In applying the randomised controlled trial to health care evaluation problems like the choice of sample size and the recruitment of subjects to the trial, the choice and validity of measures of outcome, the evaluation of outcomes and the replicability of findings, are endemic. Most of these problems are effectively dealt with in the seminal article by Schwartz and Lellouch[1] who identified two kinds of trial according to the objectives of the experiment. The first is called the explanatory model because it aims at understanding: to discover whether a difference exists between two clearly defined treatments. The second, called the pragmatic model, aims at informing the decision about which alternative treatment is to be used. In health care research we are usually concerned with deciding between two modes of care and therefore the pragmatic model would appear more appropriate.

The three trials described above all adopt the pragmatic model. In the pragmatic model the methods of care are not experimental; they should be flexible and undertaken under normal conditions. The assessment of results should be based on a single criterion specified in advance, although it may consist of a weighted combination of several criteria. Pragmatic models are concerned with choosing between two kinds of care and we would be concerned with type I, type II and type III errors.

On these elements the three trials described above fare better. However, they only provide a decision about the actual hospice, day hospital and community screening programme tested. They should not be used to indicate other similar services in other centres. In other words the pragmatic model is not generalisable.

NOTES

1 Schwartz, D. and Lellouch, J. Explanatory and pragmatic attitudes in therapeutical trials. *Journal of Chronic Diseases*, **20** (1967), 637–648.

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Work and Retirement

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J. Greenblaum, Age and Capacity Devaluation: A Replication. *Social Science and Medicine*, **19** (1984), 1181–1187.

This American study explores the relationship between self-assessment of disability and the results from measures which assess functional capacity (e.g. mobility restrictions, need for help in self-care). The

research replicates – though with some statistical and methodological refinements – a national survey of the disabled conducted by the American Social Security Administration in 1966. This study found that older men consistently reported more disability than younger men, independently of other factors affecting severity such as health status and occupation. A possible explanation for this was seen to lie in older workers underestimating their abilities. This might happen in situations where changes to their health interacted with changes in the workplace (e.g. the development of new technology). Given the prevalence of views which link advancing age with declining abilities, older people may feel unable to meet expectations at work. Workplace pressures, combined with negative social attitudes may lead people to underestimate their capacities. In this situation – particularly if they have some form of impairment – disability may be used as a social acceptable way of withdrawing from the workforce.

To explore these issues the study focused upon persons aged 20–60 who: (1) considered themselves disabled (limited in ability to work) for more than 6 months at the time of interview in 1972; and (2) were employed when the claimed work limitation began.

The study used self-assessment of ability to work with an index of functional capacity. The latter combined measures of physical activity limitations, mobility restrictions and the need for help in self-care, with a rating of the seriousness of all chronic conditions reported by respondents.

The research used a sample of 18,000 people selected from a 5% sample in the 1970 American census.

Analysis of the data focused upon the differences between the youngest age (20–44) and the oldest age groups (55–64) in the proportions considering themselves severely disabled. In general, for those with some work limitation, the proportion reporting to be severely disabled rose sharply with age; as, indeed, did the extent of functional incapacity. But the data showed that at all levels of functional capacity (limitation), the proportion considering themselves disabled increased with age. This was, in fact, particularly marked in the case of men. Among those, for example, with a minor incapacity, the proportion considering themselves severely disabled increased from 9.2% of those 20–44 to 21.7% of those aged 55–64.

The above finding suggests, therefore, some evidence for age leading to capacity devaluation. However, Greenblaum takes the analysis a step further by relating the data to, first, the individual's occupation; secondly, measures relating to performance requirements on the job – number of physical activities, stress and range of difficult work conditions.

The question which he asks is: are the effects of age on self-assessed disability greater for those whose work is more demanding and stressful?

The results of the analysis show the influence of occupation. Amongst men age 55–64 assessed at the lower level of incapacity, blue-collar workers were twice as likely as white-collar men to consider themselves severely disabled – 44.1% compared to 25.8%. The results from the measures exploring the impact of particular job requirements were, however, non-significant.

Finally the relationships between the different variables were further explored by a multivariate procedure known as logit analysis. The results confirmed that older people were more likely to consider themselves severely disabled regardless of the extent of their funcional limitations or of the type and requirement of their predisability job. The author concluded that age alone increased the likelihood that individuals would consider themselves severely disabled.

COMMENT

This is a useful study which raises important sociological and social policy issues. The findings suggest that workers may adjust their assessment of their own capacities in line with social attitudes and expectations. This is not a novel conclusion, but it is useful to have some empirical support. The article confines itself to a report of the findings, so we do not learn much about the processes which might explain the disparity between functional capacity and self-assessments of disability. It might be suggested, for example, that assessments of work limitation are a product both of social attitudes towards older workers (i.e. that they are less able) and voluntary decisions (and desires) to leave the labour force. We need to know more about those situations in which the worker views their current retirement age to be too high; and we need to identify the strategies which they may devise to 'negotiate' a withdrawal from the labour force; exaggerating the extent of capacity loss may be part of this process.

On the other hand, there is clearly a policy issue about providing support for older people in work situations. There is, of course, a discipline – Industrial Gerontology – which for the past 30 years has explored precisely this theme. The inference from this article is that its impact has been somewhat limited.

It would be nice to see the author's analysis extended by an ethnographic approach to the impact of disability in the workplace. This might be particularly useful for assessing the effect of particular work tasks on ageing workers. We may also learn about some possible

ways in which employers 'encourage' older people to devalue their skills and abilities (a theme not pursued by the researcher), as a means of assisting their acceptance of early retirement or redundancy programmes.

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