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Learning and Performance Changes of Physician Executives: Evaluation of a Management Training and Development Program

Abstract

The researchers designed and implemented a management training and development program to help physician executives become more effective leaders and managers in a 148-bed tertiary-care children's hospital. Physician executives attended four quarterly management training and development sessions that focused on selected skill areas critical to successful management practice in that organization. The researchers conducted an evaluation of the program to determine the learning and performance changes of physician executives attending the program. The evaluation — a retrospective evaluation in survey format — was designed to assess learning and performance changes in the management practices of these physician executives. Overall program results demonstrated a significant positive change in the perception of learning and performance of the physician executives.

Management Training and Development in Health Care Environments

With the growing emphasis on the importance that health care leaders play in the management of effective health care delivery systems, it is becoming critical that these leaders develop the skills needed to contribute to their organization's success. Executive/management training and development are increasingly gaining more significance in and influence on organizations (Bolt, 1989). Literature on management development has discussed the strong relationship between management development activities and managerial effectiveness (Zemke, 1985; Thornton III & Cleveland, 1990). According to Gill (1988), the reasons medical environments have invested minimally in leadership pursuits remain unclear. The literature too has been less clear about how to specifically evaluate this impact on physician executives in clinical settings.

The present research focused on both management development and management training. Management development activities have been used to address the long-term, strategic and leadership needs of organizations. The goals of training have focused on helping people do their jobs better; it has emphasized coping strategies (Bernhard & Ingols, 1988). Bernhard and Ingols referred to management development as,

... long-term and future oriented; it has emphasized building strategies. Training has typically helped people become skilled specialists, but development has focused on broadening people and giving them new perspectives. It has helped them think strategically even if their jobs have not called for strategic thinking. Development has created generalists and ultimately, corporate leaders (p. 41).

The need for generating corporate leaders has been critical to organizational success because of the rapid change that affects organizations today. According to Rosabeth Moss Kanter (1989), "Managerial work is undergoing such enormous and rapid change that many managers are reinventing their profession as they go"(p.85).

Dimensions of Evaluation

In the health care environment in particular, demands to contain costs are forcing management training and development activities to be efficient and effective. These activities are regarded as an investment, and a return on the investment may be effectively demonstrated by evaluation strategies (Brown, 1980). Because many organizations are now running leaner operations, and because organizational functions must demonstrate the contributions they are making, training and development activities must demonstrate effectiveness.

To evaluate training effectiveness, one potential strategy is the pre-test-post-test format that assesses the trainee's basic retention of various principles, theories and information (Kohn & Parker, 1975). The pre-test may occur before the training seminar or before specific units taught within the seminar. Similarly, a post-test may occur after training or after specific units during training.

A variation of the traditional pre-test-post-test format is the retrospective evaluation (also known as the pre-then-post-test) that assesses knowledge and/or performance in a hindsight perspective. In the retrospective evaluation, the program participants determine what their level of knowledge and/or performance was before and after the program, as in a pre-test-post-test evaluation format. The difference between the pre-test-post-test evaluation format and the retrospective evaluation is that in the retrospective evaluation, the program participants determine their *pre*-program level of knowledge and/or performance *after* the program — using hindsight. The post-program evaluation of the level of knowledge and/or performance is conducted in

exactly the same manner as in the pre-test-post-test evaluation format, i.e., after the program is completed.

The retrospective evaluation format helps reduce response shift bias that results when the participant has different frames of reference in the pre-test and post-test assessments (Preziosi & Legg, 1983). Essentially, it reduces the detrimental situation of someone not knowing how much they don't know! Thus, more valid measures may be expected with the retrospective evaluation format (Terborg et al., 1980).

Setting and Population

Because of the significance management training and development activities have played in organizations, a training and development program was designed for the Medical Directors of Minneapolis Children's Medical Center, a 148-bed, tertiary-care children's hospital in Minneapolis, Minnesota. The Medical Directors were physician executives practicing a pediatric specialty who were also executives directing that specialty. Their specialties were in the following areas: psychology, neonatology, intensive care, development pediatrics, behavioral pediatrics, adolescent medicine, general pediatrics and pulmonology.

Dr. Kusy, one of the authors of this paper, conducted the program.

Program Description and Goals

The researchers designed four management training and development sessions in 1990 that were conducted on a quarterly basis. Each session was seven hours long. Participants numbered 14 for the first session, 10 for the second, 12 for the third, and 14 for the last.

Training activities focused on disseminating critical management skills in a classroom format. These activities addressed the skills needed to help the Medical Directors become more effective day-to-day managers. Development activities addressed these critical management skills through an assessment format and follow-up activities based upon the individual needs of each physician executive. Development activities went on to consider longer-term, strategic issues of the organization that provided the Medical Directors opportunities to become creative, proactive leaders.

Based upon a needs assessment conducted with the help of the Executive Medical Director and selected staff, the following critical goals for management training and development emerged:

- Understanding the role of the physician executive
- Becoming aware of the differences between and similarities of leader and manager
- Understanding organizational culture
- Identifying and practicing effective team-building strategies
- Understanding oneself as manager and leader through a variety of interpersonal skill inventories

- Utilizing effective management practices based upon a situational leadership model
- Becoming more effective leaders of team meetings
- Applying group dynamics to team meetings

Evaluation Strategies

As a benchmark for assessing the efficacy of the management development program, the authors focused on two critical variables — knowledge and performance change (Lawrie, 1989; Kirkpatrick, 1975).

The researchers selected a retrospective evaluation format to determine the extent of learning *and* performance change in the physician executives. To conduct this retrospective evaluation, the researchers distributed a survey to each physician executive two months after each of the four management training and development sessions. Two months' time allowed physician executives to synthesize the information, conduct further reading and apply the appropriate principles and theories discussed in the previous session. The researchers selected a t-test to compare pre- and post-program responses of the group for each of the four sessions.

Figure 1 illustrates instructions and some sample items from each of the four surveys. The number of items included in each survey ranged from six to 12.

Instructions: In order to evaluate the effectiveness of the Management Development Program in which you are participating, please complete this evaluation form. All responses will remain confidential; the data will be pooled into a composite to assess the effectiveness of this program and will be shared with you early in 1991. Please circle the item that most appropriately corresponds to your response according to the scale below. The "Pre" category refers to your response as it would have been before this session; the "Post" category refers to your present response now that you have had an opportunity to apply the research and theories presented in the program.

Scale

- 1 = not effectively
- 2 = minimally effectively
- 3 = somewhat effectively
- 4 = highly effectively
- 5 = very highly effectively

Think about your own management practices; how effectively did you do you:

	Pre	Post
1. Apply the rational/structured theory of organizations to your management work?	1 2 3 4 5	1 2 3 4 5
2. Apply the situational leadership model to your management practice?	1 2 3 4 5	1 2 3 4 5
3. Help others understand important dimensions of organizational culture?	1 2 3 4 5	1 2 3 4 5
4. Reinforce staff who use empowerment strategies?	1 2 3 4 5	1 2 3 4 5
5. Use effective feedback strategies?	1 2 3 4 5	1 2 3 4 5
6. Identify the critical components of effective meetings?	1 2 3 4 5	1 2 3 4 5
7. Handle disruptive behaviors at meetings?	1 2 3 4 5	1 2 3 4 5
8. Describe the S1 style of managing?	1 2 3 4 5	1 2 3 4 5
9. Identify an employee's R1 (readiness level 1) on a task?	1 2 3 4 5	1 2 3 4 5

Figure 1. Instructions and Sample Items from Surveys Distributed to Physician Executives in Management Training and Development Program.

Program Results

Table 1 indicates the response rates for each of the four sessions. Table 2 shows a summary of the mean differences and statistical levels for each of the sessions. The data from each survey indicates a positive change in perception of management skills with significance levels ranging from $p < .05$ to $p < .001$. The results indicate that the program had a significant impact on the perception of managerial knowledge and performance of the physician executives.

The Impact of this Study

While the data indicate that there was a pronounced change in the perception of management skills of the physician executives involved in this study, responses of *non*-participants were also significant. Non-participant executives noted improved managerial behaviors in the physician executives attending the program. In addition, anecdotal comments from the physician executives, who have been historically resistant to classroom training on management practices, have been

very positive. They believed that this new body of knowledge would be instrumental in helping them achieve more productive management outcomes. If one subscribes to the tenet that perception is often reality, the positive change in perception of these physician executives may have indeed spurred them on to new and challenging management practices.

Table 1. Response Rates of Physician Executives to Management Training and Development Sessions.

Session #	Percentage of responses
1	79
2	70
3	83
4	71

Table 2. Summary of Mean Differences and Statistical Data for Each Session.

Session #	M	SD	df	t
1	-13.55	6.41	10	-7.01*
2	-7.43	3.87	6	-5.08**
3	-6.78	4.52	9	-6.78*
4	-19.30	6.53	9	-9.34*

*p < .001 **p < .05

This study provides direction for training and development professionals to become more actively involved in evaluating training. While evaluation may be regarded as predominantly an academic pursuit, this research indicates that the application of training evaluation in organizational settings may occur with more ease than has been typically thought.

In 1991, the management training and development program will continue with these physician executives because of the positive responses that the participants and their bosses have toward the program. Greater focus will be placed on enhanced development in the form of structured follow-up activities and strategies that will take place between each of the scheduled sessions. These development activities will incorporate such formats as individual coaching sessions, problem-solving groups and group study sessions. These activities will also be evaluated.

It is important to consider how significant evaluation is to the continuation of successful training and development interventions in organizations. When the effectiveness of training and development is demonstrated, there is likely to be increased financial and organizational support of these efforts.

Human resource development professionals have the technology

available to evaluate training effectiveness. Human resource development professionals can design this technology to be non-intrusive and easy to use even for individuals as busy as physician executives. With financial accountability of critical concern in the health care environment, as in many environments, it is increasingly necessary to consider ways to show organizations that training and development do make a difference. With such an accountability system, training and development will assume a more bottom-line stance with the potential of significantly influencing organizational outcomes.

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