Commentary: The place in life course research of validated measures of socioeconomic position

David Blane

Among the attractions of social epidemiology (or social medicine—call it what you will) is the opportunity for medicine and social science to collaborate. An inspiration in this respect is the example set in the mid-20th century by Richard Titmuss and Jerry Morris, who arguably established this sub-discipline. Collaborations such as that between Titmuss and Morris are required if we wish to explain the social patterning of health and disease in terms of processes that are plausible both socially and biologically. The work is most creative when each half of the collaboration respects and acquires elementary knowledge of the other discipline; something that often is not achieved. A contemporary example of sub-optimal collaboration is the continued use by social epidemiologists of the term ‘socioeconomic status’—a thought prompted by the otherwise excellent paper by Ball and Mishra published in this issue of the International Journal of Epidemiology.

As first pointed out by Kreiger et al., the term socioeconomic status (SES) often has been used in an inconsistent manner and to mean different things. Usually three dimensions of social inequality are being referred to by SES: social class; social status; and material circumstances (indexed as income or some other measure of living standards). In sociological theory, social class refers to the position of the individual’s occupation in the structure of employment relations and conditions. Thus, a self-employed person belongs to a different class from that of an employee; and the employee’s social class, in turn, depends on whether the employee is a supervisor, a manager, or a routine worker. Social status, in contrast, refers to a hierarchy of prestige or the social honour accorded to an individual. This may be determined by the individual’s occupation but also may depend on a range of other factors, which reflect culture and history, such as gender, ancestry, race, or religion. Someone may be an employee with no managerial power yet have high status owing to membership of the clergy. A person belonging to a family descended from a priestly caste will be accorded high status, regardless of their present-day occupation; as may a person descended from a large land-owning family in several Christian cultures. Confusion between these different forms of social inequality may have arisen during the Cold War, when use of the term social class alarmed some academics, but the end of the Cold War hopefully has removed the need for such caution. Following Kreiger et al., the term ‘socioeconomic position’ has been adopted increasingly as the most general term, encompassing all the various dimensions of inequality, keeping the terms social status and social class to describe two specific forms.

For some decades now, social scientists have advocated an approach to measuring social position that is theoretically grounded and capable of empirical validation; the former being a precondition of the latter. Particularly influential, in their different ways, have been two British groups: the Oxford group of Goldthorpe, Heath, and Marshall; and the Cambridge group of Stewart, Prandy, and Blackburn. The work of the Oxford group has led to the new National Statistics Socio-Economic Classification (NS-SEC), which in UK government statistics has replaced the Registrar General’s social classes; and that of the Cambridge group has given us the Cambridge Social Interaction and Stratification Scale (CAMSIS). These measures are theoretically based, in the sense that each is explicit about which socioeconomic parameter they intend to measure—social class expressed through employment relations in the case of NS-SEC; and general social and material advantage as expressed through shared lifestyle in the case of the Cambridge scale. As they have a clear conceptual basis, it is possible to carry out empirical validation of the measures. An occupation’s location within the NS-SEC, for example, predicts the availability of a career structure and the possibilities for promotion for those working in that occupation, autonomy over the pace and content of work and forms of pay such as an hourly wage or monthly salary.

The use of explicit and validated measures of different forms of inequality has interesting implications for social epidemiology. Where, for example, does it leave education? Education, self-evidently to some people, is not a direct measure of location within the class structure or the status hierarchy; rather it is one mechanism by which individuals gain access to such locations. From this point of view, education can be seen legitimately as a predictor or indirect indicator of socioeconomic position, but not as a direct measure of it. A second implication is the potential of validated measures to be used in constructing more plausible causal pathways, relating different forms of inequality to different health outcomes. Muntaner et al. used separate measures of social class and social status to show that these dimensions had different amounts of explanatory power for physical and psychological health. The approach was taken a step further in an analysis of British Household Panel Survey data that included income alongside NS-SEC and Cambridge—conceptualized as measures of, respectively, living standards, social class (employment relations), and social status. Self-assessed health was related most strongly to NS-SEC among

Imperial College London, Charing Cross, St Dunstan’s Road, London W6 8RP, UK.

E-mail: d.blane@imperial.ac.uk
those of working age, and to Cambridge scale score among the retired and otherwise economically inactive, with income having little effect once class and status had been taken into account.12

This approach can be elaborated further, into what might be called a ‘dimensions-and-pathways’ approach to the social determinants of health,13 where validated measures of socioeconomic position are combined with indicators appropriate to different causal pathways. In an analysis of cardiovascular risk factors in the Health Survey for England, for example, Cambridge score was associated primarily with health behaviours, while a social class measure similar to NS-SEC was related more strongly to work control and breathlessness.14 Sacker et al.15 went on to show that social class, social status, and material circumstances acted on women’s health through the distinct pathways of, respectively, psychosocial work conditions, health behaviours, and social support; and that the strength of these pathways varied according to whether women were employed full or part time or not at all.

The use of validated measures of socioeconomic position could be a useful next step to the sort of life course analysis of risk represented by Ball and Mishra’s paper.2 Plausibly, the two components of body mass index relate differently to the various stages of the life course: specifically, height to childhood and adolescence; and weight to adulthood. Furthermore, material and psychosocial conditions during childhood and adolescence will influence height16; while adult behaviour and lifestyle will influence weight.17 To be consistent with the argument developed in the present commentary, the most appropriate measure of material conditions during childhood would be household income during the study subject’s childhood; and the most appropriate measure of adult lifestyle would be the Cambridge score of the study subject’s adult occupation. None of the measures would be relevant to psychosocial conditions during childhood, because psychosocial conditions are not a dimension of socioeconomic position. However, parental encouragement and interest in their child’s education are known to influence educational performance,18 and might also be regarded plausibly as reflecting the child’s psychosocial circumstances. Therefore, it would be reasonable to use education as an indicator of psychosocial conditions during the study subject’s childhood. Whether such advice is practical, in the sense that the relevant variables are present in the dataset, is another matter; the point has been to illustrate an approach that tries to be both socially and biological literate.

Finally, in relation to Ball and Mishra’s paper, it is worth pointing out that obesity recently has become of great interest because of the present rapid increase in its prevalence. While obesity risk might be related to influences across the life course, the recent increase in the prevalence of obesity is most likely to be related to contemporary changes in the conditions of life.

References

1. Morris JN, Titmuss RM. Health and social change: the recent history of rheumatic heart disease. Med Off 1944; 69–71 (part 1); 77–79 (part 2); 85–87 (part 3).