Sickness Absence

Medically certified absence in Britain accounted for a loss of 324 million days of work in the year ending in June 1971. The direct cost to the taxpayer was about £555 million, but when other costs such as lost earnings and output were added to the bill the total was not much less than the cost of running the whole of the N.H.S. Age-adjusted rates for days lost and for spells of absence due to all causes except influenza have been rising steadily in both men and women since 1962; and recently Taylor has examined the trends in sickness absence and some of the reasons for its increasing popularity.

The absolute values of absence rates must be treated with some caution, as they are affected by the way the data are collected. On the one hand they may be seen as overestimates: they include all permanently disabled individuals below pensionable age (equivalent to one third of the days of absence), the calculations are based on a six-day week, and no account is taken of annual holidays. On the other hand the figures may be seen as underestimated, because spells of less than three days are not recorded, the armed forces, civil servants, and post office workers are not included, and most working women are not within the insurance scheme. These factors may well balance each other out, but this cannot easily be verified.

However, even if the absolute values are imprecise the general increase in sickness absence cannot be ignored. Certificate diagnoses have altered over the past 20 years, with definite declines in the frequency of respiratory tuberculosis and peptic ulcer contrasting with large increases in those diagnoses for which objective clinical evidence is difficult to obtain. There has been, for example, an increase of two and a half times in "sprains and strains" and "nerves, debility, and headaches." What may have caused the upward trend in absence rates and the illusive towards ill-defined diagnosis? There have been changes in social security benefits and company sick-pay arrangements over the period. Since 1966 benefits have been earnings-related, and many companies now make up the deficit between a man's normal wage and the payment. This might logically lead to greater absenteeism, but there is very little evidence to suggest that it does. About 5% of the working population earn less than their social security entitlements, and some of these do tend to prolong their absence, but they are too few to account for the large rise in absenteeism. Studies of groups receiving supplements to their social security benefits indicate that many take less time off for a given diagnosis than those without a supplement.

Are the rising trends iatrogenic? Certification is an unenviable job borne principally by the general practitioner. He must decide whether an individual is capable or incapable of work, even when he is ignorant of the exact demands of his patient's job. Few patients requiring a certificate can be precisely labelled as unfit for work. Most lie in an indeterminate grey zone, and in these cases usually the patient decides and the doctor acquiesces. There is little to encourage the doctor to resist even when he feels the certificate is wrongly issued, as this is likely to cause embarrassment and the loss to his list of the patient and his family.

Are alternative schemes likely to improve the situation? In Holland there is a separate cadre of insurance doctors who have no clinical responsibility. In Sweden self-declaration is used in the first week of absence under the watchful eye of sick fund officials, and thereafter general practitioners are responsible for certification. In both these countries absence rates are higher than in the United Kingdom. Elsewhere certification is the responsibility of factory doctors, and the rise in rates have been somewhat less here; but, while the Dutch and Swedish methods are unacceptable because of the likely result of an increase in sickness absence, the use of factory doctors is impractical here because too few of them exist.

So the problem remains unsolved. If we hope to reverse the rising trend of sickness absence we should turn from examining the direct effects of benefits of and the doctors' part in certification to defining the changes in our society which provoke temporary escapes from work.

Men, Women, and Obesity

Most of us don't trust our mirrors at home, only occasionally glance at our reflections in shop windows, and quickly look away when descending a hotel staircase we suddenly, uncomfortably, see ourselves full-length in a huge plate of glass. Are we really so fat, or round-shouldered and stooping, or unattractive or plethoric? A few beautiful young people presumably enjoy their looks and may indeed be narcissistic. The remaining 99%, of us are unsure of our physical appearance, even to ourselves, and have little perception of our impact on other people, even our friends. There should be some impartial computer which can produce a dispassionate printout detailing just exactly what we look like to others. One common response would be that our appearance has no effect on anyone.

However, that conclusion would virtually demolish at a stroke the very lucrative slimming trade, which depends largely on the custom of women, most of whom think they are unfashionably fat. Ashwell and Etchell have recently studied the psychological attitudes of obese and normal individuals. It is quite extraordinary how ignorant we are about the (apparently) most widespread predisposing factor to ill-health and mortality at the present day. How prevalent is obesity? Is it increasing? How important is it medically? Is its importance the same for men and for women, for middle-aged as opposed to older (or younger) people, for sedentary as against active people? What psychological effects does it have? Do they vary with men and women, with social class? To none of these questions can anything other than the vaguest and most uncorroborated answers be given.

1 Taylor, P. J., Journal of the Royal College of Physicians, 1974, 8, 315.
So every little helps, and there is some interesting information in this report. A random sample of 619 women and 440 men in the London borough of Richmond had their heights and weights measured, and they recorded whether they considered themselves to be "underweight," "overweight," or "suitable" for their height. These heights and weights were also analysed and classified (under the same category headings) according to the Metropolitan Life Tables with, perhaps, a somewhat excessive tolerance for mild and moderate overweight. Mild overweight included people whose weights were 11-20% greater than the mean of the medium frame in the tables and moderate overweight included a range of 21-30% above this mean. Since even for young men an apparently slim sedentary man will have about 15% of his body weight as fat, mild overweight would therefore have a range of 11-20% plus 15% or up to 35% of the body weight as fat, and moderate overweight would have a range for men of up to 45% of fat. For women, the equivalent values would be about 10% greater—mild overweight being up to 45% fat, and moderate up to 55% fat. These limits may be realistic for contemporary British society but they are hardly physiological when one considers that the mean proportion of fat in the body of well-fed, physically active men in less advanced societies may be only about 10%.

This questionable classification in the article somewhat distorts the conclusions, since not surprisingly 50% of the Richmond sample were classed as of "suitable" weight. Despite the bias due to the classification 35% of the men and women were overweight, by far the greater majority being over 30 years of age. There were no differences with social class in the men, and only the women from the poorest socioeconomic groups, more than 50% of whom were overweight, were significantly different from the others.

The attitude of the individual to his or her own body weight in general showed reasonably accurate self-assessment. About 60% of those classed as underweight thought they were of suitable weight—and they were almost certainly correct. Almost all the overweight women, of any age and of any social class, knew they were overweight—and here we have objective evidence of a fact of which most men are well aware: that women never, like men, deceive themselves about their crooked nose, squint teeth, big feet, scraggy neck, too big bust, fat thighs, or obesity. There is a remarkable uniformity among the men in their ability to persuade themselves that things aren't really as bad as other more prejudiced observers might think. At all ages and in all social groups, 30-40% of the overweight men thought their weight was suitable.

The impact of the state of overweight on the individual had not always led to attempts to lose weight. Less than half of all the men (although 70% of the men in the higher social groups) had ever tried to reduce their weight, but almost 80% of the women had tried to become slimmer, with social class accounting for comparatively little difference.

There are some salutary conclusions which may be drawn from these findings. With few exceptions, women who are overweight are well aware of the fact, and most of them are sufficiently unhappy about their state to have made attempts to alter it. It seems pointless to waste time or money in an educative attempt to persuade women that obesity is undesirable—they know it already. Whether true mild or moderate obesity (though not the definition given by Ashwell and Etchell) really is undesirable or unhealthy for women is another matter—on which there is extraordinarily little evidence.

Men pose another problem. A large percentage of the men who must clearly have been obese were apparently under the delusion that their body weight was suitable, and more than half of the overweight men had never attempted to lose weight. Even moderate obesity in men is almost certainly a health hazard: so the emphasis on the undesirability of obesity, and on its treatment, might profitably shift from women (who don't need the persuasion and might not even need the treatment) to men, who clearly require both.

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1 Ashwell, M., and Etchell, L., British Journal of Preventive and Social Medicine, 1974, 28, 127.

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Dopa Decarboxylase Inhibitors

Despite the highly effective results from treating Parkinsonism with levodopa its shortcomings include the large daily dose required, the delay in therapeutic benefit, and the number of side effects which result from its metabolism both inside and outside the brain. The combination of peripheral dopa decarboxylase inhibitors with levodopa is an important advance: it allows a four- or five-fold reduction in dopa dosage, clinical response occurs within one or two weeks rather than several months, and the incidence of vomiting is cut from 80% to 15% of patients. The combination is safe and free from adverse reactions. 2 3

The non-specific enzyme L-aromatic acid decarboxylase is necessary for the conversion of dopa to dopamine as well as the decarboxylation of other amino acids such as 5-hydroxytryptophan to serotonin. 4 This enzyme is found in intestine, kidney, and liver, as well as in the brain. 5 The formation of dopamine from dopa can be prevented at these various sites by several inhibitors of decarboxylation which include alpha methyl dopa, alpha methyl dopa hydrzine (carbidopa, MK 486), and N-DL-seryl-N-(2,3,4-trihydroxybenzyl)-hydrzine (Ro4-4602). In high dosage Ro4-4602 will penetrate and prevent dopamine formation within the brain. In normal dosage both carbidopa and Ro4-4602 penetrate the brain poorly, if at all, despite regional variations, so that their use results in a selective extracerebral rather than intracerebral enzyme inhibition. In contrast to these enzyme inhibitors pyridoxal-5-phosphate, the active form of pyridoxine, is a coenzyme with dopa decarboxylase and will greatly enhance plasma decarboxylase activity. 6

About 95% of an oral dose of levodopa is metabolized outside the brain and never reaches the cerebral parenchyma, and its combination with pyridoxine will further enhance this metabolism and further decrease the effectiveness of levodopa treatment. 8 9 In contrast, the combination of levodopa with decarboxylase inhibitors reduces the peripheral metabolism of levodopa, increases peak plasma levodopa concentration, and reduces urinary excretion of dopamine and its metabolites. A daily dose of 200 mg carbidopa will reduce the quantity of levodopa required to produce similar plasma levodopa levels to approximately 20% of that when levodopa is given alone. 10

Combined therapy with levodopa and dopa decarboxylase inhibitors has now been used in a number of centres for up to five years. 11-18 The results of treatment with carbidopa and Ro4-4602 are similar, apart from minor dose differences. In all trials there has been a very considerable reduction in nausea and vomiting—probably due to the fact that the inhibitor does reach the medullary vomiting centres, which are outside the blood brain barrier. 15 In addition, cardiac arrhythmias caused by levodopa metabolism in the heart are reduced or avoided. The response to combined therapy is unaltered by...