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Serving the needs of our future population

With the proportion of hospital specialists increasing and the numbers of GP partners on the decline, we are heading towards a well-documented workforce crisis in general practice.[1] Recent data shows that only 30% of doctors, on average, across OECD countries, are working in generalist careers and that in 2013, there were more than two specialists for every generalist. The UK is in line with this trend, with a share of only 29% of doctors in generalist careers, at the time of the report's publication. This has led to legitimate concerns about equitable access to primary health care,[2,3] but what are the potential consequences for the populations we serve and what can be done from a medical educationalist's perspective?

John Oldham writes cogently about the rise and rise of 'body part' medicine and how this model is ill served to meet the health needs of our ageing population. The NHS was designed at a time when the threats to the British population were predominantly through infectious disease. At that time disease-centred, episodic packages of care were adequate, for the most part, and the need for multi-disciplinary working and holism were less pressing. This is in stark contrast to the patterns of disease we see today, with long-term conditions now making up 70% of all health problems and the majority of over 65s having more than one long term condition.[4] Deprivation, of course, has an impact and the problem of multi-morbidity affects those living in poverty disproportionately.[5] Barnett et al found that the onset of multi-morbidity occurs 10-15 years earlier in people living in the most deprived areas of the country compared with the most affluent and that deprivation was particularly associated with a greater burden of mental health problems. Indeed, mental health disorders were found to be five times as prevalent in the most deprived populations compared with the most affluent. Fundamentally, this is an issue of social justice and Tudor Hart's 'inverse care law,' first described in the 1970s,[6] has shown no sign of abating over recent decades.

There are financial implications too. Starfield and her colleagues identified multi-morbidity as the most important factor in determining the cost of care. She demonstrated that it was multi-morbidity, not chronicity of disease per se that presented a greater burden on a health system and that this risk factor was more important than either age or gender in determining the overall cost of care.[7] Excessive use of specialist care for such patients was described by Starfield as *'unnecessary, potentially dangerous and costly.'* What these patients really benefit from is continuity and it is often the consistent application of low-tech solutions that provide the best results.[8] As Starfield identified through her extensive work in this area over her lifetime, health care models with strong primary health care systems are associated with lower cost and better outcomes in all disease areas. In short, a greater proportion of generalists is better for patients and the public purse![9]

The trend towards greater specialisation and super-specialisation threatens the model that general practice, at its best, typifies. So, what can we do to halt the progression towards greater numbers of super-specialists or to mitigate for the impacts of such an imbalance? At the University of Leeds we have developed some innovative teaching methods within the MBChB and our intercalated degree programmes which aim to address this problem:[10]

As with many other UK medical schools, patient contact begins early and starts in the community. Our students begin their placements in general practice from the second term of the first year and they retain the same clinical supervisor for years 1 and 2. Primary care placements continue through till the final year and also occur as part of our intercalated BSc programme, where the emphasis is

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again on continuity. The Clinical Placement module runs as part of the Intercalated BSc in Applied Health (Primary Care) and has a heavy credit weighting to signal its importance. Students are placed in one practice over the course of the academic year and the assessment focuses on the building of a relationship with a patient and their family, as well as the student's ability to recognise the impact of illness on the lives of these people. Sociological aspects of illness are explored in other modules on this programme and students are expected to integrate the taught theory with the experiences of these patients and their main carers.

In addition, all medical students take part in our Year 4 Theme days which have been running since 2009 and have been well enjoyed and evaluated. These theme days have been collaboratively designed and delivered by a number of teaching departments within the University and Leeds Teaching Hospitals NHS Trust. Students are introduced to a virtual patient called 'Gemma' who has type 1 diabetes and follow her through a difficult phase in her life as a teenager. Gemma's parents have separated and have each met a new partner. Gemma's mum has recently had a new baby and this leaves Gemma feeling comparatively ignored and isolated. Over a series of teaching days the story for Gemma worsens, as she starts to experiment with sex and drugs and becomes unexpectedly pregnant. Her father then develops testicular cancer. Specialists, junior doctors and GPs work alongside one another to deliver the teaching on each of these days and the ethical implications around each scenario are explored alongside the clinical imperatives. We involve real patients as well as session tutors from a variety of disciplines (including midwifes, pharmacists, diabetes specialist nurses, breast-feeding support workers) in these teaching days to emphasise the importance of whole-person care and the need for a multi-disciplinary approach. Role modelling plays an important part in these theme days. If students see us working collaboratively with other disciplines and professionals then they become part of a culture of mutual respect, this is much more likely to have an impact on beliefs and attitudes than any theoretical discussion around team work is likely to have.[11]

We believe that through these innovations, we have helped students to consider patients in a more holistic fashion, as well as to foster respect for, and from, our colleagues across other disciplines and specialties. If we are to avoid what Oldham refers to as 'body part' medicine, we must not only be willing to consider the patient as a whole – mind, body, and soul, but should be willing to listen to, and respect the views and expertise of our colleagues in other specialties and disciplines. With nearly 40% of GP training places left unfilled in some areas of the UK, it seems unlikely that we are to achieve the goal of 5,000 more GPs by 2020,[12] so perhaps we might do well to set our sights on a more integrated system of working and what Iona Heath described, in her 2011 Harveian Oration to the Royal College of Physicians, as a *'united view of our patients and our profession'*.[13]

If we are to serve the needs of an aging population in which multi-morbidity is the norm, not the exception, without an exponential rise in the cost of medical care or significantly increased risk to our patients, we must continue to find ways to foster a collaborative and interdisciplinary approach, as well as to champion the role of primary care and the features that make it the safest and most effective model of healthcare for the majority of patients.[14] Emphasis on holism and continuity of care can occur through teaching, training, and role modelling and we hope readers might consider how to implement these features into their programmes and future teaching practice if they haven't done so already.

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