Stress management in Las Vegas Municipal Court

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Stress management in Las Vegas Municipal Court

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University of Nevada, Las Vegas, 1989
Stress Management in Las Vegas Municipal Court

by

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A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts in Psychology Department of Psychology University of Nevada, Las Vegas May, 1989
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Abstract

An analysis of the effectiveness of Las Vegas Municipal Court's stress management workshop was conducted. The State-Trait Anxiety Inventory was given to fifty one volunteers prior to and after a stress management workshop. Of the 51, seven participated in a four hour workshop given in two sessions. Those attending the workshop had elevated stress scores after the workshop. Exposure to the symptoms of stress without adequate follow-up on how to treat the symptoms may have led to the unexpected result. It is on the basis of these findings that future workshops concentrate on identifying stress related symptoms as well as learning and practicing stress management techniques.
Stress Management in
Las Vegas Municipal Court

Stress can be defined as a response by the body to any positive or negative demand that is made upon it. The body responds actively, fighting the demand or by passively avoiding it. Thus, any demand is a potential source of stress. Problems arise when the demands on an individual are greater than they can cope with successfully.

For the past thirty to thirty-five years there has been a major emphasis on understanding stress and its management, not only in the professional literature but also in the popular press (Kay, 1983; Lazarus, 1979). A variety of techniques and preventative approaches to reducing stress levels within the individual have been proposed in the genre of self-help books. Such books, articles, and workbooks have added words such as; stressor, esustress, dystress and psychosomatic to our everyday language (Ardell, 1981; Reeves, 1984; Sehnert, 1981). Simple stress tests are appearing in grocery store magazines such as Staley's (1988) test in Good Housekeeping; even television specials on how to cope with stress have arrived (Ward, 1988). Thus most people have been exposed to the concept of stress management either through workshops, television, or the popular press. As information about stress is popularized, individuals have the option of actively coping with stress or choosing to live with its many consequences. Managing stress has become of general interest to the public as well as to educators, psychologists, and employers.
Physiological responses to stress

The various stress management programs, with their variety of approaches, all strive, directly or indirectly, to give the individual some control over the physiological response to stress. Individuals respond physiologically to stress in the same manner as they do to physical threats; the body prepares for "fight or flight" (Sehnert, 1981; Selye, 1974). The physiological responses include the stimulation of the sympathetic nervous system which in turn increases the heart and breathing rate as it decreases the digestive activity (Kalat, 1981). Once the threat situation passes (short term stress), the parasympathetic nervous system takes over, returning the body to its pre-threat balance. If the threat situation continues (long term stress), the body remains ready to fight or flee until the body adapts to the heightened state as the normal state, resulting in more wear and tear on the major organs (Reeves, 1984). Once adaptation has occurred and energy is available to maintain the adaptation, one would expect that resistance to stress would continue indefinitely, except the body wears out eventually instead (Selye, 1974).

Selye (1974) has labeled this response or adaptation to stress the "general adaptation syndrome" consisting of an alarm reaction, resistance, and exhaustion. The alarm state occurs when the body responds to the threat, initiates the parasympathetic system, and begins to resist. The resistance stage varies in length depending on the strength of the stress and the body's adaptability to the stress. During this stage the physiological signs of the stress disappear. The exhaustion stage follows long term exposure to the same stressor or source of stress to which the body has adapted. Eventually the
adaptation energy is exhausted and the original alarm reaction reappears (Selye, 1974). The body responds to the threat, fights the threat, and if not successful, gives up to the threat. Ability or inability to cope with the threat situation seems to be the critical factor in successful response to the threat situation (Selye, 1974; Vogel, 1986).

Primarily all people's response to situations fall within the categories of Type A and Type B behaviors. Type A behaviors are typified by: overplanning, maintaining multiple thoughts and actions, a need to win, a desire for recognition, impatience, a sense of too much to do with too little time to do it, and becoming a workaholic. Reeves (1984) suggested that Type B personalities exhibit six counter characteristics that distinguish them from Type A. These traits are: being completely free from Type A habits, never suffering from a senses of time urgency, feeling the need to display one's achievements, playing for fun and relaxation, relaxing without guilt, and working without agitation. The ultimate goal of stress management programs dealing with people exhibiting Type A personalities is the reduction of stress and therefore, the attendant physiological complications. Reeves (1984) intimates that the behaviors exhibited by Type B personalities are the target behaviors sought by reduction programs.

Measurement of Stress

Many stress management programs utilize a number of different paper and pencil tests, self-evaluations, and physiological evaluations to determine stress levels (Moos, 1977; Rog & Bickman, 1984). Some of the more popular of these tests are utilized individually or in conjunction with other tests.
Sehnert (1981) describes several of these tests. The Self-Test for Type A Personality is a paper and pencil test that aids in identifying whether one has developed behavior traits associated with Type A behavior. The test is composed of a series of twenty adjectives describing attributes that the test taken may or may not possess. The presence of each attribute is rated using a five-point rating scale. After completing all twenty scales, the ratings are totaled and compared to the established norms. People exhibiting Type A personalities tend to have high scores whereas low scores are usually obtained by people exhibiting Type B personalities. Once an individual has been identified as possessing a Type A personality, steps to compensate for the high stress behaviors can be implemented. Compensation for the Type A behaviors involves making deliberate choices about behaviors against what seems "natural" in an effort to reduce stress levels.

A second self-test for stress is the Social Readjustment Rating Scale originally developed by Homes-Rahe and adapted by Sehnert (1981). The test is utilized to assess the number of stressful significant life events within the past year that have occurred. The scale includes items such as: death of a spouse, personal injury, divorce, sickness, and change in living conditions. A score of 300 or more on this scale serves as a warning that one's stress level is at a point where some type of stress reduction program should be initiated within twelve months.

A third paper and pencil self-test to determine stress levels is the test for Stress Signals (Sehnert, 1981). The test is designed to aide the individual in becoming more aware of the physiological signals
that indicate a stress overload. The test is composed of ten statements such as "I sleep well at night". The user is asked to indicate how frequently they engage in the behavior using a five point forced choice scale. Scores from each of the individual items are totaled. The higher the score the more aware the individual is of his own physiological response to stress. This self-test aids the individual in identifying his awareness of his response to stress.

Rog and Bickman (1984) enumerated several additional self-tests that are being utilized. The General Well-Being instrument assesses the psychological health and well-being of the individual, whereas the Stressful Events instrument assesses the frequency with which stressful situations are experienced at work. A third instrument is the Health Belief Model composed of a series of questions that are related to one's perception of susceptibility and severity of health and illness. All of these devices measure different aspects of stress and may be utilized individually or in combination in any stress reduction program (Rog & Bickman, 1984; Sehnert, 1981).

**The Effects of Stress Reduction**

A recent study at Cedar-Sinai Medical Center in Los Angeles found that patients with coronary artery disease developed heart abnormalities after mental stress at almost the same magnitude as the abnormalities observed after physical stress (Rozanski et al., 1988). Stress reduction not only diminishes heart problems for individuals exhibiting Type A personalities but, also, diminishes hypertension, absenteeism, respiratory diseases, glaucoma, backaches, arthritis, rheumatism, indigestion, peptic ulcers, bowel trouble, ball bladder disease, varicose veins, hernias, depression, and alcoholism with
varying degrees of success (Wright, 1975). Other studies found that many of the benefits that people with Type A personalities derived from stress management were extended to all personality types (Castell & Matthews, 1984; Debroski & MacDougall, 1978; Kelly & Stone, 1987).

Furthermore, Grant (1988) reported that in attempts to control diabetic sugar levels without medication the patients' behavior is the key to successful outcomes. Stress affects diabetic reactions, thus stress management is an important aspect in controlling sugar levels possibly even to the point of completely eliminating medication.

In addition, Fischman (1987) suggest that people can learn to be disease resistant by learning to cope with excessive stress. He claims that coping entails a sense of control of the situation, a commitment, and a feeling of challenge, attributes that may help to reduce stress and its related symptomologies.

**Stress Reduction Techniques**

Most of the stress management programs utilize numerous methods in a multitude of combinations to help individuals reduce their stress levels. Most of these methodologies can be grouped into the following categories: cognitive restructuring, time management, relaxation techniques, autogenics, visualization, biofeedback, and exercise.

Cognitive restructuring is the learned ability to catch oneself when unrealistic beliefs are causing stresses. Cognitive restructuring involves examining the interactions between events and beliefs that lead to stressful reactions, recognizing when the reaction is less than desirable, and altering the way one thinks about the situation in order
to change the reaction. The approach involves restructuring faulty rational beliefs such as viewing all differences of opinion as a direct challenge to the correctness of one's own opinion. Once an individual accepts the concept that a difference of opinion is not a personal attack, stress is reduced (Castell & Matthews, 1984).

A second technique, time management is utilized as a preventative technique to avoid or reduce stress. Symptoms of poor time management include rushing, missed deadlines, insufficient time for personal relationships, or even rest (Castell & Matthews, 1984). Time management plays a role by helping individuals make the most of the time that is available, setting goals, evaluating one's priorities, delegating tasks to others, and utilizing the available time accordingly. Time management involves setting priorities and understanding one's limitations (Archer, 1986; Castell & Matthew, 1984). It is thought that if one can learn to better utilize one's time, stress generated by poor time management will be reduced.

A third approach, relaxation techniques are learned methods of relaxing tensed muscles consciously on a regular basis, especially during stressful situations. Use of the technique may help individuals respond to stressful situations with a relaxed attitude (Archer, 1986; Castell & Matthews, 1984; Heaps, 1978). The relaxation response is the opposite of the alarm or "fight/flight" response, and with the appropriate training can be used to avoid the more stressful response. The relaxation state is a reversal of the alarm state (Selye, 1974). To utilize relaxation the individual is trained to relax groups of muscles voluntarily, usually beginning with the feet and progressing to the
head. As the muscles relax blood flow is also increased and the tension created by the stress is reduced (Castell & Matthews, 1984).

The technique of autogenics is a combination of relaxation techniques, deep breathing, and positive self-talk. Autogenics helps condition relaxation through recall of relaxed body states and relaxed periods in life. Typical phrases used during the exercises are: "I am relaxed", "I am calm", and so forth. If the person can imagine the feeling, the body has a tendency to reproduce the state or feeling being imagined (Castell & Matthews, 1984).

Visualization is another technique used in developing control of the autonomic functions. It aids in developing an inner awareness of the body. In visualization, the individual does not analyze the experience but concentrates on feeling the experience. It is a positive mind approach, allowing the individual to picture what is happening to the person much like a mental movie (Castell & Matthew, 1984). Visualization training helps a person to "see" what he is facing, and it helps him to develop a feeling of control.

Biofeedback is another approach to stress management utilizing instrumentation to train individuals to gain control over involuntary responses such as heart rate and blood flow. Small body signs are magnified so that they become more noticeable, and the person can make the necessary changes to reduce stress. Biofeedback promotes voluntary control over some involuntary responses as well as promoting self-exploration, self-awareness, and self-control (Castell & Matthews, 1984).

The final technique, physical exercise, involves regular physical activity that raises the heart rate into a target heart rate area for a
given length of time. Archer (1986) in a study of college students utilizing nine stress management behavior areas found that exercise was one of the four areas that provided significant improvement in stress levels. Similar results were also found by Heaps (1978). Both studies suggest that nutrition also played a part in stress reduction particularly reducing sugar and caffeine intake levels (Archer, 1986; Heaps, 1978).

A review of the literature indicates that individuals developing stress management programs select methods of stress reduction from the general pool of available methods. Some put more emphasis on physical training (Heaps, 1978) whereas others, put more emphasis on mental development strategies (Murphy, 1984). Two basic grouping of programs emerge: those emphasizing physical training, and those emphasizing mental strategies. There is a lot of overlap between the basic groupings. There appears to be no single underlying rationale for the selection of particular stress reduction techniques used in the studies reported in the literature. The approaches used by different individuals may reflect their training. Though there is a lot of overlap between programs regardless of perspective, no two stress management programs are identical. This overlap reflects the lack of comparative studies to determine which techniques or combination of techniques are most effective in which settings.

The Influence of Perception

As noted above some of the research into successful stress management programs has involved physical training with the assumption that better physical condition reduces stress. With the
growth and popularity of stress management programs expanding beyond Type A personalities, logical utilization of stress management techniques is in the management of pain. Meyer (1985) found that both stress and pain management were effective in reducing client emotional and physical symptoms in the elderly. As stress techniques are applied to related health fields there is a trend occurring to attempt the management of stress before it becomes a health problem. Stress management is utilized to promote wellness and a healthier lifestyle (Antonovsky, 1979; Cullen & Sandberg, 1987; Milsum, 1984; Schafer, 1983).

The emphasis on wellness rather than disease takes a three fold approach similar to traditional stress management programs (McManus, 1984) involving increased body awareness, control of physiological responses to stress and the utilization of relaxation techniques. It is the individual decision that makes stress either harmless or physiologically threatening (Reeves, 1984). It is the response choice rather than the situation itself that exerts the major influence on the body's immune system (Vogel, 1986). It is this body reaction to stress that changes the body's immune system leaving it more prone to disease (Berkenbosch, & et al. 1986). These findings suggest that the perception of fitness is as important for stress management as the changes produced by the physical training (Grace & Schill, 1986; Heaps, 1978; Horwitz et al, 1985). The psychological benefit may be the result of the feeling of control gained by completing a prescribed program to overcome stress. The more people feel they are in control, the more effective they are at coping with stress (Grace & Schill, 1986). Thus, how a person perceives the situation, what he
tells himself about the situation is more important in the stress response than the actual threat (Reeves, 1984).

Selye (1974) suggested that how one perceives the situation determines whether the situation is stressful. From his own life he found that he enjoyed rising early and working late because he enjoys work; because of this perspective the work load is not stressful for him. Thus, Selye, suggests that one way to limit the stress at work is to work at what one enjoys doing. It is possible that one reason the variety of stress management methodologies show positive results is that they all allow for or assist in the development of an improved self-perception.

Selye's personal observations are confirmed by a study of 56 participants who completed a physical fitness test, received predetermined social and physical information about their physical condition and then completed several self-attitude inventories. The participant's perception of their fitness levels were related positively to feelings of self-acceptance and negatively to anxiety about one's body fitness. These perceptions were independent of the actual level of fitness. The results indicated that though there was a definite benefit from the physical exercise, more benefit occurred from the perception of physical and personal value than from the actual exercise (Heaps, 1978).

Studies involving college students found that stress management programs that included relaxation techniques, aerobic exercises, the limitation of caffeine and sugar intake, the development of rational beliefs, positive self statements, assertion training, the development of
supportive relationships, and training in time management were all involved in successful stress management (Archer, 1986).

A survey of thirteen stress management studies in an occupational setting involving a variety of stress management techniques found that all the studies reflected some positive improvement in adapting to stress. Murphy (1984) suggests that the positive results obtained, even in the control groups, could be due to confounding variables such as raised employee perception that the employer is concerned about the employees. These results suggest that any attempt to reduce stress in and of itself produces a lowered stress level.

Several other studies concluded that all methods of stress management produced at least marginally significant results in lessening stress levels (Firth & Shapiro, 1986; Higgins, 1986; Murphy, 1984; Rog & Bickman, 1984). These studies found that in many cases the control group also improved, suggesting that something besides stress management was involved in producing the improvement. Such improvement could be the result of some prior motivation to reduce stress, a "Hawthorne Effect" in which participation in the experiment reduced the stress. Possibly just being allowed to sit for a period of time in a comfortable chair away from the regular daily routine would account for lowered stress levels (Wheeler & Munoz, 1985).

**Stress in the Workplace**

Individuals and eventually employers began exploring the value of stress management programs to reduce employee stress levels particularly as it began to show hard dollar savings. Miller, & et al.,
(1988) reported that stress-related workers compensation claims have risen to fourteen percent of all claims, up from five percent in 1980. It is becoming good business to provide stress management programs for employees in an effort to reduce worker compensation claims as well as increase productivity.

With the increasing awareness of stress, particularly in the workplace, (Busser, 1988; Miller et al., 1988; Fischman, 1987) more attention is being given to stress. Miller and his colleagues (1988) suggests that many times the causative factor is attributable to the labor saving tools society has developed. With the advent of office computers production can be monitored by key stroke statistics that the computer compiles. Busser (1988) has suggested that stress in the workplace centers on two considerations. First, as has already been seen (Heaps, 1978; Selye, 1974; Reeves, 1984, Antonovsky, 1979), the health of the individual can be negatively affected by stress. Secondly, an organization's effectiveness can be affected by employee stress. Quick and Quick (1984) found that high levels of stress reduce the quantity and quality of work produced. Thus, more and more employers are analyzing the stress levels of their employees and initiating stress management programs.

A word of caution has been raised. Murphy (1984) found that one of the major disadvantages of worksite stress management programs is that they do not reduce the stress loads of the work place but only teach participants how to cope more effectively with the stress. Ganster and his colleagues (1982) suggest that it is less desirable to teach employees to tolerate poorly designed organizations rather than it is to attempt to make the organization less stressful.
Is the job less attractive and more difficult because of stress or are the actual problems of the job creating the stress (Firth & Shapiro, 1986)? A balance between striving to remove the stress and programs to train employees to handle the stress would seem to be the most workable compromise.

The Current Study

Beginning a couple of years ago, the Las Vegas Municipal Court undertook a massive remodeling of the court office to enhance work flow, reduce noise levels, and improve general working conditions. After the renovation was complete, an inhouse employee training program was implemented whereby any employee could request any of the available training programs. One aspect of this training program was a stress management workshop. The workshop consisted of two separate two hour sessions conducted during one week, utilizing concepts of stress identification, goal setting, time management and simple stress stoppers. Since, Busser (1988) reported a trend toward employees increasingly utilizing stress management programs, it was anticipated that the workshop would be utilized. Furthermore, it was anticipated that the employees would derive positive benefits from the program as did twelve of the thirteen studies covered in Murphy's survey (1984) which resulted in significantly lower stress scores. In line with the tendency for any approach to stress management to provide positive results, it was assumed that whatever approach taken by Municipal Court would result in at least a positive trend towards lowered anxiety scores indicating reduced stress levels. With reduced stress levels it is anticipated that sick leave will also decline. This study predicts that the Las Vegas Municipal Court employees who
participate in the stress management workshop will significantly decrease their stress levels, and as a group will have significantly lower stress scores than the employees not attending the workshop. It is also predicted that the number of days of sick leave will decline for employees participating in the stress management workshop.

Method

Subjects
One hundred twenty two (122) employees of Municipal Court for the City of Las Vegas were asked to participate voluntarily in a series of stress surveys and a stress management workshop within the court’s internal training program. Participation in the surveys and the workshop was limited to employees of Municipal Court under the administration of the Court Administrator. Fifty one employees voluntarily completed the first survey. Eleven were selected to attend the workshop. Of these eleven, seven chose to complete the surveys. The remaining employees completing the surveys were utilized as the control group.

The 122 court employees had a mean age of 37.3 (sd=12.64) with a mean of 62.2 (sd=52.88) months of service with the city. The 44 non-workshop employees who responded to the first survey was compromised of 30 females and 14 males with a mean age of 39.7 (sd=13.4) and 64.18 (sd=53.33) months of service. Of the eleven employees who participated in the workshop ten completed both sessions. Of these ten participants, seven also completed the surveys. These seven were comprised of two males and five females with a mean age of 42.9 (sd=14.31) with 36.9 months (sd=3.62) of service to
the city. Though the length of service for both groups was not significantly different there was a trend toward the workshop participants having less time on the job than the non-participants in the court as a whole as shown in Table 1. The range of years of service for the whole court was 2 months to 18.5 years which accounts for the large standard deviation. The range for workshop participants was 9 months to 7.5 years.

Insert Table 1 here

Materials

The Self-test for Stress Levels (STSL) developed by Holmes and Rohe (1967) distributed by the Clark County Health District was utilized. The STSL is a self-test instrument that allows the individual to identify stressors that have occurred within the preceding twelve months. Scores for this test can range from 0 to 1429 or more. The test is open ended allowing users to add item to the list giving the items stress score they decide are appropriate. The second test instrument utilized was the State-Trait Anxiety Inventory (STAI) both X-1 (state) and X-2 (trait) forms of the inventory (Spielberger, Gorush, & Lushene, 1968). It was selected because the validity and reliability of these tests are quite high. (Buros, 1978). Some studies show coefficients in the .80s and .90s for both state and trait in test-retest situations (Buros, 1978). Furthermore the test-retest validity and reliability are not significantly influenced by previous exposure to the test instrument (Buros, 1978). STAI is available from Consulting Psychologists Press, 577 College Ave, Palo Alto, California 94306.
The Workshop

The workshop consisted of two, two-hour sessions during one week in late August. The workshop was conducted by Richard Benbow, Ph.D., a Senior Court Intake Officer for Municipal Court. The stress management materials were compiled by Chmielewski (1982) and were used with permission. Primarily, the workshop material consisted of an overview of the variety of stress management techniques available. There was little hands on training in actually coping with stress. The workshop material was divided into several sections.

The first section dealt with the recognition and identification of stress utilizing several paper and pencil self-tests and worksheets. The goal of the self-tests was to lead the participants to an increased awareness of their own personal stress level.

The second section dealt with goal setting and values clarification aimed at helping the participants determine what goals were important and how to budget time accordingly. Paper and pencil worksheets were utilized to aid the participants to reach their own value structure.

The third section dealt with the role nutrition and exercise play in stress management. Suggestions for proper nutrition and ideas for regular physical activity, including yoga, were presented.

The fourth section involved guidelines and worksheets for analysis of stressful situations, in order to determine which courses of action were actually available to the participants. Utilizing the guidelines and worksheets that were distributed, the individuals were
allowed to choose which course of action was the least stressful reaction to a given situation.

The fifth and final section involved the presentation of a number of simple stress stoppers. These techniques included: casual walking, muscle relaxing vibrators, oscillating shower heads, talking to others, changes in routine, prayer, meditation, day dreaming, and others. Also mentioned were the techniques of controlled breathing, a reiteration of the concept of time management, autogenics, and progressive relaxation. Little was done to teach these techniques. They were merely distributed. The participants were free to utilize any technique they wished to implement. It was left to the participants, without follow-up, to change their behavior habits to include stress management techniques.

Measurement

The State-Trait Anxiety Inventory was utilized to determine levels of stress prior to the workshop, immediately after the workshop, and again about three months later.

Furthermore, the number of days of sick leave used prior to the workshop was compared to the number of days of sick leave used after the workshop. The intent was to see if the workshop significantly reduced sick leave usage. The experiment utilized two dependent variables: the subjective estimation of individual stress and the amount of sick leave used.

Procedure

Prior to the beginning of the workshop during the preceding pay period, a State-Trait Anxiety Inventory and a Self-Test for Stress Levels were distributed to all court employees with their time cards.
These tests were numerically coded to allow the researcher to match subsequent surveys to the original without jeopardizing employee confidentiality. The participants of the workshop either volunteered or were asked to attend. At the beginning of the workshop each participant completed a demographic survey. Overall court staff and control group demographics were gleaned from in-house personnel records.

About two weeks after the workshop the State-Trait Anxiety Inventory (both forms, X-1 and X-2) were again distributed to those completing the first inventory. At the request of the Court Administrator it was again emphasized that completion of the survey was entirely voluntary. Three months later the inventory was distributed a third time (both forms X-1 and X-2).

Results

To insure the equivalency of stress levels in the treatment and non-treatment groups before initiating the stress management workshop a Life Stress Survey was administered. The mean stress scores for the two groups are shown in Table 2. A comparison of the Life Stress scores showed no significant difference in stressors between the workshop participants and non-participants (t (53) = 1.02, p > .05). Note that the standard deviation for the non-participant unusually is large. Scores for this group ranged from 0 to 760. Reanalysis of the scores after removing the scores that fell two standard deviations above the mean indicated that the workshop group had significantly more life stress events prior to the workshop than non-participants. (t (51) = 1.76, p < .05).
Four subjects who had completed the Life Stress Survey were excluded from the analyses because they failed to complete the State-Trait Anxiety Inventory (STAI) used to measure changes in stress over the course of the study.

Data was collected from 51 Municipal Court employees who voluntarily completed the inventories. The STAI were given on three occasions; one prior to the workshop and two at different times after the workshop. Participation or non-participation in the workshop served as the independent variable. The reported stress levels from the three administrations of STAI served as the dependent variables (see Table 3).

The drop out rate for the STAI taken two and a half months after the workshop was so excessive that the obtained data was not used in the current analyses.

Analyses of State Scores

A 2 x 2 mixed analysis of variance was performed on the State scores. The first factor was condition (workshop versus non-workshop). The second factor was time of administration (pre-workshop versus post workshop). There was no main effect of condition ($F(1,22) = 2.33, p > .05$). The workshop participants did not have significantly lower statistical scores than the non-workshop
group. There was, however, a significant effect of time of administration ($F (1,22) = 4.85, p < .05$). The post workshop scores were significantly higher than the pre-workshop scores. The interaction between condition and time of administration was not significant ($F (1,22) = 1.60, p > .05$). The post workshop State scores were lower than the pre-workshop scores for non-participants and increased only slightly for workshop participants (see Figure 1).

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Insert Figure 1 here

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Analyses of Trait Scores

A 2 x 2 mixed analysis of variance was also performed on the Trait scores. There was no main effect of condition ($F (1,23) = .92, p > .05$). The workshop participants did not have significantly lower Trait scores than the non-workshop participants. There was also no main effect of time of administration ($F (1,23) = 2.56, p > .05$). The post workshop scores were not significantly lower though the trend showed higher Trait scores on the second administration. In addition, the interaction between condition and time of administration was not significant ($F (1,23) = .40, p > .05$). The scores for the workshop participants were not significantly different from the non-workshop participants on either the pre or post measurements of Trait anxiety (see Figure 2).

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Insert Figure 2 here

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Analyses of Sick Leave Data

The number of days of sick leave used by each subject was available for those involved in the workshop. Unfortunately, no sick leave statistics were available for the non-participants prior to the workshop. Therefore, no comparative statistical analyses was possible. It is, however, interesting to note that for the group participating in the workshop, the amount of sick leave used increased significantly during the two and a half months after the workshop compared to the two and a half months immediately prior to the workshop ($t (12) = 6.67, p > .05$).

State differences

Further examination of the individual state scores for the employees attending the workshop disclosed that of the seven employees, four had individual pre-workshop and post workshop scores that varied by only a few points. One employee increased 18 points and one employee decreased 26 points in the amount of stress reported. The seventh participant reported a large increase, 42 points out of a total 80 points possible.

Item analysis of the individual state scores revealed that responses to item 20, dealing with feeling pleasant, was changed by only one person on the second inventory. Six of the seven participants scored item 7, dealing with worry, and item 15, dealing with being relaxed, differently on the second inventory. Items, one, four, and six (dealing respectively with calmness, regret, and being upset) were scored differently on the second inventory by five of the seven respondents.
Discussion

The Impact of Stress Management

Three factors surface in the literature on stress management that are particularly relevant to the current study. Like many of the stress management programs, the court has utilized several different approaches to managing stress including: cognitive restructuring (Castell & Matthews, 1984), relaxation techniques (Archer, 1986; Castell & Matthews, 1984; Heaps, 1978), and physical exercise (Archer, 1986; Heaps, 1978). Numerous studies produced results that indicated that whatever methodology was used, stress levels were reduced (Firth & Shapiro, 1986; Higgins, 1986; Murphy, 1984; Rog & Bickman, 1984).

Secondly, several studies (Heaps, 1978; Horowitz, 1985; Grace & Schill, 1986) found that one's perception of stress events influences one's reactions towards those events. If one thinks that events are stressful, a person responds as if the events are stressful.

Thirdly, stress in the work place (Busser, 1988) has been given growing attention. Quick and Quick (1984) found that stress can reduce employee work performance. Closely related is the finding that a reduction in stress is intimately related to physical wellness (Selye, 1974). The conclusion is drawn that stress management should reduce sick leave.

Workshop Results

It was predicted that the stress management workshop conducted by the City of Las Vegas as a part of the in-house training program of Municipal Court would significantly reduce perceived
levels of stress and concomitant sick leave usage. The data obtained is difficult to interpret due to numerous confounding variables and the low number of participants in the workshop.

**State-Trait Anxiety.** Unfortunately, the only significant result was that stress levels increased for those participating in the workshop, as well as for those in the control group. If employees think management is reducing stress in the work situation or if employees think that an employer is interested in them, stress levels will decrease (Grace & Shill, 1986). The Administration at Municipal Court has shown such concern for the employee by both reducing sources of stress and providing stress management workshops.

It is possible that the participation on the workshop simply raised the participants knowledge and awareness of stress without adequately teaching methodologies to deal with the newly recognized stress. Therefore, the finding that the stress levels of those participating in the stress workshop had significantly increased levels of perceived stress after completing the training would be consistent with the data obtained in this study. The workshop primarily introduced the subject of stress, what it is, and how the individual reacts to stress along with an overview of a variety of methods of coping with stress. The participants were left on their own to implement the stress management techniques, with no follow up to insure utilization of the techniques. The participants were taught to recognize the stress in their lives but not how to cope with their new insights.

It is also possible that the results may have been due to differences in the number of years participants in the workshop had
been employed. The workshop participants tended to be newer employees. It is also possible that this group was experiencing more life stresses, particularly those stresses related to being new on the job. The Life Stress Survey indicated that the stress levels prior to the workshop were equivalent between the groups. However, a closer look at the life stress data suggests that one or two subjects in the control group may have higher life stress scores. When the others from the control group are eliminated from the initial analyses, workshop participants report more stress than non-participants. Future studies should concentrate on insuring equivalency in pre-workshop stress scores before preceding with post workshop analyses of differences in stress.

**Sick Leave Results.** Since no sick leave data was available for non-workshop participants nor the general court, no comparative analyses was possible. From the growing emphasis on stress management and wellness (Miller, et al., 1988; Busser, 1988) one would expect sick leave to decrease with participation in stress management programs. The data from workshop participants indicated an increase in sick leave. Due to the small number of workshop participants (seven), increased sick leave by one individual could skew the data. Therefore, even though differences in the amount of sick leave were reported by workshop participants, no firm conclusion can be drawn from the sick leave data.

**Conclusions**

The results of this study suggest, first, that at least within the court, stress management workshops should include more than
definitions of stress, stress evaluation tools, and description of possible techniques. The results of the current study also underscore the need for studies to compare the various approaches used to reduce stress in the work environment. It is suggested that future stress management workshops assume that some of the basic information about stress is already known by the potential participants. If such an assumption is made, then the workshop leaders can focus on successful stress management techniques.

More research in applied settings needs to be conducted, Methodologies to counteract the practical constraints that operate in such settings need to be developed. The focus of the research should be on the development of workshops that emphasize the actual practice of coping with stress. Special attention needs to be devoted to monitoring the success of these workshops both to the individual and to the employer sponsoring the workshops.
Bibliography


### Table 1

**Age and years of service of court staff**

<table>
<thead>
<tr>
<th>Classification</th>
<th>All court staff</th>
<th>Non-Workshop participants</th>
<th>Workshop participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>122</td>
<td>44</td>
<td>7</td>
</tr>
<tr>
<td>Age (in years)</td>
<td>37.3</td>
<td>39.7</td>
<td>42.9</td>
</tr>
<tr>
<td>S.D.</td>
<td>(12.64)</td>
<td>(13.4)</td>
<td>(14.31)</td>
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<tr>
<td>Years working</td>
<td>5.18</td>
<td>5.35</td>
<td>3.08</td>
</tr>
<tr>
<td>for city</td>
<td>(4.41)</td>
<td>(4.44)</td>
<td>(.72)</td>
</tr>
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</table>
Table 2

Means and standard deviations from the Life Stress Survey for participants and non-participants

<table>
<thead>
<tr>
<th>Number of Subjects</th>
<th>Means</th>
<th>St. Dev.</th>
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</thead>
<tbody>
<tr>
<td>Workshop participants</td>
<td>7</td>
<td>293.29</td>
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<tr>
<td>Non-workshop participants</td>
<td>48</td>
<td>209.23</td>
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</table>
Table 3

Mean scores for the State/Trait Anxiety Inventory for participants and non-participants before and after a stress reduction workshop

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
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<th>After</th>
<th></th>
<th>2 1/2 months</th>
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<td>Trait</td>
<td>State</td>
<td>Trait</td>
<td>State</td>
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<tr>
<td>Non-workshop</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Number of subjects</td>
<td>42</td>
<td>44</td>
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<td>9</td>
<td>15</td>
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<tr>
<td>Means</td>
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<td>34.09</td>
<td>33.63</td>
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<td>St. Dev.</td>
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<td>10.82</td>
<td>8.66</td>
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<td>8.35</td>
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<tr>
<td>Workshop</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Number of subjects</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Means</td>
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<td>33.50</td>
<td>44.71</td>
<td>37.14</td>
<td>46.00</td>
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<tr>
<td>St. Dev.</td>
<td>15.53</td>
<td>10.11</td>
<td>20.06</td>
<td>11.92</td>
<td>13.00</td>
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</table>
Figure Captions

Figure 1: The post workshop trait scores were lower than the pre-workshop scores for non-participants and slightly increased for workshop participants.

Figure 2: The workshop participants were not significantly different from the non-workshop participants on either the pre or post state measurements.
Stress Management

x = Non workshop participants
o = Workshop participants
Stress Management

\( x = \text{Non Workshop participants} \)
\( o = \text{Workshop participants} \)