

This is an Open Access document downloaded from ORCA, Cardiff University's institutional repository: <https://orca.cardiff.ac.uk/id/eprint/183790/>

This is the author's version of a work that was submitted to / accepted for publication.

Citation for final published version:

Brennan, N., Westwood, S., Mattick, K., Mitchell, A., Henderson, T., Walker, K., Tredinnick-Rowe, J. and Gale, T. 2026. Preparedness for practice and workplace support of newly qualified allied health professionals: A qualitative study. *Medical Teacher* 10.1080/0142159X.2025.2610395

Publishers page: <https://doi.org/10.1080/0142159x.2025.2610395>

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper.

This version is being made available in accordance with publisher policies. See <http://orca.cf.ac.uk/policies.html> for usage policies. Copyright and moral rights for publications made available in ORCA are retained by the copyright holders.



Preparedness for practice and workplace support of newly qualified allied health professionals: A qualitative study

Keywords: Preparedness for practice, work readiness, employability, workplace support, wellbeing, retention, allied healthcare professionals, qualitative.

Article Summary

ABSTRACT (300 words)

Background

Allied health professionals (AHPs) constitute a significant part of the global healthcare workforce. It is important that AHPs are well prepared for practice to provide quality care for patients, for their personal wellbeing, and for workforce retention. In comparison to doctors there has been strikingly limited research on AHPs preparedness for practice. The aim of this study was 1) to understand how well newly qualified AHPs were prepared for practice and 2) to investigate support in the workplace for newly qualified AHPs.

Methods

We conducted a national qualitative study involving semi-structured interviews with multiple stakeholders across the UK. 60 interviews were conducted with 61 participants across 15 professions newly qualified registrants (NQRs), practice supervisors/employers and policymakers). The interviews were recorded, transcribed, coded in NVivo and analysed using a Thematic Framework approach.

Results

NQRs were perceived to be well-prepared for their clinical practice and communication skills however some were not prepared for decision-making, leadership, putting theory into practice and knowledge base. Underpreparedness for management of caseloads due to workforce shortages was a notable concern. Support for NQRs in the workplace varied hugely in its availability and effectiveness, was influenced by team size, how established a team is, resources, and the policies of different employers/trusts. Support that is tailored to the needs of the individual NQR was most valued by participants

Conclusion

There were more similarities than differences between perceptions of preparedness for practice of AHPs and other health professionals (e.g. doctors). If education providers and employers can better prepare and support NQRs in the workplace (proactive support measures) then this may contribute to fewer problems associated with mental health and well-being to resolve later (reactive support measures) e.g. at individual (impaired mental health) or system level (retention). This initial scene-setting research across all AHPs has identified pertinent issues for in-depth exploration.

Word Count: 5,900 (4,456 without quotations presented in results section)

1. Introduction

Allied Health Professionals (AHPs) are a large proportion of the international healthcare workforce.¹ It is important that newly qualified healthcare professionals are prepared for clinical practice from the very start of their working lives. Firstly, to provide quality care for patients and secondly, because of the impact preparedness for practice has on newly qualified healthcare professionals mental health and wellbeing.³ Preparedness for practice has been found to have a significant impact on their personal well-being, with those that do not feel prepared reporting high levels of stress.³ High levels of stress have been found to be associated with burn-out^{4,5} and healthcare professionals leaving their jobs^{6,7} thus having potential implications for workplace retention. Over the years medical graduates' preparedness for practice has been extensively researched.^{8,9 10-18} There has been strikingly limited research on allied health professionals (AHPs) preparedness for practice.¹⁹

In the UK, AHPs make up approximately one third of the health and social care workforce with over 185,000 qualified staff registered with the National Health Service (NHS) in 2022.²⁰ The term 'Allied Health Professionals' is used to encapsulate a diverse group of 14 autonomous professionals such as physiotherapists, occupational therapists, speech and language therapists, podiatrists, dietitians, music therapists.²¹ Becoming an Allied Health Professional (AHP) typically involves an undergraduate or postgraduate degree, followed by registration with the Health and Care Professions Council. AHP support workers can also be trained via apprenticeships which combines paid work in a healthcare setting (e.g., NHS) with part-time university degree study.²³ Pre-registration programs for AHPs must equip graduates with clinical and non-clinical skills, knowledge and behaviours required to enter their profession. These outcomes are linked to the Health and Care Professions Councils (HCPC) standards of proficiency.²⁴ The HCPC's Standards of Proficiency identifies the threshold knowledge and abilities required for safe and effective practice. This phenomenon has been conceptualised in the literature as "preparedness for practice".

Preparedness for practice can be defined as the combination of knowledge, skills, professional values, personal attributes and behaviour that graduates need to possess both at the point of entering the workforce, but also for a lifetime of practice.^{25 26} Literature to date has focused on employability,²⁷ work readiness²⁸ and transition to practice programs in health professions education.²⁹ A recent systematic review investigated how prepared AHPs were for practice in the UK.¹⁹ The review identified that while there is some qualitative research on radiography, paramedicine, physiotherapy, clinical psychology and orthotics, along with some high-level perceptions on overall preparedness across 15 professions, there is little or no in-depth qualitative research on the remaining 10 professions. The review identified the need for more high-quality, in-depth research across all allied health professions to elicit key components of preparedness/under-preparedness and their nuances. The importance of understanding the supervision and support structures in place for AHPs was also emphasised as there has been little research on this to date. Furthermore, a recent systematic review which investigated readiness for professional practice in health professions emphasized a need for a shift in research focus from assessing the preparedness of new graduates for the workplace to evaluating the readiness of the workplace to support these individuals.²⁸

The aims of this study were to address these gaps in understanding by investigating 1) how well newly qualified registrant (NQR) AHPs were prepared for practice in the UK and 2) the support structures for NQR AHPs in the workplace. As preparedness for practice and support structures can have a significant impact on an NQRs wellbeing³, we drew on a conceptual typology of interventions to support the mental health and wellbeing of doctors as our conceptual framework.³⁰ Whilst

developed with doctors in mind, the typology was based on interventions for all healthcare professionals and is therefore likely to be relevant and appropriate for the study of AHPs. The typology classifies interventions into three main categories: workplace improvements, increasing personal resources and problem-resolution focused as well as whether they are proactive and reactive measures. Within each category are a number of subcategories enabling interventions to be fully mapped and described. The findings of our study will enable education providers to address areas of challenge through their education programmes as well as enable employers and professional bodies to identify where additional support may need to be provided.

2. Methods

2.1 Study Design

We used a qualitative methodology to address the research aims as this approach provides a rich in-depth understanding of phenomena. Our theoretical orientation is interpretivist as we believe that reality is subjective and changing, and the researcher's role is to document peoples' experiences and construction of it.³¹

2.2 Setting

The setting was a national-level public health service where care is free at the point of contact, the UK's National Health Service (NHS). The NHS incorporates both primary care in the community as well as secondary care in hospitals. It is well known that there is a workforce crisis in the NHS driven by a shortage of healthcare professionals.³² This crisis is resulting in increased workloads, deteriorating staff wellbeing and poor retention.³³

2.3 Sampling and Recruitment

A purposive sampling strategy was utilised to recruit participants across the 15 professions regulated by the HCPC.³⁴ We sampled across the four nations of the UK including England, Northern Ireland, Scotland and Wales to maximise variability in demographics. We recruited a variety of clinical stakeholders involved in the education of AHPs including HCPC NQRs who had been practising between 6-18 months, practice placement supervisors who have supervised NQRs, and employers of HCPC NQRs. We also sought the views of additional stakeholders across all 4 nations, such as education providers, senior AHP, scientific and psychology leaders in the NHS, , employers and professional bodies.

As is common in qualitative research, we used a maximum variation approach to sampling to enable us to interview people who were rich informants rather than a homogenous group.³⁵ We defined a rich informant as somebody who had experience of working as an NQR or supervised/worked with many NQRs. This was more appropriate than a stratified sampling approach, since with a study of this size and limited resources it would have been impossible to represent all professions, locations, protected characteristics etc. in a meaningful way.

NQRs that had started in post in August 2022 and were 6-18 months into practice were identified. We were interested in NQRs 6-18 months into practice because we wanted to ensure they had enough time in clinical practice to be able to understand how prepared they were and also not too long in practice where their experiences may not have been as fresh in their memories. NQRs that fit the criteria were identified by the HCPC and were then sent an email on behalf of the research team. The email emphasised that the research was being carried out independently by the research team. In order to take part participants needed to complete an online consent form hosted by the research

team so that the HCPC did not know who was taking part in the study. We also asked participants to complete a brief questionnaire collecting information on the profession, key demographics and protected characteristics.

Practise placement supervisors, employers and additional stakeholders were identified via the HCPC's existing relationships with profession leads, professional bodies and education providers. The research team contacted these participants via email.

Sample variation was achieved through using a sampling framework (Supplementary File 2) with estimated targets for participants across professions and role type with the larger professions having larger targets. When participants volunteered to take part we checked our framework to ensure the participant type fitted within our targets in the sampling framework. Where there were gaps in professions/roles we made use of the research teams' contacts in particular professions.

2.4 Data collection

The interviews used a semi-structured format based on a topic guide, piloted by the research team to address the research questions (Supplementary File 3). Interviews were conducted as guided conversations which encouraged participants to speak on a limited number of topics on a focused, deep level whilst maintaining a conversational flow from one topic to another depending on the individual participant's particular perspective and expertise.³⁷ The interview schedules were tailored for two categories of participants i.e. NQRs and all other stakeholders.

Interviews were conducted on Zoom/ Microsoft Teams between April and October 2023 in a private location. Interviews were digitally audio-recorded and transcribed for analysis by a professional transcriber bound by a confidentiality agreement. Participants were pseudo-anonymised prior to transcription and referred to by reference number. Pseudo-anonymised means removing or masking identifiers while allowing some analytical linkage. Transcripts were not returned to participants for comment.

We had planned to conduct 60-70 interviews. Once we had reached the minimum threshold and had representation across all the professions we stopped doing interviews due to limited resources.

2.5 Data analysis

The interview transcripts were uploaded into NVivo 14. We used an inductive content analysis approach to thematic analysis using the Thematic Framework Analysis method.³⁸ This approach offers researchers a systematic structure to manage, analyse and identify themes, consisting of five inter-connected stages. The five stages involve familiarisation, constructing a thematic framework, indexing and sorting, data summary and display, and mapping and interpretation. NB, SW, TH and KW developed an initial coding framework. The first step in this process was for each to code three transcripts independently. Each developed their own coding framework and then met as a full research team to discuss and agree on the overall coding framework. After this meeting had taken place, SW consolidated the agreed framework. The same four researchers coded all the interviews using this framework. The interviews were not double-coded but to maintain consistency of approach, regular meetings were held to discuss coding, additions to the framework and emerging findings. We resolved any differences in interpretation through consensus meetings and/or iterative returns to the data. The coding framework in the NVivo files were merged on a regular basis by NB

and shared such that each coder was using the agreed framework. The codes and themes were data driven. See Supplementary File 4 for examples of the coding framework.

As we were seeking to gain a variety of perspectives across the AHPs to identify issues for in-depth exploration, and because we did not have enough participants within each of the professions to reliably compare or contrast, we analysed the data as a whole. We did not report the data we collected on protected characteristics in this manuscript (section 4 in topic guide).

Once thematic analysis was complete, the typology was applied retrospectively to interpret the findings, i.e. the themes were first developed independently and then later mapped to the typology.

30

2.6 Reflexivity

The research team consisted of eight members (four females and four males) with different backgrounds (clinical, clinical education and social science). The interviews were conducted by AM, SW, NB, KW and TH, four of which had PhDs and one an MSc. There were no pre-existing relationships between the study participants and the interviewers. The analysis process was led by NB, SW, KW and TH, with wider team input into the development of the thematic framework. The analysis and interpretation of the results were discussed regularly in team meetings, providing the different perspectives of the full team to shape the process and the findings. The different clinical backgrounds of team members helped provide further understanding of context across the professions for the emerging themes. The clinical education perspective of different team members aided the interpretation of the findings and the implications for clinical practice.

This study was funded by the Health and Care Professions Council (HCPC) whose primary function is to regulate AHPs in the UK. Interview participants were informed that the study was funded by the HCPC but was being carried out independently by the research team. Nevertheless, this may have influenced (positively or negatively) stakeholders' participation. Although the research was carried out independently, the HCPC met regularly with members of the research team to discuss progress, and the HCPC contributed to the development of the research questions, sampling framework and interview schedules.

3. Results

3.1 Characteristics of the sample

We conducted 60 interviews with 61 participants (one interview took place with two job-sharing participants, at the same time). The interview time ranged from 14-65 minutes with a mean length of 28 minutes.

We interviewed 35 NQRs, 24 practice placement supervisors and/or employers, and 2 additional stakeholders i.e. policy level. All fifteen professions regulated by the HCPC were represented with the largest professions being Paramedics (n=9), Occupational Therapists (n=7), Radiographers (n=6) and Physiotherapists (n=6). 51 participants were based in England, 4 in Scotland, 1 in Northern Ireland, 1 in Wales and 2 in other locations. The majority of participants were female (72.1%) which is representative of the UK AHP population.³⁹ The majority of participants were white (82.9%) which is slightly higher than the UK AHP population (75.6%). See Tables 1-4 in Supplementary File 1 for details of the characteristics of the sample.

3.2 Overview of results

The narrative results provide insights into NQRs preparedness for practice and the support for NQRs in the workplace. Within these two-overarching themes we present a number of sub-themes (n=4 and n=3 respectively).

3.3 AHP's preparedness for practice

This over-arching theme maps to the proactive measure of increasing personal resources category in the conceptual typology of interventions i.e. preparedness improves graduates wellbeing and prevents mental ill-health.³⁰ Our study found that NQRs were prepared for many aspects of practice but not all.

The transition

The transition from AHP student to qualified registrant varied between participants. Some found the transition to be straight forward whereas for others it was very difficult, describing the transition as a "big shock" or "extremely rough", "slightly terrifying" and that they were "thrown in the deep end".

"So, this is a tough one for me. I think I was thrown in the deep end in a blaze of glory to be honest" (029 NQR)

Preparedness for clinical practice

Many NQRs felt well prepared for clinical practice and for communicating and interacting with patients. In terms of their clinical practice, they felt prepared for the working environment in general, reviewing patient results, theory, writing notes, clinical judgement, clinical reasoning, the standards of their profession, knowledge of their clinical responsibilities, managing a caseload and prioritising patients.

"I feel I'm most prepared for it [practice] in my clinical work. Like mostly around the dynamic between me and the clients." (032 NQR)

"I think reasonably well [prepared]. I think quite often when [during their training] the students first come on placement clinical practice is a real shock to them, you know what I mean? They've had it in theory but to be in a clinic situation can be quite an experience for them, but having been through their orthotic and prosthetic placements, when they've finished I think they do have a good idea of what reality is like in a clinical setting. They certainly have the knowledge of their clinical responsibilities" (095 Other Stakeholder)

Registrants generally felt well prepared for communicating with patients and other staff. Both NQRs and practice placement supervisors/employers highlighted a link between confidence in communication skills and life experience particularly if they had previous careers as mature students. Some felt unprepared for communicating about difficult issues such as the death of a patient.

"communication was something I was always quite comfortable with, because I've always enjoyed working with elderly patients, and the majority of the patients that we see are quite elderly. So, communication was not too bad. I think just because it was around Covid time, we did obviously have some situations where patients have come in and said "ok, like, my husband has passed away", or "my wife has passed away", just like being able to give them a

little bit more time to get themselves together, being there and being understanding, there was just a bit of that.” (022 NQR)

However, a small number of participants thought NQRs were not prepared for their clinical knowledge particularly in occupational therapy, radiography, prosthetics, and paramedicine.

“Well, they’re [NQRs are] just not able to undertake the full range of examinations. There are gaps in their knowledge and gaps in their skills.” (105 Other Stakeholder)

Participants also mentioned being concerned about NQRs' readiness for clinical decision-making and putting the theory they had learned into practice. The management of caseloads (particularly scale and prioritising) was also a concern in the overstretched NHS.

“Just, yeah, the workload probably. That’s a massive challenge sometimes having to prioritise, and when you’re dealing with thousands and thousands of patients and you have to, like we do so many samples a day, sometimes it’s hard to prioritise” (043 NQR)

A few reported that their preparedness for leadership experience was also lacking.

“I did feel that I was lacking somewhat in the leadership experience. I’d had a lot of talks about it, a lot of lessons on it, because obviously I’d been a trainee. For the three years I was getting registered there was no opportunity to lead anyone that wasn’t also a trainee in years below me.” (024 NQR)

Prior clinical experience

Prior clinical experience gained on placements was perceived by many NQRs and practice supervisors/employers as essential for preparedness to practice as an NQR.

“I think that placements really prepared me for working. I think if I hadn’t had as many placements, I don’t think I’d be feeling as settled in work as I do now.” (003 NQR)

Quality, quantity, and variety were all important factors in placement experience. Placements were considered to be of high-quality if they provided exposure to a variety of aspects of the job across a variety of different settings.

“I think placements are really important for that [preparedness]. Good high-quality placements. I think it’s actually quite important placements go across the four pillars of practice [clinical, research, education and leadership]. So, they’re not just the clinical side but they have that exposure to research or education and leadership within those placements, but it’s how they can utilise those skills, and sometimes that’s really challenging.” (104 Other Stakeholder)

The number of hours spent on placement was an important factor with the more hours spent the more likely NQRs were to feel prepared.

Culture of NHS

A small number of participants highlighted the difficulties of working in the NHS environment e.g. expressing opinions that it was toxic, bullying was prevalent and that it is very difficult to prepare people to work in such an environment.

"but one thing I noticed is, and I think university does not prepare you for this, and I think it's nothing to do with university, is to do mostly with the NHS and how toxic it is in terms of the work environment, and if you don't have the experience, and fortunately the OT [occupational therapy] course is quite good but I think it doesn't cover the sort of scientific, the sort of anatomy and physiology aspects in that detail in comparison to nursing students and physiotherapy students, or medicine students. So, you have to learn all of these things, medications, certain conditions, and the process, whilst you're bun fight basically, which is quite annoying and puts you a bit in a limited position." (073 NQR)

The impact of the culture of the organisation on NQRs mental health was highlighted and this stakeholder highlighted how NQRs were being exposed to relentless emotional strain.

"if we can't change the culture of the service, we don't change that, if we don't make it ok for the people to hold their hands up and say actually, "do you know what? That body that was minus several parts that I went out to..." , ... but actually being exposed to that regularly, and being exposed to, nobody ever really calls you cos they've had a good day, do they? You don't call an ambulance because you're fine or happy. So, all they're exposed to is anger and pain and worry and misery, and if nobody stands up and says, "Actually, that's not ok". It's not ok to be immersed in that day in day out ...actually what you just want to turn round and sit down and say is, "Do you know what, that wasn't ok", and "I don't really know how I feel about that", and "I'm not really sure I did the right thing." (110 Other Stakeholder)

3.4 Support for NQRs in the workplace

This over-arching theme maps to the second strand of the conceptual typology of interventions i.e. workplace improvements.³⁰ Again, this is another proactive measure. We found that support for NQRs in the workplace varied hugely in its availability and effectiveness.

Range of support

Some perceived the support for NQRs to be inconsistent ranging from a well-developed preceptorship programme that lasts for a year or more with ongoing mentoring and collegiate relationships, to no support system in place at all.

"So, I suppose the thing that they hope for is a structured preceptorship programme to provide support for them when they go into the workforce initially. Again, there's so much disparity in this. Some trusts have an amazing 12-month long preceptorship that looks at developing their core skills, but also building things like their leadership, and then having them look ahead into their band 6 roles and taking them further. Some don't have any preceptorship programmes at all." (081 Other Stakeholder)

Factors impacting support

We identified a variety of contextual factors that influence the existence and effectiveness of support for NQRs including:

- i) the size of the team, with larger teams generally being perceived to provide better support.

"... It was a large hospital where there were lots of therapists around, versus like a smaller unit that was quite isolated. In my new role we had band five support groups and specific band five trainees, whereas in the last one we were meant to have them in theory, but they never happened." (027 NQR)

ii) how established the team is. Relatively newly established professions e.g. Arts Therapy or a new role in a setting often means that there has not been enough time and resourcing to develop and put into practice preferred support systems.

"...and because the hospital hadn't had ODP [operation department practitioner] students before they didn't know whether we should have had a certain amount of time being doubled-up and things like that, and we weren't, we literally just went live. And it was very stressful, traumatic, and they had to step back and then double us up again because they realised that actually we hadn't had the hands-on experience." (006 NQR)

iii) the setting: community, third sector and private settings were perceived by a small number of participants to provide less support for newly qualified registrants, in contrast to NHS hospital and laboratory settings.

"...So, when I was working privately, there was the support of my membership body, which is the Royal College of Podiatry. They were there, but trying to talk to them was very difficult cos everyone was trying at the same time, and there was nothing in place, you were just let loose to run wild effectively, safely run wild ... Whereas going into the NHS there was a lot more support because you had a whole team around that could help you, and it didn't matter who it was they didn't treat you any differently." (052 NQR)

"And I think in terms of the community, when I was in community the things, I found the hardest were just, I felt quite lonely a lot of the time, and it is challenging when you don't feel like you've got that repertoire, or you are questioning yourself all the time, now I feel like I have more support in the hospital". (041 NQR)

iv) the resourcing capacity of the team: paramedics reported often finding themselves as the most senior member of a team within weeks of registration due to a lack of resources to offer them the support that is desirable with best practice (e.g. 3-6 months with more experienced people and other paramedics). Professions with smaller numbers of practitioners, such as Podiatrists, were perceived to lack resources to provide widespread in-situ mentoring for newly qualified registrants, and there is also less potential for peer support to naturally occur.

"Technically according to policy and procedure I don't think I was supposed to work with a trainee tech or another NQP for the first 6 months, but certainly within the first 4 or 5 shifts I was working with trainee techs that had been out on the road for a matter of weeks. And that made me feel very unsupported..." (021 NQR)

"I think going forward that the hospital has acknowledged that the fact that the ODP trainees, although we are specialists within the theatre environment, our training doesn't allow us to witness everything we possibly could, and that they do actually need to have a preceptorship time, whereby, yes, we're qualified, but we're newly qualified, and so we still need a safety net. I would like to be able to say, "Oh, they've put this in place, they are applying it," but it's still not in place, mainly because of staff shortages and lack of almost understanding, so it's ongoing." (006 NQR)

However, well-established professions with larger teams that have existed in settings for a period have been able to develop preferred support systems, such as in Radiography.

v) the policies and practices of different employers/trusts/CCGs. For example, for some trusts preceptorship programmes do not exist and in others they vary between 6 to 12 months in length.

"I guess that'll vary from Trust to Trust. So maybe some are 6 months, others will be 12 months, but within operating theatres there's a practiced development team, and again depending on the size of the trust they'll have a practice development team of quite a few members of staff, or it may be just two, it will vary, but they will arrange the preceptorship programme." (101 Other Stakeholder)

"I was interested in this whole idea of preceptorship that they've got it in some health boards. They certainly don't have it in mine," (059 NQR)

Tailored support

The overwhelming view of participants was that they perceived support being most helpful when tailored to individual needs. In this way, whatever the needs of the individual, these needs are met.

"But I think that tailoring is the most important bit, which is to make sure that the programmes are generic enough to deliver for outcomes that are meaningful for the individuals in the workplace, but also tailored enough that they meet individual needs, which I appreciate is easy to say but probably harder to do." (100 Other Stakeholder)

4. Discussion

4.1 Summary of main findings

The aim of our study was two-fold: firstly to explore multiple stakeholders' perspectives on the preparedness of newly qualified AHPs for practice and second, to explore support for NQRs in the workplace. Our research adds to the literature by providing an in-depth understanding of preparedness for practice and support in the workplace across 15 different AHPs. We found that the transition to practice varied from person to person with some finding it straightforward and others finding it more difficult. NQRs were generally perceived to be well-prepared for their clinical and communication skills however some were not well-prepared for clinical decision-making, management of caseloads (scale and prioritising) in the overstretched NHS, leadership, putting the theory they had learned into practice, and knowledge.

A particularly novel finding related to the difficulties of working in the current NHS environment and the fact that it is very difficult to prepare people to work in such an environment were highlighted. Furthermore, support for NQRs in the workplace varied hugely in its availability and quality, and was influenced by team size, how established a team is, team resources and the policies and practices of different employers/trusts. Preferred support is that which can be tailored to the needs of the individual NQR.

4.2 Comparison with existing literature

The experience of transition and feelings of preparedness for practice for newly qualified AHPs were similar in many ways to those reported for other health professionals (e.g. doctors). The fact that the transition to clinical practice was experienced as stressful has been reported about medical

graduates.^{3, 25} Similarly medical graduates reported feeling prepared for clinical practice and most aspects of communication with patients and colleagues but found communicating about difficult issues like death a bit more challenging.^{25, 40} Prioritising tasks and decision-making was something medical graduates struggled with too.^{25, 40} Prior clinical experience was seen to greatly impact preparedness^{3, 41, 42} The similarities between professions suggests that there are some common areas that all healthcare professionals struggle with when they first start clinical practice as qualified practitioners. This suggests that pre-registration/undergraduate curricula can only prepare professionals to a certain extent and that there are some aspects that one can only feel prepared for once they have gained experience in the workplace.

The conceptual typology of interventions to support doctors' mental health and wellbeing helped us to distinguish themes about individual resilience, from those about organisational systems, and where some findings cut across both areas.³⁰ It also helped us identify the difference between proactive and reactive support. The study findings align well with the typology, with our theme on preparedness for practice fitting into the personal resources category, particularly the role-related knowledge, skills and attitudes, and improving the workplace culture sub-categories. The theme on workplace support fitted into the workplace improvement category particularly the organisation of work sub-category. This conceptual framework illuminates⁴³ an important implication of these findings, that is, if education providers and employers can prepare and support (proactive support measures) NQRs in the workplace then theoretically this may contribute to fewer problems associated with mental health and well-being to resolve later (reactive support measures) e.g. at individual (impaired mental health) or system level (retention).³⁰ We did not have data that mapped to the reactive category i.e. those interventions designed to resolve problems after they have arisen and are essentially problem-resolution focused.

Ensuring registrants are prepared for practice is a challenging endeavour for education providers at the best of times but this is exacerbated by the fact that the work environment that many registrants are entering is currently very difficult. It is well known that there is a workforce crisis in the NHS driven by a shortage of healthcare professionals.³² This crisis is resulting in increased workloads, deteriorating staff wellbeing and poor retention.³³ While there is now a clear strategy to address these issues through various workforce plans in England, Northern Ireland, Scotland and Wales,⁴⁴⁻⁴⁷ newly qualified registrants are entering an environment that is extremely busy, and under-resourced thus registrants need to be as prepared as possible for practice to make this transition as easy as possible. Decision-making and the management of caseloads are particularly important skills for education providers to focus on to ensure NQRs can cope with the high workloads expected of them. A recent systematic review also found that the workplace context was a key factor in workplace readiness.²⁸ The workforce crisis being experienced in the NHS is not unique to the UK and is being experienced in other countries around the world,⁴⁸ such as Ireland and⁴⁹ Canada,⁵⁰ thus these findings are also relevant internationally.

Our study found that support perceived as helpful is that which is tailored to the needs (including diverse needs) of the individual registrant. However, we also found that the support for NQRs varies hugely in its availability and effectiveness. A previous study of 20 AHP preceptorship programmes sampled across England reported that there was significant variation in how the programmes were initially set up, and currently operate in terms of time allocated for preceptorship activities, and the content of training and support offered.⁵¹ Preceptorship programmes have been embedded in the nursing profession for decades.^{52, 53} However, similar to our findings of variability in availability and effectiveness, research on the nursing profession has also reported that the quality of preceptorship programmes varies considerably across organisations.⁵⁴ A study of nurses' preceptorship programmes also showed that organisational commitment and culture were essential in establishing, implementing, and sustaining effective preceptorship programmes.⁵⁵

It is important that work is done in areas identified above to ensure that all NQRs are getting the preceptorship programme they need regardless of the profession, age, size, and resourcefulness of the team. NQRs may decide to leave the profession if they are not supported in their early days of clinical practice. The first two-years of a nurse's career has been found to be a critical period when the numbers leaving the profession is at its highest. However, high-quality preceptorship has been shown to improve recruitment and retention rates during the first two-year critical period of a nurse's career.⁵⁶

4.3 Strengths & limitations of the research

This study has a number of strengths. The study sought a broad range of perspectives from a variety of stakeholder types, across 15 allied health professions and all four nations of the UK. The research team had a variety of backgrounds i.e. paramedic science, chiropractic, biomedical science, dietitian, medicine, clinical education and social science. A reflexive team-based approach to data collection and analysis was also taken

A limitation of the study was there was only one participant from some professions and some countries although this was an inevitability consider the study design and scope. There was also an over representation of arts therapists. We were also unable to draw conclusions about specific professions relative to each other. Finally, we did not have the resources to convene an advisory group with representation from all professions in the 'sensemaking' part of the study.

4.4 Implications for educational providers and employers

Workforce preparedness is a complex issue with multiple actors/systems i.e. individuals, educators, employers, having a part to play. Pre-registration education providers need to ensure that their curricula are addressing the areas identified where NQRs are insufficiently prepared for i.e. clinical knowledge, decision-making and management of caseloads. These curriculum changes could occur at various stages, for example clinical knowledge might be built early in undergraduate degree programmes and reinforced later during clinical placements; decision-making might be introduced through case-based learning or simulation; and management of caseloads might be explored through reflections on placement experiences. Employers need to provide access for all NQRs to high-quality preceptorship programmes which encompass tailored support for each individual NQR e.g. information or training to support how they do their job (e.g. constructive feedback on performance), or information or training to develop their psychological self-care (e.g. mentorship).²⁹ As well as individual support that aims to increase personal resources, investment in workplace improvements to make it a more supportive learning environment will enable more NQRs to thrive. Improvements might include increasing workplace awareness of wellbeing issues, improving how work is managed within the organisation, and improving the workplace culture/leadership.²⁹

4.5 Future research

This initial scene-setting research across all AHPs has identified pertinent issues for in-depth exploration, particularly within individual professions. Future research should consider using the mental health and wellbeing typology to investigate other areas related to preparedness for practice and workplace support. The feasibility of different approaches to mentoring and support, for example cross professions, remote, peer support groups should also be investigated. Longitudinal designs involving innovative methodologies such as rich pictures,⁵⁷ use of observation⁵⁸ or naturally occurring data to minimise burden on these particularly busy professionals in participating in research would be well suited.

DECLARATIONS

Research ethics approval and consent to participate : Ethical approval was received from the University of Plymouth Faculty of Health Research Ethics and Integrity Committee on the 5th of December 2022 (ref no: 3785). Informed consent was gained from all participants using a consent form.

Consent for publication: Not applicable

Availability of data and materials: Data are available upon reasonable request from the lead author.

Competing interests of team: None to declare.

Funding: This study was funded by the Health and Care Professions Council, UK.

Authors contributions: NB was Chief investigator, designed the study, conducted interviews, developed the coding framework, coded interviews, wrote the first draft of the paper and led the editing of all subsequent iterations. SW conducted interviews, developed the coding framework, coded interviews, thematically analysed the data, reported the analysis and approved the final manuscript for publication. AM conducted interviews and approved the final manuscript for publication. KM designed the study, commented on the analysis and critically revised the manuscript. TH designed the study, conducted the interviews, developed the coding framework, coded interviews, thematically analysed the data and approved the manuscript for publication. KW designed the study, conducted interviews, developed the coding framework, coded interviews, thematically analysed the data and approved the manuscript for publication. JTR analysed the data and critically revised the manuscript. TG designed the study, commented on the analysis and approved the final manuscript for publication.

Acknowledgements: We would like to thank all of the study participants for taking the time to share their experiences.

Clinical Trial Number: Not applicable

5. References

- [1] Sreedharan JK, Subbarayalu AV, AlRabeeh SM, et al. Quality assurance in allied healthcare education: A narrative review. *Can J Respir Ther*. 2022;**58**:103-110.10.29390/cjrt-2022-009
- [2] World Health Organization. *Global strategy on human resources for health: Workforce 2030*; 2016.
- [3] Brennan N, Corrigan O, Allard J, et al. The transition from medical student to junior doctor: today's experiences of Tomorrow's Doctors. *Medical Education*. 2010;**44**:449-458.<http://doi.org/10.1111/j.1365-2923.2009.03604.x>
- [4] Monrouxe LV, Bullock A, Tseng H-M, Wells SE. Association of professional identity, gender, team understanding, anxiety and workplace learning alignment with burnout in junior doctors: a longitudinal cohort study. *BMJ Open*. 2017;**7**:e017942
- [5] Shanafelt TD, Sinsky C, Dyrbye LN, Trockel M, West CP, editors. Burnout among physicians compared with individuals with a professional or doctoral degree in a field outside of medicine. *Proceedings of the Mayo Clinic Proceedings*. Elsevier; 2019.
- [6] Hämmig O. Explaining burnout and the intention to leave the profession among health professionals – a cross-sectional study in a hospital setting in Switzerland. *BMC Health Services Research*. 2018;**18**:785.10.1186/s12913-018-3556-1
- [7] Saha S, Saha SK, Jha A, Kumar S. Why do healthcare professionals quit their jobs? A bibliographic analysis. *International Journal of Learning and Intellectual Capital*. 2024;**21**:646-667
- [8] Monrouxe LV, Grundy L, Mann M, et al. How prepared are UK medical graduates for practice? A rapid review of the literature 2009–2014. *BMJ Open*. 2017;**7**:e013656.<http://dx.doi.org/10.1136/bmjopen-2016-013656>
- [9] Harrison R, Jones B, Gardner P, Lawton R. Quality assessment with diverse studies (QuADS): an appraisal tool for methodological and reporting quality in systematic reviews of mixed-or multi-method studies. *BMC Health Services Research*. 2021;**21**:1-20.<https://doi.org/10.1186/s12913-021-06122-y>
- [10] Cave J, Goldacre M, Lambert T, Woolf K, Jones A, Dacre J. Newly qualified doctors' views about whether their medical school had trained them well: questionnaire surveys. *BMC Medical Education*. 2007;**7**:38.<https://doi.org/10.1186/1472-6920-7-38>
- [11] Goldacre MJ, Davidson JM, Lambert TW. The first house officer year: views of graduate and non-graduate entrants to medical school. *Medical Education*. 2008;**42**:286-293.
<https://doi.org/10.1111/j.1365-2923.2007.02992.x>
- [12] Goldacre MJ, Lambert TW. Participation in medicine by graduates of medical schools in the United Kingdom up to 25 years post graduation: national cohort surveys. *Academic Medicine*. 2013;**88**:699-709.<https://doi.org/10.1097/acm.0b013e31828b364f>
- [13] Illing JC, Morrow GM, nee Kergon CRR, et al. Perceptions of UK medical graduates' preparedness for practice: a multi-centre qualitative study reflecting the importance of learning on the job. *BMC Medical Education*. 2013;**13**:34.<https://doi.org/10.1186/1472-6920-13-34>

- [14] Morrow G, Johnson N, Burford B, et al. Preparedness for practice: the perceptions of medical graduates and clinical teams. *Medical Teacher*. 2012;**34**:123-135. <https://doi.org/10.3109/0142159X.2012.643260>
- [15] Tallentire VR, Smith SE, Wylde K, Cameron HS. Are medical graduates ready to face the challenges of Foundation training? *Postgraduate Medical Journal*. 2011;**87**:590-595. <https://doi.org/10.1136/pgmj.2010.115659>
- [16] Watmough S, Garden A, Taylor D. Pre-registration house officers' views on studying under a reformed medical curriculum in the UK. *Medical Education*. 2006;**40**:893-899. <https://doi.org/10.1111/j.1365-2929.2006.02545.x>
- [17] Burford B, Vance G, Goulding A, et al. 2020 Medical graduates: The work and wellbeing of interim Foundation Year 1 doctors during Covid-19.2021. Accessed www.gmc-uk.org/-/media/documents/fiy1-final-signed-off-report_pdf-86836799.pdf.
- [18] Gale T BN, Langdon N, Read J, Keates N, Burns L, Khalil H, Mattick K. Preparedness of recent medical graduates to meet anticipated healthcare needs.2021. Accessed 16th August, 2022. www.gmc-uk.org/-/media/documents/p4p-research-final-report-feb22_pdf-89855094.pdf.
- [19] Brennan N, Burns L, Mattick K, et al. How prepared are newly qualified allied health professionals for practice in the UK? A systematic review. *BMJ Open*. 2024;**14** <https://doi.org/10.1136/bmjopen-2023-081518>
- [20] NHS England. The AHP Strategy for England: aHPs Deliver.2022. Accessed 10th December, 2025. <https://www.england.nhs.uk/wp-content/uploads/2022/06/allied-health-professions-strategy-for-england-ahps-deliver.pdf>.
- [21] NHS England. Allied health professionals.2025. Accessed 1st June, 2025. <https://www.england.nhs.uk/ahp/role/>.
- [22] WHO. Classifying health workers: Mapping occupations to the international standard classification 2019. Accessed 10th December, 2025. https://cdn.who.int/media/docs/default-source/health-workforce/dek/classifying-health-workers.pdf?sfvrsn=7b7a472d_3&download=true.
- [23] NHS Health Education England. Allied Health Professions' Support Worker Competency, Education, and Career Development Framework Realising potential to deliver confident, capable care for the future.2021. Accessed 1st June, 2025. https://www.hee.nhs.uk/sites/default/files/documents/AHP_Framework%20Final_0.pdf.
- [24] Health and Care Professions Council. Standards of proficiency.2023. Accessed 15th June, 2023. <https://www.hcpc-uk.org/standards/standards-of-proficiency/>.
- [25] Monrouxe L, Bullock A, Cole J, et al. How Prepared are UK Medical Graduates for Practice? Final report from a programme of research commissioned by the General Medical Council.2014. Accessed 17th January, 2024. <https://www.gmc-uk.org/-/media/gmc-site/about/how-prepared-are-uk-medical-graduates-for-practice.pdf>.
- [26] Ottrey E, Rees CE, Kemp C, et al. Exploring health care graduates' conceptualisations of preparedness for practice: A longitudinal qualitative research study. *Medical Education*. 2021;**55**:1078-1090

- [27] Leadbeatter D, Nanayakkara S, Zhou X, Gao J. Employability in health professional education: a scoping review. *BMC Medical Education*. 2023;**23**:33
- [28] Wynne K, Mwangi F, Onifade O, et al. Readiness for professional practice among health professions education graduates: a systematic review. *Frontiers in Medicine*. 2024;**11**:1472834
- [29] McAleer R, Hanson L, Kenny A. Characteristics, attributes and outcomes of allied health transition to practice programs: A mixed-method systematic review. *Focus on Health Professional Education: A Multi-Professional Journal*. 2023;**24**:1-30
- [30] Pearson A, Carrieri D, Melvin A, et al. Developing a typology of interventions to support doctors' mental health and wellbeing. *BMC Health Services Research*. 2024;**24**:573.<https://doi.org/10.1186/s12913-024-10884-6>
- [31] McMillan W. Theory in healthcare education research: the importance of worldview. *Researching medical education*. 2015:15-24
- [32] The Kings Fund. The NHS Long Term Workforce Plan explained.2023. Accessed 17th January, 2024. <https://www.kingsfund.org.uk/publications/nhs-long-term-workforce-plan-explained#:~:text=What%20does%20the%20plan%20do,360%2C000%20staff%20by%202036%2F37>.
- [33] BMA. NHS medical staffing data analysis.2022. Accessed 28th October, 2022. <https://www.bma.org.uk/advice-and-support/nhs-delivery-and-workforce/workforce/nhs-medical-staffing-data-analysis#:~:text=High%20vacancies&text=As%20of%20June%202022%2C%20over,are%20having%20on%20staff%20retention>.
- [34] Creswell JW, Clark VLP. *Designing and conducting mixed methods research* Sage publications; 2017.
- [35] Patton MQ. *Qualitative evaluation and research methods* SAGE Publications, inc; 1990.
- [36] Health and Care Professions Council. New Graduate Survey 2021 – highlights report.2022. Accessed <https://www.hcpc-uk.org/globalassets/hubs/education-providers/new-graduate-survey-2021---highlights-report-final.pdf>.
- [37] Lofland J, Lofland H. *Analyzing social settings: A guide to qualitative observation and analysis*. 2nd Edition ed. Belmont:CA Wadsworth Publishing Company; 1984.
- [38] Ritchie J, Spencer L, O'Connor W. Carrying out qualitative analysis. *Qualitative research practice: A guide for social science students and researchers*. 2003;**2003**:219-262
- [39] HCPC. HCPC Diversity Data Report 2021: all professions 2021. Accessed 1st June, 2025. [https://www.hcpc-uk.org/globalassets/resources/factsheets/hcpc-diversity-data-2021-factsheet--all-professions.pdf#:~:text=Women%20represent%20a%20significant%20proportion%20of%20our,a%20much%20higher%20representation%20of%20men%20\(59%\).&text=A%20slightly%20larger%20proportion%20of%20practitioner%20psychologists,compared%20to%20Scientists%20\(4%\)%20and%20AHPs%20\(4%\)](https://www.hcpc-uk.org/globalassets/resources/factsheets/hcpc-diversity-data-2021-factsheet--all-professions.pdf#:~:text=Women%20represent%20a%20significant%20proportion%20of%20our,a%20much%20higher%20representation%20of%20men%20(59%).&text=A%20slightly%20larger%20proportion%20of%20practitioner%20psychologists,compared%20to%20Scientists%20(4%)%20and%20AHPs%20(4%)).
- [40] Brennan N, Langdon N, Keates N, Mattick K, Gale T. Graduates' preparedness for the changing doctor-patient relationship: A qualitative study. *Medical Education*. 2023;**57**:712-722. <https://doi.org/10.1111/medu.15020>

- [41] Burford B, Mattick K, Carrieri D, et al. How is transition to medical practice shaped by a novel transitional role? A mixed-methods study. *BMJ Open*. 2023;**13**:e074387.<http://doi.org/10.1136/bmjopen-2023-074387>
- [42] Mattick K, Goulding A, Carrieri D, et al. Constraints and affordances for UK doctors-in-training to exercise agency: A dialogical analysis. *Medical Education*. 2023:1-12.
<https://doi.org/10.1111/medu.15150>
- [43] Bordage G. Conceptual frameworks to illuminate and magnify. *Medical Education*. 2009;**43**:312-319
- [44] NHS. NHS Longterm Workforce Plan.2023. Accessed 17th January, 2024.
www.england.nhs.uk/wp-content/uploads/2023/06/nhs-long-term-workforce-plan-v1.2.pdf.
- [45] Department of Health. Health and social care workforce strategy 2026.2023. Accessed 17th February, 2024. <https://www.health-ni.gov.uk/sites/default/files/publications/health/hsc-workforce-strategy-2016.pdf>.
- [46] HEIW. Health and Social Care Workforce Strategy.2020. Accessed 17th February, 2024.
<https://heiw.nhs.wales/workforce/health-and-social-care-workforce-strategy/>.
- [47] The Scottish Government. Health and social care: national workforce strategy.2024. Accessed 17th February, 2024. <https://www.gov.scot/publications/national-workforce-strategy-health-social-care/>.
- [48] Kuhlmann E, Lotta G, Dussault G, Falkenbach M, Correia T. The workforce crisis in healthcare: Moving the debate to bridge evidence and policy. Wiley Online Library, 2024; 607-613.
- [49] Hanlon HR, Shé ÉN, Byrne J-P, et al. GP emigration from Ireland: an analysis of data from key destination countries. *BMC Health Services Research*. 2024;**24**:1628.10.1186/s12913-024-12117-2
- [50] Casey S. Addressing Canada's health workforce crisis.2023. Accessed 10th December, 2025.
https://www.ourcommons.ca/content/Committee/441/HESA/Reports/RP12260300/441_HESA_Rpt10_PDF/441_HESA_Rpt10-e.pdf.
- [51] Burton C, Smith R. National Allied Health Professional Preceptorship Standards and Framework.2023. Accessed 3rd December, 2024.
<https://www.hee.nhs.uk/sites/default/files/NHSE%20AHP%20Preceptroship%20standards%20and%20Framework.pdf>.
- [52] Chicca J, editor. Should we use preceptorships in undergraduate nursing education? Proceedings of the Nursing Forum. Wiley Online Library; 2020.
- [53] Jönsson S, Stavreski H, Muhonen T. Preceptorship as part of the recruitment and retention strategy for nurses? A qualitative interview study. *Journal of Nursing Management*. 2021;**29**:1841-1847. <https://doi.org/10.1111/jonm.13319>
- [54] Cox D. Good preceptorship positively impacts staff recruitment and retention.2022. Accessed 18th January, 2024. <https://www.nursingtimes.net/opinion/good-preceptorship-positively-impacts-staff-recruitment-and-retention-02-02-2022/#:~:text=Anecdotaly%2C%20the%20evidence%20shows%20that,valued%20members%20of%20the%20team>.

This is the author's accepted manuscript (AAM). The final published version is available at the publisher's website. Manuscript accepted on the 19th December, 2025.

[55] Odelius A, Traynor M, Mehigan S, Wasike M, Caldwell C. Implementing and assessing the value of nursing preceptorship. *Nursing Management*. 2017;**23**.<http://doi.org/10.7748/nm.2017.e1547>

[56] Health Education England. Growing nursing numbers: Literature review on nurses leaving the NHS.2014. Accessed 12th March, 2024.
www.hee.nhs.uk/sites/default/files/documents/Nurses%20leaving%20practice%20-%20Literature%20Review.pdf.

[57] Conte KP, Davidson S. Using a 'rich picture' to facilitate systems thinking in research coproduction. *Health Research Policy and Systems*. 2020;**18**:14.<https://doi.org/10.1186/s12961-019-0514-2>

[58] Weston LE, Krein SL, Harrod M. Using observation to better understand the healthcare context. *Qual Res Med Healthc*. 2021;**5**:9821. <https://doi.org/10.4081/qrmh.2021.9821>

Supplementary File 1
Characteristics of Sample

Table 1: Profession of participants*

Profession	No. of NQRs on register in 2022	% of NQRs on register	No. of NQRs interviewed	% of NQRs interviewed	No. of other stakeholders interviewed	% of other stakeholders interviewed
Arts therapists	127	1.4	4	11.4	0	0.0
Biomedical scientists	646	7.0	2	5.7	2	8.3
Chiropodists/Podiatrists	120	1.3	1	2.9	0	0.0
Clinical Scientists	380	4.1	3	8.6	0	0.0
Dieticians	367	4.0	0	0.0	1	4.2
Hearing Aid Dispensers	93	1.0	1	2.9	0	0.0
Operating Department Practitioners	501	5.5	3	8.6	1	4.2
Orthoptists	18	0.2	0	0.0	3	12.5
Occupational Therapists	1,079	11.8	6	17.1	1	4.2
Paramedics	1,948	21.2	6	17.1	3	12.5
Physiotherapists	1,642	17.9	5	14.3	1	4.2
Prosthetists/Orthotists	16	0.2	0	0.0	4	16.7
Practitioner Psychologists	996	10.9	3	8.6	2	8.3
Radiographers	786	8.6	1	2.9	5	20.8
Speech and language therapists	450	4.9	0	0.0	1	4.2
	9,169	100	35	100	24	100.0

Source: Data in column 2 (no. of NQRs on register in 2022) was supplied to research team by HCPC. Data includes all NQRs that had started in post in August 2022 and were 6-18 months into practice.

*** Two of the participants were policymakers and were not aligned to a particular profession**

Table 2: Country of work of participants

Country of work	No. of NQRs on register in 2022	% of NQRs on register	No. of NQRs interviewed	% of NQRs interviewed	No. of other stakeholders interviewed	% of other stakeholders interviewed
England	4,341	75.7	28	80.0	24	92.3
Scotland	598	10.4	4	11.4	0	0.0
Wales	332	5.8	1	2.9	0	0.0
Northern Ireland	171	3.0	1	2.9	0	0.0
Two or more UK locations	22	0.4	0	0.0	1	3.8
Other	85	1.5	1	2.9	1	3.8
Prefer not to say	185	3.2	0	0.0	0	0.0
	5734	100	35	100	26	100

Source: Data in column 2 (No. of NQRs on register in 2022) was supplied to research team by HCPC. Data includes all NQRs that had started in post in August 2022 and were 6-18 months into practice.

Table 3: Sex of participants

Sex	No. of NQRs on register in 2022	% of NQRs on register	No. of NQRs interviewed	% of NQRs interviewed	No. of other stakeholders interviewed	% of other stakeholders interviewed
Female	6,606	72.3	26	74.3	18	69.2
Male	2,417	26.5	9	25.7	8	30.8
Prefer not to say	114	1.2	0	0.0	0	0.0
	9,137	100.0	35	100.0	26	100.0

Source: Data in column 2 (No. of NQRs on register in 2022) was supplied to research team by HCPC. Data includes all NQRs that had started in post in August 2022 and were 6-18 months into practice.

Table 4: Ethnicity of participants

Ethnicity	No. of NQRs on register in 2022	% of NQRs on register	No. of NQRs interviewed	% of NQRs interviewed	No. of other stakeholders interviewed	% of other stakeholders interviewed
-----------	---------------------------------	-----------------------	-------------------------	-----------------------	---------------------------------------	-------------------------------------

						inter view ed
						100.
White	5,104	75.6	29	82.9	26	0
Asian or Asian British	791	11.7	4	11.4	0	0.0
Black, African, Caribbean, Black Brit	402	6.0	2	5.7	0	0.0
Mixed or Multiple ethnicity	182	2.7	0	0.0	0	0.0
Other ethnic group	100	1.5	0	0.0	0	0.0
Prefer not to say	171	2.5	0	0.0	0	0.0
		100.		100.		100.
	6,750	0	35	0	26	0

Source: Data in column 2 (No. of NQRs on register in 2022) was supplied to research team by HCPC. Data includes all NQRs that had started in post in August 2022 and were 6-18 months into practice.

Supplementary File 2
Sampling target

	Stakeholder Type	No. newly qualified HCPC registrants in 2021	% of newly qualified HCPC registrant	HCPC registrants	Employers	Target
1.	Physiotherapist	5,100	18.9	3	2	5
2.	Radiographer	3,880	14.4	3	2	5
3.	Paramedic	4,210	15.6	3	2	5
4.	Occupational therapist	3,290	12.2	3	1	4
5.	Practitioner psychologist	2,180	8.1	2	2	4
6.	Biomedical scientist	1,980	7.4	2	2	4
7.	Speech and language therapist	1,410	5.2	2	2	4
8.	Operating department practitioner	1,190	4.4	2	2	4
9.	Dietitian	1,030	3.8	2	2	4
10.	Clinical scientist	710	2.6	2	2	4
11.	Chiropodists / podiatrist	600	2.2	2	2	4
12.	Arts therapist	620	2.3	2	2	4
13.	Hearing aid dispenser	500	1.9	2	2	4
14.	Orthoptist	120	0.4	1	2	3
15.	Prosthetist / orthotist	100	0.4	1	1	2
16.	Additional stakeholders across 4 nations	N/A	N/A	N/A		8
	Total	26,920	100%	32	30	70

Supplementary File 3

Interview schedules

Interview Schedule – New HCPC Registrants

Research Aim

To investigate how well newly qualified HCPC registrants are prepared for practice.

Section 1: Background

1. Can you tell me a bit about your pre-registration education and your clinical placements?
2. What is your experience of the transition from being a student/trainee to being a registered healthcare professional?

Section 2: Preparedness for practice

3. What aspects of your current clinical role do you think your training/education most and least prepared you for?
 - What are the main challenges in your role?
 - How do you draw upon your training/education to tackle these challenges?
4. Do you think that the Covid-19 pandemic affected how prepared you were for the transition from student to newly qualified practitioner? If so, in what ways?

Section 3: Support

5. How supported did you feel as a newly qualified registrant?
 - What support did you receive?
 - Who have you received support from?
 - How long did you receive this support?
6. What was good about the support you received and how could that support be improved?
 - Who do you think should be/have been supporting you, and in what way?

Section 4: Protected characteristics

For the questions in this section, I would like you to think about your responses to the protected characteristics questionnaire you completed before this interview.

7. How do you think your experiences leading up to and starting work as a newly registered healthcare professional differ to your peers?
 - What were the differences? Were these positive or negative?
 - Do you have any thoughts on why these differences exist?
 - How do you think these differences relate to your protected characteristics?
8. How might the support that newly qualified HCPC registrants require differ?
 - Why might the support required differ?
 - How might this relate to the registrant's protected characteristics?

Section 5: Closing

9. Do you have any final reflections on your experience of being a newly qualified healthcare professional?

Thank you for taking part.

Stakeholders

Interview Schedule

Research Aim

To investigate how well newly qualified HCPC registrants are prepared for practice.

Section 1: Background

1. Can you tell me about your role, particularly in relation to new HCPC registrants?
2. What are your perceptions of HCPC registrants' transition from student to practising clinician/qualified scientist? (Prompt: What do they do/manage well, what not so well, and what has surprised you?)

Section 2: Preparedness for practice

3. How well does their training/education prepare HCPC registrants for their first role in clinical practice?

4. How well prepared are HCPC registrants for clinical practice compared to how well are they prepared for professional practice such as communication with patients and with colleagues?
5. What, if any, impact did the Covid-19 pandemic have on HCPC registrants' level of preparedness?

Section 3: Support

6. What support do/should HCPC registrants receive as newly qualified practitioners? (Prompt: Who provides support and how and for how long? What infrastructures/guidance are in place to ensure new HCPC registrants receive the support they require?)
7. What is good about that support and how could the support be improved? (Prompt: Who do you think should be supporting new registrants, in what way, and for how long?)

Section 4: Protected characteristics

8. How might new registrants' preparedness for practice differ for groups/individuals with different protected characteristics? (Prompt: Are you aware of this/do you have experience of seeing this in your role?)
9. How might/does the support required for newly qualified HCPC registrants differ depending on their protected characteristics?

Section 5: Closing

10. Do you have any final reflections on how prepared for practice new HCPC registrants are, and how this impacts or relates to your role?

Thank you for taking part.

Supplementary File 4

Screenshots of coding framework

Name	Files	References	Created on	Created by	Modified on	Modified by
Placements	3	3	21/09/2023 13:56	SNW	15/11/2023 09:49	SW
Allocation_organisation	11	16	21/09/2023 14:44	SNW	14/11/2023 12:51	SW
Amount_number	17	21	21/09/2023 14:08	SNW	15/11/2023 09:47	SW
Positive_negative experience	4	7	02/10/2023 14:16	SNW	02/11/2023 14:46	SW
Variety_range	19	26	21/09/2023 14:40	SNW	14/11/2023 13:40	SW
Training during COVID	14	18	21/09/2023 13:58	SNW	18/10/2023 12:33	SW
Training information	5	9	21/09/2023 13:55	SNW	17/10/2023 15:41	SW
Course content	17	25	02/10/2023 12:10	SNW	14/11/2023 12:10	SW
Decisions about specialties	1	1	31/10/2023 14:41	NB	31/10/2023 14:41	NB
Extra curricular	1	1	03/11/2023 09:17	SW	03/11/2023 09:18	SW
Location and dates	22	25	28/09/2023 13:55	SNW	13/11/2023 13:20	SW
New Standards of Proficiency	1	3	31/10/2023 14:34	NB	31/10/2023 14:39	NB
Patient contact_empathy skill	1	1	08/11/2023 13:03	SW	08/11/2023 13:03	SW
Previous experience_career	14	21	27/09/2023 14:33	SNW	13/11/2023 16:37	SW
route_uni or apprenticeship	21	29	28/09/2023 13:55	SNW	14/11/2023 13:14	SW
Preparedness for transition	4	4	21/09/2023 14:10	SNW	07/11/2023 13:20	SW
Autonomous working	1	1	27/10/2023 13:15	KR	27/10/2023 13:16	KR
Break btwn studying and workin	2	2	28/09/2023 14:00	SNW	02/10/2023 14:31	SNW
Changes in pressure and tempo	10	13	03/10/2023 14:04	SNW	14/11/2023 13:45	SW

Name	Files	References	Created on	Created by	Modified on	Modified by
Placements	3	3	21/09/2023 13:56	SNW	15/11/2023 09:49	SW
Allocation_organisation	11	16	21/09/2023 14:44	SNW	14/11/2023 12:51	SW
Amount_number	17	21	21/09/2023 14:08	SNW	15/11/2023 09:47	SW
Positive_negative experience	4	7	02/10/2023 14:16	SNW	02/11/2023 14:46	SW
Variety_range	19	26	21/09/2023 14:40	SNW	14/11/2023 13:40	SW
Training during COVID	14	18	21/09/2023 13:58	SNW	18/10/2023 12:33	SW
Training information	5	9	21/09/2023 13:55	SNW	17/10/2023 15:41	SW
Course content	17	25	02/10/2023 12:10	SNW	14/11/2023 12:10	SW
Decisions about specialties	1	1	31/10/2023 14:41	NB	31/10/2023 14:41	NB
Extra curricular	1	1	03/11/2023 09:17	SW	03/11/2023 09:18	SW
Location and dates	22	25	28/09/2023 13:55	SNW	13/11/2023 13:20	SW
New Standards of Proficiency	1	3	31/10/2023 14:34	NB	31/10/2023 14:39	NB
Patient contact_empathy skill	1	1	08/11/2023 13:03	SW	08/11/2023 13:03	SW
Previous experience_career	14	21	27/09/2023 14:33	SNW	13/11/2023 16:37	SW
route_uni or apprenticeship	21	29	28/09/2023 13:55	SNW	14/11/2023 13:14	SW
Preparedness for transition	4	4	21/09/2023 14:10	SNW	07/11/2023 13:20	SW
Autonomous working	1	1	27/10/2023 13:15	KR	27/10/2023 13:16	KR
Break btwn studying and workin	2	2	28/09/2023 14:00	SNW	02/10/2023 14:31	SNW
Changes in pressure and tempo	10	13	03/10/2023 14:04	SNW	14/11/2023 13:45	SW