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Title: Time deficiency: an affliction of healthcare systems and how to ameliorate it

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Time deficiency: an affliction of healthcare systems and how to ameliorate it

A fundamental tenet of economics is that while demand for goods and services is virtually infinite, their supply is limited. Worldwide, healthcare systems face shortages in clinicians, with an estimated global shortfall of 15 million healthcare professionals in 2020.(1) These endemic shortages contribute to exhaustion amongst healthcare professionals who struggle to keep pace with unrelenting demand,(2) and dissatisfaction from patients, who face long delays or hurried experiences of care. Healthcare systems have responded by instituting protocolised models of delivering medical care. Whilst such measures aspire to achieve greater efficiency, they have been characterised as creating 'industrialised' medicine, a type of healthcare that privileges delivering bundles of activity and 'check-lists' rather than care that is tailored to needs of patients as individuals.(3)

In this article we introduce concepts, borrowed from pathophysiology, to help consider the situation many healthcare systems find themselves in today and what partial remedies could help be at hand. We contend that the key challenge faced by healthcare systems is one of *time-deficiency*, that is, that clinicians do not have sufficient time to spend with their patients in order to fulfil society's expectations of humane and effective healthcare. Further, we argue that the developments in how healthcare is delivered, which have in part been attempts to respond to the crisis in time-deficiency have had unintended consequences which have tended to further degrade care and have undermined traditional strengths of healthcare systems that *compensate* for time-deficiency. Just as compensatory mechanisms *buffer* for failing organ systems, such as in heart or liver failure, the depletion of these compensatory reserves leads to precipitous *decompensation*. We call for the restoration of these *compensatory buffers* in healthcare along with greater openness that not all healthcare that is officially recommended can actually be offered and a re-calibration of values away from the depersonalising effects of so-called industrialised medicine.

Compensated and decompensated time deficiency

The obvious and essential remedy for time-deficiency is increasing the supply of clinicians. Supply is increasing, but seems unlikely to keep pace with demand.(1) Meanwhile, crucial compensatory buffers that have traditionally helped mitigate the parlous effects of chronic time-deficiency have become neglected. Relational continuity of care, which describes situations in which patients consult with the same health professional over several encounters, engenders efficient longitudinal relationships. The familiarity and understanding that professionals acquire about their patients when continuity of care is present, is likely to generate greater insight as to when the benefits of interventions may exceed its harms and costs.(4) Just as relational continuity of care has been an overlooked asset, the goodwill of clinicians to work substantial overtime, often unpaid, and to do whatever is required for patients has long provided flexibility and extra resource when needed most. Many clinicians

feel that this goodwill has been exploited and are less prepared to work beyond their defined obligations, for example by taking on additional overtime.

Many healthcare systems are now reaping the consequences of failing to understand that amongst clinicians' most valuable skills is the knowledge and relationships they can build with individual patients through continuity of care. At the same time many of these health systems have squandered goodwill by assuming that unpaid overtime and unacceptable working conditions will always be tolerated. Failure to cost in clinicians' administrative work and discretionary effort is a false economy, driving burn out and further undermining continuity of care. For example in the UK's National Health System, GPs unable to limit their working time once at work, achieve some respite by cramming a full working week into three days.(5)

Consequently, many healthcare systems face a vicious spiral of decompensated time-deficiency, with doctors who know little about their patients having less thoughtful and more hurried healthcare encounters, and responding by inflating volumes of activity that achieve poorer returns for cost. For patients, this means not only waiting longer for patchy quality healthcare delivered by strangers, but also spending their own time trying to get appointments and enduring burdensome protocolised pathways for each of their medical conditions. 'Industrialised' medicine purports to offer efficiency but deprives people living with several medical problems the opportunity to craft care that responds well to their problematic human situation in a way that reflects what matters most to them. Through its preoccupation with access, throughput, and cost, industrialised medicine squeezes relationships, expertise and judgement out of clinical care and threatens to reduce clinicians to mere technicians. Additional time that would be required for patients to be heard and understood, and for clinicians to thoughtfully and collaboratively plan care with patients might well be offset by reducing activity that does little to improve experience or outcomes .

Level with the public

Like a doctor running late in clinic, health services need to take a breath, reflect and resist quick answers that soon leave them floundering even further behind. A daunting first step is to acknowledge that guidelines, whilst instructive as an exemplar of what might be undertaken if time were no limit, are not a workable roadmap for most consultations. A US study estimated that doctors would need to work 27 hours a day to implement preventive, chronic and acute care guidelines.(6) Even avowedly time-conscious recommendations, such as BMJ's '10 minute consultations' article series could not be routinely delivered.(7) We need to admit to ourselves and the public that the invidious role of the clinician is often to judge which patients will benefit most from guideline recommendations and that sometimes those judgements will be wrong, particularly in circumstances of time-deficiency. Guideline committees can regain relevance to everyday care by identifying the core components of care that certain patients should expect and consider the time needed to treat (TNT) when formulating these recommendations.(8)

Repairing the buffers and rediscovering what matters

Policy makers need to prioritise restoring the buffers to prevent health services spiral into decompensated time deficiency. This necessitates serious efforts to improve working

conditions and well-being that go well beyond the usual performative handwringing. Similarly, reorientation of policy to achieve continuity as well as access will be difficult, but is crucial. Resourcing teams adequately, for example with the administrative support so they can spend their time doing the jobs they trained for and ensuring clinicians make time for unhurried conversations with their patients, and get home on time often enough would be a good place to start.(9) But the biggest and most important challenge is to replace our furious, and often futile, dash through protocols and guidelines with more humane care conditions, and our industrialized healthcare with careful and kind care for everyone.

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