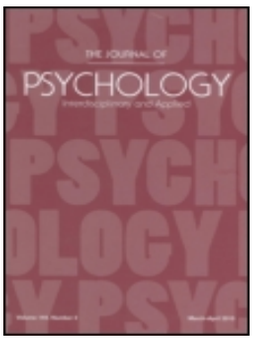

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Time-Management Training: Effects on Time Behaviors, Attitudes, and Job Performance

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ABSTRACT. This quasi-experimental field study examined the effects of a time-management training program on 44 employees' self-reports of time-management behavior, control over their time, job satisfaction, and stress responses, and on supervisors' ratings of these employees' job performance. Contrary to expectations, respondents did not report more frequent use of time-management behaviors, more job satisfaction, or less job-induced tension after training, compared with those not receiving training. Job performance did not significantly change after training. The training-group participants' perceptions of control over time, however, increased 4 to 5 months after training, approaching the level maintained by the no-training group. Thus, in general, the assertions made about time management were not supported.

CLAIMS ABOUT THE EFFECTIVENESS of time management abound (Lakein, 1991; Richards, 1987). Concomitantly, time-management training is popular and widely available. The evaluation of time-management training programs, however, has been limited. That is, assertions that effective time management results in less stress for individuals; more efficient, satisfied, and healthy employees; and more effective organizations (e.g., Richards, 1987; Schuler, 1979) have received little systematic examination. Therefore, in the present quasi-experimental field study, I assessed the effects of a time-management training program on employees' self-reports of time-management behavior, control over time, job satisfaction, and stress responses, and on supervisors' ratings of the employees' job performance.

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Previous Studies

The research conducted to date has generally revealed that time-management training can affect the amount of time spent by participants on high-priority activities (Hall & Hursch, 1982; King, Winett, & Lovett, 1986; Maher, 1986; Orpen, 1993). For example, King, Winett, and Lovett (1986) found, in a sample of working wives from dual-earner families, that those who had received time-management training spent more time on relaxing activities after the training than did those who did not receive training. One might infer from the findings that the training resulted in an increased use of time-management behaviors that then led to the positive outcomes. These studies, however, have not explicitly examined whether time-management training leads to an increased use of specific time-management behaviors advocated by time-management consultants (e.g., Lakein, 1991; Taylor & Mackenzie, 1986).

The effects of time-management training on other outcomes, such as control over time, job satisfaction, stress reactions, and job performance, have not received much attention either. Results from field correlational studies examining time management indicate that there may be some relations between time management and these outcomes. Participants who perceived more control over their time also reported fewer stress responses and more job satisfaction (Macan, 1994; Macan Shahani, Dipboye, & Phillips, 1990). Research participants' reports of time-management behaviors have been found to be positively related to grade point average (GPA; Britton & Tesser, 1991; Macan et al., 1990) but not to supervisors' ratings of job performance (Macan, 1994).

Nonetheless, results of experimental research suggest that training does not seem to reduce stress or improve performance. King et al. (1986) found that neither of their two global stress measures showed change after time-management training. Bost (1984) found no differences in GPAs after freshman on academic probation received time-management training. These evaluations of training, however, have usually been made immediately or shortly after the intervention, and this short time frame may limit the opportunity for change to occur. Many of the studies are also limited by methodological shortcomings, such as small sample sizes (i.e., $N < 5$) and/or the absence of control groups (Hall & Hursch, 1982; Hanel, Martin, & Koop, 1982; Maher, 1986).

In the present study, I addressed limitations of previous research. Using the Time Management Behavior Scale (TMB; Macan et al, 1990; Macan, 1994), I assessed the frequency at which participants engaged in time-management behaviors. After training, participants are expected to report engaging more frequently in setting goals, setting priorities, making lists, planning, and organizing than before training, compared with those participants who receive no training. Training participants are also expected to perceive more control over their time, experience more job satisfaction and fewer tensions, and receive higher performance ratings after training than those not receiving training.

In the present study, outcome variables were assessed 4 to 5 months after training. Also, as is typically done in organizations, the employees in the present study chose to attend the training program or were recommended to attend by their supervisors. Thus, it was not possible to randomly assign employees to training and no-training groups. Instead, employees were assessed on all measures before and after training, and I used a nonequivalent control-group design (Cook & Campbell, 1979).

Method

Participants and Procedure

To evaluate the time-management training program, I compared employees from a large social service agency who had completed an in-house time-management training session with their co-workers who indicated they had never attended such training. Forty participants received time-management training. Completed pre-measure questionnaires were available for 38 training participants. Thirty-nine respondents were in the control group. The respondents were predominantly female (80%) and Caucasian (53%), with an average age of 36 years. No significant differences in demographic data were found between the two groups.

In this organization, the time-management training participants could have requested to attend the seminar, or they could have been advised to attend by their supervisor. The 2-day seminar was taught by an in-house instructor and included the following time-management techniques based on Lakein (1991): setting goals, setting priorities, overcoming procrastination, organizing desk and papers, and dealing with interruptions. The time-management behaviors were taught using lectures, discussions, a film, and role playing. The participants were also informed about stress-reducing techniques, such as relaxation exercises.

Approximately 4 to 5 months after the completion of the training seminar, all participants were mailed questionnaires with a cover letter asking them to complete the measures a second time. Reminders to complete the questionnaire were sent. At the second administration, 20 of the 38 training participants (53% response rate) and 25 of the 39 (64% response rate) control group members returned completed surveys.

Measures

All questionnaire items used before and after training were identical and included the following:

1. Three measures from the TMB (Macan, 1994) that assessed participants' frequency of use of time-management behaviors: (a) goal setting/prioritizing (e.g., "I set short-term goals for what I want to accomplish in a few

days or weeks"; 10 items); (b) mechanics of time management (e.g., "I make a list of things to do each day and check off each task as it is accomplished"; 11 items); and (c) preference for organization (e.g., "At the end of the workday, I leave a clear, well-organized work space"; 8 items).
2. Five items that assessed the participants' perceptions of control over time (e.g., "I feel in control of my time"; Macan, 1994; Macan et al., 1990).
3. A job-induced tension scale (e.g., "I work under a great deal of tension"; 6 items; House & Rizzo, 1972).
4. A somatic tension scale (e.g., "I am often bothered by acid indigestion or heartburn"; 5 items; House & Rizzo, 1972).
5. A job satisfaction scale (3 items; Hackman & Oldham, 1975).

The participants responded to each of these items on a 5-point Likert-type scale ranging from *seldom true* (1) to *very often true* (5). In addition, the supervisors rated their employees' job performance (10 items) at both time intervals; higher mean values on this 5-point Likert-type scale indicated better job performance. Job performance measures were available for 38 of the 44 respondents.

Results

Differences Between Respondents and Nonrespondents

Because completed questionnaires were not received from all participants at both time intervals, I conducted *t* tests on the Time 1 responses to the three TMB measures (Item 1 listed previously) to see if the reduced sample of participants differed from those who completed only the measures administered before training. For the nontrained control group, two-tailed *t* tests ($p < .05$) revealed that those who provided responses at both times did not differ from the one-time respondents. For the training participants, a significant difference ($t = -2.83$, $p < .01$) was found between one-time and two-time respondents on the mechanics of time management measure at Time 1. Training participants who returned the questionnaire at both times reported engaging more frequently in making lists, scheduling, and planning than those training participants who only completed the questionnaire administered before training. Thus, the training participants in our reduced sample could be considered a biased sample on this time-management dimension.

Evaluation of Training Program

I compared the trained participants' time-management activities with those of the nontrained group both before and after training. Three 2 × 2 mixed model analyses of variance (ANOVAs) were performed on each of the three TMB measures, with group membership (training vs. no training) as a between-subjects

factor and time of questionnaire administration (pretraining vs. posttraining) as a within-subject factor. Where appropriate, I examined mean differences using the Student–Newman–Keuls procedure.

A significant interaction for the goal setting and prioritizing measure was found, $F(1, 43) = 5.26$, $p < .05$. Before training, the control group engaged more frequently in goal setting ($M = 3.83$), compared with the trained group ($M = 3.44$). However, after training, the two groups reported engaging in goal setting with similar frequency ($M = 3.61$ for the control group, and $M = 3.55$ for the trained group). Further examination of the simple main effects revealed a significant decrease 4 months later in the reported frequency of goal setting among those who had not received training, $F(1, 24) = 5.74$, $p < .05$; $M = 3.83$ before and $M = 3.55$ after training, but no significant difference between the means before and after training for those receiving time-management training. No significant main effects or interactions for the other two TMB measures (i.e., mechanics of time management and preference for organization) were found.

The potential effects of time-management training on the following outcomes were examined: control over time, job-induced tension, somatic tension, job satisfaction, and job performance. Again, 2 × 2 mixed model ANOVAs were performed.

For respondents' perceptions of control of time, main effects for group membership and for the interaction of group membership and time of questionnaire administration were found. The significant main effect, $F(1, 43) = 4.82$, $p < .05$, indicated that, overall, the nontrained respondents perceived a greater control of their time ($M = 3.86$) than did the trained group ($M = 3.39$). However, the significant interaction, $F(1, 43) = 5.59$, $p < .05$, revealed that this group difference resulted largely from the training participants' initial scores. The means showed that, initially, the training group perceived that they had significantly less control of their time ($M = 3.11$) than the nontrained group ($M = 3.90$). Although the nontrained group's perceptions of control of time remained relatively consistent over time ($M = 3.82$), the trained group perceived significantly more control of time after training ($M = 3.67$) than they had before training ($M = 3.11$).

A significant main effect for time of survey administration was found for both job-induced tension, $F(1, 43) = 6.61$, $p < .05$, and for somatic tensions, $F(1, 43) = 9.22$, $p < .01$. The respondents reported significantly less job-induced tension ($M = 2.34$) and somatic tension ($M = 1.92$) 4 or 5 months later than they had reported earlier ($M = 2.65$ and $M = 2.24$, respectively). A significant interaction was also found for somatic tension, $F(1, 43) = 4.16$, $p < .05$. The training participants reported significantly less somatic tension after training ($M = 1.84$) than before training ($M = 2.37$), whereas the no-training group reported relatively similar somatic tensions over time ($M = 2.10$ before and $M = 2.00$ after training). No significant interaction was found for job-induced tensions.

For job performance, I found a significant main effect only for group membership. The no-training group received significantly higher ratings of job per-

formance overall (M = 4.43) than the training group (M = 3.89). No significant main effects or interactions were found for job satisfaction.

Discussion

Contrary to expectations, the participants in this study did not report engaging more frequently in time-management behaviors after participating in the time-management training program. Those training participants who chose to continue in the study, however, did perceive more control of their time after training. Although the no-training group's perceptions of control of time were consistent across the two administrations of the questionnaire, the trained participants' perceptions increased 4 to 5 months after training, approaching the level maintained by the no-training group.

Why might training participants perceive more control of time after training even though they did not report engaging more frequently in time-management behaviors? Although this question was not answered in the present study, some avenues to explore in future research studies are suggested. Perhaps training allowed the participants to compare themselves with others, providing them with a realistic benchmark with which to evaluate their situation. They might have realized their work situations were not unlike those of their co-workers. In a similar vein of research, Maslach (1982) found that comparative knowledge can help correct negative feelings of self-blame and put other issues associated with burnout into perspective.

It is also possible that training just made people feel better about themselves and their situations. King et al. (1986) found that research participants who received time-management training reported a greater amount of self-efficacy for time/stress management behaviors than did nontrained participants.

Unlike previous evaluations of time-management training, the present study also included examination of the effects of the training on organizational outcomes. My findings were inconsistent with recent claims: In this study, the time-management training participants' job performance did not change significantly after training. Instead, supervisors' ratings of job performance were consistently higher for the no-training group than for those who went through training. Although it is possible that 4 to 5 months was not long enough for a significant change to occur, the finding is consistent with the results of Macan's (1994) field correlational study. In addition, no significant differences between the training and no-training groups were found for job satisfaction and job-induced tensions.

The participants reported decreases in somatic tensions after training, whereas those who did not receive training reported a similar degree of somatic tensions both times they were measured. Trained participants also learned some relaxation and tension-relieving exercises (although these were minimal parts of the training). Thus, it is not clear what effect these other techniques had on the findings. Additional research, in which participants receive time-man-

agement training only, should be conducted to investigate any confounding effects.

Despite my efforts to gather data from all pre-tested respondents, fewer individuals returned questionnaires a second time. Thus, the results may be limited to this sample of training participants. When possible, more controlled research with random assignment of participants into training and nontraining groups should be conducted to allow for a more stringent evaluation of time-management training. Pretraining assessment of the randomly assigned respondents should be made in order to determine whether some individuals benefit from time-management training more than others. Shahani, Weiner, and Streit (1993) found some support for the dispositional nature of the time-management construct. Although additional research is clearly needed to better understand the effects of time-management training, the assertions made about time management, in general, were not supported in the present study.

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