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Organizational Stress Management and Resulting Role Implications for the Organizational Health Promotion Professional

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The purpose of this paper was to review and synthesize the available body of research literature concerning the effectiveness of organizational stress management programs. Twenty-four studies are reviewed and an integrated summary of the results is presented. Although 21 of the 24 studies demonstrated a reduction in perceived stress, specific, effective program components have not been identified. A few recent studies reveal significant cost/benefit ratios for organizational stress management. The importance of an organizational, as opposed to individual focus for stress management is discussed, and recommendations for research, programming, and professional preparation are made.

Organizational Stress Management and Resulting Role Implications for the Organizational Health Promotion Professional

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has been approved as meeting the research paper requirements for the Degree of Master of Arts.

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Table of Contents

Title	Page
Chapter I	1
Introduction	1
Statement of the Problem	4
Significance of the Study	4
Limitations	5
Definition of Terms	6
Chapter II -- Review of the Literature	7
Introduction	7
Review of Studies	10
Study Summary and Synthesis	28
Chapter Summary	35
Chapter III -- Implications and Recommendations	36
Recommendations	45
References	47

Chapter I

Introduction

Stress, defined by Hans Selye, as the "nonspecific response of the body to any demand made upon it" (Selye, 1974, p. 27), has long been recognized as both the spice and the scourge of modern life. The stress response allows people to meet demanding pressures and crisis with heightened alertness, large reserves of energy and an enhanced ability to endure. Past an optimal point, however, stress can result in increased illness and a decreased ability to perform.

As experienced on the individual level, there is a growing acceptance within the medical community of the direct connection between stress and such problems as heart disease, hypertension, peptic ulcers, migraine headaches, depression and suicide (Rosen, 1986). Jaffe, Scott and Orioli (1986) also state that stress has been directly linked to almost every common disease from heart disease to flu while Manuso (1984) estimates that 70-90% of the health problems which prompt people to seek attention from their physicians are stress related.

Stress also significantly impacts on organizations and is an increasing concern for today's health promotion professional. In 1978 the President's Commission on Mental Health estimated that one out of every four people in the United States was experiencing severe emotional stress (Report of the President's Commission on Mental Health, 1978). The percentage of employees in the United States experiencing disabling emotional problems has also been estimated as between 8 and 10% (Davis, 1985).

Organizational stress has been identified as being responsible for a high percentage of employee absenteeism, turnover, health claims, worksite accident rates, low productivity, low morale, and diminished performance (Byers, 1987). McLeroy, Green, Mullen and Foshee (1984) included early retirement, poor management, job dissatisfaction, poor employee relationships and changes in the quality of worklife as additional consequences of organizational stress. In the effort to cope with stress, employees may also demonstrate increased use of health and medical services, drug and/or alcohol use, and poor interpersonal relations with co-workers, family and friends.

Job-related stress claims are steadily expanding the liability of the worker's compensation system. In 1984 a 13-state survey conducted by the National Council on Compensation Insurance revealed that, between 1980 and 1982, 11% of the worker's compensation claims filed annually for occupational diseases were stress related (Rosen, 1986). As reported in Action (1987), claims for work-related mental stress, basically unheard of ten years ago, now account for about 14% of all worker's compensation work-related stress claims. Rosen (1986) also reported that in California the number of mental/stress inquires reported to the worker's compensation board more than tripled from 1,282 in 1980 to 4,236 in 1984.

The financial impact of organizational stress is experienced through such direct measures as absenteeism, health claims, turnover, diminished quality of work and diminished job performance. Indirect stress-related costs are measured in morale and motivational problems, communication breakdown, impaired decision making and distrustful employee/management

relations. The total cost to the organization for the combined direct and indirect expenses is not known. Some executives have quoted annual figures of $23-50 billion, equal to the cost of cancer and injuries and exceeding the costs attributed to tobacco and alcohol use (Harris, 1984). A second estimate by Wallis (1983) of the nationwide cost of organizational stress is between $50-75 billion yearly. Already at a very significant level, this expense is expected to continue to increase. A review of stress induced job-health care costs in a California corporation revealed that during the last five years these costs doubled (Wang, Springer, Schmitz, & Bruno, 1987). The combined factors of increased willingness on the part of employees to view their emotional problems as compensable injuries, the increased worker's compensation payments made for stress-related illness, and the direct and indirect costs identified earlier have resulted in estimates of the hidden costs to U.S. business and industry of stress-related dysfunction to be between $100 and $150 billion per year (Manuso, 1984, & Wang et al., 1987).

Individual workers also perceive worksite stress to be a major problem. Control Data Corporation of Minneapolis, Minnesota, reported that in their annual in-house Employee Health Survey the problem "stress/anxiety/tension" is always at the top of the list, having been checked consistently by nearly one-third of all employees each year. Use of the same survey in more than 30 other companies has resulted in stress being "consistently" placed on the top of the list of identified health problems (Jaffe et al., 1986).

The rise in stress-related health care expenses and the concern expressed by employees and managers regarding worksite stress has

resulted in an increased awareness of the impact of stress on individual and corporate health. As corporations struggle to compete in the rapidly evolving business environment, many have come to realize that healthy employees are their most valuable resource. From this perspective, employee health, performance and productivity are inexorably linked. To meet the need for a healthy workforce, appropriate and effective organizational stress management programs must be developed.

Statement of the Problem

The purpose of this study was to review and synthesize the available body of research literature concerning the effectiveness of organizational stress management programs and to explore the resultant implications for the evolving role of the organizational health promotion professional. Specifically, the study was designed to answer the following four questions:

1. What is known about the effectiveness of organizational stress management programs?

2. Have essential stress management program components been identified?

3. What are the program implications for effective organizational stress management?

4. What are the resulting implications for the role of the organizational health promotion professional?

Significance of the Study

The increased interest in stress and its manifestations at the worksite has resulted in the implementation of a wide variety of programs aimed at reducing the negative effects of excessive stress. In a recent

article in a national news periodical, Wang, Springer, Schmitz, and Bruno (1987) went so far as to state that businesses are "scrambling" to incorporate stress management programs. As a result, stress management is fast becoming the boom industry of the decade. In addition to more conventional stress management methods, techniques such as on the job accupressure, trampoline and laughter therapy, and Caribbean cruises are all being tried within the corporate setting. While many employees state that the stress management programs have been helpful, few companies can prove that stress management is cost effective. As Dr. Paul J. Rosch, President of the American Stress Institute, states, "Companies are throwing away millions of dollars on programs that don't work" (Wang et al., 1987, p. 64).

Within the past ten years beginning efforts have been made to evaluate organizational stress management programs. This has been stimulated by the need for a basic understanding of essential stress management program components. As stress management continues to increase in importance within the organizational setting, knowledge of what is effective will become increasingly imperative.

Limitations

Research on the effectiveness of organizational stress management programs has been conducted primarily within the last ten years. Although the number of studies being conducted and reported is increasing, this continues to be a relatively new area of research. Therefore, the review of literature is restricted to available studies conducted since 1979. Due to the relative newness of this area of research, many recently completed studies are in the process of

publication and were unavailable for review. In other instances, brief references have been made to unpublished studies which also were not available for review.

Definition of Terms

For the purpose of this study, the following terms were operationally defined:

1. Organization: "Two or more people working together to achieve a common goal" (Griffin & Moorehead, 1986, p. 20). Within this paper, organization refers specifically to business.

2. Worksite environment: The physical factors present in the work environment. These factors include, but are not limited to, noise, temperature, office layout, and the fit between the employee and his/her workstation, etc.

3. Organizational culture: "A pattern of integrated values, beliefs, and behavioral norms, reinforced by rituals and symbolic actions that affect the functioning of the organization" (Griffin & Moorehead, 1986, p. 634). For the purposes of this paper, management techniques and methods of communication are also included in this area.

Chapter II

Review of the Literature

Introduction

The purpose of this paper was to review and synthesize the available body of research literature concerning the management of organizational stress. Twenty-four studies, beginning with the first study (Newman & Beehr, 1979) designed to demonstrate the potential effectiveness of stress management at the worksite, are presented. The studies are listed chronologically and are described according to the following criteria (as provided): (a) study characteristics including whether the study was preexperimental, quasi-experimental or experimental; (b) stress reduction methods evaluated in the study, (c) outcome measures used, and (d) program effectiveness. In addition, the number of subjects and whether they were volunteer or nonvolunteer, site, program length, program structure, and follow-up evaluation(s) are reported.

Prior to the review of these studies, organizational stress is defined and the main sources of organizational stress are presented. An integrated summary follows the review of literature and major findings are outlined.

Organizational stress has been defined in various ways by different authors during the past decade. French, Rogers, and Cob (1974, p. 72) defined organizational stress as "a misfit between a person's skills and abilities and demands of the job, and a misfit in terms of a person's needs supplied by the environment." Beehr and Newman (1978, p. 669) identified job stress as "a condition wherein job-related factors interact with the worker to change (disrupt or enhance) his/her

psychological or physiological condition such that the person (mind and/or body) is forced to deviate from normal functioning." The importance of the environment in organizational stress is also seen in McGrath's (1976), definition. "Stress involves an interaction of person and environment. Something happens 'out there' which presents a person with a demand, or a constraint or an opportunity for behavior" (p. 1352).

A generally accepted definition of organizational stress (Quick & Quick, 1984, p. 9) is "the general, patterned, unconscious mobilization of the individual's energy when confronted with any organization or work demand." Sethi and Schuler (1984) have identified stress as "a perceived dynamic state involving uncertainty about something important" (p. 36).

While it is recognized that stress may result from events outside the workplace ie: family, community, everyday concerns, etc. the underlying conceptualization of these definitions is that worksite stress results from conditions/demands unique to that setting. Further development of the concepts surrounding organizational stress has been synthesized by Sethi and Schuler (1984) and centers around the following six areas.

1. Organizational stress can be positive or negative depending upon the interpretation of the event or stimulus. Dynamic conditions or potential stressors can be perceived as opportunities, demands, or constraints depending upon the individual.

2. An optimum level of stress exists within individuals and organizations. This optimum stress level will vary among individuals

and organizations with both too little and too much stress resulting in a decrease in performance.

3. Organizational stress results from an interaction between the individual and the environment.

4. Organizational stress can arise from physical as well as social and psychological conditions.

5. Organizational stress includes the concept of the additive nature of stress. As more events are perceived as stressful, the stress experience increases.

6. Organizational stress and the desire for resolution are the result of events which disrupt the equilibrium or homeostasis, physical or psychological, of the individual.

Murphy (1984a) states that the knowledge base in occupational stress is insufficient to accurately identify specific job characteristics and work routines which directly result in employee stress reactions. His view that the job-stress/health relationship is complex and involves the interrelationship of work environment, individual and nonwork factors is shared by other writers in this area (Friedman & Roseman, 1974; Jaffee et al., 1986; McLeroy, Green, Mullen, & Foshee, 1984; Steffy, Jones, Murphy, & Kunz, 1986).

A central framework, however, has been developed by Quick and Quick (1984) which classifies organizational stressors into four primary categories: task demands, role demands, physical demands, and interpersonal demands. Task demands include the decision making and specific work tasks of each particular job. Role demands, on the other hand, include the expectations of others concerning an individual's

position and possible confusion regarding job responsibilities. Physical causes of worksite stress include office design, temperature, and noise, etc. The demands implicit in dealing with co-workers and managers in the course of each workday constitute interpersonal sources of stress.

Review of Studies

The first comprehensive and critical review of both personal and organizational strategies for handling job stress was published in 1979 by John E. Newman and Terry A. Beehr. At the time this review was conducted, Newman and Beehr were able to identify only five studies which they would describe as evaluative studies. These studies had several methodological weaknesses, however, with the result that no firm conclusions could be drawn from the results. The following quote summarizes the conclusion of this review.

> Perhaps the most glaring impression we received from the review was the lack of evaluative research in this domain. Most of the strategies reviewed were based on professional opinions and "related" research. Very few have been evaluated directly with any sort of scientific rigor. In spite of this weak empirical base, many personal and organizational strategies for handling stress have been espoused. Although some of these strategies seem to glow with an aura of face validity, there remains the extremely difficult task of empirically validating their effectiveness. Until this is done, practitioners have little more than their common sense and visceral instincts to rely on as they attempt to develop badly needed preventive and curative stress management programs. (p. 35)

While research up to 1979, with a few exceptions, did not evaluate the effectiveness of specific stress management techniques, Schwartz (1980) states that in the past decade substantial progress has been made in documenting effective behavioral approaches in the management of psychological and physiological responses to stress. It is now known that various behavioral methods including progressive muscle relaxation, meditation, and biofeedback as well as cognitive and self-control oriented procedures can be helpful in treating and preventing stress-related disorders.

The landmark study conducted by Peters, Benson and Porter in 1977 is recognized as the first experimental study to document the benefits of daily relaxation breaks in a working population. The study was conducted at the Converse Rubber Company with 140 volunteers and 54 nonrandom controls. Following a four-week baseline period during which daily stress records were kept and biweekly blood pressure checks were conducted, the 140 volunteers were randomly assigned to one of three groups. Group A was taught to produce the relaxation response as described by Benson (1975), and members were requested to elicit this response during two 15-minute breaks each day. Group B was instructed to sit quietly and relax any way they chose for the same time period. Group C, the randomly assigned control group, and the nonrandom controls (Group D) did not receive any instructions. During the following eight weeks the four groups completed daily self-reports concerning stress symptoms, rates of illness and a variety of indices concerning performance, sociability, satisfaction, happiness, physical energy and strength of concentration. Biweekly blood pressure checks were also

recorded. The study outcome revealed significant posttraining effect for the relaxation training group (Group A) as measured by blood pressure levels, physical and mental symptoms, and self-reported work performance. Results of the changes in blood pressure paralleled the self-report measures with Group A demonstrating more change than Group B which changed more than Group C. A six month follow-up of the original subjects found an increase in blood pressure in the relaxation training group, but levels were still significantly below pretraining levels. Some unanswered questions raised in this study include the relationship between the amount of change and the rate of practice, and the possible influence of positive expectations on the outcome.

A study conducted by Sarason, Johnson, Berberick, and Siegel in 1979 attempted to evaluate the effectiveness of a stress management program which was designed to deal with both the cognitive and physiological factors related to anger and anxiety. In this experimental study 18 nonvolunteer police academy trainees were randomly assigned to either the stress management program or to the control group. The stress management program focused on cognitive restructuring, progressive muscle relaxation, and practice in using adaptive coping responses while in stressful situations. Self-report measures of anxiety and hostility and physiologic measures of pulse and blood pressure were used as pre/posttest measures. Self and single observer ratings of the trainee's performances in stressful, simulation police activities were also used. The analysis of the observer ratings indicated that the performance of the trainees who received stress management training was significantly superior to those who did not receive the training.

After evaluating the responses of the trainees to specific aspects of the training program, the authors found that the trainees reported the most benefit in managing stress when facing situations to which they had been exposed in the simulated exercises. To increase generalizability, the authors recommended that the applicability of stress management techniques to a broad range of specific situations be emphasized. An interesting result of this study was an increase in anxiety and hostility in response to simulated stressful conditions in the experimental group as compared to the controls. At the same time, however, the observer rating indicated better performance. The authors believed that the increase in anxiety and hostility may have been due to increased individual awareness of stress and stress responses. There may also have been some resentment due to the nonvolunteer status. Questions raised by this study centered around the validity of the observer ratings as a means of evaluating performance.

A field experiment conducted by Allen and Blanchard in 1980 with 30 mid-level managers of a large corporation was used to determined the effectiveness of a stress management program consisting of EMG biofeedback, progressive muscle relaxation, breathing techniques and cognitive restructuring. Two control conditions were used. The first control group received individual and group instruction concerning stress management, but received no training in specific techniques. To control for the amount of time the experimental group spent with the trainer and the amount of time off the job, the second control group was used to control for assessment procedures and the effects of a wait-list group. The training program was conducted for one hour

per week for a total of six weeks. Outcome measures used in the study included self-reported measures of stress level, job performance, and changes in muscle tension. Results of the study did not show a significant decrease in the level of stress or an increase in the job performance of the managers. Questions raised by the study centered around the possible effect of practice sessions between meetings.

The effectiveness of a group counseling and support group in reducing stress for 17 hospice nurses in a large private general hospital was studied by Gray-Toft (1980) using a quasi-experimental approach. The nurses were divided into two groups which each served as a control for the other through the use of a staggered treatment schedule. Following pretests measuring nursing stress and job satisfaction, the groups met for one hour per week for six weeks with follow-up post-test measures collected at 9, 12, and 15 weeks. Specific questions targeted by the study included: As a result of a counseling support program was there (a) a reduction in self-reported stress, (b) an increase in job satisfaction, and (c) a reduction in staff turnover? Results demonstrated the effectiveness of the group counseling program in reducing nursing stress and an increase in job satisfaction at the $p < .05$ level. Preliminary evidence indicated that the program may have resulted in a decrease in staff turnover; however, both treatment and control groups reported a significant reduction in workload between the pre and posttest measures.

A lab study which has significant potential for worksite stress management programs was conducted by Kohn in 1981. The purpose of this study was to determine the potential effectiveness of progressive

muscle relaxation as a means of counteracting the stress which results from unpredictable, excessive noise. Kohn used 30 college subjects randomly assigned to two treatment conditions. The first group received training in progressive muscle relaxation, and the second was a self-relaxation group. Pre and posttest measures were used to compare the number of addition errors made by members of the progressive muscle relaxation group and the self-relaxation group when exposed to random noise. The research results indicated that progressive muscle relaxation training was effective in facilitating learning and in countering the effects of unexpected high levels of noise. Kohn concluded that progressive muscle relaxation may be useful as a worksite stress adaption tool.

Forman (1981) in a quasi-experimental study evaluated the effects of a stress management training program on ten volunteer school psychologists and the services they provided within the school system and the community. School psychologists in another school system served as controls. The stress management program was composed of progressive relaxation training, cognitive restructuring and stress inoculation. Stress inoculation training uses a combination of stress management techniques including basic stress education, deep muscle relaxation training, cognitive restructuring and the practice of coping skills in simulated stressful situations. One two-hour session was held weekly for six weeks; no follow-up was reported. Pre and posttest measures of anxiety using the State-Trait Anxiety Inventory and job satisfaction using the Job Description Index were completed. The data reported in this study demonstrated a decrease in self-reported anxiety and an

increase in job satisfaction in the treatment group while anxiety levels increased during the six-week study in the control group. The author also reported that the stress management training resulted in job enlargement, i.e., the expansion of a job to include tasks previously performed by other workers, for the trained participants and increased consumer satisfaction with the school's psychological services.

The only study which evaluated the value of a single contact as a means of stress management was conducted by Seamonds (1982) using a quasi-experimental design. In this study the effectiveness of a single 20-minute interview conducted in conjunction with a periodic medical exam was studied using 500 employees of a financial institution. A control group matched on sex, job classification, time interval and job-stress scores was used. The experimental subjects were selected on the basis of high or low self-reported stress, stress-related symptoms, frequent visits to the medical department and job-related or personal problems. Stress education materials and referral to either an outside or corporate agency for follow-up services were provided during the interview. Illness absenteeism data collected for the six months prior to and for the six months after the interview were compared for the interview and control groups. A significant drop in illness absenteeism was demonstrated for the interview group with a greater drop in days absent for those in the intermediate range of job stress. During the same period absenteeism increased among the control group.

Steinmetz, Kaplan and Miller (1982) studied the effect of a combination stress management program on 243 mixed occupational groups in a preexperimental study. Stress management methods included in

this program were basic stress education, muscle relaxation techniques, cognitive restructuring and assertiveness training. The program format varied from one eight-hour session to six 1 1/2 hour meetings. Dependent pre/posttest variables measured in this study included job-related stress, stress reactions and stressful working conditions as measured by a Conflict-Stress questionnaire which was under development for this study. The study results revealed a positive effect of the combined stress management program in the corporate workers. Increased relaxation, cognitive changes and increased communication skills were reported. Dissatisfaction with the organization in which they were employed, however, also appeared to increase.

Drazen, Nevid, Pace and O'Brien (1982) compared the effect of two behaviorally oriented stress reduction methods on systolic and diastolic blood pressure. The first method was identified as anxiety management and included instruction in the use of imagery. The second method focused on cognitive/behavioral skills training and included progressive muscle relaxation and assertiveness training. An experimental design was used. Twenty-two mildly hypertensive white collar workers in a New York General Motors Plant were assigned to either the treatment or control group. Ten weekly sessions were held and a two month follow-up was conducted. Results of the study indicated a significant decrease in both systolic and diastolic blood pressure in the cognitive/behavioral skills group and significantly lower diastolic blood pressure for the anxiety management group. Nonsignificant reductions in blood pressure also occurred in the control group which received hypertension education. Blood pressure reductions were generally maintained at the eight week

follow-up. The authors concluded that failure to see a difference in the effectiveness of the two treatment methods may indicate that treatment benefits could be due to nonspecific factors common across treatments.

The only study to use the physiological measure of urine catecholamines, specifically epinephrine and norepinephrine, as one of its dependent variables was conducted by Ganster, Mayers, Sime and Tharp (1982). In their experimental study, 79 volunteers from a public agency were randomly assigned to a treatment program consisting of cognitive restructuring, progressive muscle relaxation and biofeedback or to a wait-listed control group. Treatment sessions consisted of two-hour meetings once a week for eight weeks and a four month follow-up was conducted. In addition to the physiological measures, an anxiety scale and a depression scale were used as pre/posttest measures. The results indicated that subjects receiving the stress management program exhibited significantly lower levels of epinephrine and self-reports of depression than the controls in the posttest and at the four month follow-up. These levels, however, were not reproduced in the control group. No differences were observed in measures of psychological strains, somatic complaints, anxiety scale measures or norepinephrine levels. Based on their findings, the authors did not recommend the institution of similar stress management programs.

Manuso (1983) reports two preexperimental stress management studies conducted by Equitable Life Insurance Company. The first study involved 30 volunteer workers who were experiencing headaches, muscle tension and general anxiety. Each worker received individual biofeedback,

self-regulation and deep muscle relaxation instruction two or three times per week for five weeks. They were also instructed to use relaxation tapes at home between sessions. A three month follow-up was conducted. According to Manuso, the five-week program decreased muscle tension by 50%, decreased the use of medications and visits to the corporate health center, and reduced stress-related symptoms. At the three month follow-up 75% of the subjects completing the treatment program continued to retain the gains they had made.

The second study at Equitable Life (Manuso, 1983) involved 37 Type A and 10 Type B employees. The preexperimental group program was conducted once a week for six weeks, primarily used audiovisual methods of instruction, and included information on nutrition, exercise and time management. Program participants reported a decrease of approximately 45% in perceived stress levels and a 50% decrease in the use of health care services. Type B subjects showed nearly as much improvement as Type A's.

In this review of the literature only one reported study was directed at organizational change as a means of stress reduction. In 1983 Jackson conducted an experimental study in which he randomly assigned 26 university hospital outpatient clinics and 126 nursing and clerical employees to two treatment and two control groups. The three goals of the study were: (a) to assess whether psychological strain can be decreased by increasing employee's participation in the decision making processes in their organization, (b) to explore the processes through which participants may achieve stress reduction, and (c) to demonstrate that strain reduction can benefit the organization by

decreasing turnover and absenteeism. Treatment methods included a two day training workshop for unit managers in conducting unit meetings and guidance in topics to be discussed at the meetings. Secondly, one of the experimental groups was instructed to begin having monthly unit meetings. A variety of measures including the Job-Related Strain Index, Minnesota Satisfaction Questionnaire among others were used to measure changes in perceived personal influence in the work environment, perceived input with regard to specific topics, and participation in decision making. Pre and posttests were used and six and nine month follow-ups were conducted. The results indicated significant differences between the treatment and control groups at the three month follow-up on perceived influence, emotional strain and intention to leave the job. At the six month follow-up significant differences were found between the groups on perceived influence, role conflict and role ambiguity.

Murphy (1983) conducted an experimental study with 28 nurses in which he compared the effectiveness of biofeedback and muscle relaxation. A randomly assigned self-regulation control group was used. The three groups met daily for one hour over a period of ten weeks. Baseline measures were obtained during the first two weeks, and a three month follow-up was conducted. Physiologic measures including EMG activity and hand temperature along with self-reports of stress-related symptoms, trait anxiety and job stress were used. In addition, other psychosocial indices were included to evaluate the two treatment methods. Instructions were given by audio tape, and participants were encouraged to practice between sessions. Results of the study did not indicate

superiority for either biofeedback or progressive muscle relaxation and results from the self-reported indices were contradictory. The self-relaxation control group also showed significant benefits on the posttest and three month follow-up.

In a preexperimental study conducted by Bowers (1983), 20 volunteers in an electronics manufacturing plant participated in lecture/discussions and progressive muscle relaxation training. The group met for one hour per week for a period of six weeks. Posttest measures indicated that 94% of the group reported a lifestyle change during the course. This was not explained further. Bowers also noted that 17% of the participants who completed the course indicated a decrease in perceived health status compared with their initial assessment prior to the start of the program. It was thought this may reflect an increased awareness of individual stress factors and their impact on health.

Alderman and Tecklenburg (1983) studied the effects of relaxation training on personal adjustment and perceptions of the organizational climate. Fifty-five volunteers from multiple sites were randomly assigned to one treatment and two wait-listed controls. The treatment group participated in a stress seminar and received individual instruction and relaxation training. Audio tapes and written instructions were used. Subjects were instructed to practice at home twice a day for 15-20 minutes. One control group also participated in the stress seminar and then was instructed to sit quietly for 15-20 minutes twice a day. The second control group received no treatment. Pre and posttest measures were used to assess the personality factors of locus of control, self-actualization, perceptions of organizational

climate and anxiety. T-test analysis indicated a significant decrease in anxiety and an increase in locus of control and self-actualization measures for the treatment group. Changes in perception of the organizational climate, while in the predicted direction, were statistically not significant. The authors felt this might have been due to insufficient time for these results to develop. No mention of any correlation between the amount of practice and the outcomes was made.

Using a successive two-group time-series design Baeyer and Krause (1983-84) investigated the effectiveness of a stress management program which combined cognitive, behavioral and progressive muscle relaxation techniques. Fourteen nurses working in a burn unit participated in three individually conducted one-hour sessions with instructions to practice the relaxation techniques at home twice a day. Pre and post-tests using self-reported measures of anxiety were used to evaluate program effectiveness. The results suggested that stress management training was effective in reducing work-related anxiety among inexperienced nurses but not among experienced nurses. The author concluded that the gains made by the inexperienced nurses may have been more associated with their increased understanding of stress and their feelings of control than with changes in actual stress management behavior.

In a preexperimental study conducted by Lester, Leitner, and Posner (1984) 55 male police administrators participated in a 12 to 15 hour stress management program which was conducted over four or five days. The methods used in their program included a combination of basic stress education, cognitive restructuring, assertiveness training and relaxation

techniques, which were not described. Pre/posttest measures of current mood state, job satisfaction, and aspects of current and long term stress indicated that at the conclusion of the program the current mood of the participants had improved. No impact on job satisfaction was demonstrated, and the program affected only certain aspects of stress such as frustration levels and feelings of work overload. The authors reported, however, many spontaneous participant comments regarding the helpfulness of the training.

In an experimental study of 60 volunteer nurses West, Horan, and James (1984), studied the overall effect of four treatment conditions on a variety of self-reported psychological measures of anxiety, job stress, burnout, assertiveness, and life satisfaction. The effect of the treatment conditions on the physiological measures of systolic and diastolic blood pressure was also evaluated. The four treatment groups included: a) stress education only; b) stress education and coping skills; c) stress education and exposure to stressful situations; and d) stress education, coping skills and exposure to simulated stressful situations (the entire stress inoculation approach). Participants met individually with a hospital outpatient counselor once a week for four weeks. Results of the study revealed that only the groups which were taught stress coping skills, which included relaxation training, assertiveness skills, cognitive restructuring and time management, differed from the control group at the four month follow-up relative to anxiety, burnout and systolic blood pressure. The educational component alone showed no effect. The authors concluded that the entire

stress inoculation approach was most effective. A potential complication in this study was the trainer effect on individual results.

Murphy (1984b) compared the effectiveness of biofeedback and progressive muscle relaxation in an experimental study of 38 volunteer highway maintenance workers. The two treatment groups, one received biofeedback training and the other progressive muscle relaxation training, participated in ten daily sessions including two baseline, six treatment, and two application. A three month follow-up was conducted. Self-reported psychological measures of trait anxiety and job stress and physiological measures of EMG activity and hand temperature were used to evaluate training effectiveness. Murphy reported a significant decrease for both experimental groups from pre-training levels in stress symptoms, trait anxiety, feeling sleepy at work, job dissatisfaction, alcohol use, and an increased quality of sleep. Muscle tension scores increased during the time between the end of the program and the follow-up in all three groups, although there was less increase in the biofeedback group. A reduction in stress-related symptoms also was reported in the self-relaxation control group.

A comparison of the effectiveness of aerobic conditioning and stress inoculation in stress management was studied by Long (1985). This is the only study which evaluated aerobic conditioning as a stress management technique within the 24 studies which are being reviewed.

In the original study, 61 chronically anxious adults were randomly assigned to either the aerobic conditioning, the stress inoculation treatment group, or to the wait-list control group. The experimental groups met as a group for 1 1/2 hours for ten weekly sessions. The

aerobic conditioning subjects progressed through an individually prescribed exercise program and jogged twice a week in addition to attending group seminars. The second treatment group received instruction in stress inoculation. The self-report State-Trait Anxiety Inventory, a tension thermometer (not described), and the Cognitive-Somatic Questionnaire were used as pre/posttest measures. Outcome measures revealed a significant decrease in anxiety for both groups compared to the wait-list controls. The stress inoculation treatment group showed greater reduction in negative self-statements and a significant increase in positive self-statements. Self-efficacy increased significantly for both experimental groups compared to the controls, and the experimental subjects identified as experiencing stress primarily in the cognitive mode reduced their level of anxiety significantly more than the somatic oriented subjects. There was, however, no overall significant difference over time between the aerobic conditioning and stress inoculation treatment groups.

For the 15 month follow-up Long located 45 representative subjects. Nine, 40%, of the 22 retained aerobic conditioning subjects reported that they were still regularly jogging an average of three times a week. Exercise was reported, however, as a means of coping with stress by 19 (86%) of this group. Overall, the follow-up demonstrated maintenance of significant stress reduction for participants in both the stress inoculation and aerobic conditioning group. Self-efficacy was not only maintained, but increased from posttest to 15 months follow-up for both treatment groups.

The effectiveness of stress inoculation and behavioral management skills as techniques for stress management was compared by Sharp and Forman (1985) in a group of teachers. Using an experimental model, 60 teachers, self-selected on the basis of situational teaching anxiety, were randomly assigned to the stress inoculation training group, the class management group, or to the control group. The two treatment groups attended two-hour training sessions twice a week for four weeks. A four week follow-up was conducted. Dependent variables in this study included self-reported anxiety measures and teacher verbal and behavioral indices of classroom anxiety. Results of the study indicated that both methods were effective in helping teachers manage school-related anxiety. Both treatment groups reported a decrease in self-reported general anxiety and teaching anxiety. Both groups also demonstrated a decrease in physical indicators of anxiety, although the stress inoculation group did slightly better. The study did not show evidence of superiority for either method.

An experimental study conducted by Smith (1986) attempted to determine whether a computerized self-help stress coping program based on cognitive learning theory was effective in reducing stress in adult males. Thirty adult male juvenile counselors were randomly assigned to an experimental group which used a computerized self-help program over a five-week period or to a nonparticipant control group. The results indicated a decrease in personal strain and state anxiety and an increase in personal resources within the experimental group. The greatest amount of variance, however, was accounted for by the degree of social support available to the subjects. Smith concluded that the

stress coping computer program did provide some relief from stress associated with personal strain and trait anxiety.

In a study not conducted within an organization but which used a measure of total work absenteeism as an outcome measure, Higgins (1986) evaluated the effectiveness of two different multimodel stress management programs: (a) a behaviorally oriented approach which included progressive muscle relaxation techniques, and (b) a cognitive oriented approach which included time management and assertiveness training. The two approaches were compared with each other and with a delayed treatment controlled condition. Higgins reported that the study was structured to overcome the limitations of other studies in that the sizes of the control and treatment groups were large enough for meaningful statistical analysis. Also, within each treatment group multiple trainers were used to eliminate trainer effects which have been found to confound the results of previous studies. The two experimental groups underwent one-hour training sessions once a week for seven weeks. Measurements of program effectiveness included self-reported measures of emotional exhaustion, personal stress and work absenteeism. A multivariate analyses of covariance was used to analyze the study's data for main effects and interactions. The main effect for the trainer variable was found to be nonsignificant ($p > .05$) as was the interaction between the trainer and the treatment condition ($p > .05$). The test for the overall effect of the treatment condition factor was found to be significant, $p < .05$, as was the comparison of the two training programs with the controls ($p < .01$). No significant difference was found, however, between the effects of the two training

programs. Neither training program demonstrated effectiveness in decreasing work absenteeism. Higgins believed this may have been due to the already low rate of absenteeism among the experimental and control subjects as well as possibly due to personal differences regarding the value of work attendance.

Study Summary and Synthesis

As can be seen, a wide variety of studies has been conducted in various settings in the attempt to evaluate stress management program effectiveness. These studies have varied greatly in number of participants, program format, stress management methods studied, and psychological and physiological assessment techniques. Most studies have involved white collar workers, but blue collar workers appear as successful as white collar workers in acquiring relaxation skills (Murphy, 1984b).

Of the 24 studies reviewed, 15 were experimental, five were quasi-experimental and four were preexperimental. The number of subjects ranged from a high of 500 in Seamond's (1982) quasi-experimental study to a low of 10 in Forman's (1981) experimental study. The combined factors of different study designs, varied program structures, the lack of standard outcome measures, the use of combinations of stress management techniques, and a wide variety of confounding factors makes the evaluation of specific program components very difficult. Overall, 21 of the studies revealed a reduction in perceived stress for participants receiving some kind of stress management training. Two studies (Baeyer & Krause, 1983-1984 and Lester, 1984) reported equivocal results. The study conducted by Allen and Blanchard (1980) of the

effectiveness of a stress management program in a group of 30 mid-level managers was the only one which did not show a significant decrease in the level of perceived stress, an increase in job performance, or an increase in perceived ability to cope with work-related stress.

The potential role of program length in the outcome of the stress management programs was not identified as a major factor. Within the reported studies, program length varied from one 20 minute interview with referral (Seamonds, 1982) to a high of 16 contact hours as reported by Sharp and Forman (1985) and Ganster et al. (1982). The most common program length was in the range of six to ten hours. While it is not possible to identify a direct relationship between program effectiveness and program length, one reviewer (Murphy, 1984a) stated that, in general, studies involving greater contact hours have reported a larger decrease in physiological and psycho-social self-report measures of stress. Ganster et al. (1982) reported his belief that 16 hours was the minimum necessary to achieve positive results, but this has been challenged by numerous studies including Peters et al. (1977) and Higgins (1986). An unanswered confounding effect is the role of practice time. Murphy (1984b) failed to find practice effects either at posttreatment or at follow-up, and other researchers (Alderman & Tecklenburg, 1983) did not determine the influence of practice sessions in their reported outcomes.

The effectiveness of stress management programs over time was evaluated for 12 of the 24 programs. Follow-up evaluations, conducted at one to nine months following the end of the structured program, basically revealed significant retention of stress reduction benefits,

but to a lesser degree than at the completion of the program. This was true for physiological measures (Drazen et al., 1982; Manuso, 1983; Peters et al., 1977) and psychological self-report measures (Jackson, 1983; West et al., 1984). One study (Long, 1985) actually reported an increase in self-efficacy between program completion and the three month follow-up. Interestingly, Seamonds (1982) did not report what percentage of the subjects referred to available stress management resources actually underwent treatment/instruction and for what length of time.

A wide variety of outcome measures have been employed in the evaluation of stress management programs. Physiological measures have included measures as specific as urinary catecholamines (Ganster et al., 1982), but more commonly have used systolic and diastolic blood pressure (Drazen et al., 1982; Peters et al., 1977; Sarason et al., 1979; West et al., 1984) and EMG and hand temperature measures (Allen & Blanchard, 1980; Murphy, 1983, 1984b). Self-report measures of job satisfaction, stress and anxiety levels, mood, motor and verbal indices and measures of conflict and hostility, are some of the psychological measures which have been used to evaluate program effectiveness. Frequently, outcome measures designed for a specific study have been used (Steinmetz et al., 1982) resulting in an inability to compare results between studies. Study outcomes have also shown improvement on some measures of anxiety but not others (Lester et al., 1984; Murphy, 1984b) leading to interpretation difficulties.

Organizational outcome measures such as use of health facilities, absenteeism rates, and in one study, cost effectiveness also have been

reported within the last five years. Seamonds (1982) reported a significant drop in illness absenteeism for the experimental group as a result of the health intervention and referral while absenteeism increased among the controls. Manuso (1983) also reported a decrease in visits to the corporate health center for the treated subjects. In a recent study conducted by Higgins (1986) neither of the stress management methods resulted in a decrease in absenteeism. She felt this may have been strongly influenced by the low rate of absenteeism among both experimental and control subjects prior to the study. Higgins consequently questioned the use of absenteeism rates as a measurement of stress reduction. Individual manifestations of stress and individual values of work attendance (i.e., going to work while ill) may strongly affect the use of absenteeism as a dependent variable in evaluating stress management programs. A study of 7264 adult employed males found, however, that successive increases in objective and subjective stress scores were paralleled by corresponding increases in absenteeism (Cole, Tucker, & Friedman, 1987). Thus it would appear reasonable to expect a decrease in absenteeism as stress levels declined.

The use of a combination of stress management techniques in most of the reported studies makes it extremely difficult, if not impossible, to identify those techniques which were most effective. In most instances the combined program consisted of basic stress education, some kind of behavioral technique such as progressive muscle relaxation, meditation, deep breathing, or biofeedback and a cognitive restructuring technique (Forman, 1981; Ganster et al., 1982; Manuso, 1983; Sarason et al., 1979; Sharp & Forman, 1985; Steinmetz et al., 1982). These

studies all demonstrated a general reduction in stress levels for the subjects receiving the treatment. Other studies which compared the effectiveness of two or more methods such as biofeedback and progressive muscle relaxation were unable to determine a clear superiority of one method (Drazen et al., 1982; Higgins, 1986; Murphy, 1983, 1984a; West et al., 1984). This was also true in the one study which compared the benefits of aerobic conditioning and a combination behavioral/cognitive stress management program (Long, 1985).

Evaluation of the effectiveness of stress management programs in general and of specific program components in particular is further complicated by unexplained improvements within the control groups (Drazen, 1982; Murphy, 1983, 1984a). Various nonspecific factors which may account for some of this improvement include increased motivation due to self-selection into the program, belief that the program will be effective, intention to relax, the feeling of being valued by the company because of their sponsorship of the program, and the effect of the trainer. Higgins (1986), however, did not find a significant trainer effect on program outcome. A nonspecific factor which will impact stress management programs in particular is the effect of taking time during the work day to sit quietly in a comfortable position and relax regardless of the specific method which is used. Peters et al., (1977) found that the self-relaxation control group showed improvement compared to the no-treatment control group, possibly due to this effect.

Due to the inability at this point to clearly identify the superiority of one stress management approach over another and the confusion caused by the role of nonspecific factors, most authors

recommended the multimodal approach to stress management. An additional benefit of a multimodal approach is that by including a variety of approaches within the program, participants will be able to pick and choose, thereby matching the technique to their individual needs. This is especially important as little is known about an individual's ability to acquire coping skills. Sociodemographic factors, attitudinal and personality characteristics may influence which techniques will work for an individual (Murphy, 1984a).

Research into the financial impact of organizational stress management programs is just beginning. While it is often difficult to determine both the degree of reduced health risk due to lowered stress and the dollar value of intangible program benefits such as better sleep, lower anxiety and increased job satisfaction, progress is being made in this area. In 1983 Manuso reported the first cost/benefit evaluation of an organizational stress management program. The cost to Equitable Life as a result of stress symptom interference with work, time away from the job due to stress symptoms, clinic visits and absenteeism was calculated prior to and following completion of the stress management program. The cost of the individually-instructed biofeedback program was also determined. Manuso's conclusion was that the stress management program resulted in a cost benefit ratio of 5.52/1. It is disturbing, however, that this is based on a preexperimental study.

In an unpublished study conducted at a New York telephone company (reported by Jaffe et al., 1986) former medical director Loring Wood reported a decrease of 10% in absences for 1000 people who had been identified as experiencing stress-related difficulties and who

participated in a meditation training program. The decrease in absences alone resulted in a savings to the company of $2677 per person, while the cost of the stress management program was $300 per person.

Steffy, Jones, Murphy and Kunz (1986) conducted three quasi-experimental, longitudinal studies for the St. Paul Insurance Company in an attempt to document the impact of organization wide stress management programs on the incidence of accidents and insurance claims. A questionnaire, the Human Factors Inventory, which has demonstrated reliability and validity, was used in each study to assess employee stress on numerous dimensions. Information concerning accident rates and medical costs was also compiled prior to each program's implementation. The same basic stress management interventions were used in the three studies and included employee assistance programs and health education programs with stress management, exercise/fitness, healthy lifestyle management, and back care components. In the first study, conducted in a midwestern hospital, a significant reduction ($p < .05$) of both the number of claims (3.1/mo. to 0.6 mo.) and total paid losses ($24,199 to $2,577) was realized.

Steffy, et al's. (1986) second study, conducted in a national trucking company, demonstrated a significant ($p < .05$) reduction in the average monthly cost of claims and average number of lost work days. The third study, (Steffy, et al., 1986), conducted in a second midwestern hospital, focused primarily on the effect of an expanded stress management program on over exertion (i.e., back strain) claims. While the frequency of over exertion claims did not show a statistically significant decrease, the experienced decline in claims indicated that

the continuation of the intervention programs may have resulted in a significant decline after a longer period of time.

Chapter Summary

This chapter provided a review of the current literature concerning the effectiveness of organizational stress management. Results of the 24 studies reviewed indicate that substantial progress has been made in documenting the effectiveness of various behavioral and cognitive approaches to stress management. In addition, the importance of the multimodal approach to stress management program development has been demonstrated; and recent reported studies reveal significant positive cost/benefit ratios for organizational stress management.

Organizations, in their need to remain viable in a rapidly changing environment, will continue to be a major source of stress in the lives of employees. Concurrently, organizations will be increasingly concerned about the escalating costs of stress-related health care and will work to identify ways of promoting the health of their human resources. In order to address both concerns, organizational stress management efforts will increase in importance.

Chapter III

Implications and Recommendations

A review of the current state of organizational stress management reveals that it remains in early stages of research and development. While generally accepted as a major area of organizational concern and the focus of widely divergent management techniques, essential program components have not been clearly identified. This failure has resulted in the generalized recommendation that the multimodal approach to stress management be used. The components to be included in this approach have not been identified, however; and basic questions regarding ideal program length and structure, possible interactions between specific stress management techniques and an individual's personality, and the role of reinforcement have not been answered. Further research into organizational stress management will be necessary to answer these questions.

This review also reveals that prior to 1988, organizational stress management efforts were directed primarily at the individual. Since the beginning of the health promotion movement approximately 10 to 15 years ago, the importance of lifestyle choices in determining an individual's health has been increasingly recognized. The identification of risk factors for the major causes of disease, death and disability and the role of health promoting measures in improving individual health has resulted in the placement of increased responsibility for one's health on the individual. Recently, however, the effectiveness of an exclusively individualistic approach to all areas of organizational health promotion including stress management is being questioned (Allen

& Allen, 1986; Edington, 1987; Stellman, 1987). Numerous researchers (Byers, 1987; Ganster et al., 1982; Jaffee et al., 1986; McLeroy et al., 1984; Murphy, 1983, 1984a; Newman & Beehr, 1979; Steffy et al. 1986) unequivocally state that to most effectively meet the needs of both the organization and the individual, stress management efforts must be aimed at changing previously identified organizational factors which are known to be stress producers.

According to Kim Cameron, Associate Professor of Organizational Behavior at the University of Michigan, "The majority of employee stress is not caused by personal factors. The major problem is relationships with managers, lack of communication . . . " (Wang et al., 1987, p. 65). This view has also been expressed by Mark Tager and Marjorie Blanchard in their book Working Well (1985). According to these authors, the manager/subordinate relationship is a major contributor to mental well-being and ultimately to physical health.

While the importance of the environment, and more specifically, the overall worksite culture in the development and maintenance of health behaviors has been discussed in the literature, little attention has been given to understanding and incorporating these influences in program development. As John Stellman (1987) asks, "Can employers really create workplace wellness of workers without taking a hard look at the health of the worksite itself" (p. 16)? According to him, this question is asked too infrequently by health promotion professionals. Stellman goes on to state that the success of workplace health promotion programs may depend on the wellness of the workplace itself.

This view is further supported by authors Allen and Allen (1986) who state that Americans are well motivated to attempt lifestyle changes, but are unable to succeed in the longterm; and longterm change is necessary for the beneficial effects of positive lifestyle changes to be realized. In their view, the real health revolution will not occur until today's biggest health problem, the maintenance of good health practice, is solved. All too frequently health norms, both written and unwritten, of the cultures to which one belongs (family, work, and community) are norms for health risk behavior. In these instances, to make effective lifestyle changes, one must work against the prevailing norms, an exceedingly difficulty task.

An example of the role of the worksite in promoting an unhealthy lifestyle choice is revealed in the report of a study done by the Preventive Research Center (Ames, 1987). In this study the drinking habits of 2,076 assembly line workers who were laid off from a large heavy machinery manufacturing plant in California were studied. The researchers expected to find an increase in drinking among this group, but found an actual decrease. Their investigation revealed that the worksite, while not actively promoting drinking, in reality promoted the use of alcohol through the unwillingness of supervisors to prohibit its use during work hours in order to meet production schedules.

The importance of a broad perspective in the development of organizational health promotion programs in general and in organizational stress management programs specifically is summarized well in the following quote "The challenge is to have us push beyond the healthy individual or as some critics have labeled it, 'blaming the victim,'

to examine some of the organizational and structural issues that lend themselves to unhealthy work environments" (Edington, 1987, p. 4).

Parker and DeCoties (1983) and Ganster et al., (1982) raised the ethical issue of organizations offering stress management training while making no attempt to improve working conditions which result in excessive stress. As stated by these authors, the individualistic approach, with its focus on sensitizing people to the existence of stress without addressing organizational causes of stress may, in fact, be harmful. This is especially true when the individual has no means of removing the source(s) of stress. Supporting this view is a report by Sarason (1979) of an increase in stress and hostility in some of his experimental subjects compared with the controls. He felt this increase may have been due to increased stress awareness.

As indicated, only one of the 24 organizational stress management studies previously cited (Jackson, 1983) focused on the role of organizational factors in employee stress. The stress management techniques used in the study, which was conducted in an outpatient clinic, included training in the use of regular unit meetings in addition to other organizational changes. The study outcome indicated these measures were effective in stress reduction.

An organizational stress management program which, while not focusing on changing organizational stressors, did recognize the role of the work environment in producing stress is described by Jaffee (1987). This organizational stress management program was developed approximately three years ago by the Institute for Labor and Mental Health under a grant from the National Institute for Labor and Mental

Health. A major component of this program was the development of Occupational Stress Groups which met two hours each week for an open ended period in a variety of worksite settings. Each informal session included a presentation concerning the sources of work stress and its impact on family life, a discussion of how these issues apply in the work world of the participants, and the relationship of these issues to personal life. The underlying philosophy of this approach was that workers are unfairly blamed for the pressure they face at work which is frequently a result of work forces they cannot control. As a result, they blame themselves for their inability to deal with it effectively. It was felt that the groups helped workers generate solutions to stressful situations by modeling and role playing positive responses to work stress that enhanced the worker's personal power. Jaffee stated that the program has been extensively researched with group participants demonstrating significant changes as compared to controls in psychological well-being, health problems, alcohol consumption, absenteeism, sense of power, ability to handle stress, problem-focused coping, self-blaming and anger, and social support.

Allen and Allen (1986) have written that to be successful, health promotion programs of any kind, including stress management, must focus on creating better work, family, and community environments. What is needed is a multilevel intervention which requires a broad perspective of health promotion--one which goes beyond the personal lifestyle concerns typically addressed in health promotion programs. From this perspective, individually targeted programs are more properly viewed as useful complements to organizational change.

It is also worthwhile to note that individually targeted organizational health promotion programs, including stress management programs, which do not take into account organizational characteristics which adversely affect the health of employees, can be compared to the traditional medical model of focusing on caring for the ill. In both instances, inadequate attention is given to preventing the illness/problem, and care is provided "after the fact" to a limited number of the total group. Organizational health promotion and stress management programs which are targeted at the causes of organizational health problems have the potential of positively affecting the entire employee population. The prevention of health problems within the employee group is always more effective than attempting to alleviate or "cure" problems once they are present.

Given the importance of the interaction of organizational culture, the physical work environment, and lifestyle factors in individual health, what are the implications for the organizational health promotion professional? In an article by Byers (1987) the following seven suggestions for the organizational health promotion professional are listed.

1. Recognize the importance of the role of the health promotion professional in the prevention of employee illness and the potential of healthy lifestyles.

2. Create strong relationships with managers in the human resources, personnel and training and development areas in order to increase the ability to influence health within these departments.

3. Function as a sounding board for employees.

4. Establish oneself as an objective and credible link between the employees and management and carry information concerning employee needs to management and suggestions for changes toward healthier environments.

5. Establish high visibility with top managers and executives in order to present ideas targeted at increasing health and motivation.

6. Develop a heightened political savvy and an ability to use the informal leadership system within the organization.

7. Model techniques which reduce personal and organizational stress within one's own department (Byers, 1987).

While providing an expanded view of the role of the organizational health promotion professional, these suggestions do not directly address two important issues in the developing role of this profession. First, in addition to the traditional focus on individual lifestyle issues, the education of organizational health promotion professionals must be increased in the areas of organizational culture and physical work environment (Kaiser, 1988). Only then can health promotion professionals approach organizational health in a truly holistic way. To meet the health needs of employees, the often synergistic relationships between genetic predispositions, the physical work environment, the organizational culture, and lifestyle factors must be understood. In short, health promotion professionals must look beyond the "traditional" focus of nutrition, fitness, health risk management, and individualistic stress management programming. For example, it is imperative that when developing a "back care" program organizational health promotion professionals understand the importance of ergonomics (the fit between

the individual and the workplace) on musculoskeletal problems. This conclusion was reached by researchers at Liberty Mutual who determined that the only way to significantly reduce compensable back injuries was to modify the work environment to the physical needs of the worker. A "healthy back" program, for example, which only instructs workers on proper body mechanics, and which neglects the effect of the design of equipment and the workstation, is not only a "hollow effort, but an injustice, blaming workers for injuries which may be more a result of their work than their lifestyle" (Kaiser, 1988, p. 7). To most effectively decrease the incidence of back injuries, an analysis of the work environment must be combined with the institution of health promoting policies regarding the physical layout of the work area, the consideration of ergonomic issues in the purchase of equipment and office furniture, and the development of educational programs dealing with proper body mechanics.

Secondly, if the area of responsibility for the organizational health promotion professional expands to include an increased consideration of the physical work environment and the organizational culture, including written and unwritten norms, what is the role of the health promotion professional? Robert Rosen (1986) begins to address this issue through his argument for the healthy corporation. According to this orientation, individual health and organizational profitability are linked and health promotion efforts are seen as vital to the survivability and profitability of the organization. When this is understood and accepted, the role of the health promotion professional is enlarged to include involvement in the development and implementation

of all workplace policies which impact on employee health in addition to the development and conduction of organizational health promotion programs. It will certainly require an increased understanding of the role of the organization in the development, maintenance and changing of individual health behaviors. Organizational health promotion professionals must broaden their perspective and work toward a greater role in the development of health-promoting norms within the organization. Organizational health promotion programs and, specifically, stress management programs, must develop an organizational focus which views individually oriented programs as complementary programs to organizational efforts to reduce the sources of worksite stress. It will continue to remain imperative, however, to remain responsive to individual needs.

The failure to identify specific effective stress management program components and the realization that prevention is always more effective than treatment makes this expanded focus especially true. As Jaffee et al. (1986) state,

> ". . . it should be remembered that stress management programs are not the ultimate goal, nor is learning stress coping skills in individuals. The ultimate goal is to create living, working and community environments that allow people to live and work together in ways that optimize their health and well-being. This means more than teaching employees to cope with stress. It involves the design of work environments, and the culture of work relationships, that support the most effective ways for individuals to manage stress and work under pressure. Stress management

involves working in a place where the individual feels cared for, feels connected to decisions, feels a sense of personal efficacy, and has opportunities to pursue personal goals and health as well as the organizational goals. Organizational redesign is the long term activity that will allow people to manage stress" (p. 37). The health promotion professional has valuable skills and insights to assist in this process.

Recommendations

On the basis of the review and synthesis of the available body of literature concerning organizational stress management, the following recommendations for research, programming, and professional preparation are made:

1. Further research to identify specific effective stress management program components. This knowledge will increase the ability of the health promotion professional to develop and/or select effective stress management programs.

2. Continued research into the sources of organizational stress, and the interactions with individual predispositions to increase the ability of organizational health promotion professionals to recognize appropriate intervention methods.

3. The focus of the organizational health promotion professional will need to expand beyond a preoccupation with the individual to encompass a greater understanding of the impact of the organization on the health of employees.

4. Health promotion programs need to be developed with a clear understanding of the role of the organization in stress related problems.

5. The primary goal of health promotion programs should be, whenever possible, the elimination or reduction of the causes of employee health problems rather than teaching employees how to co-exist with an unhealthy work environment.

6. The professional preparation of health promotion professionals in general and of organizational health promotion professionals specifically, needs to include an increased emphasis on the role of organizational cultures and physical work environments in employee health. Courses such as organizational behavior, group process, and other organizationally focused courses may need to be included along with the traditional preparatory coursework.

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