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Core needs and diverse opportunity: A survey of academic clinical lecturers and the effects of the COVID-19 pandemic

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ABSTRACT

During a clinical lecturer role, parallel clinical and academic training is undertaken. The anticipation is that a lectureship represents an exciting and expansive time. However, a national crisis has been declared at the clinical lecturer level with a leaky pipeline of clinical academics resulting in dwindling numbers. Clinical lecturers are infrequently represented as a group partly due to their distributed nature and diverse job plans. We conducted a survey of clinical lecturers in the UK. Responses ($n = 107$) revealed a motivated but divided workforce. A content analysis revealed core elements that sculpt an individual's success or failure, but these were variably present. COVID-19 had a negative effect on many with various strategies reported to try and reset academic trajectories. Feelings of isolation and anxiety about a viable future in academia were significant findings. This echoes calls for a greater number of secure longer-term grants to ensure that clinical academics and their skills are retained within the research workforce. A continued effort to analytically appraise whether supportive elements are in place for all lecturers will help focus initiatives to foster excellence in clinical academic training for everyone.

Introduction

During a clinical lecturer role, parallel clinical and academic training continues and such a post is usually taken after a PhD. On the clinical side, clinical competences are obtained towards a certificate of completion of training. On the academic side, the individual starts to move towards establishing an independent research programme with the anticipation that the lectureship represents an exciting and expansive time. However, a counter-reality is that clinical lecturers can feel overwhelmed, struggling to meet the demands of both clinical and academic training. Some report feeling left isolated, not truly belonging to either the clinical or academic tribe. A clinical lectureship also often combines with a busy phase in life such as a young family, caring for parents and/or increasing financial responsibilities.

Clinical lecturers are infrequently represented as a group partly due to their distributed nature, roaming diverse job plans and specialties. We therefore conducted a survey of clinical lecturers in the UK aiming to explore opinion on how academic training was progressing. Conducting the survey 1 year after the first wave of the COVID-19 pandemic, we were particularly interested in how the pandemic influenced academic training.

Methods

Ethical approval for the survey was obtained (Ethical Approval MREC 20-090, University of Leeds, Leeds, UK). The survey was distributed to clinical lecturers by all heads of school in the UK and the survey was kept open for 8 weeks. We collected core demographic in-

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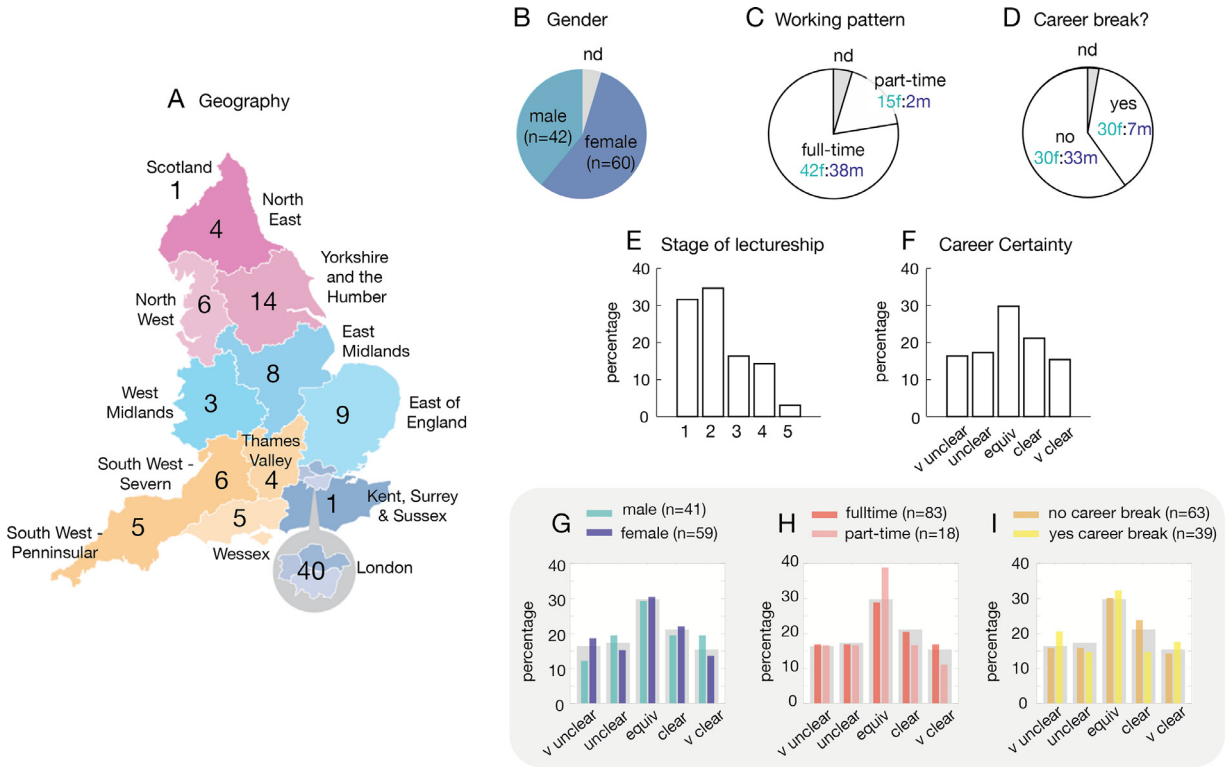

Fig. 1. Demographics of clinical lecturers. A) geographic distribution of respondents. Pie charts to show the distribution of B) gender, C) working pattern and D) whether a career break has been taken. Gender divide shown within each segment. Histograms show the percentage of clinical lecturers at E) different years of a lectureship and F) how certain they were about their future career. Subdivision of career certainty by G) gender, H) working pattern and I) whether they had taken a career break. All subgroups are plotted as percentages with coloured thin bars, the pattern of the total group (as plotted in 1F) plotted in grey in the background for reference. Abbreviations: CL = clinical lecturer, equiv = equivalence, f = female, m = male, nd = not disclosed, v = very.

formation and queried on a scale of 1 to 5: How clear are your academic career plans for the next 5 years? We then asked four questions: (1) What aspects are going well in your clinical lectureship training? (2) What aspects could be improved in your clinical lectureship training? (3) Do you have any comments on the impact of the COVID-19 pandemic on your clinical lectureship training? (4) What are the barriers you have experienced in your training to achieve certificate of the completion of training (CCT) and/or academic goals? Qualitative content analysis was carried out on the responses to the four open-ended questions by three authors (AS, RH and EJ), one of whom (RH) was not directly linked to clinical academic training so that biases were minimised.

Results

A total of 107 responses were received from clinical lecturers across specialties: medical (50%), surgical (13%), dentistry (8%), general practice (7%), paediatrics (5%), histopathology (5%), anaesthetics (4%) and other/not disclosed (remaining 8%). It is difficult to estimate what proportion of clinical lecturers were reached as a national register is not kept and many have individualised training agreements. We hope that we have reasonably sampled the population as the number of responses surpasses the current count of academic trainees within formalised academic training (Health Education England data in 2023 counted 70 academic specialist trainees and 13 academic dental core trainees[1]). When asked to 'describe ethnic group or background' the responses were: three African, two Arab, one Bangladeshi, 60 British, one Chinese, six Indian, two Irish, one Pakistani, two White and Asian, 26 other and three preferred not to say. A higher proportion of responses (56%) were received from individuals who identified as female (Fig. 1B). Part-time status was described by 16% of clinical lecturers and continues to be dominated by females (88%) (Fig. 1C). Previous career breaks had been taken by 30% of clinical lecturers with reasons given as either 'children', 'family' or 'clinical' (Fig. 1D). Career breaks were also taken by majority females (81%).

The range of years as a clinical lecturer was between 1 and 5 years, with the majority in the first 2 years of their clinical lectureship (Fig. 1E). When asked about certainty about future academic career plans, there was an approximately normative range with the mode at equivalence (neither clear nor unclear) (Fig. 1F). A split of career certainty by gender, working pattern and whether individuals had taken a career break did not reveal large differences in the distribution of response (Fig. 1G to I).

What aspects are going well in your clinical lectureship training?

Most frequently reported was the positive influence of protected research time (Fig. 2). A productive research portfolio, applying and securing funding and building collaborations and networks and clinical training are all important aspects of this career phase and featured highly within responses. Quality supervision and mentorship, a supportive infrastructure, access to resources and training opportunities were external factors to the individual that were highly reported. Increased autonomy and the flexibility of time management were also mentioned. The following quotations are examples of positive training aspects: *'Very supportive supervisor with excellent supervision during COVID-19 pandemic. This supervision has helped secure several small starter grants for early career investigations to strengthen an intermediate clinical lecturer grant application'; 'Small grant funding, publications, teaching invites and supervising MSc students'; 'Protected research time……. mentorship via Academy of Medical Science mentorship scheme'; 'Building a network of collaborators…… becoming involved in national/international committees related to my subspecialty'; 'Independent working, developing own research programme and leadership skills, able to take maternity leave and return to role'. 'Good*

Tally	What aspects are going **well?**
24	Protected research time
22	Productive research portfolio
18	Applying and securing funding and fellowships
12	Building collaborations and networks
12	Good clinical training
10	Quality supervision and mentorship
10	Supportive infrastructure and access to resources
9	Integration of clinical and academic training
7	Training opportunities
5	Autonomy and flexible time management
1	Supportive return from maternity leave

What aspects could be **improved?**	Tally
Integration of clinical and academic training	22
Understanding role, certainty about future direction	18
Supervision and mentorship	10
Training opportunities	10
Feelings of excess pressure, overwhelmed	9
Difficulty in securing funding and fellowships	8
Infrastructure and access to resources	7
Network with other clinical lecturers and peers	6
Feelings of isolation	6
Little protected research time	5
Securing collaborations and networks	5

Fig. 2. Aspects that influence positively or negatively experiences in clinical academic training. Themes are listed according to frequency. Many themes are common to both lists, share background colour, establishing these as core elements that influence whether a clinical lecturer has a positive or negative experience.

balance of clinical and academic time'; 'Integration of clinical … work with academic training'; 'Access to the clinical research facility at …, broader access to training at ….'.

What aspects could be improved in your clinical lectureship training?

Several concerning issues were revealed within responses (Fig. 2). Poor integration of clinical and academic training was frequently reported, with specific comments that clinical training programme directors poorly understood the role of, or valued, clinical lecturers and that clinical training expectations were often unrealistic. Difficulty securing further funding and fellowships was described. When start-up grants were not associated with lectureships, this led to delays in starting novel research (until funding was secured). Little or absent supervision and mentorship and poor training opportunities were cited and some reported being unable to take up training opportunities at external centres. Little protected research time and difficult forging collaboration and networks also featured.

Great uncertainty was revealed by many, some finding it difficult to map out what their role should be and a number worrying about the future. Isolation and a lack of a supportive peer network with other clinical lecturers were also concerning themes. Some clinical lecturers mentioned feeling overwhelmed and felt too much pressure to succeed across both clinical and academic domains: *'One can feel isolated because you don't fit the mould of your clinical colleagues, seen as a part-timer'. 'I have no idea how I will take my academic career forward … I am feeling rather overwhelmed.' 'If career plan felt a little more certain the effort exerted trying to achieve across clinical, academic and family responsibilities would feel more rational'; 'It feels like such a lottery if you get a fellowship or not, and I don't have a sense of realistically what I should be focusing on. More information and opportunities on options post CCT would also be good'.*

Do you have any comments on the impact of the COVID-19 pandemic on your clinical lectureship training?

Not surprisingly, very few clinical lecturers stated that the COVID-19 pandemic did not impact on their research activities. Some had succeeded in extending their research time and others were planning to apply for extended research time. Several positive comments were volunteered, feeling more productive working from home and the benefits associated with less commuting and finding a better work-life equilibrium: *'Only working from home - for the most part this has actually been beneficial … More productive, less time commuting, better work-life flexibility'.*Apart from these few exceptions the pandemic generally imposed numerous negative impacts on clinical lectureship training. Common themes were especially in relation to lost research time. Severe delays in various research planning and running processes were reported. There were also additional work pressures due to extra clinical and family responsibilities. Little recognition of these challenges by clinical and academic supervisors was also described. Reduced training opportunities and the limited communication with only virtual forums available were also mentioned. The following quotations are examples of the negative impacts: *'COVID-19 had a massive impact on recruitment for patient centred work. Additional indirect delays* e.g. *ethics and contracts took months longer than was expected as COVID-19 work being prioritised. Redeployed to full-time clinical during this period'. 'I have not been to the university since starting in the role nearly a year ago. I haven't seen a single colleague I am working with face to face during this time'.*

What are the barriers you have experienced in your training to achieve certificate of the completion of training (CCT) and/or academic goals?

Achieving CCT and academic goals was hindered by various factors, including inefficient and disorganised administration of the annual review of competence progression (ARCP) processes, insufficient academic supervision, lack of communication between the academic and clinical trainers, lack of ring-fenced time for building up academic contacts and networks, lack of research funding and the risk of 'lost tribe' and research and other challenges imposed by the pandemic. Some clinical lecturers requested a plan to recover time with extension of lectureship and/or allow them to use the rest of their training post CCT to support their academic work and outputs.

Discussion

These results are timely as a report last year by the House of Lords Science and Technology Committee has declared that the clinical research environment in the NHS is on a dangerous precipice.[2-4] A crisis has been declared especially at the clinical lecturer / postdoctoral level, with a leaky pipeline of clinical academics resulting in dwindling numbers and diminishing gains from translational research.[2] Multifactorial reasons are given for this, with difficulty finding any longer-term academic positions and reduced total renumeration that disincentivises clinical academia cited as important factors.[2] Such issues often hit hardest after considerable resources and effort has already been placed to train clinical academics. The present survey was undertaken a year following the COVID-19 outbreak, a time when many health institutions were evaluating their response to the crisis and acting as a reset point after the dramatic effect of the pandemic. Many of the academic trainees were returning to academic activities following their deployment to the COVID-19 front line. How did clinical lecturers report they were faring?

It was reassuring that good support, good programme management and good experience were reported by some. The range of response tells us that this it is not consistently available. The challenge is therefore how to share best practice and ensure that experience is universally good. The content analysis of this survey revealed factors that were

shared across positive (if present) and negative (if absent) aspects of clinical academic training. These therefore represent core elements that can significantly influence the trajectory of academic training. Many of these are well recognised, such as protected research time, ensure a good balance and integration of clinical and academic training, good mentorship, supportive research infrastructure, achieving early markers of research success such as research productivity and successful small grant applications.

Many of the negative factors are potentially fixable, such as ARCP organisation, mentorship, programme management and supervision. Resources such as the Clinical Academic Training Hub (CATCH)[5] and blueprint documents from working groups such as the Clinical Academic Training Forum[6] help to establish the overarching principles and practical actions that are needed to support clinical academics. Factors that are inherently tricky within an academic career, especially those that will always introduce uncertainty such as applying for grants and getting papers published, can also have their chances optimised by addressing modifiable factors, such as ring fencing required funds and availability of supervision and mentorship by senior clinical academics with track record in successful research grants and publications. Further work is needed to define a clear action plan to drive further improvement in clinical academic training.

Feelings of isolation and being overwhelmed are significant findings in this group of generally motivated and capable individuals. For those with the ideas and skill set required for succeeding the personal costs of pursuing this career need to not outweigh the future promise. Such findings also resonate with multiple reports finding that a career in clinical academia is viewed as an increasingly unfavourable and risky option.[4] Key to providing stability are longer term funding opportunities and permanent positions.[2]

Responses were dominated by trainees identifying as female. However, we speculate that this might reflect various gender equality issues, which may have motivated engagement with the survey. For example, part-time work was majority female. Given this report shows that trying to successfully juggle clinical and academic training is challenging, it's a reasonable assumption that working part-time makes this even more difficult. Most work part-time is to raise a family and/or care for other family members and this creates a divergent and competing set of demands. It is a broader societal debate as to why part-time work is not more shared across genders. A recent NIHR Diversity Report underscored the fact that the proportion of females applying for career awards decreases with the seniority of award, and researchers from ethnic minority backgrounds were less successful for research funding than applicants from a White background.[3] Our ethnicity data is one of the limitations of the survey as the data entry options allowed such a range of responses (e.g. nationalities rather than ethnicity). A continued emphasis on initiatives that foster diversity and inclusion within clinical academia is needed.

In summary, this survey identifies a motivated workforce of clinical lecturers that variably report the essential elements that can externally sculpt an individual's success or failure. A continued effort to analytically appraise whether such elements are present will help focus initiatives to create excellence in clinical academic training for everyone.

Declaration of competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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