EDITOR’S CHOICE

Socioeconomic position (again), causes and confounding

Our theme in this issue is the role of socioeconomic position and health. It might be thought that little more could be said about this topic that would be worth reading. Describing social inequalities in the health of a population is hardly likely to awaken interest, but attempting to understand the mechanisms by which they arise is much more interesting. Power and colleagues show us that both adult and childhood social position are associated with quitting smoking and obesity, with stronger and more consistent findings across seven studies from six countries for women than for men.1

It is the inconsistent findings from Finland and the USA that attract attention in Power’s paper, and might generate interesting hypotheses for further study. Dalstra and colleagues, in a cross-country European study show marked socioeconomic differentials (indexed by educational attainment) in common chronic diseases.2 Extending analyses to other socioeconomic markers may be helpful in untangling the underlying mechanisms. In another paper on this theme, Kunst et al have assessed the association between self-assessed health status and education and income in 1980 and in 1990.3 The associations were similar at both time points and demonstrated more favourable trends in the Nordic countries for both education and income. It will be interesting to see whether the erosion of the welfare state in most Nordic countries over the last decade will result in increasing inequalities in health status.

In an attempt to understand the biology of socioeconomic inequalities in health, Sloan and colleagues have examined the role of the autonomic nervous system—thereby testing the ‘stress’ hypothesis.4 The electrocardiogram derived RR interval variability—the degree of autonomic nervous system regulation of heart contraction—was used as an indicator. This measure appears to have some value in predicting myocardial infarction in otherwise healthy people. Low socioeconomic position was linked with an adverse RR interval variability profile, supporting the hypothesis that biological ‘stress’ may contribute to socioeconomic inequalities.

What should we make of the apparent life-saving effects of frequent attendance at religious meetings, reported by Bagiella and colleagues?5 Is this evidence that God really does save? Or is it, as the authors contend, simply a reflection of social engagement? Our commentator thinks the authors have been too ready to discount the true effect of religious beliefs and have not really come to grips with the meaning of the exposure.6 Lack of consistency of effect is the main argument for rejecting a causal inference and in these circumstances, is strong evidence in support of this conclusion. Lack of consistency probably arises because the association is heavily confounded, and the confounding structure in different populations will be different. Thus, the failure to replicate protective effects found in both white and black populations suggest that uncontrolled confounding is at play. Studies from populations of different faiths would be of interest, as would randomized trials of religious engagement. A systematic review of randomized trials of the effects of prayer is ‘too inconclusive to guide those wishing to uphold or refute the effect of intercessory prayer on health care outcomes’.7

Getting older, for this editor, is marked by more frequent visits to the dentist to ensure a full set of healthy teeth. The association between periodontal disease and mortality has been reported many times, and is very likely to be confounded, particularly by socioeconomic position and by smoking. In a large rural Chinese cohort study modest increased risks associated with tooth loss for all-cause mortality, upper GI cancers, heart disease, and stroke were found both in male smokers and non-smokers.8 In women, who seldom smoked, the findings were less marked, particularly for heart disease. Confounding by socioeconomic position appeared unlikely as the participants came from very similar rural farming backgrounds. As with religious attendance, the interpretation of tooth loss, while reasonably easy to measure, is questioned by our commentators.9 They suggest that people without teeth are probably less likely to suffer from periodontal disease and associated infections, the suspected cause of increased systemic diseases.

If you really are losing the will to live, don’t do it. Gunnell and colleagues have systematically reviewed the literature on the epidemiology and prevention of suicide by hanging.10 Hanging in England and Wales, Australia, and New Zealand has become more popular over the last three decades, particularly in men. Of particular concern have been those who hang themselves in prisons and hospitals where there is a supposed duty of care by the institution. Fortunately such hangings make up only 10% of the overall proportion of cases, but as they are potentially much more preventable they are focused on in this report. The safer prison cell design presented by the authors would probably be viewed as an imaginable luxury by the British child workers who are the subject of our photoessay in this issue.11

Finally, please register for the World Congress of Epidemiology 2005 which will be held in Bangkok from August 21 to 25, 2005. Following the terrible tsunami disaster, which has affected so many people in south and south-east Asia, this will be an opportunity to contribute to the rebuilding of the infrastructure of the region through your tourist dollars, as well as to celebrate the 50th anniversary of the establishment of the International Epidemiology Association. It is intended to hold a satellite meeting in Phuket for participants who would like to discuss the public health initiatives that have been established for disease control and rehabilitation of populations.
affected by the tsunami. Visit the website—www.wce2005.org—and do take part!

References


