PSYCHOSOCIAL AND PSYCHOPHYSIOLOGICAL FACTORS IN THE DESIGN AND THE EVALUATION OF WORKING CONDITIONS WITHIN HEALTH CARE SYSTEMS

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ABSTRACT

This paper describes the role of psychosocial and psychophysiological processes in the maintenance of health and the aetiology of ill-health. It attempts to develop an additional approach to the evaluation of health care systems based on the recognised importance of these processes for well-being, and on the role that they play in determining the impact of health-care systems on the well-being of the care providers. It goes some-way in describing the development, validation and application of a possible assessment procedure. Although such a package is discussed in the context of health-care systems, it could equally be applied to other occupational situations, including those developing around the use of computer-technology.

1. MODELS OF HEALTH

Over the last century, effective models and strategies have evolved for dealing with health related-problems and for providing health care. Until relatively recently these have largely been concerned with acute and infectious diseases, and injury. However, with the development of public health measures and advances in immunisation, pharmacotherapy and surgical techniques, afflictions such as smallpox and typhoid are now adequately controlled, and much of the effect of physical trauma can be retrieved. At least this is so for the developing countries. The developing world is still in the process of establishing such controls. Thus for the former, health priorities have necessarily shifted towards the problems posed by chronic disorders. Unfortunately, in this area, the traditional models and approaches are not so effective, largely because they tend to assume relatively simple and specific cause-effect relationships. Somewhat by contrast, current knowledge of chronic disorders is framed in terms of multifactorial aetiologies and complex prognoses, both involving a great diversity of risk and buffer factors. At the individual level the degree of vulnerability appears to interact with exposure to challenging or precipitating agents in the possible presence of buffers. This interaction can alter the probability of disorders occurring, and, if they occur, can modify their severity and duration. Interestingly, many of these
differently conceived factors or agents are essentially psychosocial in
nature, appearing to express their influence through the person's behaviour
or pattern of neuro-endocrine activity. Good examples of such an approach
to chronic disorder are provided by current research on coronary heart
disease (see Glass, 1977), and on cancers (see Cox and Mackay, 1982).

While traditionally attention has focussed on coronary heart disease,
there is now a growing interest in the mechanisms involved in the aetiology
and development of cancers. Unfortunately, much of the psychological
research in this area has been methodologically inadequate. Many studies
have been based on retrospective investigations of the life styles and
psychological states of cancer patients, compared with those of matched
groups of non-cancer patients, largely ignoring the impact of "having
cancer". Much of the data which is reliable is based on animal experiments,
and its immediate relevance to human experience and illness can be ques-
tioned. However, what may be tentatively suggested is that certain psycho-
logical and social experiences do significantly alter endocrine activity,
particularly that reflecting adrenal function. This in turn may interfere
with one of several processes, for example, immune system activity or the
favourability of the cellular environment, and allow the accelerated
development of certain cancers. These 'stressful' experiences may be more
associated with particular behavioural styles than others, and coping may
increase exposure to carcinogens, e.g. through smoking, or perhaps, diet.

Whether the disorders and injuries of interest are acute or chronic,
the descriptive models adopted must thus allow for the influence of two
pathological processes: the first relating to the direct effect of the
affliction, and the second relating to the person's overall experience
and response to their condition, and to "stress" in general. The person's
experience of "stress" may give rise to significant changes in attitudes,
behaviour and neuro-endocrine state, all of which can influence prognosis
(Cox, 1978). The effects of ill-health and "stress" are therefore
intimately and interactively related, and both encompass changes in
psychological state and behaviour as well as physiological function (e.g.
Cox et al, 1982a). Both can be reflections of a "breakdown in adaptation",
and the changes they induce offer possible avenues for the measurement of
such breakdown.