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Occupational Sources of Stress: A Review of the Literature Relating to Coronary Heart Disease and Mental Ill Health

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Felton & Cole (1963) estimate that all cardiovascular diseases accounted for 12 per cent of the time lost by the ‘working population’ in the US, for a total economic loss of about $4 billion in a single year. A report (1969) by the Department of Health and Social Security in the UK shows, as Aldridge (1970) indicates, that the sum of incapacity for men suffering from mental, psychoneurotic and personality disorders, nervousness, debility and migraine headache accounted for 22.8 million work days lost in 1968 alone (second only to bronchitis in the league table of illness and lost working days). Coronary heart disease and mental ill health together, therefore, represent a serious cost for industry both in human and financial terms.

There is a growing body of evidence from studies in experimental laboratory settings (Kahn & Quinn, 1970) and in the workplace (Margolis, Kroes & Quinn, 1974) to suggest that occupational stress is a causal factor in these diseases. By occupational stress is meant negative environmental factors or stressors (e.g. work overload, role conflict/ambiguity, poor working conditions) associated with a particular job. In addition to the environmental precursors, inherent characteristics of the individual and his behaviours may also contribute to occupational ill health. In fact, as Jenkins (1971a) has suggested, the early clinical studies of psychosomatically oriented General Practitioners and psychiatrists led to a number of theories about a predisposing state of neuroticism being confronted by environmental stressors leading to reaction of anxiety, changes in cardiovascular function and, in time, to coronary heart disease or mental ill health.

There are, therefore, two central features of stress at work, the interaction of which determines either coping or maladaptive behaviour and stress-related disease (Cooper & Marshall, 1975): (1) the dimensions or characteristics of the person and (2) the potential sources of stress in the work environment;
or as Lofquist & Dawis (1969) have labelled this interaction The Person–Environment Fit. There is, however, a third set of extra-organizational variables which can also be sources of stress. These are not linked directly to the individual’s characteristics or the work environment but are related to outside relationships and events, for example, family problems, financial difficulties, life crises (death in the family), etc., which have an impact in the workplace. In Figure 1.1 we provide a diagram which will highlight a model of stress at work which incorporates these concepts.

It is our intention here to examine the stress research literature linking environmental and individual sources of stress to physical and mental disease or illness. We are attempting this in the hope that we will be able to reveal where much of the work has been done and where the gaps lie. In addition, since much of the research has been carried out ‘within’ particular disciplines (i.e. psychology, management, sociology, medicine) and not ‘between’ disciplines, it is hoped that we may indicate the potential of interdisciplinary work in this field and begin to encourage this development.

Before embarking on this review, it might be helpful to note that many of the stress studies over the last 10–15 years have utilized two primary indices of occupational disease, coronary heart disease (CHD) and mental ill health (MIH). A more limited number of studies have focused on other physical illnesses thought to be stress-related, such as peptic ulcers, respiratory diseases and allergies, but these have not been as thoroughly researched in respect to social and psychologic stressors as heart disease or mental ill health. We have concentrated on the CHD and MIH studies primarily but have included the others, where they have contributed a new dimension or perspective to this topic. It might be added here that our literature review covered all the journals incorporated in the MEDLARS literature-retrieval system of the US National Library of Medicine, which includes most of the relevant medical and social science journals.

We should like to preface this review with a brief summary of some of the methodological problems encountered in some of the studies to follow. In the main text detailed criticism of individual studies has been kept to a minimum to allow breadth of coverage; we hope here, however, to forewarn the reader of the difficulties of interpretation of the research reported. Some of the methodological shortcomings are:

(1) Use of correlational analysis

(a) Most of the studies reported rely heavily on correlational data for their conclusions. The inferences about causality which can be drawn are, therefore, limited.

(b) Correlational analysis also fails to point out the role of intervening variables. A causal chain is not necessarily only two variables long as many studies would have us believe.