and there are a number of approaches that can be taken to maximizing its use. A reasonable amount of research has focused on training employees in time management behaviors (e.g., Hall & Hursch, 1982; King, Winett & Lovett, 1986; Hanel, Martin & Koop, 1991). There is also literature on the possible dispositional nature of time management (e.g., Calabresi & Cohen, 1968; Shahani, Weiner, & Streit, 1993; Wessman, 1973), which implies that the selection of employees with particular personality characteristics might strengthen an organization's use of time. Effective time management is clearly a factor in achievement (e.g., Britton & Tesser, 1991), and thus can contribute to an organization's profitability. In contrast, poor time management has been associated with poor academic performance, low productivity, and high stress levels (eg., Bond & Feather, 1988; Britton & Tesser, 1991; Burt, 1994; Burt & Kemp, 1994; Gall, 1988; Longman & Atkinson, 1988; Macan, Shahani, Dipboye & Phillips, 1990; Mackenzie, 1990; Schuler, 1979; Walter & Siebert, 1981).

Thus there are good reasons why organizations invest in time management, and why research should attempt to identify variables which may influence employees time management ability.

Part of this study examined the relationship between supervisor behavior and perceived time management ability. It was predicted that an employee may be constrained in their time management ability if the information they are provided with in the work environment is insufficient or inappropriate. Macan's (1994) process model of time management identified setting goals, prioritizing, scheduling, and the allocation of task time as behaviors which are essential for good time management (also see Landy, Rastegary, Thayer & Colvin, 1991, Macan, 1994; Macan, et. al., 1990 for discussions of appropriate time management behaviors). Clearly it could be difficult to perform each of these time management behaviors in the absence of suitable task information. If an employee is not informed of the objectives of their position they may find it difficult to develop a *structured routine*, and to develop *effective organization*.

The Time Structure Questionnaire (TSQ - Bond & Feather, 1988) was used to measure perceived time management ability. The TSQ was used to measure 3 factors of time management: *Structured Routine* (where tasks are planned into a structure), *Effective Organization* (where tasks are effectively organized) and *Persistence* (an ability to see tasks through to completion). The Work Environment Scale (Moos, 1994) was used to measure 2 dimensions of supervisor behavior: task orientation (the emphasis on good planning, efficiency, and getting the job done), and clarity (whether employees know what to expect in their daily routine). Employees' support for their work was also measured using the Job Ambiguity Scale (Breaugh & Colihan, 1994) which gives 3 dimensions of work related ambiguity (work method ambiguity, scheduling ambiguity, and performance criteria ambiguity).

Support from outside of work may also be an important determinant of work related time management, particularly when supervisor behaviors are less than ideal. A number

of studies have examined the relationship between time management and the work-family relationship (e.g., Adams & Jex, 1999; Jex & Elacqua, 1999), with the perspective that work and family are often in conflict. However, it is possible that a supportive family environment, where work related issues can be discussed, could help clarify work expectation and in doing so improve an employees ability to manage their work time. Thus it was predicted that a worker with a greater degree of support from their family would rate their persistence with work-related tasks (as measured by the TSQ) as higher. The Family Support Inventory (King, Mattimore, King & Adams, 1995) was used to measure a factor labelled emotional sustenance which is characterized by sympathetic and caring behaviors.

Method

Participants

One hundred and sixty-four managers and administrative staff (including human resource consultants, accountants, bank officers, department managers, secretaries, sales consultants, clerks and teachers) participated in the study: 79 males with a mean age of 43.3 years and 85 females with a mean age of 40.5 years. Organizations were approached with an offer of participation in the study and the number of requested questionnaires was posted to a contact individual within each organization. In total, 405 questionnaires were requested, giving a 41 percent response rate for the study.

Questionnaire & Procedure

Each section of the research questionnaire is described below. All of the scales were attached together, and combined with questions on age, gender, and tenure in present position. Order of scale presentation was counterbalanced. Instructions, which indicated the contents of the questionnaire, the need to read the instructions for each scale carefully, the need to complete all questions, and how to return the questionnaire, were printed on the cover page. Specific instructions for the completion of each scale were printed at the beginning of the appropriate section. The questionnaire was sent by mail to the contact person in the participant's organization who distributed it to employees. Participants completed the questionnaire in their own time, and returned it in a supplied pre-paid return-addressed envelope.

Time Structure Questionnaire (TSQ)

The Time Structure Questionnaire (TSQ) contains 26 items (see Bond & Feather, 1988) that measure the degree to which respondents perceive their use of time as structured and purposive. Each item was rated using a 1 to 7 scale with scale anchors as specified in Bond and Feather (1988). Three subscale scores, as described above (structured routine, effective organization and persistence), were calculated using the items and weights reported in Bond and Feather (1988). For each scale, larger scores indicated a greater

degree of perceived time management ability. Alphas ranging from .73 to .75 have been reported for the TSQ subscales (Shahani, et al., 1993).

Job Ambiguity Scale (JAS)

The Job Ambiguity Scale (JAS) (Breugh & Colihan, 1994) contains 9 items and uses a 7-point rating scale ranging from (1) disagree strongly to (7) agree strongly. The JAS is comprised of three sub-scales of three items each labelled *work method ambiguity*, *scheduling ambiguity*, *performance criteria ambiguity*. Breugh and Colihan (1994) report coefficient alphas of .88, .88, .93, and test-retest reliability of .54, .65, .80, for the three sub-scales, respectively. Additionally they report that the three subscales correlate moderately with each other (.31 to .53).

Family Support Inventory (FSI)

The Family Support Inventory (FSI) (King, Mattimore, King, & Adams, 1995) contains 44 items which are responded to using a 5-point scale, ranging from 1 strongly agree to 5 strongly disagree. These items load onto two factors - emotional sustenance (29 items) and instrumental assistance (15 items) with the former factor being of interest in this study. King et. al., (1995) report high alphas for these two dimensions (.97 & .93, respectively) and a moderate correlation between the two dimensions ($r = .59$).

Work Environment Scale (WES)

The Work Environment Scale (WES) (Moos, 1994) was used to measure, *task orientation*, and *clarity* as defined above. Moos (1994) reported acceptable alphas for the WES sub-scales (ranging from .72 to .86) with test-retest reliabilities (after one month) ranging from .69 to .83. Moderate intercorrelations between the sub-scales indicate that they are measuring distinct but related aspects of the work environment.

Results

Prior to addressing the main research questions, analysis of variance was used to compare male and female participants on both the predictor and criterion variables. Table 1 shows the means from these analyses, and the overall mean and standard deviation for each variable. Inspection of Table 1 indicates 1 significant differences: males had been in their job (tenure) for slightly longer ($F(1, 162) = 4.36, p < .05$). The lack of significant gender effects suggested it would be appropriate to test the study hypotheses using the combined male/female sample.

The correlations between the subscale scores of the JAS, WES, and FSI (the predictor variables) were examined to assess for multicollinearity. Table 2 shows the obtained correlation coefficients. All three role ambiguity and the work environment subscales were significantly intercorrelated. Darlington (1968) has suggested that when predictor correlation coefficients near .80 they become problematic for multiple regression. The correlation of the *work methods ambiguity* subscale, with the other two JAS

Table 1. Mean scores for each subscale for male and female participants, and overall.

Sub Scale	Mean Male Score	Mean Female Score	Overall Mean and Standard Deviation (N =164)
Tenure (months)	106	76*	90.5 (91.1)
Task Orientation	7.0	7.0	7.0 (2.0)
Clarity	6.4	6.7	6.5 (2.1)
Emotional Sustenance	3.9	3.9	3.9 (.7)
Work Method Ambiguity	5.6	5.9	5.7 (1.2)
Scheduling Ambiguity	5.5	5.9	5.7 (1.3)
Performance Criteria Ambiguity	5.5	5.8	5.7 (1.4)
TSQ - Structured Routine	13.8	13.8	13.8 (2.8)
TSQ - Effective Organization	9.7	9.9	9.8 (2.0)
TSQ - Persistence	10.5	10.3	10.4 (1.7)

*= P < .05

subscale scores, was approaching this level, thus in order to avoid the distorting effects of multicollinearity on the regression analyses the three JAS subscales were summed to produce a single score labeled *ambiguity*.

Table 3 shows the standardised regression coefficients for each contextual variables in each regression model. As indicated in Table 3, all of the regressions produced an overall significant result. Inspection of the standardised regression coefficients shown in Table 3 indicate that as a general pattern low *ambiguity* (note lower ambiguity was expressed by a larger scale rating), and more *clarity* were associated with increased perceived time management ability – structured routine and effective organization. Furthermore, and as predicted, employees with more emotional sustenance at home indicated more *persistence* with work tasks.

General Discussion

Time management has tended to be viewed as an individual's responsibility. The literature offers many procedures, that if adopted, may enhance an individual's ability to manage the completion of tasks in an efficient and timely fashion. This study suggests that even the most knowledgeable in time management principles may have problems if their

work role and tasks are not clearly communicated. Furthermore, organizational resources directed towards time management training may produce a limited return if the management environment within which employees are to use their new skills is not appropriate.

The influence of supervisor behavior on employees' ability to manage their time might explain why Macan (1994) found that time management training was not related to use of time management behaviors (e.g., setting goals and priorities, making lists). The training literature makes reference to the desirability of having an appropriate *transfer climate* to ensure the generalisability and maintenance of training material (e.g., Goldstein, 1993). Within a time management framework, the appropriateness of a transfer climate might be judged by the degree to which it facilitates the processes of good time management. Perhaps the principle ingredient which an organization can provide its employees, with regard to time management, is sufficient and unambiguous information about tasks and roles. Marx's (1982) model of *relapse prevention* is relevant here, with ambiguity and insufficient task/role information creating a high-risk situation which has the potential to lead to a decrease in perceived control of time and a reduction in the ongoing use of time management behaviors.

Table 2. Intercorrelations between scale variables.

Variables	1	2	3	4	5	6	7	8
1 TSQ - Routine								
2 TSQ - Organization	.45*							
3 TSQ - Persistence	.44*	.51*						
4 JAS - Work method	.23*	.25*	.12					
5 JAS - Scheduling	.27*	.26*	.10	.80*				
6 JAS Performance Criteria	.25*	.17*	.15	.67*	.64*			
7 WES - Task Orientation	.14	.26*	.21*	.12	.07	.26*		
8 WES - Clarity	.12	.35*	.19*	.16*	.16*	.32*	.68*	
9 FSI - Emotional Sustenance	.12	.19*	.19*	.09	.07	.11	.12	.18*

*= P < .05

Table 3. Standardised regression coefficients and significance of each regression model examining the relationship between contextual variables and TSQ subscale scores

Contextual Variables	Structured Routine	Effective Organization	Persistence
Ambiguity	.26*	.16*	.08
Task Orientation	.10	.03	.13
Clarity	-.03	.25*	.05
Emotional Sustenance	.08	.11	.15*
Adjusted R ²	.07	.14	.05
Significant test (F(4, 159) = 4.16**		7.71**	3.14*

Note * = P < .05, ** = P < .01

How then might management create an environment that optimizes employees' ability to manage their time? Arguably, an ability to apply time management skills depends on knowledge of task requirements. Most, if not all time management behaviors will be easier to instigate, and perhaps more successful, if the individual has clear and complete information about task characteristics and expectations. For example, it may be difficult to divide an assignment, project, or role into task components, set priorities for those components, and allocate each enough time for completion if the information provided about the project is vague or ambiguous. Similarly, it may be difficult to prioritize time resources to critical dimensions of a project if these are not clearly stated. Limited information about a project may ultimately result in completion delays, and thus create problems that may be inappropriately attributed to the employee.

The predicted relationship between emotional support from the family and persistence with work tasks was found, and perhaps suggests that discussion about work with family members may improve an individual's sense of how they are managing time. Arguably, the need to discuss work processes with family members may be the result of poor supervisory style. Perhaps the home based discussion helps an employee clarify what they feel are their manager's task expectations and thus leads to persistent attempts to meet these expectations. Such discussion, however, does not seem to overcome supervisor shortcomings as indicated by the regression models for structured routine and effective organization shown in Table 3.

In summary, the provision of inappropriate or insufficient task information may have the effect of significantly reducing the return on an investment in employee time management training. The termination of efforts to adopt new time management approaches and the relapse to old behavior patterns could be a real possibility in an environment, inappropriate to effective time management. A reduction in perceived time management ability may lead an employee to question their approach to time management, and to abandon what might, given an appropriate context, be useful behaviors.

References

- Adams, G. A. & Jex, S. M. (1999). Relationships between time management, control, work-family conflict, and strain. *Journal of Occupational Health Psychology, 4*, 1, 72-77.
- Balzer, W., Smith, P., Kravitz, D., Lovell, S., Paul, K., Reilly, B., & Reilly, C. (1990). *User's Manual for the Job Descriptive Index (JDI) and the Job in General (JIG) Scale*. Department of Psychology, Bowling Green University.
- Bond, M. J. & Feather, N. T. (1988). Some correlates of structure and purpose in the use of time. *Journal of Personality and Social Psychology, 55*, 321-329.
- Breaugh, J. A. & Colihan, J. P. (1994). Measuring facets of Job Ambiguity: Construct validity evidence. *Journal of Applied Psychology, 79*(2), 191-202.
- Britton, B. K. & Tesser, A. (1991). Effects of time-management practices on college grades. *Journal of Educational Psychology, 83*, 405-410.
- Burt, C. D. B. (1994). Prospective and retrospective account-making in diary entries: A model of anxiety reduction and avoidance. *Anxiety, Stress, and Coping, 6*, 327-340.
- Burt, C. D. B., & Kemp, S. (1994). Construction of activity duration and time management potential. *Applied Cognitive Psychology, 8*, 155-168.
- Calabresi, R., & Cohen, J. (1968). Personality and time attitudes. *Journal of Abnormal Psychology, 73*, 431-439.
- Darlington, R. (1968). Multiple regression in psychological research and practice. *Psychological Bulletin, 69*, 161-182.
- Gall, M. D. (1988). *Making the grade*. Rocklin, CA: Prima.
- Goldstein, I. L. (1993) *Training in Organizations: Needs Assessment, Development and Evaluation*. Pacific Grove, California: Brooks/Cole.
- Hall, B. L., & Hirsch, D. E. (1982). An evaluation of the effects of a time management training program on work efficiency. *Journal of Organizational Behaviour Management, 3*, 73-96.
- Hanel, F., Martin, G. L., & Koop, S. (1991). Field testing of a self-instructional manual in an institutional setting. *Journal of Organizational Behaviour Management, 3*, 73-96.
- Jex, S. M. & Elacqua, T. A. (1999). Time management as a moderator of relations between stressors and employee strain. *Work and Stress, 13*, 2, 182-191.
- King, A. C., Winett, R. A., & Lovett, S. B. (1986). Enhancing coping behaviours in at-risk populations: The effects of time management instruction and social support in women from dual-earner families. *Behaviour Therapy, 65*, 507-516.
- King, L. A., Mattimore, L. K., King, D. W., & Adams, G. A. (1995). Family Support Inventory for Workers: A new measure of perceived social support from family members. *Journal of Organisational Behaviour, 16*, 235-258.
- Landy, F. J., Rastegary, H., Thayer, J., & Colvin, C. (1991). Time urgency: The construct and its measurement. *Journal of Applied Psychology, 76*, 644-657.
- Longman, D. G., & Atkinson, R. H. (1988). *College learning and study skills*. St. Paul, MN: West.
- Macan, T. M. (1994). Time management: Test of a process model. *Journal of Applied Psychology, 79*, 381-391.
- Macan, H. T., Shahani, C., Dipboye, R. L., & Phillips, A. P. (1990). College students' time management: Correlations with academic performance and stress. *Journal of Educational Psychology, 82*, 760-768.

- Mackenzie, A. (1990). *The time trap*. USA: The Business Library.
- Marx, D. (1982) Relapse prevention for managerial training: A model for maintenance of behavioral change. *Academy of Management Review*, 7, 433-441.
- Moos, R. (1994). *Work Environment Scale Manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Shahani, C., Weiner, R., & Streit, M. K. (1993). An investigation of the dispositional nature of the time management construct. *Anxiety, Stress and Coping*, 6, 231-243.
- Schuler, R. S. (1979). Managing stress means managing time. *Personnel Journal*, December, 851-854.
- Walter, T., & Siebert, A. (1981). *Student success*. New York: Holt, Rinehart and Winston.
- Wessman, A. E. (1973). Personality and the subjective experience of time. *Journal of Personality Assessment*, 37, 103-114.

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