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Brief Communication

Exploring the Challenges of Frailty in Medical Education

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Abstract

Frailty is common, and medical students and doctors across all specialties will look after patients with frailty. The General Medical Council requires UK medical schools to teach and assess on frailty, and national geriatric societies across the globe include frailty in their recommended undergraduate curricula. However, frailty in medical education is challenging; there is uncertainty around what frailty is in medical education, including how and when to teach it; controversies in mapping teaching and assessments to recommended curricula; patients with frailty can be challenging to include in teaching and assessments due to functional, sensory, and/or cognitive impairments; an individual with frailty is likely to present atypically, with less predictable recovery, introducing complexities into clinical reasoning that can be challenging for students; the term frailty is often negatively perceived, used colloquially and avoided in educational interactions. This commentary discusses these challenges around frailty in undergraduate medical education and serves to provoke discussion about why frailty is so challenging to teach and learn about, including recommendations for how frailty education could be improved.

Key words: Frailty, medical education, undergraduate, curriculum, assessments.

Introduction

People living with frailty account for 20% of hospital inpatients in the UK (1). Medical students will encounter patients with frailty, across a breadth of clinical conditions and specialities (2, 3). There is a plethora of literature that highlights the need to develop undergraduate curricula to bridge a mismatch between the proportion of undergraduate medical education (UGME) currently provided and the demographic trends of the population (3, 4). National geriatric societies across the globe include frailty as a learning outcome in their recommended undergraduate curricula, in 2023 the British Geriatrics Society has updated theirs to embrace frailty across multiple learning domains (5). The General Medical Council's 'Outcomes for Graduates' (2018) now requires UK medical schools to include frailty in their teaching (6), and in nationally-mandated Medical Licensing Assessments (MLA) from 2024 (7). Despite this, the best way to approach frailty in UGME is unclear (2).

Evidence suggests that medical students find the concept of frailty challenging (8, 9). This is unsurprising, given that even qualified healthcare professionals (HCPs) struggle to recognise frailty and understand the concept (10), and there is no consensus definition in literature (11). In current UGME there is stark variation in understanding of, and approach to frailty, whereby individuals and institutions do not mean the same thing as one another when they educationally map, teach and assess frailty (2). This commentary discusses some of the challenges around frailty in UGME and serves to provoke discussion about why frailty is so challenging to teach and learn about, including some recommendations for how frailty education could be improved.

Clinical reasoning in frailty

Frailty is a state of vulnerability resulting from a cumulative decline in reserve and function over a lifetime, until a minor stress event triggers a disproportionate change in an individual's health status. Using an example of pneumonia as the stressor, people with frailty can present typically (with a cough and shortness of breath) with their frailty status identified through routine screening tools, or could present with subtle symptoms and signs that are not classical of the underlying pneumonia, where instead the pneumonia triggers a frailty syndrome (12). Frailty syndromes include falls, delirium, immobility, incontinence and susceptibility to the side effects of medication (12), meaning that mobility problems or behavioural changes are often the only signal that a new disease episode of different organ-origin occurred (13).

The impact of frailty on clinician decision-making and management-planning is complex. Clinical trials and national guidelines often do not include older patients with frailty, which necessitates pragmatic decision-making based on clinical experience (13), and clinicians must also consider increased susceptibility to iatrogenic complications and uncertain prognosis (14). Frailty is often considered a more elegant way than chronological age to justify making management decisions that stratify resources, yet despite being clinically ubiquitous it remains difficult for many to comprehend and factor into practice (15, 16). It is important for HCPs to look beyond survival as the only relevant outcome, as people with frailty often favour quality over quantity of life (13), and medical students can struggle to understand this (17).

Clinical reasoning is the cognitive process that underlies diagnosis and management (18), comprising both subconscious

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pattern recognition (system one), and conscious step-by-step analysis (system two) (19). The recurrent use of system two eventually leads to processing through system one, and this decision then becomes intuitive when it recurs (19). The clinical reasoning around an acute decompensation in a person with frailty is challenging, in that it does not fit into a discrete illness script, nor is frailty easy to deduce analytically. It is likely to cause challenges in formulating differential diagnoses and in deciding appropriate management strategies for medical students who lack experience and exposure, seeing only a brief 'snap shot' of each patient's medical journey. It is our recommendation that HCPs convey their uncertainty surrounding the identification, prognosis, and management of frailty to students, and attempt to verbalise the cues they have used to inform these decisions.

Frailty spans multiple systems and patients with frailty are looked after across different healthcare environments and clinical specialities (20). In view of this, and the challenges in clinical reasoning, it is difficult to know how, where and at which stage of training, to introduce the concept to medical students. Currently, most UK medical students are taught in a modular manner, with healthcare broken down into body systems or clinical specialties, which is arguably inadequate to address the complexity and ubiquity of frailty. Thus, it is our recommendation that patients with frailty should be encountered by medical students longitudinally over the course of several units across several years of medical school, and not in a single module or specialty. Longitudinal weaving of such complex themes may widen the scope of reference on which students can build their clinical reasoning skills, to 'see' frailty in different contexts, with opportunity to understand the roles of the wider multidisciplinary team. Furthermore, seeing people with frailty over time enables medical students to view frailty as a spectrum that is dynamic in nature, which can help to reframe unhelpful 'snap shot' perceptions of older people with frailty (21). Longitudinal clerkships have been trailed with success across geriatric medicine and dementia (3, 22), and are recommended by the British Geriatrics Society (5). The community has been found to be a particularly rich environment for learning about and with patients with frailty (20).

Teaching frailty realistically

The benefits of including older people in teaching, as well as in the development and evaluation of modules, are wide-ranging (23), and yet involving persons with frailty in UGME has been described as challenging (2); Clinical encounters involving patients with frailty requires adaptations to usual communication skills, since consultations involving individuals with frailty and their carers often require more time allowing for physical, sensory and cognitive impairments, and the requirement to deviate from a set order of questioning (24). Despite the associated challenges, it remains our recommendation that patients with varying degrees of frailty should be involved as teachers in formal sessions and through 'real life' encounters in primary care and inpatient bedside teaching. Additionally, we recommend that adaptations to 'typical' histories and examination should be made explicit to medical students to avoid students becoming demoralized that they are progressing slowly and to legitimise the longer duration required, which should also be reflected in formative and summative assessments (24).

There are concerns that including older patients with frailty would make cases too complex to meet learning objectives (25), yet the theory behind clinical reasoning suggests that case examples should be selected for their reflection of reality (26). It is our recommendation that within patient encounters, students should be guided by multidisciplinary HCPs to embrace and systematically work through complex clinical situations, rather than avoiding them (21). Exposure to complexity and uncertainty within history-taking from an early stage has been shown to be beneficial to medical students in patients with frailty (24). This is supported by medical students describing unpreparedness when consulting patients with frailty, despite confidence in more simplified simulated environments (27).

The reality of healthcare is that patients with frailty require support from HCPs across different fields (12). Interprofessional education (IPE) occurs when students from two or more professions learn about, from and with each other to improve health outcomes. It has been shown to be effective in positively changing patient outcomes (28) and is advocated by the GMC (6). In the UK, the proportion of schools using IPE to teach frailty was low (20%) (2). It is our recommendation that IPE around patients with frailty should be further developed and applied within authentic settings (29). Without IPE, graduates are at risk of entering their chosen profession with limited understanding of how other professions can contribute to patient care (29), which is crucial for patients with frailty.

The language of frailty

Understanding frailty as a concept within medical education is hampered by how it is perceived and discussed by HCPs and the wider public. There is a lack of universal definition (11) and in the clinical environment, the meaning and understanding of frailty differs by care discipline and discursive environment (30). The word frailty is often inappropriately used, suggesting a still incomplete understanding of the condition (16), and yet shared understanding is often assumed, commonly in a colloquial sense (31). Studies have shown that medical students did not recognise frailty as a medical entity and instead also held colloquial ideas including being thin, bed-bound, fragile and breakable (9). The variation in understanding of frailty spans to institutional level: In a survey of UK medical schools, the majority of medical schools felt frailty was taught opportunistically through exposure in the clinical environment (2). Teaching sessions and assessments that mapped to frailty were cases of older patients having conditions such as heart failure or delirium, but it remained unclear whether frailty was named or specifically signposted to students (2). Additionally, some medical schools described frailty as a thread throughout the whole course, and yet it seems improbable that frailty

Table 1. A summary of our recommendations for how undergraduate frailty education could be improved

	Recommendation	Example/note
Clinical reasoning in frailty	Frailty-related teaching sessions and assessments should occur across different environments, clinical specialties, and stages of frailty. Patients with frailty should be encountered by medical students longitudinally, and not in a single module.	For example, following a patient from primary care to secondary care, seeing a patient in their own environment, visits to nursing homes (3, 19).
	HCPs should convey their uncertainty surrounding the identification, prognosis and management of frailty to students, and attempt to verbalise the cues they have used to inform these decisions.	During a ward round or clinic giving a brief overview as to why the management decision was made "I think this patient has severe frailty in view of their requirement of assistance for all ADLs and their advanced cognitive impairment. I do not think it is appropriate that they have this operation since I believe they will be left with significant morbidity and may not survive. The focus of the team will be on discussing with the patient and their family about what is important to them, how we can best manage their symptoms and advance care planning".
Teaching frailty realistically	Educational strategies should be collaborative through IPE and the inclusion of allied HCPs as teachers	This might be within longitudinal clerkships or combined small group sessions focussing on a case
	Patients with different stages of frailty should be involved with the planning and delivery of education, across clinical specialties.	This could be across clinical environments and in formal teaching sessions such as small group work or symposia.
	Educational strategies around frailty should reflect the reality and complexity of healthcare, as well as the increased time might take to assess patients.	For example, through workplace-based assessments or reflective work to allow time for a comprehensive assessment and to allow for history taking in a more time-appropriate manner. If simulation is used, the simulated patient should reflect the patient group they are simulating, and adequate time should be allowed for this.
The language of frailty	Frailty as a term should be used, not avoided, in the presence of patients, medical students, and other HCPs. It should be used in a considered manner with an accompanying brief, yet formal, definition. It should not be used as an adjective.	"This patient is living with severe frailty. What I mean by that is that they are more likely to become disproportionality unwell due to a minor event such as infection or constipation. This is important to know since it will likely affect how they present and their treatment/recovery journey"
	Teaching sessions on frailty should be named as such, and assessments about frailty should be signposted.	"The concepts of frailty" "Clinical reasoning and how it differs in patients with frailty" "Falls in patients with frailty"
	There should be careful consideration as to how frailty is mapped in curricula.	This is challenging, and collaborative research between UK medical schools around frailty curricula in practice should be prioritised.

Abbreviations used: Healthcare Professionals (HCPs), Activities of daily living (ADLs), Inter-professional education (IPE).

is signposted on every teaching or clinical encounter. This creates a challenge as to what is understood and meant when the term is used within the context of UGME, and potentiates significant variability when mapping to GMC guidance and the MLA (6, 7). It is our recommendation that there should be careful consideration as to how frailty is mapped in curricula, with collaborative research between medical schools to further understanding about frailty in UGME.

The lack of verbalisation of the term from institutions in educational strategies may carry a message through the hidden curriculum about the value placed on the topic of frailty and enhance negative stigma (32). This is also true in the clinical environment whereby the term frailty is often avoided in front of patients due to fear of how it would be received (17). Students' own practice is influenced through observing the language used and behaviours among HCPs in the clinical setting. If the language used around individuals with frailty is deemed to be pejorative it can reinforce negative stereotyping towards the patient (21). Furthermore, negative attitudes demonstrated by professional role models about patients with frailty influences the career choice of future doctors (33). It is our recommendation that for medical students to have a more nuanced understanding of frailty they should hear the term used in a considered manner, alongside a short definition, in the presence of patients and relatives and in educational strategies (34). Studies have demonstrated that teaching sessions modelling correct language around older people with frailty can transform the language medical students

use (9), and when frailty is explicitly named and discussed using medical terminology alongside positive role-modelling it has been shown to stimulate student engagement (33).

Figure 1. Frailty: Opening a can of worms (a situation or issue that becomes even more complicated as you try to solve the problem)

Conclusion

Understanding and learning about frailty is a priority for the future of medical practice, given population trends. This paper discusses some of the challenges around teaching frailty in UGME, which include clinical complexity, delivering teaching and how frailty is understood and discussed. There is a varied understanding of frailty from a clinical level through to national institutional level, and we have explored these alongside some suggestions of how frailty education may be improved, which are summarised in Table 1. There is little research on this topic, and we hope this commentary provokes action in the field. Collaborative research between medical schools and guidance from learned societies should be a priority to share and evaluate innovative educational strategies, to enhance the knowledge, skills, and behaviours of the next generation of doctors.

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