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**THE LEVEL OF MANAGEMENT SUPPORT BEHAVIORS  
AND THE EFFECT ON PARTICIPATION RATES  
IN CORPORATE FITNESS PROGRAMS**

by

**Diane Braatz**

**A Dissertation  
Submitted to the  
Faculty of The Graduate College  
in partial fulfillment of the  
requirements for the  
Degree of Doctor of Education  
Department of Educational Leadership**

**Western Michigan University  
Kalamazoo, Michigan  
August 1995**

THE LEVEL OF MANAGEMENT SUPPORT BEHAVIORS  
AND THE EFFECT ON PARTICIPATION RATES  
IN CORPORATE FITNESS PROGRAMS

Diane Braatz, Ed.D.

Western Michigan University, 1995

Survey methods were used to evaluate the relationship between the nature and degree of management support provided to corporate fitness programs and employees' participation rates in those programs. A questionnaire requesting information about demographics, participation rates, and supportive management practices in the areas of coaching, modeling, and reinforcing, was sent to representatives of 400 companies. Completed questionnaires representing 157 organizations were returned. Across all respondents, the mean reported level of employee participation in fitness programs was 20.7%; the range was 2 to 67%. The level of employee participation was positively related to the total level of management support (i.e., combined scores across the three areas of coaching, reinforcing, and modeling), coaching by management, and reinforcing by management. No evidence was found for a relationship between modeling by management and participation rates. The participation rates obtained in the present study are consistent with earlier reports documenting relatively low levels of employee participation in fitness programs. The positive relationship between total management support and participation rate provides support for suggestions in the literature that management practices are likely to influence participation rates.

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I dedicate this dissertation to my sister, the late Karen Marie Browen. During our shared lives together I have led. The time has come for you to show me the way.

Diane Braatz



## TABLE OF CONTENTS

ACKNOWLEDGMENTS .....	ii
LIST OF TABLES.....	vi
LIST OF FIGURES .....	vii
CHAPTER	
I. INTRODUCTION .....	1
Overview.....	1
A New Generation of Workers.....	2
Organizations as Social Institutions.....	3
Wellness Programs as a Response.....	4
The Problem.....	5
Delimiting the Present Study .....	8
Key Terms and Concepts .....	9
Limitations.....	11
II. REVIEW OF LITERATURE .....	13
Benefits of Wellness Programs .....	13
Wellness and Fitness .....	15
Participation .....	18
Management Support to Foster Participation .....	20
Modeling.....	23
Coaching.....	25
Reinforcement.....	27
III. METHODOLOGY .....	32

## Table of Contents-Continued

<b>CHAPTER</b>	
<b>Overview</b> .....	32
<b>Population and Sample</b> .....	32
<b>Variables</b> .....	33
<b>Questionnaire Development</b> .....	34
<b>Procedures</b> .....	35
<b>Data Analysis</b> .....	39
<b>IV. RESULTS</b> .....	40
<b>Overview</b> .....	40
<b>Return Rates</b> .....	40
<b>Characteristics of the Sample</b> .....	41
<b>Primary Findings and Relationship to the Study Question</b> .....	47
<b>V. DISCUSSION AND CONCLUSIONS</b> .....	51
<b>Overview</b> .....	51
<b>Relation of the Current Findings to Prior Research</b> .....	53
<b>Limitations of the Present Study</b> .....	55
<b>Conclusions</b> .....	58
<b>Implications for Practice</b> .....	59
<b>Suggestions for Future Research</b> .....	60
<b>APPENDICES</b>	
<b>A. Management Support Behaviors</b> .....	61
<b>B. Questionnaire and Cover Letter</b> .....	66
<b>C. Human Subjects Institutional Review Board Approval</b> .....	70

**Table of Contents-Continued**

**BIBLIOGRAPHY ..... 72**

## LIST OF TABLES

1. Individual Questionnaire Statements and Their Related Sources.....	36
2. Correlation Coefficients for the Size of Organization and for the Length of Time the Program Has Been in Existence.....	44
3. Scores by Management Support Activity.....	48
4. Correlation Coefficients for Each Category.....	49
5. The Five Highest Total Management Scores and Their Corresponding Participation Rates.....	50
6. The Five Lowest Total Management Scores and Their Corresponding Participation Rates.....	50

## LIST OF FIGURES

1. Number of Respondents for Each Organization Size.....	42
2. Number of Respondents Reporting Particular Participation Rates.....	43
3. Participation Rates According to Organization Size .....	44
4. Participation Rates as a Function of Years of Program Existence.....	45
5. Percent of Respondents Who Reported Particular Total Management Scores .....	47

## CHAPTER I

### INTRODUCTION

#### Overview

Rather than a holistic concern for workers and their contributions to organizational success, business leaders' primary concern in years past was for the financial soundness of the organization. There was an overwhelming responsibility to the stockholders of the organization that drove decision making. Typically, leaders of organizations hired and retained employees based on their ability to produce quality products in high numbers and were concerned with employees only to the extent that they contributed to the bottom line. Processes, equipment, raw materials and facilities were viewed as critical factors in the formula for success. Employees, or human resources, were just a necessary route used by administration to achieve financial goals (Hallett, 1988).

Historically, there has been an abundance of available labor. In years past, brute force and hard physical labor allowed American manufacturers to out-produce their competitors. But in recent years, technological advances have automated much of manufacturing, creating a demand for a different kind of employee. Gone are the physical strength requirements, replaced with a need for employees with good verbal, analytical and communication skills. Businesses are seeing the worker as much more than a body (physical labor) and are now wanting to engage people's minds as a way to improve processes and increase production, ultimately resulting in greater competitive advantage.

In the past decade, business leaders have broadened their level of concern for employees' health and well being. More and more leaders are realizing the significant impact that effective management of human resources can have on the bottom line. There is increasing evidence that the health and well-being of employees have a direct impact on employment, economic growth, and the ability to compete in the world economy (Pearson, 1990).

Most business leaders are keenly aware of the importance of developing an informed and productive work force, of developing the mind and body of the workers (Pearson, 1990). Doing so is in the long-term economic self-interest of businesses (Walsh & Francis, 1992).

#### A New Generation of Workers

In addition to this shift in perception, businesses have been confronted with a different type of potential employee. New managers in restructured organizations are "baby boomers" who bring a new set of values to the workplace (Lee & Zemke, 1993). Many employees are spending more than 50% of their awake hours at work (Thompson, 1990), and their work-related attitudes and expectations are different from those of preceding generations of workers (Leibowitz, Schlossberg, & Shore, 1991). Because employees spend more time at work than in any other part of their lives, it is becoming increasingly important that they find significance in their work and the opportunity to use their mind and devote their whole being toward a higher work purpose (Lee & Zemke, 1993).

Current social trends aid in understanding this new kind of worker. There appears to be a preoccupation among individuals with the spiritual side of life (Bracey, 1987). People are seeking spiritual and moral anchors in their lives and in their work (Covey, 1989). With this generation searching for meaning wherever they can find it,

the workplace is not out of bounds (Lee & Zemke, 1993). In many businesses, there is an obvious interplay between employees' life at home and their life at work (Walsh & Francis, 1992).

### Organizations as Social Institutions

Businesses are asked not only to produce better goods and services, but to become greater social assets as institutions (Greenleaf, 1977). More and more, there is an acceptance of the "whole person" in the workplace (Bracey, 1987). The servant leader philosophy, as outlined by Greenleaf (1977), does not separate the "working" portion of a person's life from the remainder. Organizations subscribing to this philosophy are concerned for the well-being of their employees and help workers to manage lifestyle factors that affect health (DePree, 1987). DePree (1987) and similar leaders take a personal interest in their employees, to the extent of developing covenant-type relationships with them, in addition to a mere professional interest (Lee & Zemke, 1993).

Dollars spent on human capital should be viewed as an investment, not an expense (Browning, 1991). Organizations are spending an average of \$6,000 per employee on the selection process, and by creating a more holistic approach to worker satisfaction, they are more likely to reap the benefits of retaining these selected employees (Leibowitz, Schlossberg, & Shore, 1991). In addition to reducing employee turnover, holistic approaches to management are reported to reduce absenteeism, increase job satisfaction, and increase productivity (e.g., Pearson, 1990; Walsh & Francis, 1992). All of these outcomes are desirable from the perspective of management.



## Wellness Programs as a Response

One way to address the new demands of a holistic work experience is through corporate wellness and health promotion programs. The correlation between chronic illness and unhealthy lifestyle is well established (Gettings & Maddox, 1988; Warner, 1987). In the 1920s, occupational safety and health focused on the environment as the source of health problems such as lung disease, musculoskeletal injuries, occupational cancers, amputations, fractures, cardiovascular disease, reproductive disorders, neurotoxic disorders, noise, dermatologic and psychologic concerns (Rosen & Freedman, 1987). In the 1950s, employee health evolved into a sports and recreational focus (Feuer, 1985). Corporations sponsored bowling and softball teams which competed in intramural leagues, but did little else.

In the 1970s and 1980s, a broader definition of employee fitness emerged. Organizations recognized the interrelationship of physical, mental and spiritual well-being (Bell, 1986). In addition to simply improving physical well-being, which does affect productivity (O'Donnell & Harris, 1994), organizations that initiate wellness programs also attempt, in order of significance, to: (a) improve human relations, employee morale, and commitment to organization, (b) contain health care costs, and (c) improve company image in the community (Behrens, 1985). These outcomes are important adjuncts to the direct health-related benefits of a wellness program.

Over time, there has been a marked shift in death from environmental sources of disease to death from lifestyle diseases (Bell, 1986; Rosen & Freedman, 1987). Over 15 years ago, a report by the Surgeon General of the United States (1979) brought to national attention the major roles that lifestyle and the environment play as precursors of premature disease and death. This summary pointed out that the leading causes of death had changed during the course of the twentieth century from infectious

diseases amenable to control by improved nutrition, sanitation, and treatment to chronic illnesses that could be profoundly affected by interactions of lifestyle and environmental factors with genetic predisposition, and to a much lesser extent, access to effective medical care.

For example, it is clearly established that smoking, poor nutrition, inactivity, stress and overeating are behavior-related factors that affect employee health and are controllable by people (O'Donnell & Harris, 1994). According to statistics collected by Bell (1986), in a typical medium-size organization, 1 in 6 individuals suffer from hypertension, 1 in 10 have alcohol or drug problems, 1 in 2 are obese and 1 in 2 males will die from cardiovascular disease by age 65. Ten leading causes of death are related to lifestyle, and can be more easily prevented than cured (Stasica, 1990). Good wellness programs help to prevent them.

#### The Problem

As discussed in detail in the next section and in several excellent reviews (e.g., Chang & Boyle, 1989; Leven, 1991; O'Donnell & Harris, 1994; Patton, Grantham, Gerson, & Gettman, 1989), physical fitness programs are a common, and important, aspect of many wellness programs. As evidence of the widespread availability of such programs, Hollander and Lengermann (1988) reported on the basis of a survey of Fortune 500 companies that, in 1987, "[F]ully two-thirds of respondent programs report having programs and one-third of those without programs have plans to start programs" (p. 499).

A significant problem associated with many corporate fitness programs, and the one that provided impetus for the present study, is that many employees fail to take advantage of them. Hollander and Lengermann (1988) commented that "[t]he rate of participation can be seen as an immediate indicator of program effectiveness" (p. 496).

Their respondents reported an average participation rate of 40.1%, although there was substantial variability across companies. Hollander and Lengermann (1988) considered the participation rates reported to them to be, on the whole, unacceptably low. In summarizing the state of fitness programs in Fortune 500 companies, they wrote:

The findings on the characteristics of programs present a mixed picture. On the one hand, it appears that the tendency is for a high proportion of firms to have a program available to a high percentage of their employees. However, participation rates are very low. In this sense, programs may not be very substantial or successful in that, despite their widespread existence, proportionately few employees actually participate in them (p. 499).

The 40% average participation rate obtained by Hollander and Lengermann (1988) is substantially higher than that found in several surveys that actually monitored employees' participation. For example, Shephard (1992) reported that only 13% of employees of the Toronto Life Assurance Company used corporate fitness facilities two or more times per week after 12 years of availability. He termed this participation rate "disappointingly low" (p. 299). Participation rates below 20% have also been reported in several other studies (e.g., Davis, Jackson, Kronenfeld, & Blair, 1987; Jeffery, Forster, & Snell, 1985; Lowe, Windsor, & Post, 1987).

There are, however, marked exceptions to the usual trend of low participation rates in fitness programs. For instance, Tampuson (1988) reported that nearly 70% of employees of Franklin International, a small manufacturing company, regularly participated in the organization's fitness program. Similar participation rates were reported for employees of Shaklee Corporation (Green, 1989), and for a few of the organizations surveyed by Hollander and Lengermann (1988). Clearly, substantial differences exist among corporations in reported rates of employees' participation in fitness programs.

Why are reports of participation rates so variable? One factor that must be considered is the manner in which "participation" is defined and measured. There does not appear to be a standard definition that is used by the majority of authors. Many specify that the minimum requirement is participating in a fitness program at or above a specified minimum rate, usually two or three times per week (e.g., Chang & Boyle, 1989; Mercer, 1992), during a specified time (e.g., over the last three months). Duration and intensity of exercise are rarely included as criteria, but there are exceptions (e.g., Leven, 1991). Some authors specify no criteria; they simply ask whether or not employees participate. This tack, which was used by Hollander and Lengermann (1988) in the survey of Fortune 500 companies described above, may artificially elevate reported participation rates, as they note.

Studies differ not only in how participation is defined, but in how it is measured. Three general strategies are used to obtain participation data:

1. Potential participants themselves are queried concerning whether they participate. A potential problem with this strategy is exaggerated or otherwise inaccurate reporting.
2. People ostensibly informed about the activities of potential participants are queried concerning whether these others participate. An issue with this strategy is that the informant may not have the required information, or may exaggerate. Moreover, when survey methods are used, potential respondents often fail to provide the requested information, leading to problems concerning the representativeness of findings. A similar issue, of course, arises when survey methods are used with participants themselves.
3. Participation is directly observed and recorded. This technique may involve collecting data on identified individuals, or on a group basis. Direct observation is

potentially the most accurate method for determining participation rates, but it also the most difficult to arrange.

Issues of measurement notwithstanding, it is likely that there are real differences in participation rates across companies, and it is reasonable to speculate that there are potentially specifiable causes of these differences. One variable that may affect employees' participation in corporate fitness programs is the level of support that management provides for their doing so. Several authors have concluded that management support is a prerequisite for fostering employee participation in fitness programs, although empirical support for this conclusion rests almost entirely on case studies (Adams, 1988; Brennan, 1981; Conners, 1992; Gettings & Maddox, 1988; Hallett, 1988).

The purpose of the study was to determine if there is a relationship between reported levels of management support for participation in corporate fitness programs and employees' participation in such programs. Four hypotheses were tested: (1) overall management support for participation in corporate fitness programs is directly related to employee participation rates, (2) management support in the area of coaching is directly related employee participation rates, (3) management support in the area of modeling is directly related employee participation rates, (4) management support in the area of reinforcing is directly related employee participation rates.

#### Delimiting the Present Study

Although the present study was intended to provide meaningful information about the relationship between management support and employees' participation in fitness programs, it is important to emphasize that the survey was sent only to corporate members of the Association for Worksite Health Promotion.

According to the Association for Worksite Health Promotion guidelines, a Professional Member, "Shall be an individual dues paying member who provides educational development, management services, or evaluations of worksite health promotion programs" (Association for Worksite Health Promotion, 1994, p. 140). Members are linked to one of seven separate affiliations: (1) academic, (2) corporate, (3) consultant service, (4) hospital, (5) private fitness, (6) health fitness facility, or (7) private clinic. The survey was sent to people listed as corporate affiliated Professional Members of the Association, and they were asked to respond to the questionnaire not in terms of their individual management activities, but in terms of those characteristic of executive-level management throughout the organization.

### Key Terms and Concepts

To provide an introduction to important terms and concepts that will be appear repeatedly in the balance of this document, brief definitions of those terms follow. Further discussion of definitional issues appears in later chapters.

#### Management Support

Management support is not a technical term and appears to be used somewhat differently by different authors. Given the wide range of activities that may be indicative of management support, it is clearly a difficult concept to define and quantify. For the purposes of this study, Leddick's (1990) definition that "supportive managers made good use of appropriate modeling, coaching, and reinforcing strategies" was used.

### Modeling

Social learning theorist, Albert Bandura (1969, 1977), proposed that effective modeling involves four components processes: attention, retention, motor reproduction, and motivation. Stated in more informal terms, in order for people to learn from watching a model, they must observe what the model is doing, remember what the model did, do what the model has done, and later, when the appropriate time comes, want to use what they have learned. In this study, Bandura's (1969, 1977) informal definition was used.

### Coaching

"Coaching" is not a technical term, and there is no unitary theory of coaching. For this study, coaching comprises three general activities: instructing, directing, and prompting (Leddick, 1990).

### Reinforcement

The concept of reinforcement has been studied primarily within the context of behavior analysis, as developed by B. F. Skinner (1953, 1969, 1974). According to Skinner, reinforcement is an operant conditioning process in which a response is followed by a stimulus (reinforcer) and is thereby strengthened. The respondent-strengthening effects of reinforcement typically involve an increase in the future rate or the probability of occurrence of the response. For this study, Skinner's (1953, 1969, 1974) definition was used.

### Wellness

The term, "wellness program," is generic; the specific services that various organizations offer under the rubric differ dramatically. Typically one will find health promotion programs, employee assistance programs, and fitness programs grouped under "wellness". In this study, the research focused on fitness programs.

### Fitness

For the purposes of this study, fitness relates to a person being in good physical aerobic condition which allows them to engage in a variety of enjoyable activities that are otherwise difficult or impossible to pursue (Bouchard, Shephard, Stephens, Sutton & McPherson, 1990).

### Participation

There does not appear to be a standard definition that is used by the majority of authors. Many specify that the minimum requirement is participating in a fitness program at or above a specified minimum rate, usually two or three times per week (e.g., Chang & Boyle, 1989; Mercer, 1992), during a specified time (e.g., over the last three months). For the purposes of this study, participation rate was defined as the number of employees in a work unit who were eligible to participate in fitness/exercise programs.

### **Limitations**

As discussed further in Chapter V, the present study was limited in five important ways. First, all data were collected via self-report methods, and the accuracy of the self-reports was not determined. Second, the study employed post-hoc



correlational methods, and such methods are not adequate for demonstrating functional (i.e., causal) relations between variables. Third, the present study dealt with a limited, and potentially biased, sample of respondents. There may well be more overall cultural support for employees' participating in fitness and wellness activities in organizations that hire members of The Association for Worksite Health Promotion. These organizations may differ from organizations that do not hire members in significant ways. Fourth, questionnaires were sent to the organization's member of the Association of Worksite Health Promotion and they were asked to indicate their perception of the level of management support in their organizations. Fifth, the definition of fitness does not differentiate between different levels of fitness.

## CHAPTER II

### REVIEW OF LITERATURE

As noted in the previous section, many organizations have implemented wellness programs, and the nature of these programs has changed substantially over time. This chapter describes the benefits that organizations and employees may derive from wellness programs, differentiates fitness and wellness programs, and provides further discussion of issues raised in Chapter I. Also discussed are coaching, modeling, and reinforcing as specific management support activities.

#### Benefits of Wellness Programs

Employee wellness programs provide many potential benefits to workers and organizations. Enhancing company image, improving the health of employees and their families, promoting a positive climate within an organization and responding to employee demands are often given as reasons for initiating and sustaining corporate wellness programs (Gettings & Maddox, 1988; Hollander & Lengermann, 1988). Although these factors are important, they are difficult to quantify. Economic benefits are easier to quantify and, given the beleaguered financial status of many companies today, are especially important.

According to the U. S. Department of Commerce, in 1989 the United States spent over \$599.2 billion, or approximately 11.5% of the U. S. gross national product, on health care, and expenditures are conservatively estimated to rise at an average annual rate of 10 to 14% during the next 5 years (Jacobson, Yenney, & Bisgard,

1990). These costs are making it difficult for many U. S. businesses to earn a profit and to compete globally (Bailey, 1990; Sherwood, 1986). For instance, it is estimated that 25 cents of every net profit dollar goes to health benefits, and that health care costs add \$1,086 to the price of each car made in the United States (Mercer, 1992).

Not surprisingly, health promotion and wellness programs initially were introduced in response to rising health care costs. Management found these programs relatively inexpensive to develop and helpful in containing out-of-control health care costs, of which one-third are borne by employers (Jacobson, Yenney, & Bisgard, 1990; Leven, 1991). At present, wellness and fitness programs are widely accepted methods to prevent employee health problems and improve the financial well-being of companies (Green, 1989).

There is compelling evidence of the benefits of wellness programs to organizations that provide them. In most cases, the investment in employee wellness programs pays off in the form of reduced absenteeism and health care costs, and an increase in employee productivity and recruitment opportunities (Thompson, 1990; Jacobson et al., 1990). For example, Coors Brewing Company reported a \$6.15 return for every dollar spent on wellness. Although not all wellness programs are this profitable, returns on investments in such programs characteristically are good (Jacobson et al., 1990; Leven, 1991).

The financial benefits associated with wellness programs result directly from the better health and performance of workers who participate in those programs. Several studies have documented those benefits. For example, Gettings and Maddox (1988) found that regular exercisers (both men and women) received above average job performance ratings, used an average of 27 annual sick hours while non-exercisers used 44, and had substantially lower health care claims than non-exercisers. Patton (1991) reported that the greater the exposure to the wellness program, the greater the

physical and psychological benefits obtained. Exercisers had a pronounced reduction in absent days (15%) at 2 years, and as much as 25% higher retention rates at 4 years. Thompson (1990) indicated that employees who participated in wellness programs reported that they were more alert, had better rapport with co-workers and supervisors, and enjoyed work more. Several other case studies, reviewed by Chang and Boyle (1989), have reported similar results.

### Wellness and Fitness

The term, "wellness program," is generic; the specific services that various organizations offer under the rubric differ dramatically (Backer, 1987; O'Donnell & Harris, 1994). One component of many wellness programs is the employee assistance program (EAP). Prior to the early 1970s, such programs characteristically were aimed at providing assistance to people with drug and alcohol problems. They were called "troubled employee" programs or occupational-alcoholism programs. In 1972, the National Institute on Alcoholism and Alcohol Abuse endorsed a broader approach. Since then, many EAPs make personal assistance available to all employees with any type of problem interfering with effective job performance (Otte, 1982).

At present, most EAPs are administered through human resources departments, and are intended to help employees in dealing with such problems as high stress, substance abuse, poor mental health, and low morale (Backer, 1987). Their existence is based on a simple premise: If employees are struggling with problems in their personal lives, these problems often have a negative impact in the workplace. It is, therefore, in the employer's best interest to help employees resolve personal problems that might affect their work.

Most EAPs offer counseling for employees regarding personal concerns and consultation for supervisors, personnel representatives, and union stewards regarding

employee job performance problems that may be related to employee personal problems (Backer, 1987). Many organizations offer wellness programs that combine EAPs with health promotion programs (Backer, 1987). The former (i.e., EAPs) are designed to help employees resolve personal problems such as chemical dependency, emotional problems, or family conflicts that may affect the workplace. The latter (i.e., health promotion programs) are designed to help employees adopt healthy lifestyles, such as regular exercise, prudent diet, and stress management coping skills. According to O'Donnell (1994), "They [health promotion programs] can enhance awareness, help employees make lifestyle changes, and create environments that support healthy lifestyles" (p. xiii).

Supporting exercise and physical fitness is a major goal of most health promotions programs (O'Donnell & Harris, 1994). In 1986, results of a major survey reported that only 9% of the population of the United States exercised at least three days a week for at least 20 minutes at 60% exertion level (American College of Sports Medicine, 1991; U. S. Department of Health and Human Services, 1986). A 9% participation rate is far below the goal set by the U. S. Department of Health and Human Services (1980), which was to have more than 60% of adults exercising regularly by 1990. The fact that relatively few adults in this country exercise regularly is troublesome, because a sedentary lifestyle has been shown to be a contributing factor to several conditions, including cardiovascular disease, stroke, diabetes, and colon cancer (U. S. Department of Health and Human Services, 1991). For employers, these diseases lead to higher health care costs, greater absenteeism, and lower productivity.

Data are now available concerning the effects of fitness programs alone on workers' productivity and absenteeism, and on recruiting and retaining employees. Although there are methodological flaws (i.e., absence of control groups, absence of

baseline measures against which to assess program effects, reliance on program participants' self-reports as measures of program-related behavior change) in many of the relevant studies, a recent review suggests that fit workers are more productive, happier, and miss less work than other employees (Collingwood, 1994). Moreover, cost-benefit analyses suggest that such programs, like wellness programs in general, provide a good return on investment. For example, Kamen (1987) reported cost-benefit ratios ranging from \$1.07-\$5.78 in several organizations, and Shephard (1983) indicated an average benefit of \$744. Such values must be interpreted with caution (Collingwood, 1994), although it does appear that most fitness programs at least pay for themselves.

Even if fitness programs do no more than pay for themselves, organizations truly concerned with the well-being of employees would support them because of their beneficial effects on health. Moreover, fitness, which the World Health Organization defines simply as "the ability to perform muscular work satisfactorily," allows people to engage in a variety of enjoyable activities that are otherwise difficult or impossible to pursue (Bouchard, Shephard, Stephens, Sutton & McPherson, 1990). As Bouchard et al. (1990) indicate, increasing fitness often:

1. Increases flexibility, that is, is the ability to have range of motion.
2. Changes body composition, by increasing muscle and reducing fat.
3. Increases muscular strength and endurance.
4. Increases aerobic power, which is the ability of the body to transport oxygen and perform work on a sustained basis.
5. Increases anaerobic ability, which is the capacity of the body to perform explosive and intense activities.

The first four effects are directly related to health; all five may improve the quality of a fit individual's life (Bouchard et al., 1990; Collingwood, 1994).

Although fitness programs are only one component of many wellness programs, they appear to be an especially important component. The present study examined participation in fitness programs for this reason, and because it is potentially easier to define participation in fitness program than to define participation in wellness programs in general. Because wellness programs potentially comprise a wide range of activities, which differ substantially across organizations, it would be difficult to establish a reasonable measure of participation. Most wellness programs do, however, involve a fitness program, and a reasonable general standard for participating in fitness programs can be devised.

### Participation

As emphasized in Chapter I, no employee can benefit from a wellness program without participating in it. Unfortunately, relatively low participation rates are a problem in many corporate wellness programs (Sorensen, Hsieh, Hunt, Morris, Harris, & Fitzgerald, 1992), and overall participation rates of 10 to 20% are common (Green, 1989; Shephard, 1992). Higher rates do occur, however. For example, Green (1989) reported that an elaborate wellness program adopted by the Shaklee Corporation in its San Francisco headquarters fostered participation rates of 50 to 60%.

Shaklee is a manufacturer and direct marketer of vitamins and nutritional products. In May of 1981, Shaklee opened a \$1 million, 14,000 square foot fitness center at its headquarters. The center has a running track, weight machines, dumbbells, treadmill, stationary bicycles, a rowing machine, lockers, showers, and aerobic exercise areas.

Shaklee administration recognized from the start that the success of the program depended on employees taking wellness as seriously as did management. That meant

encouraging employees to use the facility on a regular basis and to incorporate good health habits into their daily lives. Shaklee accomplished this goal by:

1. Promoting the wellness program as an employee benefit.
2. Offering individualized fitness programs.
3. Monitoring and encouraging employee progress.
4. Providing health education, early detection, and employee assistance programs.
5. Publicizing the wellness program on an ongoing basis.

Membership is offered free to all Shaklee employees. All employees must be at their work sites from 9:30-11:30 a.m. and from 1:30-3:30 p.m. each day, but they can leave to exercise at any other time. The fitness center is open from 6:30 a.m. to 7 p.m. five days per week. Showers, hair dryers, soap, shampoo, and towels are supplied free of charge. A quarterly newsletter, called Healthstyles, is circulated, and posters encouraging good health habits are placed around the workplace and in the fitness center. The cafeteria offers healthy food, and special wellness events are often arranged. In all, management supports wellness in many aspects of the organization. Moreover, most managers are active participants who model the behaviors they wish to foster in other employees.

According to Green (1989), the wellness program at Shaklee has returned benefits in three areas:

1. It is an effective employee recruitment and retention tool, especially for professional and management-level personnel.
2. It has improved attendance, lowered turnover, and increased productivity among current employees.
3. It has reduced health care costs.



The overall level of management support for the wellness program at Shaklee was very high (Green, 1989). Managers at Shaklee promoted the program as an employee benefit, offered individualized program services, monitored and encouraged employee progress, provided health education, early detection and EAPs, and publicized the program on an ongoing basis (Green, 1989).

### Management Support to Foster Participation

Several authors have offered speculations concerning the specific elements necessary for wellness programs to be effective in fostering employee participation and improving employee health. One element commonly emphasized is management support, which is assumed to be a prerequisite for success (Adams, 1988; Brennan, 1981; Conners, 1992; Gettings & Maddox, 1988; Hallett, 1988).

"Management support" is not, however, a technical term, and it has been defined differently by different authors. Moreover, there is less empirical than logical support for the notion that management support is a critical element in the success of fitness programs. Strong arguments for the importance of management support are provided by Adams (1992), Conners (1992), and Brennan (1981).

Much of the empirical support that does exist stems from case studies. For example, Yeomans (1982) defines management support as "a continuing commitment [to a concept or activity] backed by words and deeds over a long period of time" (p. 38). He notes that a wide range of specific behaviors appears to be indicative of "management support," and suggests that a supportive manager characteristically: (a) exhibits strong personal involvement in employees' activities, (b) asks for frequent reports on employees' progress, (c) indicates verbally a commitment to employees' welfare, (d) addresses employees' activities in published materials, (e) publicly supports programs designed to help employees, (f) rewards supervisors and other

employees appropriately, (g) recognizes a need to support and facilitate change, (h) participates in all stages of programs that benefit employees, and (i) ensures that adequate resources are available for projects.

Phillips (1978) indicates that four characteristics are indicative of a supportive manager. According to him, such a person: (1) gives enthusiastic endorsement and approval to employees, (2) makes a real commitment to change, (3) reinforces behavior change by employees, and (4) conducts follow-up evaluations to determine program effectiveness.

Sorenson (1990) also lists four characteristics of supportive managers, but they differ somewhat from those described to Phillips (1978). According to Sorenson, the supportive manager: (1) endorses program activity, (2) attends company-wide events, (3) helps solve logistical problems, and (4) approves funded employee involvement in self-help programs.

Other authors have described other characteristics as important (Gettings & Maddox, 1988; Leddick, 1990; Rost, Connel, Schectman, Barzilai, & Fisher, 1990; Thompson, 1990). Given the wide range of activities that may be indicative of "management support," it is clearly a difficult concept to define and quantify.

After considering the behavioral characteristics of supportive managers, Leddick (1990) proposed that supportive managers make good use of appropriate modeling, coaching, and reinforcing strategies. One advantage of this conceptualization of "management support" is that a considerable amount is known about each of these interrelated strategies and their effectiveness in fostering behavior change. A second is that it is, in principle, possible to specify the kinds of activities that are indicative of appropriate use of each of these strategies. This tack was taken in the present study. Behaviors described in prior literature as indicative of "management

support" were categorized as primarily involving modeling, coaching, or reinforcing. These behaviors were then incorporated into a survey instrument.

One impressive case study (Green, 1989), involving the Shaklee company, was described previously. In that article, Green provided a narrative and qualitative description of management support activities, and qualitative data concerning costs and benefits of the program. Similar information is provided by Shephard (1992) for the Toronto Life Assurance Company and by Naas (1992) for E. I. du Pont de Nemours. Bailey (1990) reports case studies describing management support activities and successful fitness programs at Johnson & Johnson, General Electric, Scoular Grain Company, McDonnell Douglas, Mesa Petroleum, and Blue Cross and Blue Shield of Indiana.

Case studies suggest that there is a relationship between particular kinds of management activities and the success of corporate fitness programs. But they do not document a relationship between the specific management behaviors and empirical indices of program success. Although it is established that management support facilitates changes in employee behavior in many cases (e.g., Covin & Kilmann, 1990; Hays, 1984; Kaney, 1991; Warshauer, 1990), and an absence of support has been implicated as a cause of failure in organizational change programs (Covin & Kilmann, 1990), no reported studies have yet correlated quantitative measures of wellness program success and management support.

It is an oversimplification to assume that management support facilitates the success of wellness programs without specifying precisely the kinds of behaviors that constitute management support. Authors writing about leadership indicate that three general classes of activities on the part of managers facilitate changes in the behavior of subordinates (Leddick, 1990; Yukl, 1989). Those activities, which can be considered

as separate but overlapping categories of management support activities, are modeling, coaching, and reinforcing (see Appendix A). Each of them is potentially important.

### Modeling

The term "modeling" was initially used to refer to a therapeutic technique made popular by the social learning theorist, Albert Bandura (1969, 1977). Building on the work of Miller and Dollard (1941), who made it clear that humans can learn many behaviors via imitation, Bandura proposed that much learning in humans occurs on a vicarious basis by observing other people's behavior and its consequences for them. The capacity to learn by observation enables people to acquire large, integrated patterns of behavior without having to form them gradually by tedious trial and error.

In view of these considerations, seeing another person perform a behavior is, under some conditions, a good procedure for teaching others to perform that same behavior. According to Bandura (1977), the critical factor in modeling that distinguishes it from other techniques for behavior change, such as behavior modification, is that individuals are not dependent upon direct experience and reinforcement for behavior change to take place via modeling. Instead, people learn from watching others.

Bandura (1977) proposed that effective modeling involves four component processes: attention, retention, motor reproduction, and motivation. Stated in more informal terms, in order for people to learn from watching a model, they must observe what the model is doing, remember what the model did, do what the model has done, and later, when the appropriate time comes, want to use what they have learned.

The likelihood that an individual will appropriately mimic a model appears to be enhanced if a 5-step training procedure is used (Bandura, 1977). The steps are: (1) modeling, in which individuals or groups of trainees watch filmed models portray the

behavior or set of behaviors which one wishes them to learn; (2) retention processes, in which trainees go through a series of formalized activities designed to help them retain what they saw in the modeling display; (3) behavioral rehearsal, in which trainees take part in extensive practice and rehearsal of the specific key behaviors and generalize the key behaviors across contexts; (4) feedback, where praise or constructive feedback is provided by both the trainer and other trainees for accurate behavioral rehearsal and successful solution of problems presented in behavioral rehearsal; and (5) transfer of training, which involves the inclusion of principles that enhance transfer of learning from classroom to job.

Although the 5-step process described above works well in formal training situations, informal observations are often sufficient to result in imitation learning. In general, the likelihood that a person will imitate a model is enhanced when the model, in relation to the observer, is: (a) of the same age, sex and race, etc.; (b) of apparent high competence or expertise; (c) of high status; (d) in control of desired resources; and, (e) of friendly and helpful demeanor (Bandura, 1977; Guerin, 1994). Finally, and of particular importance, the likelihood of imitation is enhanced when the model is rewarded for engaging in the behaviors of interest.

Although no reported study has used modeling to foster participation in fitness programs, modeling has been used successfully for many other purposes in business and industry. Among them are reducing employee turnover, facilitating communication between administrators and staff, and increasing sales (Decker & Nathan, 1985). Modeling was included as one form of management support in the present study because (a) many experts in the area consider it to be a kind of management support (e.g., Leddick, 1990; Yukl, 1989), and (b) modeling by management can influence employees' behavior, as discussed previously.

## Coaching

"Coaching" is not a technical term, and there is no unitary theory of coaching. In general, coaching refers at minimum to individuals receiving information verbally about appropriate responses (Popper & Lipshitz, 1992). There are, however, several approaches to providing such information. For example, Schon (1987) described three general, and different, coaching strategies:

1. "Follow me," in which the coach performs the action and shows the trainee how it is done.

2. "Joint experimentation," in which the coach creates situations of joint investigation and inquires with the trainee what has to be done. The coach leads the trainee to find ways of acting appropriately in a given situation.

3. "Hall of mirrors," in which the coach provides feedback as the trainee engages in various activities. The metaphor is intended to emphasize that coaching creates awareness. The trainee is supposed to be in a hall of mirrors, and in the process of performing views ongoing activities at the various angles reflected in the mirrors. The coach, of course, serves a substitute for the mirrors.

According to Schon (1987), simple and concrete tasks call for coaching through "follow me," which includes a considerable amount of imitation and practicing. More abstract or complicated tasks, such as leadership, call for "joint experimentation" and "hall of mirrors", where the coach's work includes planning of situations that have potential for success, planning parameters for success, setting a suitable learning pace, and intensive use of reflection in action.

Coaching may be a substitute for modeling when teaching simple skills. More importantly, coaching can be used to augment modeling. Modeling primarily

influences the initial acquisition of behavior, whereas coaching may be used to increase, finesse, or produce generalization of the behavior (Decker & Nathan, 1985).

One advantage of coaching as a behavior-change strategy is that it involves an ongoing interaction between the coach and trainee. In a theoretical analysis of effective coaching strategies, Popper and Lipshitz (1992), describe good coaching as fluid, and indicate that good coaches characteristically do three things. They:

1. Identify and define clear indicators of success.
2. Identify factors which lead to success.
3. Build and structure situations where success is possible.

The interactions between coach and trainee in this process can be classified in terms of four activities: listening, explaining, demonstrating, and imitating. According to Popper and Lipshitz (1992), good coaches exhibit specifiable behavioral characteristics, although they differ substantially in the specifics of their coaching styles and strategies. In general, successful coaches in all areas are: (a) greatly devoted to their profession, (b) non-punitive in their basic approach, (c) achievement-oriented, (d) unlikely to accept undue credit for success or to blame others for mistakes, (e) deeply committed to their trainees and the development of each, (f) direct and down to earth in their manner of speaking, and (g) copious in their use of feedback aimed at improvement.

Good coaches appear to be good models, and to make liberal use of reinforcement. Coaching alone appears to be employed rarely as an intervention in business and industry, and has not been evaluated as a strategy for increasing participation in wellness programs of any kind. However, coaching is known to be an effective pedagogical strategy (Kinlaw, 1989; Popper & Lipshitz, 1992), one that should be appropriate for providing information about, and facilitating participation in, fitness programs.

Coaching was included as one form of management support in the present study because (a) many experts in the area consider it to be a kind of management support (e.g., Leddick, 1990; Yukl, 1989), and (b) coaching by management can influence employees' behavior, as discussed previously.

### Reinforcement

The concept of reinforcement has been studied primarily within the context of behavior analysis, as developed by B. F. Skinner (1953, 1969, 1974). As used by Skinner, reinforcement is an operant conditioning process in which a response is followed by a stimulus (reinforcer) and is thereby strengthened (Poling, Schlinger, Starin, & Blakely, 1992). The response-strengthening effects of reinforcement typically involve an increase in the future rate or the probability of occurrence of the response, although other changes in behavior may also be indicative of a reinforcement effect. Reinforcement always strengthens the operant response class that preceded its delivery, although attempts at providing reinforcement may not do so (Poling et al., 1992).

Not every response needs to be followed by a particular consequence for reinforcement to strengthen behavior; intermittent reinforcement is the rule, not the exception, in organizational settings. The kinds of objects and events that serve a reinforcing function for a given individual are determined by historical and current circumstances. In most organizations, money and praise are especially important reinforcers (Poling & Braatz, in press).

Managers reinforce selected behaviors in other workers when they make deliberate efforts to praise or otherwise reward specific actions. Reinforcing closes the loop begun by modeling and coaching, for it follows successful behavior and increases the chance that successful behavior will recur.



Many studies conducted in business and industry have demonstrated the importance of consequences in the maintenance of appropriate behavior. Reinforcement procedures have been used to deal with a considerable range of problems in organizational settings, including absenteeism, tardiness, low productivity, poor quality products, and employee accidents. Studies in these areas are reviewed by O'Brien, Dickinson, and Rosnow (1982) and Johnson, Redmon, and Mawhinney (in press), and the general importance of reinforcement-based interventions in organizations is discussed by Poling and Braatz (in press).

Reinforcement can be used to generate novel behavior through the process of shaping, in which behavior is molded into desired forms by selective reinforcement of successively closer approximations to those forms (Skinner, 1953, 1969). However, in most cases, complex responses in verbal humans can be more rapidly created by the provision of performance guides in the form of appropriate verbal or behavioral cues (Poling & Braatz, in press). Thus, modeling and coaching are often combined with systematic reinforcement to generate and maintain appropriate behaviors in organizational settings (Poling & Braatz, in press; Poling et al., 1992).

Four essential features characterize successful reinforcement procedures in business and industry (Poling & Braatz, in press). First, reinforcers are selected that are sufficiently powerful and durable to maintain responsiveness over long periods while complex patterns of behavior are being established and strengthened. Second, the reinforcing events are made contingent upon the desired behavior under an appropriate schedule of reinforcement. Third, when new behaviors are being developed, a reliable procedure for inducing the desired response patterns is arranged. Fourth, the actual contingencies of reinforcement that are arranged must be equivalent to the contingencies that are verbally described for participants. Human behavior can be rule-governed (controlled by verbal statements) as well as contingency-shaped

(controlled directly by reinforcement), and it is important that these two sources of control not be arranged in opposition.

Although no studies have been published in which reinforcement alone was used to facilitate participation in fitness programs, evidence from basic and applied research in other settings indicates that such procedures, if thoughtfully and skillfully implemented, can produce enduring changes in many behaviors. Moreover, once desired behaviors have been strengthened via contrived reinforcement procedures, naturally occurring contingencies are often sufficient to ensure their maintenance. For example, praise from coworkers may play a critical role in getting a person to exercise in the first place, but other variables, such as a decreasing waistline and firmer muscles, may be sufficient incentive for continued involvement.

Reinforcing was included as one form of management support in the present study because (a) many experts in the area consider it to be a kind of management support (e.g., Leddick, 1990; Yukl, 1989), and (b) reinforcing activities by management can influence employees' behavior as discussed previously.

Modeling, coaching, and reinforcing are neither mutually exclusively activities nor inevitable concomitants of one another. The best approaches to managing behavior appear to use all three strategies, and there are some data to suggest that the combination is especially powerful (Leddick, 1990). For example, Cobb (1974) used three treatment groups and two control groups in evaluating procedures for training cooperative behaviors in first-grade boys. Each of the treatment groups received coaching, either alone, in combination with modeling, or with modeling, rehearsal, and reinforcement. Results indicated that all groups showed increased cooperation after exposure to treatment, with the full-treatment group showing the most improvement.

Although the best managers appear to use modeling, coaching, and reinforcing, many do not, and organizations differ in their formal and informal support for each of

these strategies (Covin & Kilmann, 1990). The second purpose of the present study was to examine possible relationship between participation rates in fitness programs and the kinds of management support activities used in organizations.

Literature summarized in this chapter suggests that both employees and corporations can derive appreciable benefits from fitness programs. Unfortunately, low participation rates limit the benefits produced by many such programs. Impressively high participation rates are, however, reported occasionally, and one variable that several authors have discussed as contributing to these high rates is strong management support. Management support is not a simple or unambiguous concept, but a case can be made that it comprises specific activities that can be categorized as involving modeling, coaching, and reinforcing. The purpose of the present study was to determine through correlational methods whether there is a relationship between reported level of management support for participation in corporate fitness programs and reported rate of employees' participation in such programs. Through methods described in Chapter III, possible relationships between participation rates and overall management support, as well as management support in the particular areas of modeling, coaching, and reinforcing, were examined.

## CHAPTER III

### METHODOLOGY

#### Overview

A 33-item questionnaire was sent to representatives from organizations throughout the United States. The questionnaire requested demographic information about the organization (8 items), information about the rate of employees' participation in the organization's fitness program (1 item), and information about the occurrence of specific behaviors relevant to management activities in the categories of modeling, coaching, and reinforcing. Items on the questionnaire were coded so that four items measured modeling, 15 measured coaching, and five measured reinforcing as these management practices are defined by Leddick (1990). Survey methods and correlational analyses were used to explore the relationship between management support activities (predictor variables) and participation in corporate fitness programs (criterion variable) in a sample of organizations selected from the 1992-1993 Membership Directory for the Association of Worksite Health Promotion. The questionnaire and the letter of introduction that accompanied it are included in Appendix B.

#### Population and Sample

The population of interest comprised individuals who, in 1992-1993, were members of the Association for Worksite Health Promotion. The Mission Statement of that organization is:

To advance worksite health promotion throughout the world. The Association for Worksite Health Promotion is dedicated to enhancing the personal and organizational health and well-being of employees and their families. (Association for Worksite Health Promotion, 1994, p. 3).

According to the membership guidelines of the organization, a Professional Member, "Shall be an individual dues paying member who provides educational development, management services, or evaluations of worksite health promotion programs" (Association for Worksite Health Promotion, 1994, p. 140). Given the avowed mission of the Association for Worksite Health Promotion and its membership guidelines, it would appear that its members should have a keen interest in promoting employee health and wellness through employment-based programs. Because, they might be more willing, and better able, to respond to a questionnaire requesting information about fitness programs than representatives of organizations selected in some other way, this membership was used as the population for this study.

Members of the Association for Worksite Health Promotion are linked to one of seven separate affiliations: (1) academic, (2) corporate, (3) consultant service, (4) hospital, (5) private fitness, (6) health fitness facility, or (7) private clinic. The survey was sent to people listed as corporate affiliated Professional Members of the Association, and they were asked to respond to the questionnaire not in terms of their individual management activities, but in terms of those characteristic of executive-level management throughout the organization. Thus, the unit of analysis is at the organizational, not individual manager, level.

The population ( $N=833$ ) included all Professional Members listed as belonging to a corporate organization in the 1992-1993 Membership Directory for the Association of Worksite Health Promotion. From this population, 400 participants (48%) were randomly selected by pairing names and numbers in alphabetical and numerical order, then selecting numbers (and corresponding names) from a table of random numbers

(Ary, Jacobs, & Razavieh, 1990). The ability to apply the correlations to the population of 400 potential respondents depended on the percent of questionnaires completed and returned.

### Variables

No instrument appropriate for obtaining the desired information was available. Therefore, one was developed for the present study. The criterion variable, participation rate, was operationally defined as the number of employees in a work unit who were eligible to participate in fitness/exercise programs divided by the number of employees who participated in such programs at least three times a week, times 100. As the respondent organization may have multiple sites (i.e., corporate headquarters and various divisions), for the purpose of this study respondents were asked to provide responses for the work unit that directly received the benefits of their position. This measure is percentage participation. It was obtained by considering responses to open-ended questions concerning: (a) number of eligible employees (item 7), and (b) number of eligible employees who participated three times a week (item 8).

There were four predictor variables. These were levels of total management support for fitness, and levels of support in each of the three individual areas of modeling, coaching, and reinforcing. To quantify support in each area, respondents evaluated particular items on a 5-point Likert scale, where a score of 1 indicated that management never engages in such behavior, 3 indicated that management usually engages in such behavior, and 5 indicated that management always engages in such behavior. Total scores in each of the three management areas were determined by summing ratings for the items in each area. The fourth variable, total management support, was quantified and standardized by dividing the total coaching score by three and then adding it to the total scores for the reinforcing and modeling areas.

### Questionnaire Development

Development of the 24 items used to index overall support, and support in the three areas of concern, was based on descriptions of specific management support activities described as important in two or more published articles (see Table 1). Each item described a specific behavior that was listed in two or more of these sources as an important indicator of "management support." In these sources they were not, however, specifically differentiated as examples of modeling, coaching, or reinforcing. This differentiation was done by the author, using the definitions and examples put forth by Leddick (1990). Of the 24 items, four were considered primarily to indicate the use of modeling, 15 to indicate the use of coaching, and five to measure reinforcing.

The inclusion of 15 coaching items reflects, in part, the fact that coaching, as viewed by Leddick (1990), comprises three general activities: instructing, directing, and prompting. Modeling and reinforcing, in contrast, are unitary in his view. Because coaching comprises three different activities, it was not possible to sample those activities adequately with 5 items.

The assessment instrument used in the study was a refined version of a similar, first draft, instrument. The initial version was modified in response to evaluative comments from a senior-level psychologist and a senior-level evaluation specialist, and 15 graduate students in educational leadership, all at Western Michigan University. The senior-level professionals were asked whether the instrument was (a) constructed adequately, (b) practical, and (c) valid. The graduate students were asked whether it was understandable and user friendly. In general, the initial instrument was favorably rated by both the professionals and the students, but some minor changes were made in the instrument to improve clarity.

To determine whether Leddick's (1990) definitions were adequate to allow independent observers to agree in assigning the 24 items used in the present study to the three categories (coaching, modeling, and reinforcing), a senior-level psychologist was given a packet containing Leddick's definitions and the 24 items, and asked to assign each item to one of the three categories by writing the appropriate category name beside the item. This was done independently (i.e., in the absence of other people). After the rating was completed, results were compared to those generated by the author. Each of the ratings agreed. Thus, interobserver agreement was 100%, which provides evidence of the validity of the assignment of items to categories.

#### Procedures

On April 1, 1994, all selected individuals were mailed the questionnaire and a letter of introduction (see Appendix B) asking them to respond based on their perception of executive-level management behaviors present in their organization.

Upon completion, the questionnaire could be folded, stapled, and mailed, pre-addressed and pre-postage paid to the researcher at Western Michigan University. A decision was made to include only responses received by August 1 in the data analysis; none were received after that time, hence this criterion was not relevant. Because all responses were anonymous, it was not desirable to send a follow-up letter requesting return of questionnaires, lest such prompts go to (and perhaps offend) people who had responded.

The total number of questionnaires received was determined and demographic information (e.g., number of employees, geographic location, time the wellness program had been in operation) was recorded for each questionnaire. Moreover, each



Table 1  
Individual Questionnaire Statements and  
Their Related Sources

Questionnaire Statement	Sources
Specifies measurable definitions of programs outcomes	Harris, 1991 Manuso, 1983 Yeomans, 1982
Organizes and monitors program planning teams	Leddick, 1990 Rost, Connel, Schectman, Barzilai, & Fisher, 1990
Provides clear program direction	Gebhardt & Crump, 1990 Green, 1989 Thompson, 1990
Requires program staff to produce evidence of program quality and efficiency	Phillips, 1978 Reinertsen, 1983 Rost et al., 1990 Yeomans, 1982
Sends letter to employees announcing initiation of new programs	Maysey, Del Gimare, & Kronenfeld, 1988 Rost et al., 1990
Initiates employee focus groups for input into program goal development	Leddick, 1990 Reinertsen, 1983
Uses program language correctly to describe current program issues	Leddick, 1990 Yeomans, 1982
Provides reinforcers for participant behavior change over an extended period of time	Thompson, 1990 Yeomans, 1982
Approves use of company time for participation in fitness/exercise program	Green, 1989 Rost et al., 1990 Sorenson, 1990 Thompson, 1990
Provides use of company resources for fitness/exercise programs	Green, 1989 Thompson, 1990 Yeomans, 1982

Table 1 -- Continued

Questionnaire Statement	Sources
Approves publication of program offerings and announcements	Green, 1989 Sorenson, 1990 Thompson, 1990 Yeomans, 1982
Participates in early phases of new program development	Phillips, 1978 Yeomans, 1982
Is actively involved in decision-making related to programs	Gettings & Maddox, 1988 Yeomans, 1982
Provides clear description of opportunities for the programs within the organization	Kaney, 1991 Jacobson, Yenney, & Bisgard, 1990 Thompson, 1990
Is concerned with improving the health and well-being of employees	Chang & Boyle, 1989 Goman, 1993 Jacobson et al., 1990 Thompson, 1990
Actively seeks to incorporate programs into organizational structure	Adams, 1988 Connors, 1992 Kaney, 1991 Gebhardt & Crump, 1990 Thompson, 1990
Explicitly expresses an opinion that recognizes programs as corporate investments	Adams, 1988 Chang & Boyle, 1989 Goman, 1993 Jacobson et al., 1990
Sends letter to employees encouraging program participation	Maysey et al., 1988 Rost et al., 1990 Sorenson, 1990
Utilizes group process to support individual attempts to change	Leddick, 1990 Reinertsen, 1983
Practices the same skills being required of participants	Green, 1989 Phillips, 1978
Approves budget for tangible incentives given for successful participation	Gettings & Maddox, 1988 Sorenson, 1990

Table 1 -- Continued

Questionnaire Statement	Sources
Provides work-time flexibility for participation	Rost et al., 1990 Sorenson, 1990
Personally attends company-wide events	Sorenson, 1990 Yeomans, 1982
Personally recognizes individual participants' attempt to change lifestyle behaviors	Phillips, 1978 Sorenson, 1990 Yeomans, 1982

questionnaire was scored with respect to (a) reported participation rate, (b) total score on the 24 management support items, (c) total score on modeling items, (d) total score on coaching items, and (e) total score on reinforcing items. Because each item dealing with management support (modeling, coaching, and reinforcing) could be scored from 1 to 5, for a single organization the possible range of scores in a category varied from 1 to 5 times the number of items in that category. As the number of items for each category differed, scores were standardized to allow valid comparisons to be made. Modeling had four items, coaching had fifteen items, and reinforcing had five items. Therefore, the range of scores for total management support was 60 to 300  $\{[(1 \times 4) \times 5] \text{ to } [(5 \times 4) \times 5] + [(15/3 \times 1) \times 4] \text{ to } (15/3 \times 5) \times 4\} + [(1 \times 5) \times 4] \text{ to } (5 \times 5) \times 4\}$  the range for modeling was 20 to 100  $[(1 \times 4) \times 5] \text{ to } [(5 \times 4) \times 5]$ , the range for coaching was 20 to 100  $[(15/3 \times 1) \times 4] \text{ to } [(15/3 \times 5) \times 4]$ , and the range for reinforcing was 20 to 100  $[(1 \times 5) \times 4] \text{ to } [(5 \times 5) \times 4]$ . Four questionnaires were returned with no information provided for one or two items dealing with specific management activities. Only those questionnaires with complete responses were included in the data analysis. Given this related to only 4 of 157 responses, it is judged that this did not unduly

compromise the results. This tactic is consistent with guidelines described in an accepted educational research text (Borg & Gall, 1983).

### Data Analysis

To determine whether participation rates were related to total management support, and to support in any of the three areas, Pearson product-moment correlation coefficients were calculated between participation rates and the total management scores, and each of the support scores of coaching, modeling, and reinforcing. This was the primary mode of data analysis, and the only statistical analysis conducted. Further information about this analysis is provided in Chapter IV. Bar graphs relating particular demographic characteristics to return rates and mean reported participation rates were prepared and analyzed visually to summarize demographic characteristics of the sample and to determine whether particular demographic characteristics were obviously related to return or participation rates.

## CHAPTER IV

### RESULTS

#### Overview

In this chapter, data are reported concerning survey return rates, demographic characteristics of the sample, management support practices and participation rates, and the relation between level of support (overall and in the areas of modeling, coaching, and reinforcing) and reported participation rates. Data are also analyzed as a function of specific characteristics of organizations and reported participation rates (e.g., size and location of organization).

A return rate of 39.25% ( $n = 157$ ) was obtained from the selected population of organizations. Participation rates differed substantially across organizations; the average was about 20%. Direct relationships (correlations different from zero) were obtained between total management support scores and participation rates. The correlations between participation rates and coaching as well as reinforcing, was greater than zero. A correlation between participation rates and the size of the organization, were greater than zero. Based on a power analysis described by Cohen (1987), and a sample size of 140 (conservative table value nearest to the 157 questionnaires received), power ranged from 77 to 96%.

#### Return Rates

After four months, 157 completed questionnaires were received. This number equals 39.25% of the total questionnaires mailed. Eight questionnaires, 2% of the

total, were returned as undeliverable, and 11 (2.75% of the total) were returned unanswered. Each unanswered questionnaire was accompanied by a note explaining that the person queried was not able to provide the requested information, either because he or she was no longer with the organization (1 case), the respondent functioned as a consultant and had multiple client sites (3 cases), or the organization offered only educational programs, not fitness programs (7 cases). Additionally, some questionnaires were only partially completed and therefore not used in the data analysis (4 cases). Of the questionnaires received, 85.35% were usable.

### Characteristics of the Sample

Of the respondents, 114 identified themselves as directly involved in fitness management, 10 in human resources management, and 10 in "other" management positions. Four respondents did not indicate their position within the organization. During the sampling of the population, if an organization was selected that has already been chosen, the researcher omitted the selection (and corresponding potential respondent) and went to the next selection in the membership listing as directed by the table of random numbers, thereby eliminating the possibility of over representing an organization.

Figure 1 shows the number of respondents for each organization size specified in the questionnaire. Each unit size was represented by at least 8 respondents. The largest number of respondents, 49 (35.7% of the total) was involved with organizations of more than 3,000 employees. Responses were received from all geographical regions of the United States. Overall, 11 responses (8%) were from the Northwest, 25 (18.2%) from the Southwest, 41 (29.9%) from the Midwest, 36 (26.3%) from the Northeast, and 22 (16.1%) from the Southeast. Two of the respondents (1.5%) did not identify a geographical location. Forty-five (32.6%) of the

respondents reported that their organization produced a product, whereas 85 (61.6%) reported that their organization produced a service. Eight (5.8%) did not respond to this item.

Sixty-six (47.8%) of the respondents indicated that their organization provided free on-site exercise facilities. Sixty-five (47.1%) reported that the cost of on-site exercise was shared by the organization and employees. Six (4.3%) reported that the organization paid the full amount of off-site utilization fees. Thirty-five (25.4%) of the respondents indicated that off-site utilization fees were shared by the organization and employees. (Thirty-five respondents reported more than one type of program was offered in their organization, thus percentages total over 100.)

The percentage of the utilization fee incurred by employees for on-site subsidized facilities ranged from 3 to 100%; the average was 36.8%. The percent of

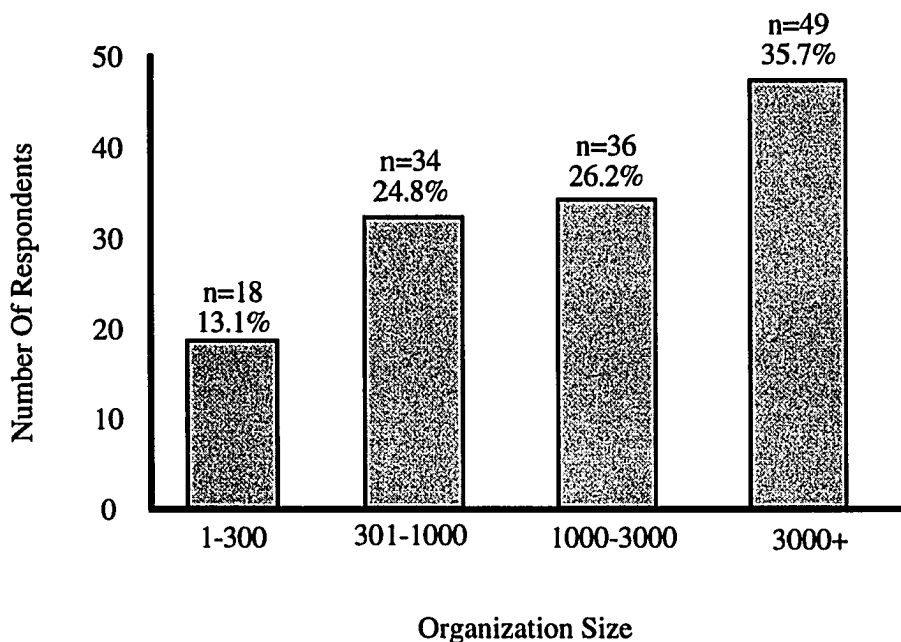


Figure 1. Number of Respondents for Each Organization Size.

the utilization fees incurred by employees for off-site subsidized facilities ranged from 10 to 80%; the average was 41.2%. On average, exercise programs had been in existence for 7.3 years; the range was from 1 to 34 years.

Reported participation rates in fitness programs ranged from 2 to 67%; the mean was 20.7%. (Twenty respondents did not report participation rates). Figure 2 shows the number of respondents reporting particular participation rates. In this figure, participation rates are grouped into seven categories: 0-10% (36), 11-20% (35), 21-30% (19), 31-40% (16), 41-50% (6), 51-60% (5), and 61-70% (1). The greatest number of respondents reported participation rates in the 0-10% and 11-20% categories; collectively, these rates were reported by 71% of the respondents. Figure 3 shows the participation rates in relation to organization size (number of employees). The highest rates were reported in organizations of less than 1000 employees, while lowest participation rates were found in the two largest organization categories.

Table 2 shows correlations between participation rates and organization size, and participation rates and length of time the program has been in existence. The

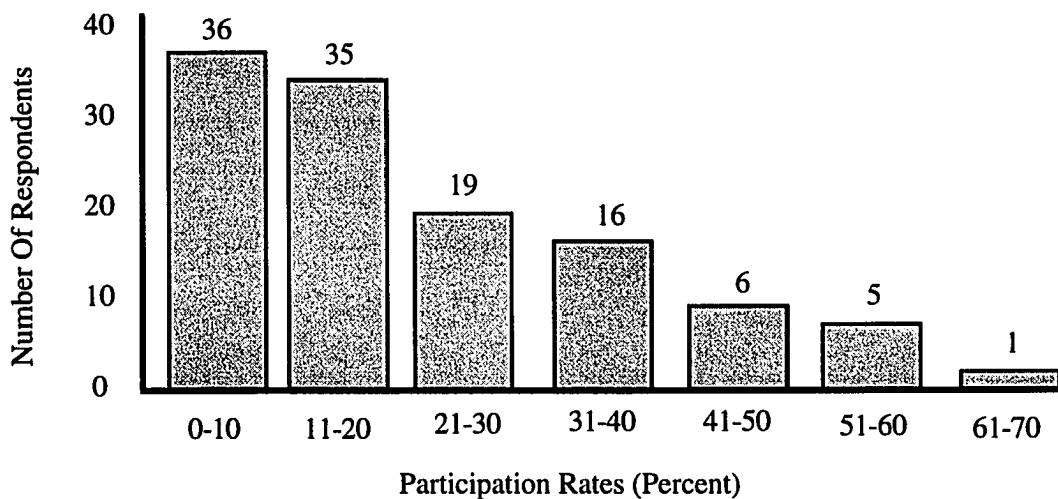


Figure 2. Number of Respondents Reporting Particular Participation Rates.



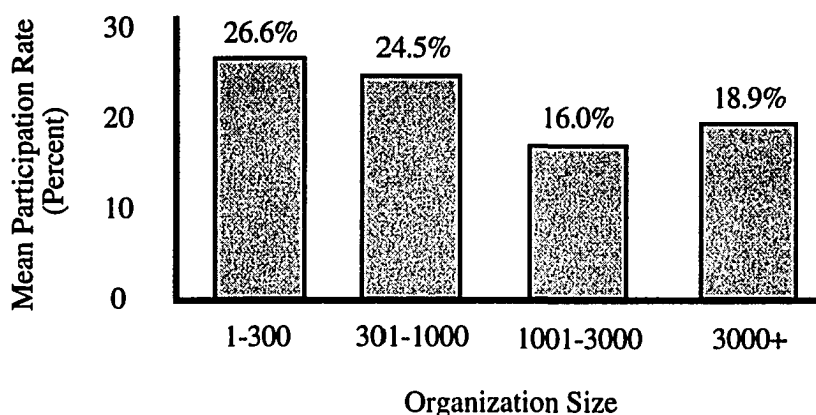


Figure 3. Participation Rates According to Organization Size.

highest rates were reported in organizations of less than 1,000 employees, while the lowest participation rates were found in the two largest organization categories. Scores in each of the three areas were related to the size of the organization, in that the larger the organization, the lower the participation rate.

Figure 4 depicts participation rates as a function of the length of time that organizations' wellness programs had been in existence, with the latter variable shown

Table 2

Correlation Coefficients for the Size of Organization and for the Length of Time the Program Has Been in Existence

Correlation Categories	Correlation	p Value
Participation Rates and the Size of the Organization	-.18	.047*
Participation Rates and Length of Time Program Has Been in Existence	.002	.641

\*p < .05

in 5-year intervals. Most of the programs (76%) had been in existence less than 10 years. Ninety-four percent (94%) of all programs have come into existence in the past 15 years, a finding that underscores the newness of the wellness trend. There was no detected relationship between the time programs had been in effect and participation rates (see Table 2). Although it appears that the participation rate is relatively high for programs that were in effect 21-25 years, there was only a single entry in that category. management support scores in the area of coaching are directly related to participation rates ( $r > 0$ ), and (4) management support scores in the area of reinforcing are directly

#### Primary Findings and Relationship to the Study Question

As stated in Chapter I, four hypotheses were presented: (1) total management scores are positively related to participation rates ( $r > 0$ ), (2) management support scores in the area of modeling are directly related to participation rates ( $r > 0$ ), (3)

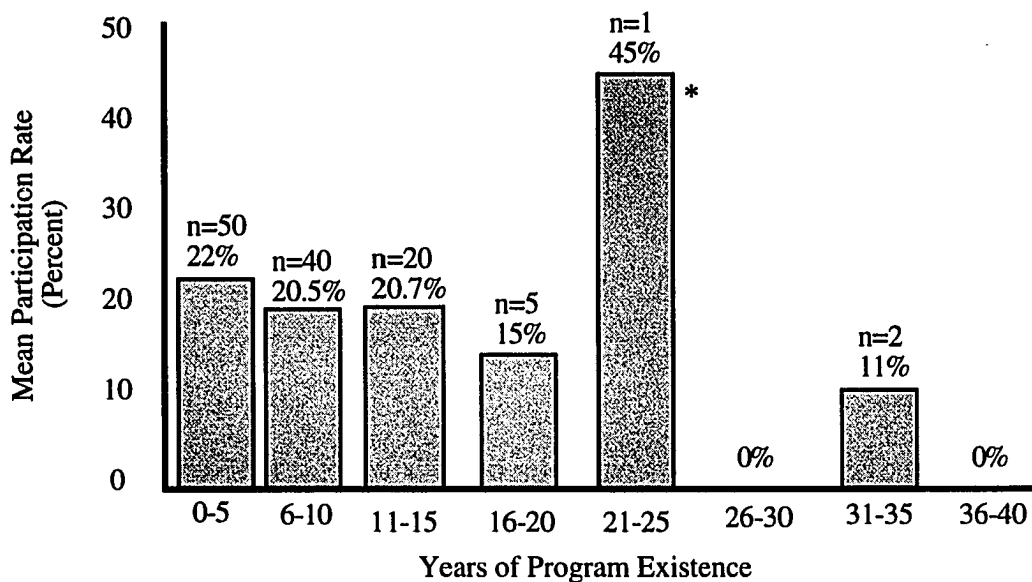


Figure 4. Participation Rates as a Function of Years of Program Existence.

related to participation rates ( $r > 0$ ). The null hypotheses were: (1) the correlation between total management scores and participation rates are equal to zero ( $r = 0$ ), (2) the correlation between management support scores in the area of modeling and participation rates are equal to zero ( $r = 0$ ), (3) the correlation between management support scores in the area of coaching and participation rates are equal to zero ( $r = 0$ ), and (4) the correlation between management support scores in the area of reinforcing and participation rates are equal to zero ( $r = 0$ ). The total level of management support for fitness activities was determined by summing responses to the coaching items, divided by three, and the total modeling and reinforcing questionnaire items, each rated from 1 (never) to 5 (always). With this scoring system, an organization with management that was reported to provide absolutely no support for fitness would score 60  $\{[(15/3 \times 1) \times 4] + [(4 \times 5) + (5 \times 4)]\}$ , whereas an organization with management that was reported to provide the maximum possible level of support would score 300  $\{[(15/3 \times 5) \times 4] + (20 \times 5) + (25 \times 4)\}$ .

Standardized total support scores ranged from 76 to 300, with a mean of 179.59. Figure 5 shows the percentage of respondents who reported total management scores in the categories of 0-60, 61-120, 121-180, 181-240, and 241-300. From most to least entries, the levels of total support were 121-180, 181-240, 241-300, 61-120, and 0-60.

Levels of support in the management categories of, modeling and reinforcing, were determined by summing responses for all questions relevant to those categories. Level of support in the management support category of coaching was determined by summing responses for questions relevant to coaching and dividing the total by three. There were 15 items relevant to coaching, four relevant to modeling, and five relevant to reinforcing, thus scores in these three categories could range from 20 to 100.

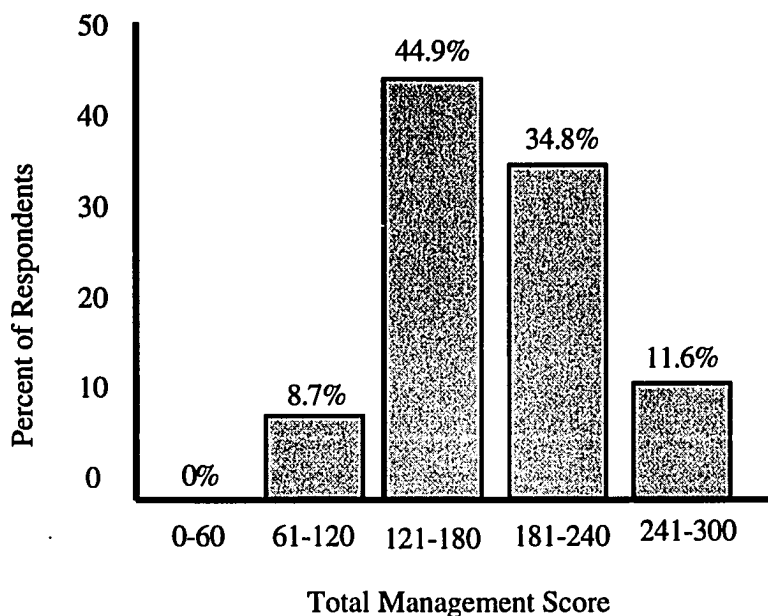


Figure 5. Percent of Respondents Who Reported Particular Total Management Scores.

Across all respondents, the mean score for coaching was 57.02; the range was 20 to 100. For modeling, the mean was 60.39, and the range was 20 to 100. The mean score for reinforcing was 62.17. Scores in this category ranged from 20 to 100 also (see Table 3).

To determine whether there was any relationship between participation rates and total management support, or support in any of the three areas, Pearson product-moment correlation coefficients were calculated between participation rates and the total management scores, and each of the support scores of coaching, modeling, and reinforcing. The null hypotheses for each of the four hypotheses presented were tested for significance ( $p = .05$ ). Obtained results are summarized in Table 4.

As indicated in Table 4, in three cases the  $p$  value is less than the alpha of .05. Consequently, the corresponding null hypotheses are rejected and one may conclude

**Table 3**  
**Scores by Management Support Activity**

Management Support Categories	Mean	Range
Coaching	57.02	20-100
Modeling	60.39	20-100
Reinforcing	62.17	20-100

that participation rate is related to total management support, coaching by management, and reinforcing by management. Regarding the relationship between modeling by managers and participation rate the null hypothesis, that no relationship exists, could not be rejected.

The question of interest in the present study was: Is there a relation between reported level of management support for participation in corporate fitness programs and reported rate of employees' participation in such programs? In sum, the present findings suggest that overall management support for fitness activities was positively, although not strongly, related to reported participation rates.

In general, the present findings suggest that organizations with strong management support for fitness-related activities have higher levels of employee participation in those programs than do organizations that provide less support for such activities, although this is not a strong relationship. For example, consider what happens when participation rates for the five organizations with the highest reported

**Table 4**  
**Correlation Coefficients for Each Category**

Correlation Categories	Correlations	p Value
Total Management Support and Overall Participation Rates	.22	.02*
Participation Rates and Overall Modeling Scores	.13	.155
Participation Rates and Overall Coaching Scores	.23	.02*
Participation Rates and Overall Reinforcing Scores	.32	.001*

\*p <.05

level of management support are compared to participation rates for the five organizations with the lowest reported level of management support (see Table 6).

The former organizations had total standardized management support scores of 300, 269, 266, 266, and 262, with a mean of 272.6 (see Table 5). Participation rates for those organizations were 10, 3, 23, 23, and 48%, respectively; the mean was 21.4%. The latter organizations had total standardized management support scores of 76, 84, 85, 94, and 106, with a mean of 89. Participation rates for those organizations were 15, 4, 3, 10, and 4, respectively; the mean was 7.2% (see Table 6).

While there was a tendency for participation rates to be higher in the five organizations that provided the most management support as compared to the five organizations that provided the least, it is noteworthy that there was overlap in the distributions. In fact, an organization with a total management score of 269, the second-highest recorded, had a participation rate of 3%. That same participation rate

Table 5

**The Five Highest Total Management Scores and  
Their Corresponding Participation Rates**

Management Score	Participation Rate
300	10
269	3
266	23
266	23
262	48
Mean	272.6
	21.4%

Table 6

**The Five Lowest Total Management Scores and  
Their Corresponding Participation Rates**

Management Score	Participation Rate
76	15
84	4
85	3
94	10
106	4
Mean	89%
	8.0%

was obtained for an organization with a total management score of 85 the third-lowest recorded. Looking at extreme scores on the predictor variable reveals the same kind of information that is evident across all scores: There is a real, but far less than perfect, relation between the total management scores and participation rates. In fact, given that magnitude of the correlation between the two variables (0.264), only 0.069 (0.264<sup>2</sup>) of the variance in the former variable can be accounted for in terms of differences in the latter variable.

## CHAPTER V

### DISCUSSION AND CONCLUSIONS

#### Overview

Employee fitness programs can produce significant gains in the physical and psychological health of employees (Gettings & Maddox, 1988; Stasica, 1990), helping them to be more productive and more profitable (Behrens, 1985; Bell, 1986; Green, 1989; Thompson, 1990). Despite the advantages of participating in fitness programs to employees and employers alike, relatively low participation rates have been reported in many other studies.

The present study explored the relationship among three dimensions of management support and reported participation rates. As in other studies, participation rates were relatively low. They were found to be related, however, to certain aspects of management support.

The average percentage of employees who participated in fitness programs in the present survey (20.7%) is similar to that reported in previous investigations (Green, 1989; Shephard, 1992), and is low enough to be considered a problem (Sorensen et al., 1992). According to respondents in this study, nearly 80% of the workers in their organizations did not participate in fitness programs, despite the potential benefits of doing so. There were, however, sizable differences in participation rates across the different organizations surveyed; reported participation rates ranged from 2 to 67%. Substantial variations in participation rates across organizations have also been observed in other studies (Green, 1989).



Participation rates were inversely related to organization size, that is, the larger the organization, the lower the participation rate observed. This finding is surprising, given that it might be assumed that large organizations would have more resources devoted to fitness programs. The present data, however, fail to support this assumption. Neither willingness to support fitness programs financially nor level of management support provided differed as a function of organizational size.

Also surprising in the present data was the absence of a clear relationship between the length of time a fitness program had been in effect and the percentage of workers who participated in the program. It is well established that many workers begin participating in newly established fitness programs, but terminate their involvement as time passes (Lynch & Main, 1993). Given this, it might be expected that participation rates in the present study would vary inversely with the period of time that fitness programs were in effect. Such a relationship was not observed.

The greatest wave of enthusiasm for, and early drop-out from, fitness programs characteristically occurs soon after the program is introduced. For example, Lynch and Main (1993) evaluated employees' participation in a fitness program at a large, corporate facility. Employees who visited the exercise facility at least two times per month were considered frequent users, and those who never visited were considered non-users. In the first six months, the percentage of frequent users declined from 38.7% in month one to 22.1% in month six. The number of non-participants rose over the same period, from 15.2 to 35.6%. Such effects were not detected in the present study.

The fact that Lynch and Main (1993) considered people who exercised at least two times per month as "frequent users" is interesting. Most experts recommend a minimum of three aerobic workouts per week to enhance fitness and health (e.g., Cooper, 1982; Galloway, 1984), and this value was used to define participation in the

present survey. Other researchers, however, have used other criteria, and this must be kept in mind when comparing participation rates across studies.

Regardless of how participation is defined, there is good reason to ascertain the variables that contribute to it. In recent years, it has been generally acknowledged that effective fitness programs, that is, those that foster participation and produce benefits to employees and the organization alike, must have the support of top management, both philosophically and financially (Connors, 1992). One element commonly emphasized as a prerequisite for success is management support, which is assumed to be a prerequisite for success (e.g., Brennan, 1981; Gettings & Maddox, 1988; Hallett, 1988). Although this assumption is reasonable, it is somewhat oversimplified and not strongly supported by empirical data.

#### Relation of the Current Findings to Prior Research

To date, no one has demonstrated that the degree of success of fitness programs is directly related to the degree of management support provided. Although management support is known to foster changes in employee behavior in many situations (e.g., Covin & Kilmann, 1990; Hays, 1984; Kaney, 1991; Warshauer, 1990), and an absence of support has been implicated as a cause of failure in organizational change programs (Covin & Kilmann, 1990), the present survey appears to be the first attempt to relate quantitative measures of fitness program success and management support.

It did so both with respect to overall level of management support, and with respect to support in the three specific areas of coaching, modeling, and reinforcing. Management behaviors in these specific areas have been implicated as important for fostering change in employees' behavior (Covin & Kilmann, 1990; Leddick, 1990), and were measured for this reason. Although the best managers appear to use

coaching, modeling, and reinforcing to affect their employees' actions, many do not, and organizations differ in their formal and informal support for such management practices (Covin & Kilmann, 1990). Thus, it was of interest to assess whether management activities in these three areas were related to participation rates.

The most important result of the present study was in documenting the presence of a positive, albeit rather low (approximately 0.26), correlation between reported level of management support for participating in fitness programs and reported rates of participation in programs in a population of Association of Worksite Health Promotion member organizations that chose to participate in a study such as this one. Other noteworthy findings are that management scores in the areas of coaching and reinforcing, but not modeling, correlated positively with rates of employee participation in fitness programs of organizations that happened to be represented in this study. Although significant, the correlations between coaching scores and participation rates, and between reinforcing scores and participation rates, were rather low. The former correlation was approximately 0.23, the latter, 0.31. The general management literature (e.g., Covin & Kilmann, 1990; Leddick, 1990), the training and development literature (e.g., Finnegan, 1991; Hays, 1984; Janson & Gunderson, 1990; Kaney, 1991; Kusy, 1988; Phillips, 1978; Warshauer, 1990), and the organizational behavior management literature (e.g., Poling et al., 1992) support the effectiveness of coaching and reinforcing as behavior-change interventions, thus the fact that activities in these areas were related to participation rates is not surprising.

Modeling, too, has been shown to be effective in changing behavior in many situations (e.g., Bandura, 1969; Covin & Kilmann, 1990; Leddick, 1990). Why scores in this areas were not significantly significant ( $p = .155$ ) to participation rates is unclear. One possibility, however, is that in many organizations employees may not have the opportunity actually to observe the fitness-related activities of managers.

Modeling presupposes observation (Bandura, 1969), and this prerequisite may have been absent in many of the organizations surveyed.

### Limitations of the Present Study

It is possible that stronger relationships between management support activities and participation rates actually exist and that the correlations obtained in this study underrepresent the relationships. One possibility, intrinsic to all questionnaire research, is that the reported data do not accurately portray the variables of interest. It is certainly possible that respondents were unaware of, or intentionally misreported, employee participation rates or management practices. Many companies do not collect data on participation in fitness programs; the best a respondent could offer in such cases is an estimate. Similarly, most respondents probably had no data concerning specific management practices, and could only offer estimates of them. Put simply, the present study dealt with respondent's perceptions of the predictor and criterion variables, and those perceptions may have been inaccurate.

Given that responses were anonymous, there was no obvious inducement for respondents to report particular management practices or participation rates, although some may have done so "to please themselves." As an example, a questionnaire in which the total reported management score was 70 and the reported participation rate was 10% was completed by a respondent in the "other" category; specifically, the president and owner. This person was reporting on her or his own management practices, in all likelihood, and may have exhibited a positive bias.

Because a wide range of management support was reported, it does not appear that selecting respondents from The Association for Worksite Health Promotion resulted in consistently exaggerated estimates of management support. It is the case, however, that sending the questionnaire only to organizations that employ such

individuals did result in sample bias. There may well be more overall cultural support for employees' participating in fitness and wellness activities in organizations that hire members of The Association for Worksite Health Promotion, although the relatively low participation rates found in the present study do not support this proposition. Organizations that hire such people may, however, differ from organizations that do not in other significant ways. Obviously, it is inappropriate to generalize the present results beyond the population from which the sample was selected.

Issues of reliability and validity vex many survey researchers (Dillman, 1978; Nederhof, 1985), and are especially relevant to the present study, which employed a new instrument of unknown psychometric quality. Because it was based on behaviors described in the literature as important, the researcher assigned a different number of items to the three specific categories of interest.

Although the proportion of surveys actually returned was consistent, albeit low, with that often reported in such studies (Dillman, 1978; Nederhof, 1985), most potential respondents in the present study failed to return the questionnaire. This raises issues of sample bias. Perhaps those individuals who completed and returned questionnaires are in some sense different from those who failed to do so. If this is the case, generalizing from the sample to the population is inappropriate and therefore the low percent of responses raises questions about to whom these results apply.

As stated in Chapter III, a follow-up to non-respondents was not done because all responses were anonymous, and it was not desirable to send a follow-up letter requesting return of questionnaires, lest such prompts go to (and perhaps offend) people who had responded. The lack of follow-up not only limits the sample size, it also makes generalization of results to those outside the respondents difficult.

Most likely, variables other than level of management support undoubtedly will affect employees' participation in fitness programs. Among those variables are their

age, working conditions, type of job, and educational level (O'Donnell & Harris, 1994). Such potential extraneous variables were not evaluated or controlled for in the present study, which probably influenced obtained relationships between criterion and predictor variables.

A final limitation of the present study is that the three categories of management support, modeling, coaching, and reinforcing, are overlapping, and it is not foregone that these activities were adequately differentiated by the questionnaire. The 24 activities represented by the questionnaire are generally recognized as important management support activities (Gettings & Maddox, 1988; Leddick, 1990; Phillips, 1978; Rost et al., 1990), but it may be difficult or impossible to assign them in a meaningful way to a particular category of management support. Doing so may, in fact, be relatively unimportant, because the best success in changing employee behavior appears to be attained when management support is based on application of modeling, coaching, and reinforcing in combination (Leddick, 1990). From this perspective, the most important predictor variable in the present study is total level of management support which was standardized to give equal weight to the three categories.

Despite its limitations, the present study provides general empirical support for the proposition that management support has a slight positive relationship to employee's fitness-related activities. Support for this assertion has been provided previously in several case studies and theoretical analyses (O'Donnell & Harris, 1994). That further support is evident in the results of the present study, which used rough-and-ready survey procedures and correlation methods, should be reassuring to those committed to the belief that management activities may impact employees' behavior.

## Conclusions

Because many definitions of "participation" in fitness programs have been used, it is difficult to compare meaningfully the rates reported across studies, although they are usually low. Participation rates in the present study also were relatively low overall, but varied considerably across organizations. In general, the highest participation rates were reported in organizations with less than 1,000 employees and the lowest participation rates were found in the two largest organizational categories. There was no statistically significant ( $p = .641$ ) relationship between participation rates and the "age" of fitness programs.

The primary objective of the present study was to examine whether reported levels of management support in three areas, modeling, coaching, and reinforcing, considered alone and in combination, correlated with reported rates of employee participation in fitness activities. Respondents were asked via a questionnaire whether managers at their organization engage in specific activities in each of the three management activities; the activities comprised by modeling, coaching, and reinforcing were based primarily on Leddick's (1990) categorization. Results indicated substantial differences in levels of management support across organizations. Total management support scores, coaching support scores, and reinforcement support scores were positively and significantly ( $p < .05$ ) correlated with reported rates of employees' participation in fitness programs. These correlations were not especially strong, insofar as the shared variance is in all cases less than 7%.

Although the observed correlations were not large, the fact that *any* significant effects were observed is important. Employees' participation in fitness programs is not a behavior for which managers are characteristically held accountable, and may not be strongly motivated to foster such activity. Moreover, although participating in fitness

activities has implications for performance in the workplace, such behavior is personal, and is influenced by many variables unrelated to management support (i.e., socioeconomic status, age, education), and those variables were not controlled in the present study. Given these considerations, it is noteworthy that relationships emerged.

### Implications for Practice

The present study was not applied, but its findings may have two important practical implications. The first implication, and one that also follows from many previous investigations, is that simply providing a corporate fitness center, no matter how expensive or well staffed, is not necessarily adequate for ensuring high rates of employee participation.

The second implication is that, because increasing management support for participating in fitness activity does appear to be correlated with participation, systematic attempts by management to provide such support is warranted. For management to provide such support, appropriate training may be required. Not all managers are trained to model, coach, or reinforce appropriate behaviors of any type, and training in these skills would have benefits beyond enabling them to encourage employees to get fit.

However, even if managers are adequately trained to provide good support for employees' participation in fitness programs, they may not provide such support in the form of directives and incentives from their own supervisors. Similarly, without real incentives, employees may not participate in programs despite the highest levels of management support. The best programs for increasing workers' fitness are apt to be broad spectrum and integrative; management support alone is likely to be insufficient, given the wide range of variables known to militate against participating in fitness programs.



### Suggestions for Future Research

Most likely, variables other than level of management support undoubtedly will affect employees' participation in fitness programs. Among those variables are their age, working conditions, type of job, and educational level (O'Donnell & Harris, 1994). Such potential extraneous variables were not evaluated or controlled in the present study, which probably influenced obtained relationship between criterion and predictor variables. Examining how specific management support practices influence employees' fitness activities in particular kinds of employees is a worthy task for future research.

Although usable, the instrument employed in the present study was less than optimal, for reasons discussed previously, and merits improvement. Questionnaire methods provide a workable procedure for gaining approximate information from a large number of sources, and the present data suggest that management practices are related to employees' participation in fitness programs. The best test of this hypothesis, of course, is experimental: Train managers specifically to model, coach, and reinforce, and check to see whether doing so increases participation. Given the present findings, and the documented effectiveness of modeling, coaching, and reinforcing in instituting large-scale changes in employee behaviors (Covin & Kilmann, 1990; Leddick, 1990), it is likely that such programs would prove successful. Research in this area would be a valuable follow-up to the present project. So, too, would be subsequent studies using a reliable and valid version of the data collection instrument with other populations of interest.

**Appendix A**  
**Management Support Behaviors**

## **MANAGEMENT SUPPORT**

### **MODELING:**

**Management shows  
subordinates how to  
act by acting  
the preferred way**

### **COACHING:**

**Management instructs,  
directs or prompts  
subordinates toward  
desired outcomes**

### **REINFORCING:**

**Management engages in  
deliberate efforts to  
praise specific  
subordinate actions  
and use of specific skills**

## **MANAGEMENT SUPPORT**

### **MODELING:**

**Management shows subordinates how to act by acting the preferred way**

### **COACHING:**

**Management instructs, directs or prompts subordinates toward desired outcomes**

### **REINFORCING:**

**Management engages in deliberate efforts to praise specific subordinate actions and use of specific skills**

- **Uses wellness and health promotion language correctly**
- **Personally attends programs**
- **Practices skills/behaviors required of participants**
- **Contributes to development of program goals**
- **Demonstrates behaviors consistent with those endorsed by programs**
- **Clearly demonstrates support and commitment**
- **Links programs' goals to overall organizational goals**
- **Clearly communicates programs' expected outcomes**

## **MANAGEMENT SUPPORT**

### **MODELING:**

**Management shows subordinates how to act by acting the preferred way**

### **COACHING:**

**Management instructs, directs or prompts subordinates toward desired outcomes**

### **REINFORCING:**

**Management engages in deliberate efforts to praise specific subordinate actions and use of specific skills**

- **Provides enthusiastic endorsement and approval of programs**
- **Monitors and evaluates programs' outcomes**
- **Announces programs and encourages participation**
- **Provides adequate resources for programs**
- **Approves publication of programs' offerings**
- **Requires that cost analysis techniques are applied to programs**

## **MANAGEMENT SUPPORT**

### **MODELING:**

**Management shows subordinates how to act by acting the preferred way**

### **COACHING:**

**Management instructs, directs or prompts subordinates toward desired outcomes**

### **REINFORCING:**

**Management engages in deliberate efforts to praise specific subordinate actions and use of specific skills**

- **Approves a reward system for employee change**
- **Approves use of company time for employee participation**
- **Reinforces employees' newly developed behaviors**
- **Provides resources for tangible incentives to foster participation**
- **Approves payment of programs' expenses partially or entirely**

**Appendix B**  
**Questionnaire and Cover Letter**

Circle the number of employees in your work unit (group which directly benefits from your services):

1-100    101-300    301-500    501-800    801-1000    1001-3000    3000+

Circle the geographical location of your work unit:

Northwest    Southwest    Midwest    Northeast    Southeast

Indicate the product/service your work unit produces: \_\_\_\_\_

Check the fitness/exercise program offered by your organization:

- \_\_\_ On-site exercise facilities provided free to employees
- \_\_\_ On-site exercise facilities subsidized for employees
- \_\_\_ Organization pays full amount of employee off-site utilization fee
- \_\_\_ Organization and individual employee share amount of off-site utilization fee
- Indicate percent of utilization fee incurred by employee \_\_\_\_\_ %

Indicate the length of time the fitness/exercise program has been in existence \_\_\_\_\_

Indicate the number of employees in your work unit eligible to participate in the fitness/exercise programs \_\_\_\_\_

Indicate the number of employees in your work unit who utilize the exercise facilities an average of 3 times per week \_\_\_\_\_

**FOR THE FOLLOWING STATEMENTS, PLEASE CIRCLE THE NUMBER THAT BEST REPRESENTS THE BEHAVIOR DEMONSTRATED BY EXECUTIVE MANAGEMENT IN YOUR ORGANIZATION**

Executive Management is defined as the highest or leading positions in your organization

**1=Never**  
**3=Usually**  
**5=Always**

**Program Evaluation:**

- Specifies measurable definitions of program outcomes 1 2 3 4 5
- Organizes and monitors program planning teams 1 2 3 4 5
- Provides clear program direction 1 2 3 4 5
- Requires program staff to produce evidence of program quality and efficiency 1 2 3 4 5

**Program Support:**

- Sends letter to employees announcing initiation of new programs 1 2 3 4 5
- Initiates employee focus groups for input into program goal development 1 2 3 4 5
- Uses program language correctly to describe current program issues 1 2 3 4 5
- Provides reinforcers for participant behavior change over an extended period of time 1 2 3 4 5
- Approves use of company time for participation in fitness/exercise program 1 2 3 4 5
- Provides use of company resources for fitness/exercise programs 1 2 3 4 5
- Approves publication of program offerings and announcements 1 2 3 4 5
- Participates in early phases of new program development 1 2 3 4 5
- Is actively involved in decision-making related to programs 1 2 3 4 5

**Organization Development:**

- Provides clear description of opportunities for the programs within the organization 1 2 3 4 5
- Is concerned with improving the health and well-being of employees 1 2 3 4 5
- Actively seeks to incorporate programs into organizational structure 1 2 3 4 5
- Explicitly expresses an opinion that recognizes programs as a corporate investment 1 2 3 4 5

**Participant Support:**

- Sends letter to employees encouraging program participation 1 2 3 4 5
- Utilizes group process to support individual attempts to change 1 2 3 4 5
- Practices the same skills being required of participants 1 2 3 4 5
- Approves budget for tangible incentives given for successful participation 1 2 3 4 5
- Provides work-time flexibility for participation 1 2 3 4 5
- Personally attends company-wide events 1 2 3 4 5
- Personally recognizes individual participants' attempts to change lifestyle behaviors 1 2 3 4 5



**STAPLE**

68

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April 1, 1994

Dear Colleague:

I am an Ed.D. candidate at Western Michigan University. My doctoral research is an investigation of the relation between executive-level management practices in business and industry and employee participation in company-sponsored health and fitness programs.

As a member of the Association for Worksite Health Promotion, this topic may be of interest to you, and I am asking for your assistance with my work. The enclosed questionnaire requests information about the general characteristics of your company, management practices in your company, and its employee fitness programs. It will take only a few minutes to complete and is stamped and addressed to me for your convenience. Your questionnaire will be evaluated anonymously; neither you nor your company will be identified in my dissertation, or in any publications or presentations resulting from this work.

Promoting healthy lifestyles is of interest to all of us, and I sincerely hope that you are willing to invest your valuable time in my project. Thank you.

Sincerely,

Diane Braatz, M.A.

P. S. If you are interested in my findings, please contact me at the address shown on the questionnaire and I will be happy to provide a summary.

**Appendix C**

**Human Subjects Institutional Review Board Approval**



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WESTERN MICHIGAN UNIVERSITY

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Date: March 21, 1994

To: Diane Braatz

From: M. Michele Burnette, Chair

A handwritten signature in cursive script, reading "M. Michele Burnette", written over the printed name.

Re: HSIRB Project Number 94-03-19

This letter will serve as confirmation that your research project entitled "The level of executive management support behaviors and their effect on participation rates in corporate fitness programs" has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: March 21, 1995

xc: Brinkerhoff, Ed. Leadership

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