

journal supports three major elements—autonomy, mastery, and connectedness—that motivate people to learn and improve, bolstering their competence and their sense of self worth, and thus serving as antidotes to shame.¹¹

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Declining altruism in medicine

Understanding medical altruism is important in workforce planning

Altruism, the performance of cooperative unselfish acts beneficial to others, has been studied in several medical contexts, including the donation of organs and genetic material and patients' participation in potentially hazardous experiments and trials.¹ Physicians' altruism towards their patients and others has been less well studied and is implicit, rather than explicit, in statements about medical professional values and attitudes. Altruism is, however, embodied in many cultural stereotypes of the "good doctor," such as John Berger's country practitioner in *A Fortunate Man*.²

Altruistic behaviour by physicians might include, for example, continuing to work or providing informal medical advice outside contracted hours, giving free treatment to poor patients in fee for service healthcare systems, and a general willingness to go the extra mile in professional activities. There is much evidence that many doctors work beyond their contracted hours, but there is also a growing feeling that altruism in medicine, if not dying, is at least declining.

This might be expressed, for example, in the anaesthetist's unwillingness to accept a final case on the list because the operation would run beyond the limit of the contracted session; in the general decline in home visiting rates by general practitioners; or in the recent explicit choices now made by young doctors in balancing professional and domestic commitments. Generation X is making a cool appraisal of the costs and benefits of a medical career.

Explaining the emergence and maintenance of altruistic and cooperative social behaviour has been a longstanding problem in the biological and social sciences, and there is currently intense debate about the determinants of human nature. Darwin recognised altruism as a particular difficulty for his evolutionary concept, which was based on competition and the struggle for existence. The widely accepted solution to this problem is the model of kin selection, in which cooperation is more likely to develop among genetically related individuals and which now forms part of the selfish gene view of natural selection.³⁻⁴ Cooperative behaviour, however, is likely to be

sustained only when there is either direct or indirect reciprocity, in which benevolence to one individual increases the chances of receiving help directly in return or indirectly from others.⁵ Experiments involving game theory and computer simulations of these behaviours within populations have confirmed the importance of reciprocity⁶ in sustaining altruism, but because reproductive success is often used as an outcome measure, these results should be applied with caution to medical populations.

It is possible to think of a number of ways in which reciprocity might sustain medical altruism. The first of these is the support and assistance rendered to doctors working under difficult circumstances. Many readers will be old enough to remember the miraculous appearance of coffee and sandwiches on hospital wards in the small hours of a long weekend on call, and the comforts of the doctors' mess that mitigated some of the miseries of frequent resident duties. Secondly, doctors have enjoyed for many years a level of social esteem accorded to few other professions. In *Captain Corelli's Mandolin*,⁷ Dr Iannis derived his authority in the kapheneion (coffee house) from the experience of a life in medical practice, which also equipped him to act as a counsellor in matters of love and war. Thirdly, doctors have traditionally enjoyed material and financial security, which perhaps now is beginning to compare unfavourably with that in other career opportunities.

At a time of unprecedented mistrust between the medical profession, the public, and the media, understanding the roots of altruistic behaviour in medicine is critical. The unquestioning status traditionally accorded to healers in times of aetiological ignorance and therapeutic impotence has given way to a more sceptical and often disparaging view of doctors, now in possession of unparalleled therapeutic capabilities. Pathetic gratitude for ineffective medical interventions has been replaced by escalating demands and expectations, often fuelled by media hyperbole and an enduring public appetite for miracles. The critical role of an open and honest dialogue between doctors and patients has been emphasised in this journal,⁸ but this

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can be difficult to achieve as medicine becomes more complex, fragmented, episodic, and impersonal.

Understanding medical altruism is also likely to be important in workforce planning particularly if, as in the UK National Health Service, recruitment and retention of medical and nursing staff are problematic. It may well be that the conditions that encourage clinicians to join and stay in their posts are not dissimilar to those that are needed for the development of altruistic behaviours. If it is also true that the maintenance of these behaviours depends on the recognition of individuals with similar characteristics—clinical and professional values—and on the expectation of reciprocity, then there is a strong message here for managers and policy makers. Disenfranchisement and disengagement are dimensions of demoralisation and burnout, a constant threat to physicians' health.⁹ Workforce planning needs to be more than a numbers game and must pay explicit attention to the working

conditions, incentives, and rewards provided for all healthcare workers.

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Epidemic of cardiovascular disease in South Asians

Prevention must start in childhood

Papers p 635

People with ancestry in the countries of the Indian subcontinent (South Asians), comprising more than one fifth of the global population, are highly susceptible to cardiovascular diseases. This susceptibility is well demonstrated in South Asian migrants in places as diverse as the United Kingdom, South Africa, the Caribbean, Singapore, the United States, Canada, and urban India.¹ Unless controlled, this epidemic, which is starting in urban settings but spreading rapidly to semi-urban and rural settings, will thwart global control of cardiovascular diseases.² Research on several communities of the South Asian diaspora has provided insights that are vital to the control of cardiovascular diseases in South Asians worldwide. In this issue Whincup et al extend the strong tradition of British research by reporting observations in children (p 635).³

In 1994 Whincup et al measured insulin, glucose, and other biochemical risk factors and made social and anthropometric observations in 8-11 year olds, mostly Pakistani Muslims, in 10 British towns. Their work primarily contributes to two questions. Firstly, what is the potential role of insulin resistance in explaining the high risk of cardiovascular diseases in South Asians. Secondly, given a particular exposure to a risk factor, might South Asians be at higher risk or more susceptible to its effects?

The causes of the high cardiovascular risk in South Asians, other than artefacts of data collection (which probably play some part),⁴ can be considered under four categories: excess exposure to known risk factors, greater susceptibility, new risk factors, or competing causes.

Excess exposure to risk factors—The explanation that South Asians are more exposed to the causal risk factors is usually dismissed,¹ possibly too readily. Except for smoking, which is lower in Indian (but not Pakistani and Bangladeshi) men and all South Asian women, the pattern is complex.⁵⁻⁷ The established risk factors com-

moner in South Asians include low high density lipoprotein cholesterol, diabetes (much commoner in South Asians), and lack of aerobic exercise. When the risk profile is seen in the context of social factors linked to coronary heart disease such as relative poverty, social upheaval after migration, and long working hours, this explanation deserves more consideration. Whincup et al showed that parents of South Asian children were much more likely to be in manual occupations, and on a broad range of biological risk factors the children are either similar to or worse off than the Europeans.

Greater susceptibility—The explanation that South Asians are more susceptible to established risk factors for coronary heart disease risk has not been systematically studied. Proposed mechanisms include genetic differences (unidentified) or a mismatch between fetal and early life metabolism and that in middle age. A third possibility is that rapid change in some risk factors may itself confer a risk. Punjabis in Southall had a mean serum cholesterol of 6.5 mmol/l compared with 4.9 mmol/l for their siblings in Punjab, India.⁸ Rapid rises, as implied here, may confer a risk beyond that predicted by a static measure. Whincup et al's observations contribute to this explanation.³ They have shown what some have long suspected: that the relation between risk factor and outcome may differ by ethnic group. South Asians may indeed be more susceptible—as shown in Whincup et al's data by a comparatively steeper slope in the regression line describing the association between risk factor (here obesity) and outcome (here insulin). Patel et al showed that conventional indicators of obesity were inconsistently associated with components of the metabolic syndrome in Chinese, South Asian, and European populations, with demonstrable interactions between indicators such as waist measurement, waist-hip ratio, and ethnicity.⁹ Whincup et al's findings might be