Medicine: a rethink? Are entrants to the profession and the way it is organised fit for purpose?

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ABSTRACT

The health burden in most countries has changed. Although acute care is needed for trauma, acute illness and exacerbations of chronic disease, most of the burden is now long term. These patients need different approaches, with more emphasis upon supporting self-management, enhancing lifestyle changes, aiding compliance by shared decision-making and providing more convenient follow-up that appreciates the likelihood of multimorbidity. Integrated care will increasingly be offered from within the community. The current hospital- and doctor-centric focus needs to change to one where specialists work in the community as much as in hospitals and share this different type of care with others. For potential future doctors, the scientific basis of medicine will still underpin their unique role in diagnosis and prescribing, but they will need to understand these other changes and to be selected according to attributes compatible with their future role, and then be trained and assessed accordingly.

KEYWORDS: Long-term conditions, self-management, integrated care, multiple mini interviews, training

Introduction

Older readers will have little difficulty recalling what they were doing when President Kennedy was assassinated. Younger colleagues will recall their whereabouts on 9/11 (11 September 2001), and all in the UK will remember 7 July 2005. However, these historical recollections are easier than forward-looking predictions. Few anticipated the fall of the Berlin Wall and the reunification of Germany, and none predicted the profound impact that the Internet would have on all aspects of life in just a decade or two. Nevertheless, have we really stood back and looked at the changes that have occurred in medicine and adapted to those changes and, as a profession and healthcare industry, are we attempting to foresee the changes that are coming and organising personnel, selection, training and services in an appropriate fashion? Much has been written on healthcare provision over the past few years, but much is both hospital and doctor centric. The whole nature of the work of 'doctoring' might need a rethink and this could influence the attributes that we expect in those entering the profession and the training they receive.

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Changing patterns of disease

Two hundred years ago, most deaths resulted from infectious diseases or trauma, or were associated with childbirth.[1] Even 100 years ago, infectious diseases accounted for over one-half of all deaths, but nowadays only one infectious disease – pneumonia – figures in the top 10 or so causes of death.[2,3] This does of course vary between nations, and some countries currently have the double effect of the traditional burden of infectious diseases plus the full impact of 'new' diseases, such as diabetes, hypertension, chronic lung diseases, cancer, depression and dementia. This is apparent to all, but the impact of these changes and what it means for the way in which we organise services and our approach to care might not have been fully thought through and the necessary changes implemented. A shift in burden from communicable to non-communicable diseases is not important in terms of the diseases themselves but in terms of the type of care needed. With the possible exception of tuberculosis and, more recently, HIV infection, most infectious diseases, such as infantile diarrhoea, malaria or chest infections, are acute in onset and short in duration. By contrast, the newer diseases have a need for acute care if there are acute exacerbations, but the major need is for long-term care and often the acute need could have been prevented by different prior care. The current focus upon emergency care should not overlook this fact.

Optimal care for these long-term conditions requires more attention being paid to:

- working in partnership with patients, given that paternalistic approaches will no longer be acceptable
- shared decision-making, welcomed by patients but of greatest importance because it enhances compliance
- motivational interviewing to encourage self-care and the taking of responsibility for one's own condition, and to reduce stigma and enhance outcomes
- recommending appropriate sources of independent information, for although without such advice patients will seek information, this might be from suboptimal sources
- supporting self-management, an evidence-based intervention that is currently poorly implemented

- convenient follow-up: if a patient is acutely ill, a short wait to receive medical care might be acceptable; however, to wait several times a year for 20–30 years is unacceptable, and all modalities of communication (such as telephone follow-up)[4] should be used
- teamwork, including determining the doctor's role in the team, what they do best and what is better carried out by others
- appreciating the likelihood of multimorbidity and configuring services such that there is prompt diagnosis of additional ailments and the need for multiconsulting and duplicate review is avoided
- palliative care and (eventually) end-of-life decision-making.

Long-term conditions, such as epilepsy, diabetes or cystic fibrosis, can affect all ages but many occur more in the older age groups, and the demographic shift to an increasingly older population results from longer survival, reduced fertility, and lower infant and childhood mortality. The approaches outlined above, necessary for the optimal care of longer-term conditions, might need to be adapted for older people who commonly display some degree of cognitive impairment and, for all ages, there is a need for more cognisance of the issue of health literacy.[5–7] Furthermore, inequalities of health occur not only globally but also within the UK.[8] The responsibility of the medical profession is to serve all equally and, with regards to health literacy, there is clear evidence that, if information is offered in an appropriate manner, outcomes can be improved, even in those with limited literacy and numeracy.[9]

Changing patient expectations

A better-educated, more-informed population expects a shift from a paternalistic model of medical care to one that is more participatory. Although consumerism contains much that can be welcomed, it needs to be tempered by realism and constraints of cost. Overpoliticisation of healthcare, currently at frenzy level in the UK, has led to ill-informed reporting and unsettling of both users of, and those who work within, the health service. Raising standards is welcomed but in the process one has to convey that, in any form of ranking, someone will be below average but not necessarily bad, and one should help others to understand that death (commonly used as an outcome measure) is often inevitable but does not (other than occasionally) reflect a defect in healthcare or wrongdoing.

With regards to what is expected of us by patients, we need to learn from surveys of patients' views, from audits and from material obtained for appraisal and accreditation. Although we might dislike it, TripAdvisor-style reports of our performance are encouraged by UK Government websites (eg www.nhs.uk/Pages/HomePage.aspx). These contain comments that reflect that we are not always addressing a changing scene: 'Avoid if you can'; 'Incredibly slow', 'I have been waiting 5 hours'; 'Spoke over me not to me'; 'Staff were rude and arrogant'; and 'Would be treated better if I were a dog at the vets'. We should also remember that familiarity often prevents us from seeing our services as they are seen by our users. Perhaps reassuringly, comments praising service are also frequent. Patient-centred care is care of the type that we would like to receive if we were the patient and should be the hallmark of our professionalism. The National Health Service (NHS) Friends and Family Test attempts to capture satisfaction in this area by asking 'How likely are you to recommend this ward/department to friends and family if they needed similar care or treatment', but at the level of our individual practice, asking oneself three questions at the end of a consultation might be a good driver in this regard.

- Would this consultation have been satisfactory if the patient had been my mother, my spouse or my partner?
- Would this consultation have been the same if the patient had been paying me?
- Would this consultation have been the same if it had been video recorded and played for all to see at the annual meeting of my specialist society?

Easier access to information

Patients increasingly access traditional and new media before medical consultation, with the result that their questioning is better informed.[10] They do so not out of mistrust of us as a profession, but because they understandably want to know as much as possible about their condition and options. Our role is to elicit their understanding and to help them in its interpretation. Both doctor and patient can benefit from intra-consultation sharing of information from the Internet, and NHS networks should recognise this and facilitate desktop access to reputable resources (not block them for fear that we will somehow waste time during the working day).

However, it is our ability to access information almost instantaneously that has perhaps the greatest impact on training and healthcare. No longer is rote learning of which drugs interact with others necessary, for inappropriate combinations can be quickly checked or even blocked by computer prescribing. Decision support systems will never replace us but they will enhance accuracy and safety. Increasingly our training needs to involve awareness of a fact rather than an ability to recall detail instantly, and this potentially frees up training time that can be better used to acquire skills and competencies associated with problem solving rather than being built around hurdles (exams) that necessitate regurgitation of rote-learned facts often ill understood and soon forgotten. Have medical examinations fully addressed this required change? Changing the emphasis towards 'an annual assessment of future training needs' seems more appropriate than a formidable hurdle (exams) that impedes true learning and problem solving for weeks beforehand. Such an approach is also more likely to embrace not only cognitive achievements, but also behaviour and patient centredness.

Growing evidence in favour of partnership medicine

With the health burden in most countries moving to longer-term conditions, those patients will inevitably be managing their disease themselves for most of the time, with the exception of their limited contact each year with a health professional. For some, this means self-management for 364 days and 23 h a year, but without specific self-management training they might not do so optimally. While managing their own condition, patients require easy access to health professionals who are knowledgeable about their condition,

possibly 24 hours per day, 7 days per week. Increasing numbers of studies show improved outcomes with self-management and reduction in need for unscheduled healthcare.[11] However, such interventions are poorly implemented by health professionals[12] (perhaps especially by doctors?) and participation in trials might not always be representative of real life.[13] Within such trials is also variable evidence of use of advice by patients, which can lead to negative results.[14] This re-emphasises the importance of motivational interviewing, a skill rarely learnt in medical school. Doctors' understanding of shared decision-making within consultations might also need to be (re)learnt. Although implemented results can be outstanding and have long-lasting effects on adherence,[15] other trials show less positive results and suggest that health professionals, despite training, might not implement that which they have learnt.[16]

Increasing the need for real teamwork and a move towards integrated care

It is politically correct to talk of teamwork, but what it means and how it is achieved are not always clear. Recent examples of a positive type of teamwork are multidisciplinary team cancer meetings, and a more negative example is the erosion over the past few years of joint medical–nursing ward rounds in many institutions and poor intra-team communication.[17] However, these hospital-centric examples should not detract from the need for integrated care, an approach so logical and exuding common sense that it seems surprising that it needs to be defined. Integrated care is the best possible care for the patient, delivered by the most appropriate health professional, in the most appropriate setting, at the optimal time. Within such an approach, there needs to be an agreed team leader who might or might not be the doctor, but must be someone who is prepared to take responsibility. Respect for other team members is vital, as are good communication and handover. The patient needs to have some understanding of the role of each member and will often ask different types of question of different members. Although some aspects of self-management training might be best done by a nursing colleague, or advice on exercise training best offered by a physiotherapist, it is important that the physician member of the team is seen by the patient to be totally committed to these approaches and be knowledgeable regarding content. How much is devolved from the doctor's area of responsibility by such approaches needs to be debated because although discrete competencies can be undertaken even by lay colleagues,[18] somebody needs oversight of the overall process of care and doctors have an almost unique training in diagnosis and enhanced responsibilities for prescribing. Recent systematic reviews of the benefits of an integrated care approach for some long-term conditions have shown positive results.[19]

If integrated care is a way forward, it involves care by a team, in multiple settings and certainly not just in a hospital. As such, what becomes of the hospital-based specialist, how might they transcend mythical boundaries into the community, and how might their training needs differ in delivering this form of care? Specialties such as paediatric, palliative and geriatric medicine have variably recognised the need for such approaches for many years and there have been important forays by experts in diabetes, dermatology and rheumatology. Although some fear that a community base reduces their specialism and the accompanying risk of losing a hospital base, in respiratory medicine there have been good examples of consultants genuinely being based both within the community and within a hospital.[20] Community involvement entails medical support to rehabilitation services, the respiratory nursing team, oxygen assessment services, open-access spirometry and home ventilation, and others have undertaken virtual respiratory clinics with general practitioner colleagues. Great care is needed to ensure that reorganisation of health services and commissioning does not damage the development and, most especially, evaluation of such approaches.

What does all this mean for future entrants to the medical profession and their selection and training?

Potential applicants for entry to medical school rarely have a full understanding of what a career in medicine involves. Some have called for the profession to take a more active role in this regard.[21] The very diversity of the profession means that this might not be an issue, for a niche should be able to be found for all interests and we should guard against cloning the future doctor. However, potential medical students often believe that medicine involves running around in blue (or green) pyjamas making star diagnoses on critically ill patients, whereas for most, medicine involves spending a working day in one-to-one consultations with individual patients who might not be acutely unwell at the time. For those other than paediatricians and obstetricians, the patient is likely to be older and yet some medical schools still do not have specific training in geriatric medicine. Although all curricula now include modern communications training, this might not involve motivational interviewing or an appreciation of what is involved in shared decision-making, and few students will even receive specific specialty-based training in the giving of self-management advice and how to write action plans.

Careful review is then necessary to see whether these differing requirements should influence the attributes we wish to see in medical students or influence how we select them. Past track record predicts that future success and good academic qualifications remain important if doctors are to cope with the challenges and changes they will face over a 40-year professional career. Furthermore, good exam results plus inherent inquisitiveness also remain important in ensuring a good supply of tomorrow's clinical scientists. However, detecting at least an empathy with some of the newer approaches outlined here might be searchable for in 17- or 18-year olds, as might be a genuine commitment to teamwork and respect for the opinion of colleagues. In the same way that appropriate use of aptitude tests can look at scientific reasoning and ease with which students cope with the early years of the course,[22,23] multiple mini interviews have been shown to be valuable predictors of future performance, exploring more deeply as they can, individual attributes deemed to be desirable in future doctors.[24–26]

Conclusion

In my possession are documents written during the 1960s outlining the likely cessation of respiratory medicine as a medical specialty. The current article might well prove to be equally incorrect but my crystal ball currently appears clear. Over the next few decades, hospitals will (should)

concentrate upon the acutely severely unwell, with a high proportion of patients being cared for in high-dependency beds. Within such a system, the pattern of care is likely to be as outlined in the report from the Future Hospital Commission.[27] However, with better care of long-term conditions, most of the health burden will be outside hospitals and will increasingly be preventative, both primarily and by the prevention of exacerbations by the support of better self-management. Full involvement of our patients in these processes is likely to involve doctors learning skills that are not always at the forefront of current curricula. Future healthcare for the largest part of our future health burden must surely be tackled by a new breed of doctors, some of whom might still have a foothold within a hospital but who will share care with nurses, allied health workers, case managers and lay educators, and work as specialists with a good general training out of community facilities, alongside our more traditional general practitioners who will nevertheless themselves increasingly take on more specialist leanings. The profession, and physicians especially, need to lead on this change in emphasis rather than be dragged screaming by public opinion or politicians. ■

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References

1 Hostetter MK. What we don't see. *N Engl J Med* 2012;366:1328–34.
2 Murray CJL, Lopez AD. Measuring the global burden of disease. *N Engl J Med* 2013;369:448–57.
3 Murray CJL, Richards MA, Newton JN *et al.* UK Health performance: findings of the Global Burden of Disease Study 2010. *Lancet* 2013;381:997–1020.
4 Roberts NJ, Partridge MR. Telephone consultations in secondary care. *Resp Med* 2007;101:1665–9.
5 Berkman ND, Davis TC, McCormack L. Health literacy: what is it? *J Health Commun* 2010;15:9–19.
6 Easton P, Entwistle VA, Williams B. How the stigma of low literacy can impair patient–professional spoken interactions and affect health: insights from a qualitative investigation. *BMC Health Services Res* 2013,13:319.
7 Roberts, NJ, Ghiassi R, Partridge MR. Health literacy in COPD. *Int J Chron Obstruct Pulmon Dis* 2008;3:499–507.
8 Rightcare. *The NHS Atlas of Variation in Healthcare, November 2010. Reducing unwarranted variation to increase value and improve quality*. London: NHS Right Care, 2010.
9 Kiser K, Jonas D, Warner Z *et al.* A randomized controlled trial of a literacy-sensitive self-management intervention for chronic obstructive pulmonary disease patients. *J Gen Intern Med* 2011;27:190–5.
10 Partridge MR, Dal Negro RW, Olivieri D. Understanding patients with asthma and COPD: insights from a European study. *Prim Care Respir J* 2011;20:315–23.
11 Gibson PG, Powell H, Coughlan J *et al.* Self-management, education and regular practitioner review for adults with asthma. *Cochrane Database Syst Rev* 2003;CD001117.
12 Wiener-Ogilvie S, Pinnock H, Huby G *et al.* Do practices comply with key recommendations of the British Asthma Guideline? If not, why not? *Primary Care Respir J* 2007;16:369–77.
13 Chetty M, MacKenzie M, Douglas G, Currie GP. Immediate and early discharge for patients with exacerbations of chronic obstructive pulmonary disease: is there a role in 'real life'? *Int J COPD* 2006;1:401–7.
14 Bucknall CE, Miller G, Lloyd SM *et al.* Glasgow supported self-management trial (GSuST) for patients with moderate to severe COPD: randomised controlled trial. *BMJ* 2012;344:e1060.
15 Wilson SR, Strub P, Buist SA *et al.* Shared treatment decision making improves adherence and outcomes in poorly controlled asthma. *Am J Respir Crit Care Med* 2010;181:566–77.
16 Kennedy A, Bower P, Reeves D *et al.* Implementation of self management support for long term conditions in routine primary care settings: cluster randomised controlled trial. *BMJ* 2013;346:f2882.
17 Zwarenstein M, Rice K, Gotlib-Conn L *et al.* Disengaged: a qualitative study of communication and collaboration between physicians and other professions on general internal medicine wards. *BMC Health Services Res* 2013,13:494.
18 Partridge MR, Caress A-L, Brown C *et al.* Can lay people deliver asthma self-management education as effectively as primary care based practice nurses? *Thorax* 2008:63;778–83.
19 Kruis AL, Smidt N, Assendelft WJJ *et al.* Integrated disease management interventions for patients with chronic obstructive pulmonary disease. *Cochrane Database Syst Rev* 2013:CD0099437.
20 Roberts JA, Maslin TK, Bakerly ND. Development of an integrated chronic obstructive pulmonary disease service model in an inner-city region in the UK: initial findings and 12 month results. *Primary Care Respir J* 2010;19:390–7.
21 Oates K, Goulston K. How to select the doctors of the future. *Intern Med J* 2012;42:364–8.
22 Emery JI, Bell JF. The predictive validity of the BioMedical Admissions Test for pre-clinical examination performance. *Med Educ* 2009:43:557–64.
23 McManus IC, Dewberry C, Nicholson S, Dowell JS. The UKCAT-12 study: educational attainment, aptitude test performance, demographic and socio-economic contextual factors as predictors of first year outcome in a cross sectional collaborative study of 12 UK medical schools. *BMC Medicine* 2013;11:24.
24 Eva KW, Reiter HI, Trinh K *et al.* Predictive validity of the multiple mini-interview for selecting medical trainees. *Med Educ* 2009;43:767–75.
25 Husbands A, Dowell J. Predictive validity of the Dundee multiple mini-interview. *Med Educ* 2013;47:717–25.
26 Reiter HI, Eva KW, Rosenfeld J, Norman GR. Multiple mini-interviews predict clerkship and licensing examination performance. *Med Educ* 2007;41:378–84.
27 Royal College of Physicians. *Future Hospital: caring for medical patients. A report from the Future Hospital Commission to the Royal College of Physicians*. London: RCP, 2013.

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