JOB STRESS AND WORK PERFORMANCE

Introduction

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The phrase, "job stress," merits a few moments' scrutiny. Is it shorthand for "the stress of the job"? If so, does that imply that his job may be a stress which impinges on the worker? We can interpret "job stress" to mean that some jobs produce in workers a state of stress which then impairs their task performance. Where does stress properly lie: is it external stress which upsets the worker, or should his internal upset be labeled stress? Is stress then a subjective feeling or are there objective evidences of its presence or absence? And, is stress essentially distressful; or should it be considered normal, even desirable? As a matter of fact, "stress" has been used in the literature in all the senses I have indicated.

For us in medicine, a useful and congenial frame of reference lies in the interlocking work of Claude Bernard, Walter Cannon and Hans Selye. From this physiological perspective, stress is not something imposed on the organism; it is a response state induced by a stimulus, a stressor. Stress as a life experience is as inevitable as pain or anxiety and as useful; complete freedom from stress is death (1). Only excessive stress which unbalances homeostasis is experienced as stressful.

Students of psychological stress have not been so precise or so limited as Selye. Most researchers agree on the definition that considers stress a response phenomenon, not something external to the personality (2). The response may be in certain types of overt behavior, autonomic nervous system reactions, purely subjective feelings such as anxiety, fear or anger, or in adaptations sufficiently deviant from a norm to be labeled illness. In the psychological, psychosomatic, and psychiatric literature, stress is commonly thought to be distressful and undesirable. The stressor event produces an organismic process which strains the adaptive capacity and threatens disruption of physiological and psychological integrity.

Peculiar to discussions of psychological stress is the individualistic, idiosyncratic interpretation of life events as stressors: "One man's meat is another man's poison." As conceptualized by Hinkle, for the human organism to experience stress (an undesirable state) three conditions are necessary: a basic susceptibility to stressors in general; exposure to a significant change in environment or interpersonal relations; and interpretation of that change as a stressor, i.e., as dangerous and threatening (3).

In the past 10 years, several groups of investigators have attempted to refine and measure the relationship between stressors in the environment and states of psychological stress in the individual. Most of their reports have been published in psychiatric journals. Holmes and Rahe developed a 42-item Schedule of Recent Experiences, and in a series of articles have related the quality and quantity of life changes to the onset of illness (4). Holmes and colleagues developed a social consensus scale by asking research subjects to rate the original 42 life experiences in terms of importance and severity. From that rating a crude quantitative estimate of the stress-producing potential of life changes is possible. "The greater the magnitude of life change (or life crisis), the greater the probability that the life change would be associated with disease onset..." The seriousness of the disease and the magnitude of the change were also positively correlated (5).

To the question "What are the characteristics of a life event that make it a stressor?", most answers emphasize the degree of change the event causes in the individual's usual activities. Forced change demanding deviation from established coping patterns is most apt to result in second level, second rate coping (symptoms). The accompanying anxiety is very probably the key element being measured in the various life change scales.

Paykel and associates refined the Holmes-Rahe schedule into an enlarged list of 61 items covering more facets of life experience, and asked their subjects to rate them on a scale of 0 (least upsetting) to 20 (most upsetting) (6). By appropriate statistical treatment, each item emerged with a mean number. The 61 items were then placed in rank order. The highest rating by consensus (19.33 out of a possible 20) was "death of a child." Death of a

spouse (18.76) ranked second, jail sentence (17.60), third; then followed unfaithful spouse, major financial difficulty and business failure.

The least stressful of life change events was marriage of a child with respondents' approval (2.94). Next above this event were such items as a wanted pregnancy, becoming engaged, beginning one's education and moving to another home within the same city. Of items referring to work, the absence of work was rated most distressful; being fired was number 8 on the list (16.45); being unemployed for at least one month came in fifteenth.

Concerning factors related to actually holding a job, demotion ranked seventeenth; but the next item, arguments with boss or co-worker, was well down the list -- number 30. Below that were change of work hours, change in career, change of work conditions, a move to another city; all were considered less stressful than onset of menopause, taking an important examination, or separation from a close friend. An overall impression is that in the conscious thinking of the research subjects, work is not a prominent source of stress.

Additionally relevant to this discussion are data from Ilfeld's work (7). He and colleagues found, in a random sample of Chicago residents, a quantitative relationship between stressors and clinical depression. Of his respondents having no social stressors in their current life situation, two percent were depressed. Of those clearly having one stressor, the incidence of depression was seven per cent; with two stressors, fourteen percent were depressed. With three or more concurrent stressors, the incidence of clinical depression rose to thirty-four percent.

There appears to be a cumulative quantitative effect more or less independent of the specific nature of each stressor. It seems to matter little whether the burden is an alcoholic husband, death of a parent, unemployment, a sick child, an extramarital affair, or inadequate housing. Anyone living with three such stressors is in a high risk group for depression. At the same time, the Ilfeld data show that sixty-four percent of those so afflicted did not develop depression, suggesting that individual strengths and susceptibilities and social support systems also influence coping capacity.

Using different test populations and different research techniques, several groups of investigators similarly conclude that the number, severity, frequency, and duration of stressful life events correlate with untoward reactions or illness. A possible, though tentative, conclusion is that an employee who appears substantially stressed by aspects of his work should be interviewed concerning other possible adverse events in his present life or recent past. If further studies replicate Paykel's findings, we shall need to evaluate the general conclusion that job-related stressors do not alone ordinarily effect significant incapacity.

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