A study was undertaken in an attempt to get answers to current questions on the impact of stress in the work place as perceived by company management and employees at different levels, but emphasizing views of persons in supervisory positions. Information was gathered in questionnaires submitted to 150 companies selected at random from telephone directories of Minneapolis and St. Paul, Minnesota. The survey was administered by college students majoring in business and drew 128 respondents representing a cross section of occupations from 150 business concerns of varying size. When asked which factors contributed to stress, the predominant responses were "heavy work load," cited by 44.5 percent. Other identifying factors are tabulated. Of the respondents, 60.7 percent of the males and 63.3 percent of the females were supervisors. The reported levels of stress related generally to the number of persons supervised.

A review of contemporary business literature reveals increasing interest in the effect of stress in the work place. This is reflected by both studies to learn more about it and implementation of stress prevention and stress relief programs in companies and institutions.

This review of various studies demonstrates that when stress is recognized as a part of living, it can have both negative and positive effects; and that productive levels can be maintained by knowing the limitations or capacity of individuals to adapt to situations, and by exercising or pursuing activities that are perceived as being enjoyable or beneficial.

In a field investigation phase of this study, 128 employees, workers as well as managers from a variety of companies and occupational situations were surveyed to examine job factors which contributed to stress, what methods were used to relieve it, and whether such coping techniques on the job front were similar to those recommended by researchers.

Method used to gather data

A structured, non-disguised two-page questionnaire was developed as the study instrument. It was trial tested to iron out ambiguities in the questionnaire, and after a few revisions the survey was administered by a research team of college students majoring in business. The interview approach had been pre-arranged in order to reduce variables in the sampling procedure. Findings reported in this publication reflect certain selections necessary for space reasons.

Businesses, chosen in the selection process at random were called to obtain permission to administer the survey, resulting in a pool of 128 respondents generally classified as white collar, blue collar, service, technical and/or professional. These worked in either small or large retail establishments, or for wholesalers, manufacturers, hospitals or schools. Their occupational titles ranged from janitor to company president.

It was the general impression of the research team that the respondents were genuinely interested in the topic of stress. However, because management approval had been obtained before each respondent was given the questionnaire, there may have been possible sampling bias. This may explain the relatively high percentage (61.7 percent) of supervisors participating in this survey. The relatively small size of the population and limited region sampled also limits the generalizability of the data.

It is also beyond the scope of this study to assume that all necessary or right questions were used to identify stress factors in the work environment? or that the respondents were provided enough choices for indicating the degrees of stress they experienced, or, that their responses are necessarily free of error or bias.

The SPSS Sperry Univac 1100 computer processing system was used to interpret the categorical and stress-related variables in this study.

Description of the questionnaire

Fourteen questions requiring a quantitative and/or qualitative response were used in this survey. (Table A).

Questions one through nine (List A) established the demographics of the respondents such as sex, age, educational title, length of employment in current position, whether position had supervisory responsibilities, description of duties if a supervisor, number of people supervised, number of people employed in each respondent's organization, and a description of the company's business.

Questions ten through fourteen were stress related. Some of the questions also required a qualitative or descriptive response to reduce possible respondent frustration often associated with questions requiring only a yes or no response.

The two final questions dealt with views on relief from stress, as follows:

Question 13 asked the respondents to list the type of activities which helped them to relieve stress. By far the most frequent responses by males included some form of outdoor physical or athletic activity, i.e. fishing, hunting, indoor and outdoor sports and games, such as football, baseball, basketball, tennis, jogging, golf, etc. This was followed most frequently by such activities as relaxing in front of TV, drinking, partying, sex, and drugs, in that order.

The most frequent responses of the females also included some form of physical or athletic activity, such as exercising, jogging, tennis, volleyball, biking, walking and swimming. Like the males, this was followed most frequently by such activities such as TV viewing, reading, partying, meeting with friends, listening to music, drinking, traveling, picnicking, gardening, sewing, cooking and sex, in that order.

Question 14 inquired whether their company provided activities or outlets which respondents believed relieved stress.
Table A, Stress in Work Place

Survey Findings On All 14 Questions

Respondent answers to selected questions brought this information:

<table>
<thead>
<tr>
<th>Sex</th>
<th>Male - 62%</th>
<th>Female - 38%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>18 - 25 - 39.1%</td>
<td>26 - 35 - 30.5%</td>
</tr>
<tr>
<td>25-34</td>
<td>36 - 45 - 11.7%</td>
<td>46 - 54 - 16.4%</td>
</tr>
<tr>
<td>35-44</td>
<td>55 - 65 - 2.3%</td>
<td>66 + 0%</td>
</tr>
</tbody>
</table>

Employment in Present Position:

<table>
<thead>
<tr>
<th>Years Worked</th>
<th>1-11 Mths</th>
<th>1-5 years</th>
<th>6-10 years</th>
<th>11-15 years</th>
<th>16-20 years</th>
<th>21-29 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>12.6%</td>
<td>58.3%</td>
<td>14.9%</td>
<td>6.3%</td>
<td>3.2%</td>
<td>4.7%</td>
</tr>
</tbody>
</table>

Of the respondents, 36.7 percent said yes. 63.3 percent said no. The most frequently identified company activities were softball teams, picnics and parties.

Cross-tabulation of all responses indicates that all but the group supervising 16 to 20 people reported negative effects from stress. The group which supervised more than 20 people reported negative effects from stress most frequently. Yet, most of the respondents (67.1 percent) reported that they experienced no negative effects from stress, as opposed to the 32.9 percent who reported that they experienced negative effects from stress.

Meaning of stress and definitions

According to Dr. Hans Selye, a world renowned authority on stress, it is impossible to function in the world of work without experiencing stress. In fact, stress is with us all the time; and, we are only free of it at death. In short, stress is "the stuff of life," Selye believes.

To increase our understanding of the effects of stress in the workplace, it is important to define stress. Its simplest and most commonly accepted definition is that stress is the nonspecific response of the body to any demand made on it. For example, a mother may receive a report of the death of her son in military action. She experiences a traumatic shock and extreme sorrow. Months later she learns the son did not die but was taken prisoner and is, in fact, still alive. The mother experiences great joy at the unexpected news. The specific results of these two events, sorrow and joy, are at completely opposite poles of human emotion; yet, the nonspecific demand to readjust or cope with each of the two different situations is similarly stressful.

There are many analogies in everyday life where highly specific things or events share the same nonspecific response. This nonspecific response is also called the stereotyped response, because while the stress producer or stressor, as it is often called, may essentially be different, each will elicit essentially the same chemical or biological response, essentially meant to cope with any type of increased demand upon the human machinery.

Studies have shown emotional stimuli to be the most common stressor. Any normal kind of activity - a game of chess or a passionate embrace - can cause stress. It is immaterial whether the stress is pleasant or unpleasant, since the stressor effect depends mainly on the intensity of the demand and the capacity of the body to adapt to the stress through its stereotyped or nonspecific response mechanism.

When stress becomes damaging to the organism, it is called "distress." Studies have shown that workers who suffer from distress manifest behavior on the job such as lower productivity. Some give up entirely, quitting or walking out on their job. Some strain harder but in spite of the extra effort, get little done.

Some have difficulty evaluating their situation realistically or feel alienation, being misunderstood, or being cut off from sympathy or help.

They have trouble seeing any connection between their own behavior and the stressful situation in which they find themselves.

While "distress" indicates a level of stress that may be damaging to the human organism, low or moderate levels of stress can stimulate many individuals to greater effort with no apparent ill effects. Feelings of stress are often reported by high achievers, people who are normally highly motivated and usually believe that what they are doing or accomplishing is of importance or benefit to others or beneficial to themselves.

It has been found, however, that if stress continues at intense levels over long periods of time without resolution, it can turn into "distress" which can then become destructive to the human organism. Ulcers, hypertension and emotional exhaustion are some of the physiological manifestations of enduring intense levels of stress over long periods of time with no release. Other symptoms suggesting dangerous levels of stress are: irritability, depression, pounding of the heart, insomnia, fatigue, impulsive behavior, emotional instability, diarrhea and cramping.

According to those who have studied the condition carefully, stress can only be met by two types of behavior:

1) An active response, through fight;
2) A passive response, by running from or putting up with the stressor. However, the degree to which various people resolve their stress or get satisfaction from their active or passive behavior differs enormously. These differences also...
contribute to the difficulties researchers experience as they search for answers to stress-related problems. Apparently for some, stress situations in the work environment lead to an enhancement of work performance. For others, stress leads to performance degradation. In stress research, this phenomenon is identified as the general adaptation syndrome (G.A.S.).

Stress researchers also cite overload imbalance as the area which contributes largely to the frustration and high levels of stress experienced in the workplace or that work situations which demand more of a worker than that worker can handle. Worker respondents in this study complained of having to do the same task repeatedly, which they listed as boring, frustrating, and stressful. Literature on stress supports this phenomenon as well, suggesting that underload or understimulation brought on by worker or work-station isolation or repetitive tasks contributes to negative effects of stress.

What This Study Revealed

Analysis of the categorical and stress-related variables in this study examined both quantitative relationships and subjective qualitative factors.

A strong relationship was found between supervisors' stress and degrees of stress in this respect. Male and female supervisors followed similar patterns of stress. Of the male supervisors, 55.1% experienced moderate stress and 20.3% reported feeling excessive levels of stress. Of the female supervisors, 63.6% experienced moderate stress and 19.4% reported excessive stress.

A significant relationship was found between the number of people supervised and the degrees of stress felt by supervisors. Those who experienced the highest degrees of stress were those who supervised twenty or more people. Of the fifteen respondents in this category, 80 percent said they had experienced excessive degrees of stress.

The number of people employed by the company appeared to have no bearing on the degree of stress experienced by employees.

Employees complained mostly about too heavy a workload, about their supervisors, the pressure of deadlines, overall work conditions, and excessive responsibilities.

Most of the responses to both the quantitative and qualitative questions appeared to be related to the overload imbalance. Stress researchers also cite overload imbalance as the area which contributes largely to the frustration and high levels of stress experienced in the workplace or that work situations which demand more of a worker than that worker can handle comfortably. Among other consequences of high stress, researchers have found that reduced worker productivity results. Worker respondents in this study (34.4%) also reported that stress reduced their productivity.

Some of the workers in this study complained of having to do the same task repeatedly, which they listed as boring, frustrating, and stressful. Literature on stress supports this phenomenon as well, suggesting that underload or understimulation brought on by worker or work-station isolation or repetitive tasks contributes to negative effects of stress.

A majority of the survey population (65.6%) said they felt no stress or regarded the low or moderate levels of stress as motivating. It should be noted, of course, that 61.7% of the respondents in this study held supervisory positions, so the high percentage who reported feeling no negative effects from stress can possibly be explained by the findings of Friedman and Rosenman, who saw the linkage between stress and the Type A pattern of behavior, a behavior which represents a struggle against the limitations of time. This condition also is called possess, competitive, or even hostile striving to compete against others or of stretching against self-imposed goals in leisure as well as in work.

Only 10.2% of the respondents in this study reported experiencing excessive levels of stress. While (89.8%) reported experiencing minimal to moderate levels of stress, the relatively
high percentage of supervisory personnel (61.7%) participating in this study possibly skewed this ratio also.

Most employees, either instinctively or cognitively, choose physical activities or exercises and other pleasurable activities to relieve stress. This coping strategy is also highly recommended by authorities on stress.

While the majority of all the supervisors (65.6%) said they felt no negative effects from stress, those who supervised twenty or more employees reported excessive. Most of the supervisors also reported high levels of motivation in their position, apparently, indicating that a managerial or supervisory position generally gives a sense of achievement or accomplishment. This finding validates what stress researchers have found—that recognition or a sense of achievement reduces the negative effects of stress.

A frequent complaint was that supervisors constantly interrupted and that was viewed negatively or as a form of censure. This suggests that modifications of the work environment should emphasize recognition rather than censure to motivate workers and to reduce the negative effects of stress in the workplace.

Because people have been shown to respond differently to similar situations, the phenomenon identified as the general adaptation syndrome (G.A.S.) needs to be carefully considered in any efforts directed toward modifying or controlling for stress in the workplace.

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