

Describe and Critically Assess Cooper's (1986) Model of Occupational Health

The term stress has many different definitions; Pinel 1999, described stress as the physiological or psychological threat. Cox (1978) viewed stress as an environmental phenomenon that causes strain on the body in the form of fatigue or distress. A contemporary definition of stress is an adverse emotional reaction caused by strain or stressors from the individuals' environment, involving biochemical, physiological, behavioural and psychological changes. People tend to have a 'comfort zone' within which they feel safe and secure. The feeling of stress is said to occur when the individual feels they are working outside of their 'comfort zone'; though it is important to note that the feelings of stress is individual to each person, as one person's strain (distress) may be another's excitement (eustress).

Stress is generally associated with anxiety, particularly in response to stressful change. In this context, stress is normally taken to be the condition where external pressures (stressors) threaten one's ability to cope with in one's life and work.

Occupational stress can be considered as numerous stressors that are caused by job related situations deemed 'stressful'. Cooper defined occupational stress as *'interaction of work conditions with characteristics of the worker that the demands of work exceed the ability of the worker to cope'* (Cooper). Based on Lazarus et al (1966, 1976) notion that stressors are caused by the environmental demands placed on the individual, who then judges these demands to exceed their capabilities, Cary L. Cooper (1986) applied this idea to an occupational setting and developed a model of occupational stress.

The model is based on sources of stress, individual characteristics, symptoms of occupational ill health and disease. (See Figure 1) Using previous research that identifies major sources of stress, (i.e. Cooper and Marshall 1976, Gowler and Legge, 1975, Schuler 1980), Cooper summarises six sources of stress. The first category (factors intrinsic to the job) links the worker's occupation and includes factors such as poor working condition, shift work or job overload; all of which can enhance stress at work. Otway and Misenta (1980) investigation on nuclear power plant operators stated that stress could be caused by the design of the control room. The authors referred to the Three Mile Island accident where the operators were distracted by the noise of the emergency alarms, which induced stress.

Monk and Tepas (1985) concludes that shift work is a common stressor, as it affects neurophysiological rhythms (i.e. blood temperature, blood sugar levels) including mental efficiency and work motivation, thus, resulting in stress related illness.

The amount of work an employee has can also cause, whether it is too little or too much. (French and Caplan 1973) French and Caplan produced two distinctions of workload identified as quantitative overload (employee is given too many tasks to complete in with time urgencies) and qualitative underload (the employee feels they do not have the necessary capabilities to complete the task; as the employee perceives the task to be too difficult). For example, Cooper et al (1982) found that work overload in British police officers was a major stressor. This was particularly evident in lower ranking officers (i.e. sergeants), ranked highly on a depression scale. The officers complained about the long hours working hours, increasing paperwork and a number of bureaucratic and outside forces that influenced policing.

The following categories (role in the organisation, relationship at work, career development, organisational structure and climate) are all linked to the organisation. Role within the organisation has been identified as a main source of stress; it includes role ambiguity/conflict (i.e. conflicting job demands), and responsibility for others. Air traffic controllers (who are responsible for other people's safety) were found to have more complaints of hypertension when compared to other airport personnel. (Cobb 1973). Kasl, 1978 found that in busy airports air traffic controllers suffer from numerous stress-induced diseases (i.e. peptic ulcers, high levels of cholesterol and blood pressure). Cooper et al (1978) demonstrated the problem of role conflict in their study of dentists. It was shown that dentists had increased levels of blood pressure, which related to the job role that they perceived as 'inflictor of pain' rather than 'healers'; along with administrative duties this produced strain.

The relationship employees have with their manager and fellow colleagues has been related to job stress. Not knowing one's function (role ambiguity) in the organisation and poor relationships with colleagues can produce low job satisfaction (French and Caplan 1972). Strong social support from managers can lower the stress levels of employees and help alleviate symptoms of occupational ill health (e.g. smoking). Cooper and Melhuish (1980) found senior male executives were vulnerable to high blood pressure. The authors interviewed 196 senior male executives and discovered they had poor relationships with employees and poor personal support both at home and work.

Cooper (1983) found career development to be a major stressor at work, factors such as over or under promotion, status incongruence, or lack of job security all cause strain. These factors have been shown to induce uncertainty which can have a negative effect on one's well-being, thus leading to feelings of psychological discomfort and distress (O'Driscoll and Cooper 1996).

Lastly, the fifth category (home/work interface) looks at each conflicting factor outside the working environment. For example, family and financial difficulties, dual-careers, conflicts between family and work demands. Women seeking full time careers are increasingly prone to conflict between work and raising a family resulting in strain. Dual careers are also a primary factor in the increase of divorce rates in the US and Western Europe (Davidson and Cooper 1984).

The model moves to discuss individual characteristics which account for the fact that stress is not only reliant on the external environment but is also determined by whether the individual perceives and assesses the situation as stressful or has adequate coping strategies to deal with the stress. Cooper includes individual differences in Type A personality, levels of neuroticism and Locus of control (LOC).

Individuals characterised as having Type A personalities tend to describe as 'driven', alert, impatient and aggressive. They work long hours, constantly under deadlines and showing chronically high levels of arousal. Type B personalities are characterised by an absence of those described for Type A personalities. In comparison Type A, individuals are prone to high levels of strain (Ganster and Shaubroeck 1991).

Eysenck (1967) identifies the factor of neuroticism in the structure of personality, which influences a person to respond to stress with neurotic symptoms

The concept of Locus of Control (how people see the relationship between events and themselves) is another variable in individual differences that influences stressor-strain relationship. Kahn and Byosiore (1992) note people who see their lives as being controlled by events outside the self have external LOC, or those who see themselves as being under control of the self have an internal LOC. In 1983, Kobasa and Pucetti found executives who scored higher on hardiness reported better mental health.

Individuals who appear to cope well with stress and resist illness are termed to have a Hardy personality; with hardiness, relating to how vulnerable one feels under a stressful situation.

Having identified the factors relating to sources of stress and individual characteristics, Cooper highlights the symptoms of occupational health, such as smoking, drinking, high blood and cholesterol levels. If prolonged exposure to strain continues this can lead to diseases, such as poor mental health and coronary heart disease.

The main criticism of Cooper's model is that it remains unclear about the stressors that are specifically related to the job, thus it is argued that the model best describes organisational stress rather than occupational stress. Cooper's description of the sources of stress 'intrinsic to the job' is the only category that describes occupational stressors, whereas the remaining categories describe stressors related to the organisation.

The model has been criticised for its simplistic left to right explanation of the stress process. Lazarus and Folkman (1986) transactional approach includes several feedback loops which determine whether the individuals attempt at coping is successful, as this affects whether the stressor will be deemed stressful in the future. Cooper's model is criticised for not being transactional, as it does not account for such feedback loops

The models lack of development in its explanation for the significance of individual differences has also been criticised. Individual differences in personality and coping each plays a significant role in which stressful working conditions influence mental and physical outcomes; it is suggested that each persons characteristics can influence the type of job a person chooses, hence the stressors they are exposed to (Cooper and Balioni 1998). Spector, Dwyer and Jex (1998) suggest that it is more than working conditions alone that account for stressful outcomes. Spector et al put forward three models that could be used in explaining the stress process, the first being the model of reversed causality, which argues the reaction to stress causes the perception of the job characteristics. The reciprocal causation model which argues, it is the stress outcomes that caused both by the causes and the effects of the perceived job characteristics and lastly, the external causes model which states that the external causes model. This argues that dispositions cause the perception of the stressor and the outcome.

However, the model does have several positive features; it incorporates all of the four main elements that play an active part in the stress process; sources of stress, individual differences in personality, coping strategies and outcomes.

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