Medical education in (and for) areas of socio-economic deprivation in the UK

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> Our system of medical education is still designed to produce community clinicians only as a by-product, an afterthought following a core curriculum designed by and for specialists. Its central aim remains the production of specialist excellence, unsullied by prior contact with the society it serves. It is training the wrong people, at the wrong time, in the wrong skills, and in the wrong place. The core curriculum for all doctors should be primary care: this should be taught where it is actually carried out, within communities; and the primary generalists produced in this way require not a year or two of rehabilitation in specialised vocational training, but a lifetime of in-service postgraduate study. [1]

Much has changed in the 33 years since Julian Tudor Hart wrote this about medical education in the United Kingdom (UK) but are we still training the "wrong people, at the wrong time, in the wrong skills, and in the wrong place"? In 2010, the independent Commission on the Education of Health Professionals for the 21st century concluded that, globally, "the content, organisation, and delivery of health professionals' education have failed to serve the needs and interests of patients and populations" [2]. In a linked Lancet editorial, Richard Horton described critical failures in health professional education systems worldwide including a "chronic lack of primary care workers, rural-urban disparities, too little attention to disease prevention, isolation from the social sector, and insufficient concern with the social determinants of health and citizens' engagement in health" [3].

This sounds all too familiar and is the wider global and multi-professional context within which general practitioner (GP) teaching and training in the UK fits. The present article will, however, focus on the particular challenges of GP teaching (undergraduate) and training (postgraduate) in (and for) areas of

severe socio-economic deprivation (sometimes referred to as “Deep End” general practice [4]).

It is now widely accepted that most medical schools do not provide students with adequate general practice teaching time [5]. This is one of several drivers of the current workforce “crisis” in UK general practice [6, 7]. The Department of Health in England’s target is for half of all medical students to become GPs [8]. However, surveys suggest that general practice is the first career choice for less than a quarter of UK medical graduates [9, 10].

The Wass report, ‘By choice – not by chance’**,** identified three very significant but deeply seated issues affecting medical students’ attitudes towards general practice. These were: “tribalism”, which leads to a perception of primary care as being of “lower status”; “negativism”, whereby the low morale within the GP workforce discourages students; and “finance”, which relates to the lack of equity of reimbursement for undergraduate teaching across different health care settings [7].

As well as these core issues, there are three particular challenges related to undergraduate teaching – and postgraduate training – in general practice in areas of severe socio-economic deprivation.

Inverse care law

Tudor Hart, who died in July this year, was arguably the most influential GP in the history of the NHS [11], and was best known for his “inverse care law” [12], which states:

> “The availability of good medical care tends to vary inversely with the need for it in the population served. This inverse care law operates more

> completely where medical care is most exposed to market forces, and less so where such exposure is reduced."

The inverse care law today is not so much the difference between 'good' and 'bad' medical care as the difference between what GPs can do and what they could do if resourced according to the health needs of their practice populations [13]. There is a large body of evidence that demonstrates the social gradient in health needs, with a two to three-fold increase (in premature mortality, the presence of physical and mental multimorbidity, or self-reported health) between the most affluent decile of the population and the least affluent decile [14, 15]. Yet the distribution of GP resource is more or less flat across the population [14].

Research comparing GP stress levels in practices serving deprived compared to affluent areas demonstrates increasing stress as consultation length increases in deprived areas but not in affluent areas. If you are having a challenging consultation and starting to run late in a deprived area, there is a high chance that the waiting room is filling up with equally complex patients [16].

Time is the real currency of general practice [17]; more time is needed for all GPs, but the pressures of time are felt particularly acutely in areas of high deprivation and this affects capacity to engage with teaching and training. The inverse care law is the fundamental barrier to improving the volume and quality of medical education in areas of deprivation. There are at least two other challenges related to GP teaching and training in areas of deprivation: the distribution of training and the nature of the evidence base.

Inverse training law

In keeping with the inverse care law there is an ‘inverse training law’, whereby there are more GP training practices in more affluent areas compared to more deprived areas [18, 19]. This is partly a consequence of the increased pressures and lack of time associated with the inverse care law, and partly explained by the higher proportion of smaller, often singlehanded, practices in deprived areas, which makes it more difficult to accommodate training requirements [20]. The potential consequence of this unequal distribution of training is that students and trainees may feel less confident about working in deprived practices if they have not had any experience of them during their training [21].

Content of medical education

The third challenge relates to the content of medical teaching and training. Given the particular nature of clinical work in deprived areas, characterised by high volumes of alcohol and drugs misuse, multimorbidity, psychological distress, polypharmacy, child protection issues and social problems, there are particular learning needs of medical students and GP trainees working in ‘Deep End’ practices. These issues have been highlighted by the ‘GPs at the Deep End’ group in Scotland [22], which identified three generic areas where there were learning resource gaps: how to build productive relationships with patients who are hard to engage and lack health literacy; how to promote and maintain therapeutic optimism when working in areas of high deprivation; and how to apply evidence-based medicine effectively when working with patients with high levels of multimorbidity and social complexity.

The last of these merits further consideration. How generalisable is the ‘evidence’ derived from studies that routinely exclude patients from very deprived areas, either due to co-morbidities or difficulties in recruiting to research? How applicable to ‘Deep End’ general practice are the guidelines that this evidence informs? These questions are beyond the scope of this article to address (and have been considered elsewhere [23, 24]) but are particularly relevant to medical education in, and for, areas of deprivation.

Potential solutions

Having considered some of the fundamental challenges of medical teaching and training in areas of deprivation, the rest of this article describes a range of initiatives to address these challenges. In keeping with the principle of “proportionate universalism” outlined by Sir Michael Marmot, these targeted solutions should be considered complementary to more widespread efforts to address the tribalism, negativism and financing disparity highlighted by the Wass report [7], of which the latter is most pressing [25].

Potential solutions should be considered across the medical education continuum, from widening access to medical school for pupils from disadvantaged backgrounds, through medical school and postgraduate training, to improving retention of more experienced GPs.

Widening participation

The main arguments for widening access to medicine for applicants from more diverse backgrounds relate to social justice, social mobility, and improving health care provision by establishing more diverse medical schools which are more representative (and more understanding) of the populations they serve

[26]. There is some evidence from the USA that doctors from ethnic minority groups are more likely to work in underserved communities and with patients of the same ethnicity [27].

Despite a range of efforts over the past decade to widen participation in medicine, the dominance of medicine by the more affluent persists [28]. There is wide variation between medical schools in terms of the proportion of applicants from socio-economically deprived backgrounds they attract and the proportion who accept offers, suggesting that some schools have implemented more effective strategies than others [28].

Efforts to support the process of 'getting ready' (considering a career in medicine and preparing to apply), such as the Reach programme in Scotland [29], are as important as 'getting in' (the selection process itself) [26]. Attention also needs paid to supporting retention of disadvantaged students, including financial support (e.g. grants, bursaries) if necessary.

Undergraduate teaching

In April 2016 the UK Parliament recommended that primary care and general practice be taught in UK medical schools "as a subject" that is "as professionally and intellectually rewarding as any other specialism" [30]. To date, there is no UK core curriculum in general practice, but medical schools across the UK are committed to increasing the quantity and quality of teaching in general practice. This takes many forms, from GP placements to communication skills and vocational studies courses led by GPs, to Student Selected Components (SSCs) and electives in general practice.

As well as important considerations about the theory and principles of general practice [30], undergraduate medical educators should consider the

extent to which GP teaching addresses the diversity of the patient population in their area, including socio-economically deprived communities and marginalised groups [31]. At a time of increasingly multi-disciplinary team working in general practice and primary care, particularly important for patients with multimorbidity and social complexity [23], consideration should also be given to interprofessional learning in undergraduate GP teaching.

Postgraduate training

To address the inverse training law, additional support could be provided to those practices in areas of severe socio-economic deprivation that are keen to become training practices. Trainees with no experience of working in deprived areas may have unrealistic perceptions (and anxieties) about the nature of such work [32]. Providing GP trainees with the option of spending time in two different practices (e.g. urban/rural or deprived/affluent) has been suggested, but needs further evaluation [32].

With regard to content of training, there is much to be learned from programmes such as the North Dublin City GP Training Programme, which specifically aims to train GPs who will have the capacity and desire to work in areas of deprivation or with marginalised groups [33]. Their training scheme includes a social medicine curriculum (covering issues such as stigma, discrimination, theories of health inequity, and community health), a self-care module, and an arts programme with a social focus.

In the Welsh valleys, where Tudor Hart worked as a GP for over 25 years, there has been an Academic Fellows Scheme since 2001, set up specifically to address the difficulties faced by primary care in deprived areas of Wales [34]. More recently in Scotland, the Deep End GP Pioneer scheme has

been supported by the Scottish Government's GP Recruitment and Retention Fund and has been described as a "change model" for general practice in very deprived areas [35]. It combines additional clinical capacity (addressing the inverse care law) with protected time for early career GPs and experienced GPs to work on professional and service development, and to share learning within and between practices.

Practitioner wellbeing has been a core feature of all of these postgraduate training initiatives in deprived areas. It is crucial to note that they have supported practitioner wellbeing by providing additional capacity; no amount of 'resilience' training will alter the intolerable working conditions which create stress and burnout.

Conclusion

This is an exciting time for medical education in UK general practice (a new epoch, perhaps? [3]). To address the considerable health care challenges of the future, we need to train the right people, at the right time, in the right skills, and in the right place. Particular attention must be paid to improving the volume and quality of GP teaching (undergraduate) and training (postgraduate) in areas of deprivation. For if the NHS is not at its best where it is needed most, health inequalities will inevitably widen.

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