Which doctors die first? Analysis of *BMJ* obituary columns

D J M Wright, A P Roberts

The obituary columns of the *BMJ* have become more informative since editorial policy tried to encompass all medical deaths early in 1995. Our impression was that the new columns showed that doctors born in the Indian subcontinent died earlier than those born in the United Kingdom. We tested this impression in a systematic analysis.

Methods and results

We reviewed 572 obituaries in the *BMJ* from April 1995 to December 1995 and in the issue of 6 April 1996 for the doctor's age, country of birth, and specialty. Age at death was recorded in whole years, and the significance of the differences in means assessed using Student's *t* test. No correction for continuity was applied to take account of the month of death. To increase the size of groups for comparison, countries of origin and specialties were grouped as in table 1, comparisons being made with the largest group, United Kingdom and primary care respectively. Three junior doctors who had not selected a specialty were excluded from the analysis of specialty.

Doctors from the Indian subcontinent ($P < 0.001$) and from the rest of the world ($P = 0.001$) died before those from the United Kingdom, while those from the rest of the English speaking world lived longer ($P = 0.017$) (table 1). The mean age at death of those in primary care was 74.2 years. Anaesthetists died younger than those in primary care ($P = 0.014$), while primary care practitioners died before physicians in hospital medicine ($P = 0.028$). The oldest survivor was a general practitioner, who died at 101. Differences between the United Kingdom and the Indian subcontinent and the United Kingdom and the rest of the world were maintained when anaesthetists were excluded ($t = 4.21$, $P < 0.001$; $t = 3.00$, $P < 0.005$ respectively) but, when we considered only those born in the United Kingdom the difference between primary

care practitioners and anaesthetists was no longer significant.

Comment

Our data set is incomplete because we could not to consider all the factors that we would like in such a selective review. Firstly, we did not record the sex of the doctor, but in the cohort of doctors (40 000) surveyed by Doll *et al* in 1951 less than 15% were women.¹ Secondly, not all deaths are recorded in an obituary. For example, given that the number of doctors registered in 1950 was 50 000 and that the average age at death is 75 years,² 1250 doctors would be expected to die each year, or 959 in our study period. We had 572 obituaries, or about 55% of expected deaths. Finally, annual death rates in doctors should be related to those in comparable social groups. It would of course also have been the counsel of perfection to compare doctors living in India with those in the United Kingdom. Nevertheless, our results are a stimulus for further investigation.

The earlier death of those born in India rather than the United Kingdom may reflect the tendency of Indians to coronary heart disease.³ However, this would not explain why those born in the rest of the world also died earlier.³ Could it be that the NHS does not deal kindly with these foreign entrants to the service?

The earlier deaths of anaesthetists, although not significant among doctors born in the United Kingdom, may warrant investigation in a larger population. Hospital physicians seem to live longer than general practitioners. Perhaps they show a higher degree of professionalism in dealing with their intimations of mortality than their less specialised colleagues. Hospital practitioners usually retire at 65, whereas many general practitioners used to work longer, but varying retirement age does not seem to alter life expectancy.⁴

These results could be validated by using more complete data on doctors in whom an accurate cause of

Table 1—Longevity of doctors related to country of origin and specialty

	No of doctors	Mean (SD) age (years)	Difference in means*	Student's <i>t</i>	P value
Country of origin					
United Kingdom	469	75.2 (13.4)			
Republic of Ireland	12	80.1 (7.9)	4.9	1.25	0.21
English speaking world (Australia, New Zealand, United States, Canada, South Africa, and the Caribbean)	27	81.5 (9.8)	6.3	2.40	0.017
Rest of Europe	22	80.2 (14.9)	5.0	1.68	0.093
Indian subcontinent (India, Pakistan, Bangladesh, and Burma)	21	61.8 (14.8)	-13.5	4.47	<0.001
Rest of world (Africa and rest of Asia)	21	65.0 (18.7)	-10.2	3.33	0.001
Specialty†					
Radiology	24	78.1 (12.8)	3.9	1.26	0.21
Hospital medicine	137	77.5 (11.4)	3.3	2.21	0.028
Laboratory medicine	46	77.2 (12.0)	3.0	1.33	0.18
Surgery	91	75.7 (13.8)	1.2	0.84	0.40
Primary care	192	74.2 (14.3)			
Obstetrics and gynaecology	22	73.1 (11.4)	-1.1	1.33	0.18
Public health	7	73.0 (12.9)	-1.2	0.22	0.83
Psychiatry	24	70.8 (13.6)	-3.4	1.09	0.28
Anaesthetics	26	66.4 (19.9)	-7.8	2.48	0.014

*Compared with United Kingdom for country of origin and with primary care for specialty.

†Unclassified for three junior doctors.

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death has been determined. Such investigations using doctors as guinea pigs would make any findings more likely to be immediately translated into public health measures.

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- 1 Doll R, Peto R, Wheatley K, Gray R, Sutherland I. Mortality in relation to smoking: 40 years of observations on male British doctors. *BMJ* 1994;309:901-11.
- 2 Office of Population and Census. Mortality series. London: HMSO, 1955:38 (table 15). (DHI, No 27.)
- 3 Balarajan R. Ethnicity and variations in the nation's health. *Health Trends* 1995;6;27(4):114-9.
- 4 Niemi T. Retirement and mortality. *Scand J Soc Med* 1980;8:39-41.

Freedom, responsibility, and health

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Freedom and responsibility, how much of each and how they are balanced, have profound implications for our personal lives and for our work. The health of a population and its achievement in the workplace are enhanced when individuals have some freedom and some responsibility, but not too much of either, and when civil associations of individuals rather than individuals acting alone are the essential social units. The consistent association of social contacts with health and productivity provides strong support for the premise that intimate relationships are the focus around which people's lives revolve. Membership of a "social network" may be merely conforming to a reigning social norm, and this could mean having to pay an important price in the loss of creativity associated with individualism. But social conformity should not prevent individuals from going their own way, and it should be possible to combine the luxury of individuality with an active life in civic affairs. Less than complete freedom may fall short of existential utopia, but it may be best for our health and wellbeing.

The human yearning for freedom, countered by the urge to escape from it and from responsibility, has commanded the attention of both metaphysical and political philosophers over the centuries. Some individuals seem to need the total, or near total, freedom exalted by Ralph Waldo Emerson and practised by Henry David Thoreau. At the other extreme there are many who voluntarily relinquish their freedom, as described in Erich Fromm's *Escape from Freedom* and exemplified by the mass movement of groups, and even whole populations, to fundamentalism. Though the philosophical and religious debates continue, new evidence from studies of the length and quality of life indicate that humans, on average, fare better when they have some freedom and some responsibility, but not too much of either—that is, when they live and work in an environment of "bounded freedom" and "bounded responsibility."

Autonomy at work

Freedom and responsibility go hand in hand, and how they are balanced has profound implications for our personal lives and our work. In the workplace a low level of worker responsibility and freedom is widely recognised to result in poor quality of work. The high levels of industrial productivity in Japan have been attributed to greater worker participation in shaping their own work, group loyalty, and social equality.^{1,2} Japanese workers' freedom and responsibilities are sharply constrained, however,³ and it seems to be the sense of shared community goals and social coherence that are the key to motivation and industrial productivity. American economist Robert Putnam also suggested that strong community and "networks of civic

engagement" were responsible for the high level of industrial productivity in Northern Italy.⁴

The conditions under which people work also greatly affect their health (above and beyond the hazards of occupations such as exposure to toxic substances and physical injury). British civil servants in top managerial positions enjoy greater health and longevity than middle management, and those in middle management are healthier than those at lower levels.⁵ This association of health with position in an occupational hierarchy has been explained in part by the degree of control individuals have over their work, and in part by early life, current health behaviours, and psychosocial circumstances.⁶

Social support

To exercise control a person must have the freedom to act; the two go hand in hand, and more of each can therefore be equated with better health. However, there seems to be an upper limit to their beneficial effects. The health of the Japanese again provides an example. Japanese living in Japan are relatively free from heart disease and as a result have a long life expectancy. Most Japanese who live in America rapidly assume the higher rate of heart disease of other Americans, but those who maintain the tight family structure traditional in Japan retain their immunity to heart disease.⁷ The prevalence of coronary heart disease in families who have adopted an American lifestyle was three to five times greater than that in those retaining a traditional Japanese culture, a difference that could not be accounted for by diet, smoking, or any of the other major coronary risk factors.

Similar observations have been reported for Italians who emigrated from the Italian town of Roseto to the United States, settling in Pennsylvania and founding a town by the same name.⁸ Residents of the new Roseto retained the relative freedom from coronary artery disease that their relatives in Italy enjoyed as long as they kept their traditional family oriented social structure. But as people became assimilated into the surrounding American culture, where the individual rather than the family and community was considered to be the dominant unit, the incidence of coronary heart disease rose rapidly. Again, the deterioration of cardiac health could not be explained by the usual risk factors. Diet had improved and smoking had fallen greatly. Although the Rosetans had become more sedentary, it was not enough to explain the large increase in coronary heart disease. The authors concluded that "attention directed to broader aspects of behaviour of individuals and groups, specifically those that lead to or reflect social disintegration, has suggested a strong influence of individual social values and collective morale on the heart and coronary vessels."⁸

The better health of individuals with strong ties to family, friends, and community has been widely documented. Adults who live together live longer than

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