Clinical Academic Careers for General Practice Nurses: A qualitative exploration of associated barriers and enablers

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DECLARATIONS

Availability of data and materials

The data generated by this study are available on request from the corresponding author (SJ). The data are not publicly available due to their containing information that may compromise participant anonymity.

Authors' contributions

The findings reported here pertain to a wider study. Interview and focus group topic guides were designed by all authors, with all data collected by SS. Interview and focus group transcripts were analysed by SS with findings reviewed by SJ and AB. All authors contributed to the writing of this paper. All authors have read and approved the manuscript.

Consent for publication

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Competing interests

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ABSTRACT

Background: The delivery of research in healthcare is dependent on a sub-group of clinicians – clinical academics – who concurrently engage in clinical practice and academic activities. The need to increase access to such roles for GPNs has been identified, though the need for a robust career framework remains.

Aims and objectives: This study aimed to explore the concept of clinical academic careers for general practice nurses (GPNs) by identifying barriers and enablers associated with pursuing and performing such roles.

Design: qualitative interview and focus group design.

Methods: GPNs (*n*=18) and general practitioners (GPs) (*n*=5) engaged in either an audio recorded interview or focus group. Verbatim transcripts were subject to thematic analysis.

Results: Four themes were identified: awareness and understanding; career pathway; personal and professional attributes; and organisational factors. Awareness and understanding were generally poor. Participants suggested that the career pathway was unclear, though it was generally assumed that such roles were "out of reach" and require a minimum of Master's level education. An interest in research and the confidence to perform such duties were reported as the required personal and professional attributes. Organisational factors included the need for employers to understand the value and benefit of GPN clinical academic roles, along with ensuring that the inevitable competing demands of such a role were appropriately managed.

Conclusions: This study highlights the difficulties faced by GPNs wishing to pursue a clinical academic career. Academia is seemingly placed upon a pedestal, emphasising the need to embed research training early in nursing education to alter GPN perceptions that clinical academic roles are unobtainable.

Relevance: The development of a robust career pathway for GPN clinical academic roles may have a positive impact on the retention of experienced GPNs and attract newly qualified nurses. This research provides evidence as to the need for one.

Keywords

Clinical academic careers; general practice nurse; research nurse

BACKGROUND

There is increasing demand on healthcare globally and the NHS in England is no exception. Over the last five years, attendances at major accident and emergency (A&E) departments have risen by 10.3%, and the number of people on the waiting list for consultant-led treatment has risen by 42% (Baker 2019). Consequently, four-hour waits in A&E are at an all-time high, as is the waiting list for consultant-led treatment and the time to treatment and this was before the global coronavirus pandemic. This comes during a time when there have been increases in the absolute numbers across most clinical professions, but this increase is not in keeping with the growth in demand. The issue is further compounded when the volume of posts generated is greater than the supply of clinical professionals to fill them (Public Health England, 2017). Between July and September 2018, there were nearly 94,000 full time equivalent advertised vacancies in hospital and community services in England, equating to an 8% shortfall, with nursing and midwifery having nearly 40,000 vacancies (Rolewicz & Palmer, 2019). Challenges in workforce retention add to the vacancy problem, with a growing number of nurses leaving the profession early for reasons other than retirement (Public Health England, 2017). These challenges exist in the context of growing expectation for accessible, high quality and safe care.

In an increasingly resource constrained environment relative to demand, increasing research delivery is one mechanism that could alleviate challenges to improving care quality. The relationship between research delivery and patient outcomes in healthcare is well established. A systematic review and meta-analysis of international studies found that patients not only benefit directly from participation in research, achieving improved clinical outcomes (*Nijjar et al.,* 2017), but also more generally at the organisation level. Patient populations achieved better outcomes in organisations with high research participation irrespective of their own participation in research studies (Downing et al, 2017). The delivery of research in healthcare in the UK is dependent on a sub-group of clinicians known as clinical academics who concurrently engage in clinical practice and academia (Baltruks & Callaghan, 2018).

Clinical academics are essential in both the development of real-world-relevant, timely research and the translation of research back into practice, and form a pivotal component in the UK Government's Life Science Industrial Strategy (Bell, 2017; HM Government, 2017). However, despite the recognition for there to be a clearer career pathway for nurses involved in clinical research for over a decade (UK Clinical Research Collaboration, 2006), and some progress having been made (Department of Health, 2012), the proportion of clinical academics in nursing, midwifery and allied health professions remains low at 0.1%, (Dickinson *et al.,* 2017) in comparison to 4.6% of the medical consultant workforce (Fisher *et al.,* 2017).

The primary care workforce in England is no exception to the workforce challenges. A 1.7% decline in the number of full-time equivalent GPs between September 2017 and 2018 (NHS Digital 2018), coupled with a survey that reported that 39% of GP respondents planned to leave 'direct patient care' by 2022 (Gibson *et al.,* 2017) makes for significant workforce challenges in general practice. A similar picture exists in general practice nursing across the UK; 33.4% of general practice nurses (GPNs) are due to retire by 2020 (Bradby & McCallum, 2015) and over half of all GPNs in Scotland are over 50 years old (Innes, 2019).

GPNs are recognised as being key to the delivery of primary care services in the General Practice Forward View (NHS England, 2016). In an effort to address the challenges in the workforce, the General Practice Nursing Workforce Development Plan (Health Education England, 2017) identified some key steps necessary to move forward including increased

access to clinical academic careers. Subsequently, the NHS England ten-point action plan reiterated the need to develop clinical academic careers at point eight of the plan (NHS England, 2017). However, to realise opportunities for GPNs to take up clinical academic posts and develop a robust and fit for purpose career framework, evidence is needed to understand the barriers and enablers to a clinical academic career in the general practice setting and specifically for GPNs. A rapid evidence assessment undertaken to explore the available literature on GPNs and clinical academic nurses in the UK only found two articles discussed GPNs (Bradbury *et al.,* 2020)

Thus, this study aimed to explore the concept of clinical academic careers for GPNs through investigation of the barriers and enablers related to the development and functionality of the role, along with the associated potential benefits for general practice.

METHODS

This paper details the qualitative element of a wider mixed methods study within in a critical realist paradigm. Critical realism presents a philosophical paradigm that can accommodate mixed methods studies that can be used to explore the underlying mechanisms that can generate events (Danermark, 2002). Bhaskar (2008) promotes that in order to understand a phenomenon, you must understand these underlying mechanisms in addition to the traditional observable events sought in positivist paradigms. This article presents the qualitative exploration of the potential underlying conditions for GPNs in pursing and performing clinical academic careers as a means to exploring the observable events; that clinical academic career uptake is lower in nursing than in medicine. GPs and GPNs were recruited from within the West Midlands of England through a combination of purposive and snowball sampling. Participants were recruited from across the experience spectrum, including both experienced clinicians and those new to the general practice setting. Participants provided informed consent to take part in an audio recorded interview or focus group, with recordings transcribed and resultant transcripts subject to a process of thematic analysis (Braun & Clarke, 2006). All participants were analysed as a single unit, with any professional differences documented. A semi-structured interview schedule was used and is available upon request.

The research team comprised a multidisciplinary group of individuals who reflected the professions being investigated including general practice nurses and a GP, and two researchers without clinical registration. One team member provided the function of key stakeholder engagement to support in the development of the interview scheduled and interpretation to improve trustworthiness and credibility. This study reports using the Standards for Reporting Qualitative Research (O'Brien *et al.,* 2014)

Full ethical approval for the study was granted by the Faculty of Health, Education and Life Sciences Academic Ethics Committee at Birmingham City University. All participants provided written informed consent to participate in the study.

RESULTS

Three focus groups comprising a total of 12 registered nurses, and one-to-one interviews with six registered GPNs and five GPs were undertaken over a six-week period in February and March 2019. The three focus groups comprised nurses new to the general practice role studying on the Fundamentals of General Practice Nursing course (Focus Group A); GPNs who were studying for an Advanced Clinical Practice award (Focus Group B); and GPNs working in

general practice (Focus Group C). All of the nurses in the focus groups and interviews were currently employed as GPNs in the general practice setting. The breakdown of these focus groups and interviews and the related demographic data can be found in Table 1.

Table 1: demographic data

	Current role	Age (years)	Years as registered nurse/doctor	Time in general practice
Focus Group A, GPN students	Student GPN	36	16	< 12 months
	Student GPN	43	1	< 12 months
	Student GPN	22	2	<12 months
	Student GPN	23	2	>12 months
	Student GPN	44	18	>12 months
	Student GPN	33	6	>12 months
Focus Group B, GPNs studying for ACP award	Student ANP GPN	36	14	2 years
	Student ANP GPN	48	27	18 years
	Student ANP GPN	35	13	2 years
Focus Group C, GPNs	FG GPN	-	32	18 years
	FG GPN	29	9	1 month
	FG GPN	53	32	4 years
Interviews	ACP GPN	48	22	-
	GP	58	36	30 years
	GP	54	31	27 years
	GP	59	36	32 years
	GP	35	12	6 years
	GP Clinical Academic	37	13	18 months

Following an iterative cycle of thematic analysis, four main themes were identified: awareness and understanding; career pathway; personal and professional attributes; and organisational factors.

Awareness and understanding

Awareness of the clinical academic role appeared to be relatively poor; most participants had never worked with anyone in a clinical academic post. However, participants had a general understanding of the term and were able to surmise the fundamental principles of the role. This lack of awareness of the role translated into difficulties in identifying opportunities, with all of the nurse participants never having considered the career as an option.

> *"I wouldn't have even thought about it. So, it's raising awareness that I suppose it could be that it is an option, yeah" Student GPN Focus Group*

The solitary nature of the GPN role was cited as one reason why GPNs might be less likely to learn of such roles, with limited opportunities to speak with colleagues in the working week and decreasing access to CPD and professional networks contributing further to the isolation. Exposure to how research relates to everyday clinical practice and role models in general

practice were felt to be lacking. Participants thought that in hospital settings there would be more exposure to clinicians in clinical academic posts.

> *"You know, so there are some clinical specialities, like oncology, for example, where loads of consultants will have PhDs, and so for them to think about doing a PhD isn't that big of a mental step. Whereas, if you're in a profession, like general practice, or primary care nursing, you don't have as many of your senior colleagues who have gone through that process" GP5*

This lack of exposure was further compounded by the absence of nurse leaders in primary care promoting the clinical academic career pathway.

> *"I think there should be more nurses high up within CCGs that are definitely pushing the agenda and talking about it" GPN student*

As the primary employers of GPNs, GPs' awareness and understanding of the GPN clinical academic role was considered essential in enabling GPNs to take up such roles. There was a large emphasis placed on the need for evidence as to the value of these roles, and that this message would need to be communicated explicitly and consistently to facilitate any discussion of the role. Limited awareness of the value and potential of GPNs pursuing clinical academic careers was evident in most of the interviews with GPs. However, two of the GP participants could envisage the value of a GP clinical academic, but were unsure of the significance/worth of GPN clinical academic roles.

> *"I understand much more readily what the GP academic could offer and probably less likely to understand what a nurse academic would offer. I'm thinking in terms of as employer, the time that will be taken away" GP2*

The awareness of general negativity for the GPN clinical academic role was expressed by both GPN and GP participants. It was evident that there was a need for a change in attitudes and understanding throughout the general practice workforce so as to instil a positive environment and for opportunities to be realised.

Personal and professional attributes

There was a general consensus that the main driver for a GPN to consider a clinical academic role was a personal interest in research and the confidence one could develop the necessary skills to even consider applying for such a post. Participants expressed the need for a personal interest in research and the development of research skills to be nurtured from pre-registration and through post qualification education.

It was suggested, therefore, that confidence in one's ability to pursue research skills needed to be developed from the start of a nursing career to embed aspiration and expectations in new nurses that a clinical academic career was a viable, achievable, and valid career goal.

> *"I think maybe… when we're doing our initial nurse training to have researchers come in and discuss it" GPN student*

However, many participants felt that the nature of the GPN role of autonomy and the personal characteristic of being self-motivated lent themselves well to the clinical academic role. Furthermore, the nature of the work of a GPN meant that they were in a good position to be able to identify patient-relevant research.

"I think so because if we're working there we… know the flaws, we know when certain processes aren't working very well. So, it…you highlight that and you think, I need to change that" GPN student

However, whilst it was felt that a GPN would not necessarily need to be working at an advanced level of clinical practice, a suitable nurse for a clinical academic career would need to be experienced and confident in their clinical ability. There was concern that a focus on research would mean that a GPN would fall behind in terms of clinical progression.

"I think one is making sure that you're giving yourself enough time to progress in your clinical career. Making sure that you're up to date with your CPD" GP5

There was, therefore, general agreement from the GPN participants that they had a lot to offer a clinical academic role, but lack of research knowledge and ability in their education and training impacted on their confidence to consider the role.

Career pathway

The lack of research ability and perception that clinical academic careers were out of reach of many GPNs was reflected by the absence of a formalised clinical academic career pathway for GPNs. Furthermore, to some extent, GPNs perceived that their career pathway was developed according to the needs of the practice, over and above their aspirations.

"Because there's so much disparity in general practice about what you're actual career path will be then you kind of either shape it yourself or the GP shapes it for you" GPN student

There was a general consensus from GPN participants that a nurse would need to be educated to at least Master's level before considering a clinical academic career suggesting that attainment of education level correlated with ability and disregarded an individual's potential early in their clinical career. Furthermore, the misconception of one GP, which possibly reflects wider opinion in medicine, that nurses are less academically competent than their medical colleagues by virtue that they are nurses rather than doctors would not be helpful in increasing uptake of nurses generally into clinical academic roles, and potentially be more damaging in a setting where the doctors with these opinions are simultaneously the employers of nurses.

"I think by natural selection……..that the more academic people are probably more steered towards medicine than nursing, I would suppose that's the case" GP2

There were limited opportunities for GPNs to develop capability in research over time. This, coupled with high volume workload and expectation that the development of clinical skills would be prioritised, impacted on participants' beliefs that clinical academic careers for GPNs were not a very viable option.

Organisational factors

Organisational factors featured heavily as barriers to clinical academic roles in general practice nursing. From the GP perspective, assurance on the value and benefits of such a role is required if they are to be expected to pay for it and indicated a preference for centrally funded roles.

"As an employer I wouldn't want to be paying for another activity ...from which I cannot derive direct benefit. So I see potential negatives and I see potential gains

but I think the gains are less immediately obvious to me than from the GP academics" GP2

The division of time between clinical and academic aspects was of concern to both GPs and GPNs. There were fears from the GPNs that the academic element would be routinely compromised in order to meet increasing patient demand and staff shortages, whilst GPs felt that GPNs needed a minimum amount of clinical time to ensure maintenance of clinical skills and raised concerns around continuity of care for patients in the practice.

"What about in the clinical areas, if the clinical load gets busy, you know, somebody's off sick or two people are on holiday, what happens to their academic bit?" ANP

"I think you have to have specific clinical days and specific research days, and your research days you have to be physically away, so that means usually at the university which you do your academic role at. Because, I think if your clinical colleagues see you around they will, inevitably, rope you into things while you're there and you will simply not have the time and head space to be doing any academic work" GP5

DISCUSSION

The four themes presented all identify various barriers to the development of clinical academic careers for GPNs. In combination, they highlight the difficulties an individual would encounter in attempting to pursue this career pathway. Furthermore, the themes all demonstrate the culture around clinical research in nursing generally, and specifically in general practice. Inevitably the current high workload and dwindling workforce impacts on the enthusiasm of GPs and GPNs towards the development of clinical academic careers for GPNs but there is also an underlying negativity towards the feasibility of GPNs taking up such roles. This culture, in some places, is detrimental, and even potentially toxic to the establishment and success of these roles in general practice nursing.

Academia was, to some extent, placed on a pedestal and this generated two positions regarding the suitability of GPNs to a clinical academic role. Nurses themselves tended to explain their reluctance or aversion to such roles in the context of confidence and modesty, that is, not having enough confidence or surplus modesty to put themselves forward for the 'superior' clinical academic role. This was further reinforced by the lack of research training in the early education of nurses meaning that nurses did not feel adequately skilled to make the move into academia and consequently research can be something that nurses fear.

This position would not be helped by views potentially held by GPs that suggest that nursing as a profession is self-excluded from research because had they been academically competent, they would have been doctors. This is in contradiction to the current debate on the education of nurses. Evidence suggests that the registration status of the nursing profession, which requires an undergraduate level qualification, makes a significant contribution to patient safety in comparison to the non-registered nursing workforce (Aiken *et al.,* 2017; Griffiths *et al.,* 2018 & Leary et al, 2016). Studies have also demonstrated that there is no difference between nurses and doctors in the competence of traditionally-doctor-specific activities such as diagnosing (Pirret *et al*., 2015), running clinics (Larrson *et al.,* 2014) and endoscopy (Centre for Review and Dissemination, 2011). However, it is important to recognise that nurses are not a cheaper

alternative to doctors, but rather a valuable profession with an important role to play in delivering high quality, safe care to patients (Leary, 2012). However, there remains issues with the image of nursing perceived to be both a profession for women (MacWillians *et al.*, 2013) and one that does not value the specialisms or advanced roles in nursing with protected titles, which potentially undermines confidence in the profession (Leary *et al.*, 2017).

Further debate exists around the academic credibility of nursing. The credibility of the nursing professoriate in the UK has been questioned (Watson & Thompson, 2008; Watson *et al.,* 2017), however, there appears to be consensus on the need for nursing leaders, such as those in chief nurse positions, to work 'hand in glove' to move forward the academic evidence base to "address local service needs whilst being of an internationally excellent standard" (Cannaby *et al.*, 2017). However, how nurses gain these academic skills whilst pursing a clinical career remains to be determined as the career pathway for senior leadership roles do not currently require academic competence (Watson & Thompson, 2008); rather this is an aspiration and whilst only 0.1% of the non-medical workforce comprises clinical academics careers, an enormous investment is required to parallel the 4.6% of the medical workforce in clinical academic roles (Baltruks & Callaghan, 2018; Dickinson, *at al.,* 2017). It is, therefore, hardly surprising that this study highlighted a lack of role models in senior leaders in terms of research activity.

The national contract for consultant medics in England, in which academic pay is matched to the NHS pay structure (British Medical Association, 202), is likely to go some way in supporting the larger proportion of medical academics. The importance of this offer is reinforced by the recent support of an equivalent offer by the Universities and Colleges Employers Association (British Medical Association, 2019) for medical clinical academics in training (those below consultant pay grade). In comparison, the absence of such an offer in nursing and other professions allied to health is indicative of the perceived value of these roles in generating the evidence base. However, with nursing care increasingly linked to patient safety and quality of care, more attention is required to address the undervaluing of nursing research. Some course for redress is with the allocation of research funding; there is inequality in research funding with only 1.9% of Higher Education Institution funding being awarded in the nursing and allied health professions (UK Clinical Research Collaboration, 2015), despite the composition of the NHS workforce comprising 25.6% nurses and midwives (Nuffield Trust, 2017).

The redistribution of research funding cannot come at a whim, and must be done in parallel to increased training of nurses in the discipline of research to ensure the delivery of high quality and impactful research. Since 2005, the NIHR has funded a growing number of nurses, although allied health professions have seen the greatest increase (Medical Research Council, 2020)) but the numbers are in the tens, rather than hundreds or thousands and is unlikely to make a significant dent in the proportion of clinical academics within the profession in the near future.

The importance of the GPN role in delivering primary care services has been recognised in recent policy documents (NHS England, 2017). However, the shortage of GPNs and the lack of consistent investment in their training and development has led to the introduction of new roles such as pharmacist-led services and physician associates (Nelson *et al.,* 2019) turning attention away from investment in general practice nursing and its value. This study highlights

how the impact of long term undervaluing and investment has infiltrated the expectations of GPNs to be able to develop aspirational career pathways such as clinical academic careers.

The need to embed research skills and interest early on in nurse training is identified in this study. The introduction of a degree level qualification for nurse registration is beginning to have an impact. However, this study clearly shows how once nurses are employed in general practice the opportunities to build on this knowledge are limited and is not portrayed as an expectation within the general practice environment, compounded by a distinct lack of role models.

This study suggests that general practice nurses are not aware of these opportunities and therefore unable to apply for them. And even if they did apply, the employment model, specific to general practice, suggests that seeking funding for this sort of role would not necessarily be supported by GP partners. This is exacerbated by the current workforce crisis (NHS Digital, 2015 & Queen's Nursing Institute, 2015) and the high proportion of current GPNs expected to retire by 2022 (33.4%) (Queen's Nursing Institute, 2015).

This study is an empirical qualitative research study. Limitations include the difficulties in drawing generalisable conclusions from studies of this nature. However, they do provide a richness and depth of understanding not obtainable in quantitative studies that can be used to inform thinking. This study is also focussed on England, and therefore, might not reflect general practice nursing across the four nations of the United Kingdom, or more globally.

CONCLUSION

The clinical academic career in general practice nursing has the opportunity to deliver patient-derived-nurse-led research that could see substantial gains in improvements to patient care including patient experience, safety and clinical outcomes. Furthermore, offering robust career pathways for the GPN workforce could also have a positive impact on the retention of experienced GPNs and attract newly qualified nurses. Traditionally, research has been the role of the medical profession, but as we increasingly see the nursing profession deliver complex clinical care, adopting skills and competence traditionally associated with doctors without compromising patient care, and in many cases improving it, there is little reason to think that nursing could not take greater responsibility for its own evidence base. It is important that the specific challenges for nurses working in the general practice setting are recognised and addressed to make clinical academic careers equally available to general practice nurses.

What does this paper contribute to the wider global clinical community?

- This study provides an evidence base on the barriers and enablers to clinical academic careers in general practice nursing
- The unique contractual arrangements for GPNs generate specific conditions for nurses working in this field that make access to clinical academic roles within primary care more difficult.
- Working with employers and instilling research confidence in nurses earlier in their education training would go some way to facilitate an increase in clinical academic roles in general practice.

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