

BMJ Open How can we promote academic GP careers? A qualitative framework analysis of factors affecting the development of the academic GP workforce

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ABSTRACT

Objectives General practice continues to be an under-represented career choice among medical school graduates, and the retention of the general practitioner (GP) workforce remains challenging. Academic general practice (AGP) is vital to the development of the evidence base for general practice and the education of the next generation of doctors and GPs. Academic careers and portfolio careers in general practice are seen as a means of increasing retention of GPs in the profession. However, AGP remains largely invisible to many and the number of AGPs is declining. There is no clear understanding of the reasons for this. The aim of this study was to explore factors that inhibit and promote AGP careers.

Design Secondary framework analysis of data from two qualitative studies.

Participants, setting and measures 41 GPs, GP trainees and Academic GPs (25 females and 16 males) across Scotland. Analysis of the data employed a framework based on Feldman and Ng's model of the factors influencing career mobility, embeddedness and success in order to explore the barriers and enablers to GPs developing academic careers that exist at multiple levels from the personal to the structural.

Results GPs encountered barriers to entering AGP at multiple levels. Lack of clarity and visibility of training pathways, including the lack of clear routes into academia at multiple career stages, were significant barriers, as were the effects of taking on academic work on overstretched practices, and relative job insecurity and lower pay in academic careers.

Conclusion The findings of this research demonstrate that unless the structural issues affecting the profession more generally are addressed, significant barriers to pursuing AGP careers will remain.

INTRODUCTION

Academic general practice (AGP) is vital to the development of general practice in creating evidence, translating research into usable guidance for clinicians and policy-makers, and educating the next generation

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This research is strengthened by the number of participants and the range of roles and career stages represented in the data set.
- ⇒ Multiple methods of data collection provide a large, well-triangulated data set.
- ⇒ Involvement of researchers with multiple perspectives reduces the likelihood of bias within the analysis.
- ⇒ The use of a pre-existing theoretical framework provided a scaffold for the secondary analysis.
- ⇒ A potential limitation was that this was a secondary analysis project which limited the opportunities to confirm our understanding of participants' responses as they related to our research question.

of doctors.¹ AGP refers to the academic work underpinning the practice of primary care medicine and encompasses clinical research, education and educational research in primary care as well as strategic leadership.¹ Academic general practitioners (GPs) usually combine patient care with research and/or teaching and management within a higher education context. However, AGP remains largely invisible to many outside academic practice and is not considered by many GPs until later in their careers, if at all.² The need for clear academic career pathways for the next generation of academic GPs has been highlighted for many years.^{3–7} Although in the UK the Modernising Medical Careers report in 2005 led to the creation of academic career posts for GPs,⁸ concerns remain that academic career pathways are unclear, particularly for GPs wishing to enter academic careers after the completion of specialty training.^{2 7} In Scotland, the setting for this research, entry into AGP for doctors in training is through the Scottish Clinical

Research Excellence Development Framework (SCREDS) which provides opportunities for combined academic and clinical training.⁹ Following completion of combined training and achievement of the Certificate of Completion of Training, successful candidates may progress to undertake a higher degree through an externally funded fellowship and enter a clinical academic career through this route. For academic GPs in educational roles, routes into the career are more varied and include formal career development posts such as Career Start Fellowships and Medical Education Fellowships in general practice,¹⁰ as well as informal routes through sessional teaching roles. Career progression in educational roles increasingly requires higher qualifications in education such as a certificate, diploma or master's.

In 2017, the Wass Report expressed concerns regarding the declining visibility of GP academics in medical schools, and the effects this might have on students' perceptions of GP.¹¹ Students perceive GP careers as lacking intellectual challenge and opportunities for academic research,¹² and insufficient numbers of graduates are choosing GP careers.¹³ Academic GPs make up a small proportion of the UK clinical academic workforce (7.2%).¹⁴ A 2018 report from the Scottish School of Primary Care raised concerns that the AGP workforce in Scotland reduced by 25% between 2013 and 2017, and that over two-thirds of senior GP academics were aged over 55 and potentially within 5 years of retirement.¹⁵ There is no clear understanding of why there is a crisis of recruitment and retention in AGP.

It was against this backdrop that two studies investigating AGP careers were carried out in Scotland in 2019.^{16 17} These studies highlighted that GPs in Scotland have little knowledge of academic careers, with little exposure to AGP as medical students, trainees or practising GPs.¹⁶ Routes into academia were often unclear, as were the pathways for progression and promotion. AGPs identified challenges to their professional identity, a lack of role models and lower remuneration for academic work as potential barriers to AGP careers. For some AGPs, job satisfaction and perceived non-monetary benefits associated with academic roles helped sustain their careers despite the barriers.^{16 17}

The aim of this research was to explore the factors that inhibit and promote AGP careers and to enhance our understanding of possible reasons for the recruitment and retention crisis in AGP by combining the data from these two studies. This complex issue was approached via the Feldman and Ng theoretical framework.^{18 19}

METHODS

This study is a secondary analysis of data collected for two research projects carried out in 2019 to investigate the perceptions and experiences of AGP careers in Scotland.^{16 17} Participants for the original studies were identified through GP and AGP professional networks. Interviews in the original studies were carried out by

Table 1 Summary of participants and data collected (combined data set)

Participant group	Numbers	Data collected
GPST (GP trainees)	14 (12F, 2M)	Focus group interviews (13 participants) Individual Interview (1)
GP (GPs involved in clinical practice, no involvement in academic general practice)	5 (1F, 4M)	Individual interviews (5)
AGP (academic GPs involved in educational or clinical research and/or teaching)	22 (12F, 10M)	Individual interviews (12)* Focus group interviews (9 participants)* Written autobiographical narratives (9)*

*Nine AGPs participated in more than one form of data collection. AGP, academic general practitioner; F, female; GP, general practitioner (non-academic); GPST, GP trainee; M, male.

a range of academics working in medical education, including the authors of this article. One of the original studies involved insider research with individual interviews carried out by a member of an AGP team. In this study, participants also provided a written reflection. In the other study, data were collected through individual and focus group interviews, and in this case the interviewers were often not known to the participants or known only distantly. In both studies, interviews were recorded and transcribed verbatim. The detail of the combined data set of the two projects is provided in [table 1](#). Participants in the combined data set (CD) were given the numerical identifiers CD001–CD041.

A constructivist approach was taken, with the underlying ontological and epistemological assumptions being that there is no one objective truth and that all knowledge and meaning is socially constructed.²⁰ Aligning with this philosophical approach, the gathering of data from a range of sources allows for the examination of the phenomenon from multiple viewpoints, enabling a more in-depth understanding. Multiple methods of data collection (written narratives, individual interviews and focus groups) provide data triangulation, improving the validity of the research.

Feldman and Ng's concepts of career mobility and embeddedness as seen from six perspectives were used as the theoretical framework for a secondary analysis to ensure that influences at all levels, from the personal to macroeconomic, were considered.¹⁸ This theoretical framework has previously been used in research exploring FY2 doctors' reasons for leaving UK medicine.¹⁹ In their work, Feldman and Ng describe six perspectives that influence career embeddedness and mobility: Structural, Occupational, Organisational, Work group, Personal life and Personality and style. Our interpretation of how these perspectives apply to AGP careers is set out in [table 2](#).

Table 2 Feldman and Ng's six perspectives as applied to general practitioner academic careers

Perspective	Description
Structural	Macroeconomic conditions, for example, availability of employment, medicolegal considerations, medical workforce shortages, career structure policy, relative social capital of general practitioner clinical and academic work
Occupational	Professional identity, investment in professional role, stability of expectations in working role, fit between role and expectations, impact of dual career, personal investment, impact of gender
Organisational	Commitment to organisation, intra-organisational networks, ease of leaving/joining organisation, staffing levels, compensation for time to fulfil role, socialisation
Work group	Team belongingness, social support/group cohesiveness, social capital, task interdependence, virtual work, use of external labour
Personal life	Flexibility in working life, work-life balance, volume of work, valuing enjoyment of work, importance of maximising earning potential, importance of high social status, influence of family and friends
Personality and personal style	Value put on creativity, intellectual freedom, personal development/learning, patient/student contact, socially useful work

Feldman and Ng¹⁸ also describe the concepts of career mobility, embeddedness and success to explore the reasons why workers choose to leave or stay in career roles. The definitions of these concepts are set out in [table 3](#).

In applying these concepts to AGP careers, we determined that GPs moving from a clinical role or training pathway to a role combining both academic and clinical practice would be an example of occupational change, that is, a career change requiring new skills and knowledge and resulting in a new working environment. Occupational changes such as this can, at least initially, be associated with lower objective success because of the need to start at a junior level; however, they may be associated with high levels of subjective success for the individual.

We employed a coding framework based on Feldman and Ng's six perspectives developed by the research team. NVivo software was used to code the data according to the a priori codes developed. The framework was initially used on two transcripts by two of the researchers independently to check for agreement in coding. Any discrepancies were discussed among a subgroup of the research team, and a consensus on how to apply the codes reached. The transcripts and written narratives were then coded, and a thematic analysis of the coded data was conducted

Table 3 Important concepts in understanding the reasons why individuals choose to leave or stay in career roles¹⁸

Concept	Definition
Mobility	Occupational change —‘transitions that require fundamentally new skills, routines, work environments ... new training, education’ Organisational change —similar role with new employer Job change —change of role within the same organisation
Embeddedness	‘Totality of forces that keep people in current employment situations’ Encompasses: Fit (how well the job fits with other aspects of the individual's life) Links (the links the individual has within the occupation) Sacrifice (what would be given up if the individual were to leave the occupation)
Success	Objective success —‘external indicators of career advancement’ (salary, hierarchy, professional awards) Subjective success —‘attitudes, emotions, perceptions of how individuals feel about their accomplishments’

by all the authors. The findings were discussed to reach a consensus understanding.

The research team included two AGPs working in medical education, two non-clinicians working in medical education with backgrounds in behavioural science and sociology, and a medical education researcher with a clinical background in physiotherapy. The diversity of the research team contributed to a multiperspective understanding of the findings and minimised bias in interpretation from the personal experiences of the AGP members of the team.

In the case of one of the original studies, participants were contacted and informed of the secondary analysis, and further consent for their data to be used for this secondary analysis obtained. This was necessary as the planned use of data and presentation of the findings from the secondary analysis differed from that they provided consent for in the original study.

Patient and public involvement

There was no patient or public involvement in this study.

Findings

Influences on AGP career mobility and embeddedness were identified in relation to all six perspectives and are discussed below.

Structural perspective

This encompasses macroeconomic conditions, including the availability of employment, workforce shortages, career structure policies and training pathways.

Limited opportunities to enter formal training pathways in AGP was seen as a significant barrier to this career by participants:

And then even you know for GP training, I wanted to do academic GP training. You could do that straight off in England but not in Scotland. You had to apply for GP training and then apply for a SCREDS and it was actually really difficult to find out if there was any way of doing academic training in Scotland for GPs. (CD010_GP, male)

In addition, many had no knowledge of AGP or how they might go about entering this sphere:

I think there's very few opportunities. I mean the job that I'm doing at the moment, nobody ever came and spoke to us about it after I finished. at no point did anybody say to me, 'Have you thought about these opportunities?' (CD008_AGP, female)

The reduced job security and lower remuneration associated with academic work compared with clinical work were also highlighted as being significant in deterring GPs from these careers:

The pay that I'm getting for my PhD is a quarter of what I get for my clinical sessions so it was a huge pay cut to continue to do any sort of academics which is tough I think the main thing that would see me walk away from it would just be not financially being able to afford to continue going academic. (CD009_AGP, female)

Occupational perspective

This encompasses professional identity, the perceived investment that individuals have made in their professional role, the stability of expectations in a working role, the impact of dual roles (academic and clinical) and the fit between the role and the individual's expectations.

The degree to which participants identified with a particular professional group influenced their career choices. AGP participants appeared to identify as either 'GP academics' with a strong clinician identity or 'academic GPs' who saw academia as their primary role. Those in transition between a predominantly clinical role to a predominantly academic role experienced challenges in balancing the two roles—wanting to ensure they maintained clinical credibility while also developing in academia:

I certainly get a sense that amongst sort of jobbing frontline GPs, there's a sense that academics are in some ways not real GPs or they're going into general practice, academic general practice, because they can't kind of cut it in the frontline there is that sort of sense if you like that there is a disconnect between the real GP and the academic GP. (CD030_AGP, female)

More time spent in an academic role facilitated the identity shift from clinical to academic identity. Barriers to identifying with the academic role included anxieties about the perceptions of academics held by practising GPs (out of touch, high achievers) and negative external views of general practice within academic medicine (not for high achievers):

Again, I think it comes back down to identity a bit, because I'm quite aware that today when I was with a group of GPs, I wasn't quite like them. Whereas ten or 15 years ago, I would have been absolutely one of them. (CD037_AGP, female)

Moving into an academic role required significant further investment in their professional role. Requirements for additional training and qualifications and the time commitment required to gain higher degrees were seen as potential barriers to academic career progression:

Trying to do a master's and doing all these other things like I've said already is really, really challenging 'cause I think that would put off a lot of people who actually are really good. I'm sure there's GPs out there who do loads of quality improvement, loads of work in the practices, who would be great in research roles but it's just like this weird perception that we have that the two things are somehow different but they're actually not. (CD032_AGP, female)

Within the occupational perspective, increasing clinical demands and patient, practice and societal expectations were seen as 'push factors' that prompted GPs to search for non-clinical roles:

But I think it's that balance of clinical demand. It's not so bad for me in a salaried job, but seeing others and the workload, then the patient turnover complexity has increased. Trying to manage all that. (CD034_AGP, male)

Organisational perspective

This perspective encompasses the influences of two organisations, the GP practice and the university, and includes factors such as intra-organisational networks, staffing levels and socialisation within the organisation. In GP practices, difficulties in leaving GP partnerships and the challenges of taking on non-clinical work in an understaffed practice were important and tended to inhibit GPs taking on AGP roles. Larger practices were felt to be more resilient and capable of supporting GPs having additional roles. A practice culture that valued such roles was identified as an important factor in promoting AGP careers:

... it depends very much on the practice so one of the motivations for us merging to create this larger practice than average that we're in just now was to allow other people to do other things. It does allow us to explore, to do other roles, whatever those other roles might be because there's always people there

to do the work that goes along. So as a partner, it depends on the resilience of the practice that you're in. (CD027_GP, male)

Those in salaried or locum roles felt more able to provide the flexibility academic work required, particularly with increasing seniority.

Within university departments, the provision of mentorship and information about career opportunities were felt to be important in sustaining academic careers:

I certainly think I would not have got anywhere near as far or been as determined to get this far if I hadn't had that kind of mentoring particularly at really vulnerable stages of my training when you know you could've either really been inspired by something or just missed it entirely and never know it was there. (CD009_AGP, female)

However, the shrinking or loss of AGP departments and lack of interactions between research and education teams were seen as detrimental:

You know five years ago when I started there, it was an amazing department and I was really happy to be there and now there's not a lot of people there. It just feels a little bit ghost town-like and I think that, with the best will in the world, all of the people who're there really miss the kind of dynamics that it was when it was a bigger department. (CD009_AGP, female)

Work group perspective

This perspective refers to the team to which the individual belongs within an organisation, for example, a university department or a GP clinical team, and encompasses social support and group cohesiveness, feelings of belonging to the team, virtual work and use of external labour. Feeling part of a clinical or academic team with shared interests was important to participants. Some drew support from a team in one role where they felt this was lacking in their other role:

I found when I was struggling with the clinical side of things, I'd be able to talk to my peers. So I find the peer support thing, I wasn't expecting, but it's a huge part of the benefits of being in this [academic] department. (CD039_AGP, male)

Social support within both the practice and academic teams was important in facilitating AGP careers. Within the practice, support for non-clinical roles, an appreciation of their value, and pride in non-clinical achievements were important in supporting academic roles:

.... and if you're stumbling across people in your practice or in your cluster whatever, who are doing interesting things or are involved in different things. That makes you have an appetite for it as well and makes, you know, makes you aware that these things are going on otherwise if you never see it, you're never gonna encounter it. (CD007_AGP, female)

Conversely, lack of understanding of what academic roles involved was an inhibitory factor:

So say you're working a five day week but people assume because you're only in two days a week, the other three days you're off not doing much. (CD024_GPST, female)

Taking on an academic role necessitated part time working within the practice, and this was often challenging. Participants expressed concerns that reduced clinical time meant increased work for other GP colleagues:

The barrier from our perspective as a partner is that they are in here less often so we will end up doing a lot of their sort of follow up work. (CD010_GP, male)

causing AGPs to work out with their usual hours to complete clinical tasks:

He works four days a week at the university and one day a week with us but he comes in every Wednesday afternoon.... and checks on his results cause I don't think it's actually possible to do it one day a week. it's too much pressure there on the partners then to follow up on these cases so he does it but that's obviously he's not getting paid for it. (CD020_GPST, female)

The lack of availability of locums or flexibility compounded this challenge.

Personal life perspective

This perspective includes factors such as flexibility in working life, work-life balance, volume of work, the value placed on enjoyment of work, earning potential and social status, and the influence of family and friends in career decisions. Although academic work was seen as flexible and more conducive to work-life balance by some, there was also a perception that it was a 'high-flying' career and not compatible with family life. While the flexibility of academic work was attractive, it was also more likely to spill over into other time. Pursuing an AGP career necessitated having two part time roles with potential for tensions between the two roles.

The job insecurity and relatively lower remuneration associated with AGP meant that this career choice was strongly influenced by personal circumstances and family commitments. For example, being the main or only earner in the household or considering a move from a highly paid partnership role to more academic work meant that these choices were less attractive to some:

I think the main obstacle for me would be that I'm already a full-time doctor and that replacing any of those full-time sessions with anything, whether that be academic general practice or a specialist interest in a clinical subject, is actually financially detrimental. I can't make as much money out of it as I do as a partner in session doing anything else. (CD027_GP, male)

Conversely, some participants felt that the financial sacrifice was compensated by a better work-life balance and more fulfilling work. Academic work was also identified as being linked with a large city, so not attractive for those who wanted to live more rurally.

Personality/personal style differences perspective

This perspective relates to how personal interests and values such as valuing creativity, intellectual freedom, personal development, patient or student contact and socially useful work influence career decisions. For some participants, the creativity in academic work was a contrast with their clinical role that they highly valued:

The opportunity to think, develop interests, form opinions and contribute to the department seemed to me to be almost a creative endeavour. (CD036_AGP, male)

as were the opportunities that academic work brought to broaden their interests, seek new challenges and engage in intellectually stimulating work:

I had been a GP partner for a year and resigned and was in search of variety within General Practice, something more intellectually stimulating. (CD038_AGP, female)

Some participants valued the personal development they gained from academic work that they felt was lacking in their clinical work. Academic work was seen as helping to keep clinical knowledge up to date. Some participants valued being involved in socially useful work, contributing to patient care and the National Health Service (NHS) through teaching or research:

I like that the research has meaning and direct applicability. You know, you can do stuff that you think is gonna make a clinical difference or an actual real-world difference. (CD009_AGP, female)

I hope that I am in some way helping both the next generation and current peers, plan and face up to the future challenges of the NHS. (CD034_AGP, male)

Effects on embeddedness

Having analysed the data according to the framework, the factors identified within each perspective were then analysed to determine their effects on promoting and inhibiting embeddedness in both academic and clinical GP careers. The effects of these factors on career embeddedness are summarised in [table 4](#). Overall, factors at all levels tended to promote embeddedness in clinical GP roles and inhibit embeddedness in academic GP roles.

DISCUSSION

GPs who opted to pursue academic careers seemed to be prompted by personal interests and circumstances (personality and personal style factors) and, in some cases, by a poor perceived fit between their expectations and

experience of their clinical role (occupational factors). Continued pursuit of an academic career could be inhibited to a larger extent by barriers in the higher-level structural, occupational, organisational and work group perspectives, with significant numbers of factors at these levels also working to embed GPs more strongly in clinical careers. Overall, the balance tended to inhibit mobility towards academic careers and increase embeddedness in clinical careers, mainly through strong influences of links and sacrifice, making the cost of this significant change potentially considerable to individuals.

Mobility

Factors prompting GPs to consider the switch from clinical to academic GP careers were found at the personal style, personal life, work group perspective and occupational levels, and for some, change was facilitated by aspects of the GP job market (structural level).

Reasons for pursuing academic careers are often related to personal interests and valuing factors such as creativity, personal development and intellectual freedom. These findings are consistent with those in the literature concerning academic GPs^{2 7 16} and clinical academics more generally.^{21–26} Personal life factors such as encouragement from family and friends to explore academic options, and seeking a better work-life balance, motivated some GPs to explore academia. The relative flexibility of academia was seen to be advantageous. Interacting with GPs working in academia through clinical work, medical school teaching roles or GP training (work group level) could provide information about the potential opportunities for academic work. An occupational-level factor promoting career mobility for some was the mismatch between their expectations of clinical general practice and the reality of the job. This is consistent with existing literature which suggests GPs seek to diversify their roles to sustain their careers in the context of increasing pressures of clinical work.²⁷

Further enablers of mobility for a small number of GPs could be seen at the structural level. Workforce shortages meant that it was easy for GPs leaving partnership to find a locum or salaried post to combine with academic work. The economic power of GP clinical work (especially partnership) could enable GPs to spend time and money studying and developing another professional interest.

Overall, however, GPs who expressed a personal interest in academia could be seen to be deterred from pursuing this by the significant barriers to mobility existing at the higher-level perspectives, particularly at the structural, occupational, organisational and work group levels.¹⁸ These include lack of clear pathways for career progression, for example, after completing a fellowship, perceived need to study for higher degrees and lack of funding for these, pay disparities, threats to professional identity as a clinician, guilt regarding leaving clinical work for colleagues to follow-up and the perceived lack of status of GP academics. Lack of academic mentors and loss of academic professional networks caused by

Table 4 Factors affecting embeddedness in clinical and academic GP roles according to Feldman and Ng's perspectives

Perspective	Effect on embeddedness in clinical GP role	Effect on embeddedness in academic GP role
Structural	Promoting embeddedness: <ul style="list-style-type: none"> ▶ Lack of opportunities to enter academia for established GPs ▶ Lack of awareness of and accessibility of academic GP training pathways ▶ High earning power of GP clinical roles (particularly partnership) compared with academia ▶ Job security in GP clinical roles (particularly partnership) relevant for securing, for example, a mortgage ▶ Professional status—clinical work valued more than academic work ▶ Lack of locums to provide cover for academic role if taking time out of practice 	Inhibiting embeddedness: <ul style="list-style-type: none"> ▶ Lack of clear pathways for career progression, for example, after completing a fellowship ▶ Perceived need to study for a higher degree, for example, PhD, to progress ▶ Lack of job security—short-term contracts, need to secure funding for posts ▶ Lack of PhD funding for primary care research ▶ Pay disparity—lower pay in junior academic roles ▶ Perceived threats to professional identity as a clinician ▶ Perceived lack of status of GP academics relative to other clinical academics ▶ Concerns about clinical safety and credibility if doing few clinical sessions ▶ Sessional remuneration, for example, for teaching, insufficient to pay for locums
Occupational	Promoting embeddedness: <ul style="list-style-type: none"> ▶ Perceived personal investment in GP role (time and energy) ▶ Importance of GP professional identity, strong identity as clinician Inhibiting embeddedness: <ul style="list-style-type: none"> ▶ Mismatch between their expectations of clinical general practice and the reality of the job 	Promoting embeddedness: <ul style="list-style-type: none"> ▶ Effective academic mentorship ▶ Progression in academia, perception of self as an academic, gaining qualifications, publications ▶ Relative balance of academic and clinical roles—more time spent in academia promotes embeddedness ▶ Changing expectations of career pathways and markers of success Inhibiting embeddedness: <ul style="list-style-type: none"> ▶ Need to start at a junior level in academia—contrast with senior GP clinical role ▶ Challenges of maintaining a dual role (academic and clinical) ▶ Lack of academic role models (especially senior females)
Organisational	Promoting embeddedness: <ul style="list-style-type: none"> ▶ Difficulties of leaving GP partnership ▶ Difficult to consider taking on non-clinical work in understaffed practice ▶ Shortage of GPs within practice—need to increase clinical work ▶ Practice culture—valuing clinical over academic role Inhibiting embeddedness: <ul style="list-style-type: none"> ▶ Salaried or locum clinical role ▶ Larger practice—perceived to be more resilient and more possibility to free up GP time for other interests 	Promoting embeddedness: <ul style="list-style-type: none"> ▶ Peer support, being part of a supportive team ▶ Effective mentorship ▶ Awareness of opportunities for progression Inhibiting embeddedness: <ul style="list-style-type: none"> ▶ Shrinking academic departments—loss of networks and peer support ▶ Lack of interaction between research and teaching colleagues ▶ Part time so longer to understand university roles/structures
Work group	Promoting embeddedness: <ul style="list-style-type: none"> ▶ Feelings of responsibility to patients and colleagues ▶ Expectation of colleagues that will be available to cover gaps in clinical rota (especially if GP partner) ▶ Guilt associated with leaving work for colleagues on academic days ▶ Guilt associated with leaving the partnership ▶ Support for or normalisation of Drs in practice having non-clinical roles ▶ Positive overlap if given educator role within practice Inhibiting embeddedness: <ul style="list-style-type: none"> ▶ Feeling isolated in a clinical role—not feeling part of a team ▶ Lack of support from practice for non-clinical work 	Promoting embeddedness: <ul style="list-style-type: none"> ▶ Feeling part of an academic team ▶ Professional networks—gaining information from other GPs about academic work/job opportunities ▶ Support and feedback for those new to academic roles Inhibiting embeddedness: <ul style="list-style-type: none"> ▶ Lack of interaction between teaching and primary care research groups ▶ Guilt of leaving clinical work for colleagues to follow-up

Continued

Table 4 Continued

Perspective	Effect on embeddedness in clinical GP role	Effect on embeddedness in academic GP role
Personal life	Promoting embeddedness: <ul style="list-style-type: none"> ▶ Financial commitments—relatively high earning power of GP partnership role Inhibiting embeddedness: <ul style="list-style-type: none"> ▶ Lack of flexibility ▶ Family responsibilities ▶ Lack of work-life balance 	Promoting embeddedness: <ul style="list-style-type: none"> ▶ Relative flexibility of academic work ▶ Improved work-life balance Inhibiting embeddedness: <ul style="list-style-type: none"> ▶ Family and financial commitments ▶ Distance from university (rural living) ▶ Academic work spilling over into non-work time
Personality /personal style	Promoting embeddedness: <ul style="list-style-type: none"> ▶ Valuing patient contact and personal relationships with patients/continuity of care ▶ Clinical GP work enhancing academic work as educator and enhancing understanding of clinical problems requiring research ▶ High personal value placed on social status associated with clinical work ▶ High personal value placed on income Inhibiting embeddedness: <ul style="list-style-type: none"> ▶ Lack of time in a clinical role to study/develop interest ▶ Lack of job satisfaction 	Promoting embeddedness: <ul style="list-style-type: none"> ▶ Valuing creativity, intellectual freedom and personal development ▶ Interest in research ▶ Interest in teaching—enjoyment of contact with students ▶ Job satisfaction ▶ Valuing socially useful work—being involved in research or education that can make a difference to patients/ National Health Service Inhibiting embeddedness: <ul style="list-style-type: none"> ▶ Valuing social status of clinical role over academic role ▶ Threats to personal and professional identity

GP, general practitioner.

shrinking academic departments, and lack of opportunities for research and education-focused academics to interact were also described as barriers.

Embeddedness

Factors from all of Feldman and Ng's six perspectives work to embed GPs in their clinical careers.¹⁸ The job security and high earning power of GP clinical roles compared with (particularly junior) academic roles and the perceived higher professional status of clinical work were significant factors in embedding GPs in their clinical roles. Participants described a strong attachment to their professional identity as GPs and strong feelings of responsibility and commitment to their patients and colleagues. The lack of available locum cover to enable GP partners to take on sessional academic roles, clinical GP shortages and an expectation (particularly for GP partners) that they would be available to cover rota gaps, all promoted embeddedness in clinical roles and made combining these roles with academic work challenging or detrimental. Conversely, there were fewer and weaker factors embedding GPs in academic careers, particularly at the higher perspective levels. This leads to some GPs with an interest, and some with significant investment in academia, considering whether this is a viable career pathway for them to pursue.

Strengths and limitations

This research is strengthened by the number of participants and the range of roles (academic GPs with a range of roles, including clinical research, educational research and teaching, as well as GPs working purely in clinical roles) and career stages represented (GP trainees, GP partners, early and later career academic GPs). Multiple

methods of data collection (individual interviews, focus groups and written narratives) provide a large, well-triangulated data set, strengthening the validity of the research, and involvement of researchers with multiple perspectives reduces the likelihood of bias within the analysis. Another strength of this research was the use of a coding schema based on a pre-existing theoretical framework which helped scaffold the secondary analysis, anchoring it within a theoretical lens and minimising epistemological shift. The use of a pre-existing framework introduces the possibility that important aspects of influences on the participants' career decision-making might not have been captured, and this is a potential weakness; however, given the wide scope of the framework and the ability of the coding schema to capture influences from the personal to the macroeconomic, we felt this was unlikely. Another potential weakness relates to the fact that this was a secondary analysis. This meant that there was no opportunity to confirm our understanding of participants' responses as they related to our research question during the data collection phase. The participants were drawn from one area of the UK, and it may be that a number of perspectives discussed could differ in other regions, particularly those relating to training and career structures and job markets.

CONCLUSION

This study adds to the understanding of barriers to AGP careers by exposing the importance of structural factors in embedding GPs in clinical roles and conversely inhibiting their embeddedness in academic roles. GPs described strong links to their professional identities as clinicians

and to their patients and clinical teams. Sacrifices associated with making an occupational change from a predominantly clinical to a predominantly academic role included (at least initially) financial penalties, loss of job security, threats to professional identity and perceived loss of social and professional status, which can be seen as objective measures of career success. Those participants who were more concerned with subjective measures of career success such as job satisfaction and work-life balance were more inclined to continue to pursue AGP careers if they found them professionally satisfying, despite the sacrifices described.

These findings also illuminate the importance of workload pressures in clinical practice in influencing the decisions of individual GPs regarding the viability of pursuing academic careers. Difficulty in staffing clinical sessions in the face of increasing clinical demands, and an expectation that GP partners in practices will be available to cover rota gaps, can render commitment to an academic career challenging. Conversely, clinical pressures are known to prompt GPs to explore alternative roles,²⁷ and this research adds weight to this finding. This research emphasises the importance of addressing the barriers to AGP careers that exist at multiple levels and highlights barriers not previously described such as the added difficulty of physical distance between the clinical and academic job roles for AGPs, and the perception that practising general practice in a rural environment is a barrier to an AGP career. Further research on exploring the importance of location and distance from academic centres would be valuable. This research also strengthens our understanding of what is valued in academic careers, including creativity, variety, flexibility, opportunities for personal and professional development, being part of an academic community, enjoyment of teaching and research, and feeling that the work is of social value. These motivations for AGP careers must be harnessed and promoted if AGP is to thrive.

The recruitment and retention of AGPs are inextricably connected to the crisis in the GP workforce, with factors resulting from the current pressures in clinical general practice inhibiting GP mobility into AGP at multiple levels. The expansion of AGP could be seized on as an opportunity for the profession to raise its academic profile and status and create varied and sustainable career opportunities. Vital to achieving this will be the promotion of AGP as a career to medical students, trainees and practising GPs; ensuring clear career pathways for AGP careers at different career stages; improving remuneration for AGP roles within universities to ensure parity with clinical practice; building resilience in the GP clinical workforce to enable practices to support GPs taking on academic roles; and promoting mentoring and ensuring academic role models for early career GPs.

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