Research on the Standards for the Initial Education and Training of Pharmacy Technicians (GPhC074)

FINAL Report

14th December 2023

Submitted to:

Jenny Clapham, Research and Insight Manager

The General Pharmaceutical Council (GPhC)

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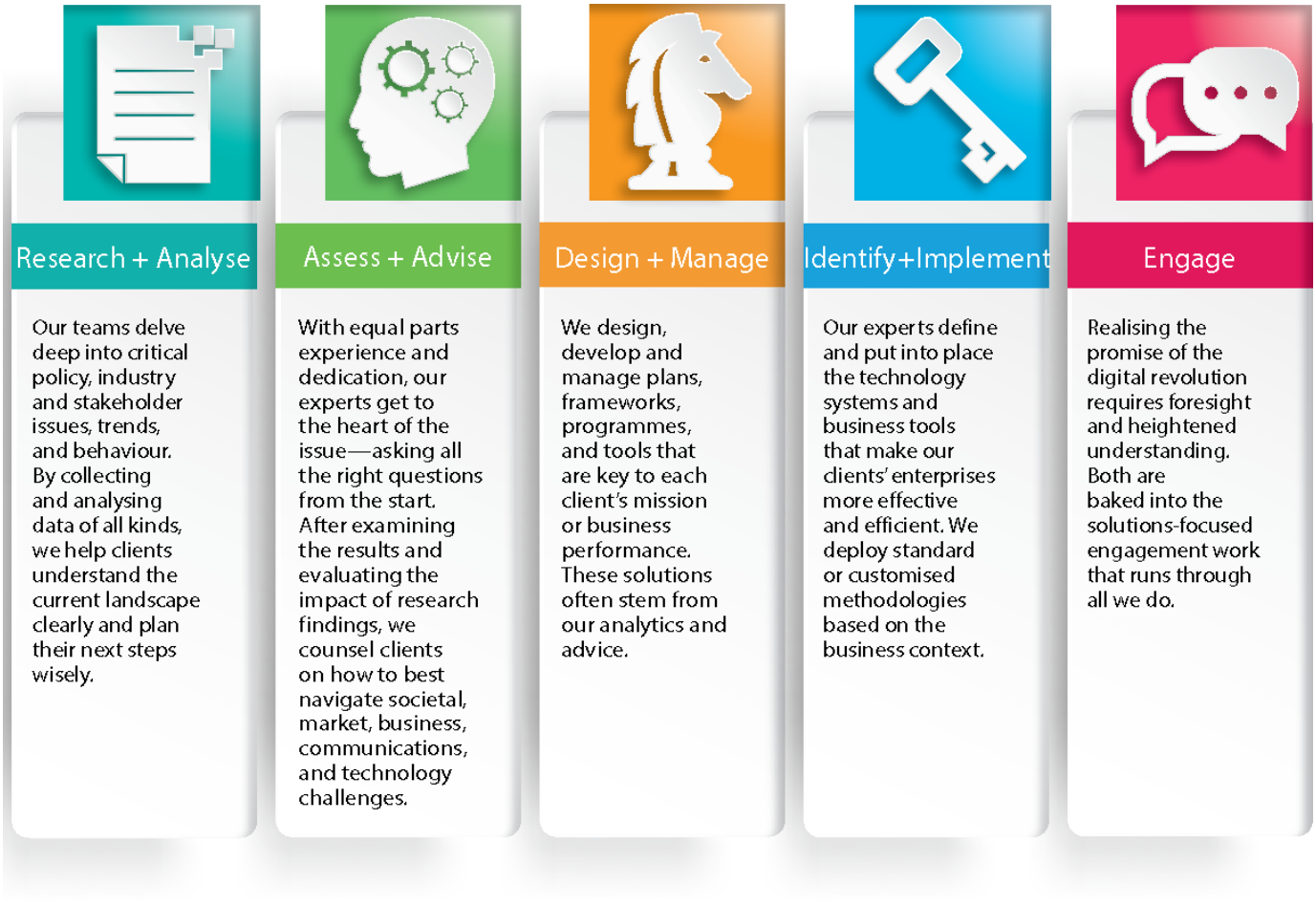

Research on the Standards for the Initial Education and Training of Pharmacy Technicians (GPhC074)

FINAL Report

A report submitted by ICF Consulting Services Limited and the Centre for Pharmacy Workforce Studies at the University of Manchester

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Contents

Executive summary

This study was commissioned by the General Pharmaceutical Council (GPhC) in March 2023 from ICF and the Centre for Pharmacy Workforce Studies (CPWS) at the University of Manchester.

Its purpose was to examine whether the 2017 standards for the initial education and training of pharmacy technicians (IETPT) have made a difference to the skills and performance of pharmacy technicians who have trained and registered under those standards, in comparison to the previous 2010 standards. The study examined how the standards have affected the experiences of recently registered pharmacy technicians, employers, and course providers – aiming to provide insights into the implementation and use of the 2017 standards, the extent to which they are fit for purpose, and whether any revisions are recommended.

This report is therefore intended to inform the GPhC's wider review of the 2017 IETPT standards, and the GPhC's future approach to the regulation of pharmacy technicians' pre-registration education and training.

Methodology

The study employed mixed methods, and built on an earlier study commissioned by the GPhC in 2013, undertaken by CPWS, which examined the quality of pharmacy technician education and training under the previous 2010 IETPT standards. This allowed for comparisons between the impact of the 2010 and 2017 IETPT standards, while keeping a focus on the study requirements set out by the GPhC. To gather data the following methods were used:

- **For pharmacy technicians: an online survey** sent to all recently registered pharmacy technicians on the GPhC register, defined as those who had registered since 2021 and trained under one of the new qualifications meeting the 2017 standards (n=933). The survey contained mostly closed questions, with a small number of open questions to elicit feedback on important elements of the trainees' experience. The survey was open from 1st June to 17th July 2023. Frequency analysis was carried out on all the survey responses, together with relevant sub-group comparisons. Chi-square analysis was used to identify statistically significant differences between sub-groups' responses.
- **For course providers** and **employers: Thirty-one semi-structured qualitative interviews** (~30 minutes) were set up and took place from 16 June to 16 August 2023 and explored experiences before and after the introduction of the 2017 IETPT standards. Ten interviews were conducted with individuals from six course providers offering a varied range of provision, four based in England and two in Scotland. Twenty-one employers and supervisors were interviewed: five community pharmacy employers, with two of them from a large multiple, and 16 interviewees from larger teaching hospitals/NHS trusts. Of the 21 interviewees, three were based in Scotland, one in Wales, and 17 were based in England. Interviews were analysed thematically.

Survey of recently registered pharmacy technicians: key findings

- A total of 142 responses were received following data cleansing; a response rate of 15.2%. The sample was broadly representative of recently registered pharmacy technicians in terms of age, sex, ethnicity and location.
- The most important motivation for aspiring pharmacy technicians was to work in a job with good career opportunities (86% of respondents agreed with this statement).
- Those who trained in community pharmacy were more likely to have trained with distance/online providers, when compared to hospital based trainees. Only 11% of pre-registration training pharmacy technicians (PTPTs) in community pharmacy had experienced face to face learning, whereas 34% of hospital based pharmacy technicians had experienced this form of course delivery.
- PTPTs in community pharmacy were more likely than those in hospitals to take longer than the 'standard' of two years to complete their studies; this remains unchanged since 2013.

- Respondents felt well prepared for practice as a result of their training: 72% rated themselves as 8 or above on a 10 point preparedness scale, where 10 was the most well prepared.
- There was recognition that opportunities to apply learning in the workplace were particularly important for developing professional skills such as leadership and team working.
- Most respondents (71%) were completely or mostly satisfied in their current roles.
- All respondents agreed or strongly agreed that, following their training, they were aware of the GPhC standards for pharmacy professionals, and almost all respondents (98%) said that they understood their responsibilities and CPD requirements as registered professionals.
- Satisfaction levels overall were mostly high. 71% of respondents were completely or mostly satisfied with their course provider; 65% were completely or mostly satisfied with their supervision; and 64% were completely or mostly satisfied with their experience of support in the workplace.
- Proportionally, a large number (90% or more) of respondents agreed that person-centred care, professionalism and professional knowledge and skills, were domains of learning outcomes effectively covered by their course.
- Views on supervision were generally positive – 85% of respondents agreed that they could ask their supervisor questions when assistance was required and 84% felt that they had a good working relationship overall. Receiving regular written feedback from supervisors was a relatively less widely reported, with 68% agreeing that they received it.
- Open text comments relating to supervision were generally positive: there appeared to be some very committed supervisors, although respondents also said that there were also others who were not able to commit time due to pressure or supervisors who felt insufficiently prepared for their role.
- In relation to support in the workplace, respondents shared mixed experiences, e.g. being supported well by colleagues; but also not having sufficient learning time. PTPTs working in both community and hospital pharmacy reported concerns about poor work life balance in spite of broadly high levels of satisfaction with other statements relating to workplace support.
- Most trainees (60%) spent five hours a week or more on completing education and training requirements for their course provider, outside their normal working hours.
- In relation to the GPhC domains of learning outcomes, the majority (90% or more) of respondents agreed that person-centred care, professionalism and professional knowledge and skills, were effectively covered in the workplace.
- Respondents who had trained in hospital pharmacy were more likely to agree that they had opportunities to work alongside more experienced pharmacy technicians, relative to those in community pharmacy. This remains unchanged since 2013.

Interviews – key findings

- The 2017 IETPT standards were seen as an improvement on the 2010 standards by employers, supervisors and course providers. They were seen as leading to better courses and content that is more relevant to current and future practice.
- Integration of knowledge and competence was also thought to be an improvement. Integrated courses were seen as more suitable for the demands of patient consultations, especially in community pharmacy. The new focus on professional skills, including leadership and communication skills, and reflective practice was thought by almost all employers and course providers to be an improvement. Course providers thought that integration had enabled them to design courses that were better aligned to the needs of employers and trainees.
- Course providers also thought that the 2017 standards had led to courses that fostered more independent learning. They also thought that they had driven more outcome focused training models (a key objective for them), and increased opportunities for more ‘real life’ learning for PTPTs.

- Providers stated that there is now greater flexibility around assessment and a greater range of assessment methods such as reflective essays, patient case studies and OSCEs, alongside projects, audits and presentation skills. As a result, communication and team working skills were emphasised and improved under the current standards.
- In the view of employers, pharmacy technicians were increasingly recognised as skilled professionals who were responsible for their own CPD, and who had the potential to take on leadership and management roles, especially in community pharmacy. They also found recently registered pharmacy technicians were more comfortable with patient facing roles than previously. Providers reported that they received similar positive feedback from employers.
- At the same time, employers and supervisors thought that the new courses reportedly demanded much more of workplace supervisors (as well as learners), so quality of supervision was considered as particularly important. Employers in all sectors had responded to changes to the IETPT standards by increasing supervision.
- Course providers stated that they had to make considerable efforts to (re)train and upskill supervisors and work more closely with employers in order to redesign their training offers. Some course providers expressed concern that greater numbers of experienced supervisors were needed in order to expand access to training.
- Whereas hospital PTPTs had structured learning in the workplace to support their courses (rotations, dedicated staff in learning and development teams), employers in the community sector reported that some PTPTs and supervisors struggled to balance their responsibilities between day to day work and training / supervision, although it should be noted that we spoke to fewer employers in community pharmacy than in the hospital sector.
- Course providers also noted that there was a particular challenge in community pharmacy when it came to balancing the demands of employment with the demands of learning, with PTPTs in community settings thought to have less protected learning time.
- In the hospital sector, there were perceptions among employers that it may be getting more difficult to attract candidates into the profession, where some potential trainees lacked the prior academic qualifications that are now required. Therefore people who might have previously applied (with pharmacy experience) were discouraged, and some employers highlighted the impact that this had on filling vacancies.
- Employers highlighted the shift towards more distance / blended learning accelerated by Covid-19 with trainees seemingly more responsible for their own learning, which was seen as a positive development. However, they recognised that more online provision also impacted negatively on protected learning time, because employers no longer had to release trainees to study outside their workplace.
- Many course providers felt that keeping the online delivery that they had developed during the pandemic enabled more innovative and agile approaches to training delivery, which also became more accessible to individuals in remote areas or those with caring responsibilities.
- There were differences in opinion on whether final accuracy checking ought to be part of the two year training. Perceived lack of clarity in the 2017 standards around accuracy checking was also raised by some employers and course providers.
- Employers also had differing views on the benefits of having broader standards in 2017 than in 2010; some thought that there were disadvantages to them because certain specific topics (e.g. offsite dispensing and service hubs in community, aseptics in hospital settings) were not specified as requirements and therefore no longer covered in courses based on the post-2017 standards.

Discussion

What has the impact of the 2017 IETPT standards on recently registered pharmacy technicians been?

- The changes brought about by the current 2017 standards are viewed by stakeholders as positive developments for the most part, that have led to improvement in the performance and readiness for practice of recently registered pharmacy technicians and the wider workforce.
- Overall, some of the perceived benefits of the 2017 standards were the integration of knowledge and competence, leading to more applicability of learning in the work setting, and better integration between course provider and work-based learning. The new courses based on the 2017 standards were seen by many employers and course providers as preparing trainees better for patient consultations, team working, leadership roles, and the expectations of the wider workforce.
- Covid-19 had an impact too – it accelerated the development of online and blended learning, whilst offering more flexibility and better accessibility; it also meant that protected learning time became more challenging, particularly in community pharmacy.
- The broader focus on learning outcomes was perceived as positive by both survey respondents and interviewees. Interviewees recognised that, in line with the expectations of the current 2017 standards, that there were benefits in preparing early-career pharmacy technicians to develop a broad base of skills and qualities, enabling them to more easily work across sectors. Although some employers did not think that course providers' new curricula met all of their specific needs – most recognised that this was an inevitable consequence of trying to design standards applicable across all sectors.
- One area where there appears to have been little change since the previous standards is that trainees in community pharmacy still tended to take longer to complete their training than those who trained in hospital pharmacy. This will likely be due to a number of different factors, but it appears that a lack of protected learning time is important. The pressure of the demands of day-to-day work in community pharmacy are likely to be a factor; and trainees in community pharmacy are less likely to have more experienced peers as role models in their practice. Similar concerns were raised in the 2014 CPWS study on the quality of pharmacy technician education and training (Jee et al., 2014).

What were providers' views on differences in course delivery, and the extent to which these have changed? Have the Standards enabled innovative training models?

- The shift towards an outcome focused approach was thought to be highly beneficial, driving changes such as greater flexibility around assessments and a greater range of assessment methods. The role of high quality supervision in the workplace has become more important, and while most respondents were satisfied with their supervision, some comments suggest that there is room for improvement so that supervision is better aligned with the requirements of the 2017 standards, particularly in community pharmacy – so that supervision is more consistent, structured, and enabling of timely opportunities to apply learning in practice. In addition, providers highlighted the importance of opportunities to enable learning in the workplace for the development of professional skills such as communication, and high quality supervision is critical to this.
- Course providers stated that they had to make considerable efforts to train supervisors and work more closely with employers in order to redesign their offers under the 2017 standards. Supervisors agreed that they had to adapt and change their ways of working, and upskilling the supervisor workforce was an important outcome of the change to the current standards. Course providers also expressed concern that more and higher quality supervisors were needed in order to increase the numbers of pharmacy technicians coming into the profession.
- Entry criteria to enrol on PTPT training have increased under the current 2017 Standards. This was seen by stakeholders as positive and supporting preparedness for courses that were perceived as increasingly demanding for trainees and workplaces, and ultimately better preparedness for practice. However, these higher entry requirements may pose difficulty to some potential candidates, with many

coming into this career from previous roles in pharmacy; hence there may be a need to recognise alternatives, including relevant experience, in relation to entry requirements.

- Covid-19 reportedly accelerated a shift towards online learning. Course providers and employers highlighted many positive aspects of blended learning for access and delivery; and overall, the move to trainees becoming more responsible for their own learning in this way was perceived positively. However, some trainees (mostly in community pharmacy) commented that aspects of learning such as peer networking could not be effectively replicated via an online delivery method; and there may be room for improvement in relation to the provision of high quality feedback from supervisors. There is a risk that online learning that is self-directed and can take place at a time that is intended to be suitable for the employee (asynchronous learning) is not accommodated in protected learning time, so PTPTs are expected to undertake more learning in their own time. This also risks impacting negatively on those trainees with caring responsibilities, who accounted for a third of all trainees in our survey.

What are registrants' views on their preparedness for practice?

- We found high satisfaction among recently registered pharmacy technicians across all the different aspects of the integrated training and with their current roles, and the evidence here shows there have been improvements under the current 2017 standards, compared to the 2010 standards. The vast majority (94%) of recently registered pharmacy technicians surveyed had continued to stay in the profession.
- Overall, most recently registered pharmacy technicians, regardless of sector, thought themselves to be well prepared for practice (i.e. rated themselves as 8 or above on a 10 point preparedness scale, where 10 was the most well prepared). There was a statistically significant difference in that respondents that had trained in community pharmacy thought they were better prepared for practice than those in hospital pharmacy; this may be a reflection of other stakeholder comments about the importance of specific clinical skills for day-to-day work across all sectors. Although such skills are important for both community and hospital pharmacy, it may be that they are more emphasised in hospital based roles. However, those who trained in hospital pharmacy were more likely to stay employed there, in comparison to those who trained in community pharmacy, who were more likely to move sectors after completing their training. The reasons for this were not explored in the survey, although clarity of role, workplace support, and quality of professional development opportunities may be important; according to open text comments (even though our survey found that perceptions of role clarity had improved since 2013).
- Comments from respondents on preparedness for practice indicated a lack of time in the workplace to develop clinical skills during their training. Workplaces' ability to offer time, support, and encouragement to develop practical experience, is therefore likely to be an important a factor influencing levels of preparedness. The survey also suggested that the 'collaboration' domain of GPhC learning outcomes was felt to be somewhat less covered in course content and in the workplace, so this may be a further area of attention for course providers.
- Cross-sector training also seems to present a particular challenge, with some employers describing difficulties in arranging this because of the effort needed, and because it involved them releasing their trainees to work for another organisation – although increasing the amount of this is also an important objective for the 2017 standards. In our survey we observed a net movement among those who had trained in community pharmacy to working as a pharmacy technician in the hospital sector once qualified. Considering pharmacy technician vacancy rates across the sector, further work to clarify roles and create career opportunities and progression in all sectors will be important for community pharmacy to retain its workforce. Pharmacy technicians will be needed in all sectors to support the changing and advancing roles in pharmacy and the wider healthcare system.

What are stakeholders' views on potential changes or improvements to the 2017 standards?

- While most stakeholders felt positively about the general direction of the 2017 current standards, in aiming for a pharmacy technician workforce with broadly applicable skills, relevant across all settings and sectors. Nevertheless, there was also demand among some for greater clarity and specifics in the

standards in future, such as in relation to accuracy checking, where there were not only differences in opinion among employers as to whether it ought to be included in the two year training, but also a perceived lack of clarity in the 2017 standards around its inclusion.

- Views also differed on whether aseptics ought to have been removed from the current 2017 standards. Final accuracy checking and aseptics were examples of areas where more proactive engagement between GPhC and employers may be beneficial in building support for updating the IETPT standards in the future. Feedback also showed that some stakeholders may not have a strong understanding of the role of the regulator in the wider pharmacy landscape; so improved communication between the GPhC and its stakeholders is likely to yield positive results.
- Just as importantly, both employers and course providers discussed the importance of ensuring that IETPT standards continue to keep pace with change across the pharmacy profession, the diverse roles that pharmacy technicians work in, and the increasing scope of pharmacy technicians' role. This suggests that future IETPT standards could be used to drive changes in scope of practice. Community pharmacy employers and supervisors in particular said a culture shift away from a pharmacist-centred approach was required. This meant that the GPhC's standards would need to prepare pharmacy technicians for roles where they may need to take on more responsibility and accountability. Therefore, this may be an area for future development and may go hand in hand with raising the level of pharmacy technician courses in the future.

Summary of recommendations

Considering the remit of the GPhC in relation to educational standards across the pharmacy profession, our key recommendations include:

Using future standards to communicate expectations to the sector

An important focus for GPhC in any updates to the standards should be for them to keep pace with (and enable) changes to pharmacy technicians' scope of practice.

- Updating the standards also offers the opportunity to GPhC to further clarify what is expected in terms of consistent supervision, protected learning time, the need for timely opportunities and feedback to help trainees develop their skills, the importance of being able to experience training across different sectors, and communicate the reasons for a broad-based foundation to learning outcomes.
- Clarifying the requirements on accuracy checking would be helpful specifically, as some employers and course providers were confused about what was part of the 2017 standards and what was not, and the reasons for this.

Communication and Engagement

The GPhC should continue to pursue a collaborative approach to the development of future standards, and engagement with stakeholders should aim to ensure mutual understanding of the implications of the current standards and the aims of the GPhC. This would include giving clarity on the GPhC's remit, next to those roles and responsibilities of employers and course providers.

- Although supporting trainees in the workplace is a matter primarily for employers and course providers, there is a role for the GPhC in emphasising the importance of protected learning time, and high quality supervision as part of communications around IET standards in the future, helping to set higher standards for learning in the workplace.
- Moreover, greater engagement with community and primary care employers will be helpful in removing some of the (longstanding) inconsistencies in PTPTs' experiences between sectors and communicating the relevance of the current standards across all sectors.

Continue to work with course providers to develop their offer

Considering how course delivery seems to have largely changed to a blended learning model, the GPhC in future should set out more clearly what course providers (and employers) are expected to provide in terms of a consistent, and high quality learning programme, to include expectations of learning time and multi-sector training (as above) – in particular for community pharmacy.

1 Introduction

1.1 Overview

This study was commissioned by the General Pharmaceutical Council (GPhC) in March 2023 from ICF and the Centre for Pharmacy Workforce Studies (CPWS) at the University of Manchester.

Its purpose was to examine whether the 2017 standards for the initial education and training of pharmacy technicians (IETPT) made a difference to the skills and performance of pharmacy technicians who trained and registered under those standards, in comparison to the previous (2010) standards. The study examined how the standards affected the experiences of recently registered pharmacy technicians, employers, and course providers – aiming to provide insights into the implementation and use of the standards, the extent to which they are fit for purpose, and whether any revisions are recommended.

This report is therefore intended to inform the GPhC's wider review of the 2017 IETPT standards, and the GPhC's future approach to the regulation of pharmacy technicians and educational standards relating to their training.

1.1.1 Background

In order to register as a pharmacy technician, a pre-registration pharmacy technician (PTPT) – or simply trainee – must complete an integrated competency and knowledge-based qualification (previously, qualifications for competence and knowledge were obtained separately), which usually takes two years. Training follows an apprenticeship type model, whereby a trainee is employed and undergoes training in one or more sectors (community pharmacy, hospital, primary care) (Hindi et al., 2023). Training in the workplace enables trainees to apply the skills they are learning and gather evidence that those skills are being used in practice (McDermott et al., 2022). There they are supported by a supervisor, either a pharmacist or a pharmacy technician. Alongside work-based learning, trainees are required to undertake a pharmacy technician course offered by a variety of providers. Although the structure of these courses vary, they must all meet the 2017 IETPT standards.

The 2017 IETPT standards are intended to prepare pharmacy technicians for practice in any setting or sector. The standards set the learning outcomes for pharmacy technicians under four domains of study (person-centred care, professionalism, professional knowledge and skills, collaboration), and the standards that education providers must meet in order to deliver their courses, which are underpinned by, and aligned to the nine professional standards for pharmacy professionals (2017).

The GPhC currently directly accredits two course providers, Buttercups and the University of East Anglia (UEA); and recognises the combined pharmacy technician qualifications offered by four awarding bodies. As the qualifications landscape is changing (e.g. with the introduction of T-Levels in England), and as the demands on pharmacy technicians evolve (e.g. increasing the scope of pharmacy professionals' practice and their role in primary care) it is important that the GPhC's standards keep pace with these developments and ensure that recently registered pharmacy technicians are fit to practise in any setting, now and in the future.

1.2 Methodology

The methodology for the study was developed by ICF and CPWS, in collaboration with the GPhC. It built on an earlier study commissioned by the GPhC undertaken by CPWS (Jee et al., 2014; Schafheutle et al., 2017; Schafheutle et al., 2018) which examined the quality of pharmacy technician education and training under the previous 2010 IETPT standards, and involved recently registered pharmacy technicians, course providers and employers. The use of similar research tools and methods (in particular in the survey) allows for comparisons between the impact of the 2010 and 2017 IETPT standards, while keeping a focus on the current context and study requirements set out by the GPhC.

Two main methods of data collection were employed:

- **For pharmacy technicians: an online survey** sent to all recently registered pharmacy technicians on the GPhC register, defined as those who had registered since 2021 under one of the new qualifications meeting the 2017 standards. The survey was expected to take 20 minutes to complete and contained mostly closed questions, with a small number of open questions to elicit feedback on important elements of the trainees' experience.
- **For course providers** and **employers: qualitative interviews** ~30 minutes in length were set up and carried out with individuals from course providers offering a varied range of provision, as well as employers and supervisors of PTPTs and recently registered pharmacy technicians. Interviews were used to explore experiences before and after the introduction of the 2017 IETPT standards.

These are further described below.

1.2.1 Survey of recently registered pharmacy technicians

An online survey was chosen to gather views from recently registered pharmacy technicians so that they could give their views on their training experience as PTPTs, under the current standards. The survey asked respondents about their experience as trainees, including: the ways their training was delivered; how well they felt prepared to practice as a registered pharmacy technician; relevance of content and experience of course delivery; experience of feedback and assessment; coverage of the four domains of learning outcomes in the current standards; views on the effectiveness of supervision and support in the workplace; satisfaction with their course provider, and their supervision and support in the workplace.

The invitation to take part in the survey (with a non-trackable link to the online survey built in Qualtrics software) was sent to all pharmacy technicians on the GPhC register who had registered since 2021 under the current standards (n=933). Survey responses were anonymous and confidential.

The survey was open from 1st June to 17th July 2023. Prior to the survey launch, the GPhC sent an invitation to take part, and a week later a survey invitation was sent directly by ICF, including a link to a participant information sheet, enabling informed consent. Three reminders were sent out, firstly by ICF and then by the GPhC. To increase the response rate, the evaluation team and the GPhC also decided to share the survey link via social media, and to subsequently exclude ineligible responses from pharmacy technicians who had qualified prior to 2021 or those from courses in teach-out which were based on the 2010 standards.

At the close of the survey 142 responses were received following data cleansing (a response rate of 15.2%).

Frequency analysis was carried out[1], so that survey findings (see chapter 2) could be presented by training sector, to illustrate differences between community pharmacy, hospital pharmacy and primary care, as well as other relevant sub-groups[2].

This was followed by comparative analysis using the chi-squared test in SPSS to understand whether differences between sub-groups were statistically significant. Where it was appropriate and possible to do so, tests were carried out to investigate whether there were: sectoral differences between respondents who trained in community pharmacy compared to those in hospital pharmacy; any differences between other relevant sub-groups (entry qualifications, type of provision); and differences according to respondent characteristics relating to equality, diversity and inclusion (EDI) such as sex and ethnicity. The findings related to testing for statistically significant differences between sub-groups are shown in blue boxes in the text.

Chi-squared analysis on sectoral differences excluded a small number of pharmacy technicians who had trained in more than one sector, and the primary care sector was also omitted due to a low number of respondents. Where significance testing was carried out on data relating to a five-point Likert scale of agreement with given statements, responses were grouped as dichotomous variables, grouping strongly agree and agree as 'agree', and the remaining responses as 'not agree'. It should also be noted that the small numbers of respondents to the survey in Scotland and Wales meant that it was not possible to undertake statistical analyses on responses from different nations.

The survey tool is reproduced in Annex A1.1.7.

1.2.2 Interviews with course providers and employers

Semi-structured qualitative interviews were used to gather data from course providers and employers, allowing discussion with a diverse population of respondents. In order to allow us to explore the changes from the 2010 to the 2017 IETPT standards in greater depth, we approached interviewees with experience of working under both IETPT standards.

Interviews took place from 16 June to 16 August 2023. Respondents were sent information sheets produced by the ICF and CPWS research team and agreed with the GPhC. Written consent was sought from all respondents prior to interviews taking place, and confirmed verbally at the start of each interview. All interviews were conducted by ICF and were recorded in order to enable accurate production of notes for analysis and the use of anonymised quotes used in this report.

Course provider representatives were asked about: their organisation's response to the current standards; changes to course design and delivery; trainees' performance and learning outcomes; impact on trainees' fitness for practice and suitability to work across a range of settings; resulting changes for workplaces and employers from the course provider's point of view; and their suggestions for improvements to the 2017 standards.

Course providers were recruited in a number of different ways in order to speak to a range of provider types, including directly accredited providers and those whose courses are quality assured by awarding bodies. The GPhC provided contact details for the directly accredited providers to ICF, who contacted them directly via email. As the GPhC do not hold contact details of providers that are quality assured by awarding bodies, ICF approached awarding bodies to ask whether they could help us by sharing our invitation to

[1] Note that for the purpose of simplicity, the displayed charts round percentages to the nearest whole number. This means that the percentages for responses shown in some charts will add up to 99% or 101%, rather than 100%.

[2] Note that in some of the comparative charts, we also excluded 'prefer not to say' and 'other' responses where these are not shown in the charts.

take part in interviews, and subsequently, desk research was used to identify the centre providers in order to approach them directly.

In total, ten in-depth interviews were conducted with individuals from six course providers. Of these: one offered only in-person teaching; two provided fully online courses; and two offered a blended online and in-person course. Four course providers were based in England, and two in Scotland.

Employer and supervisor interviewees were asked about the impact of the current standards on the education and training of PTPTs, and the extent to which those standards helped to prepare them for practice as a pharmacy technician in their workplace. We also asked about: how well the current standards had enabled the development of pharmacy technicians who could meet the demands of different sectors; how the current standards had shaped the development of the profession as a whole, in comparison with the 2010 standards; views on course providers and the changes they made; experiences of employing recently registered pharmacy technicians; and suggestions for improvements to the 2017 standards. We attempted to include the views of employers working with PTPTs, those employing recently registered pharmacy technicians, and those with experience of both.

Employer contact details were shared by the GPhC from their database, and ICF contacted them with invitations to take part. The research team and the GPhC worked together to ensure that invitations were sent to a range of employers, including hospital settings, primary care, and community pharmacy (large multiples, smaller multiples, and independents). Invitations were sent initially to 371 employers in total following a warm-up email from the GPhC (this was followed by a blanket email at the end of the recruitment window to generate further responses). Twenty-one interviews were conducted by ICF as a result. Of these, five were with community pharmacy employers, of which two were from a large multiple. The remaining 16 interviewees were from larger teaching hospitals / NHS trusts. Of the 21 interviewees, three were based in Scotland, one in Wales, and 17 were in England.

Interviews were written up by the ICF research team and analysed thematically.

The research tools are presented in Annexes A1.1.8 and A1.1.9.

1.3 Report structure

The report is structured into four subsequent chapters:

- Chapter 2 focuses on the main findings of the survey (further information is provided in the separate Annexes);
- Chapter 3 focuses on the findings arising from the interviews with employers and supervisors, and course providers respectively;
- Chapter 4 summarises the main findings and the implications for the GPhC, including strengths and limitations of the study method and the evidence provided in this report; and
- Chapter 5 contains the recommendations from this study.

2 Survey Findings

2.1 Introduction to survey findings

The following section presents detailed findings from the survey of recently registered pharmacy technicians[3].

Comparisons are made where possible with the 2013 survey of recently registered pharmacy technicians, carried out by CPWS as part of a study commissioned by the GPhC on the quality of pharmacy technician education and training under the 2010 standards (Jee et al., 2014). Where comparisons are made to the 2013 survey, these are identified through the use of blue text.

2.2 Respondents' backgrounds and current roles

This section of analysis focuses on respondents' characteristics, including information on the settings in which training took place, roles that trainees had worked in before starting their training, their prior qualifications, and motivations for becoming a pharmacy technician.

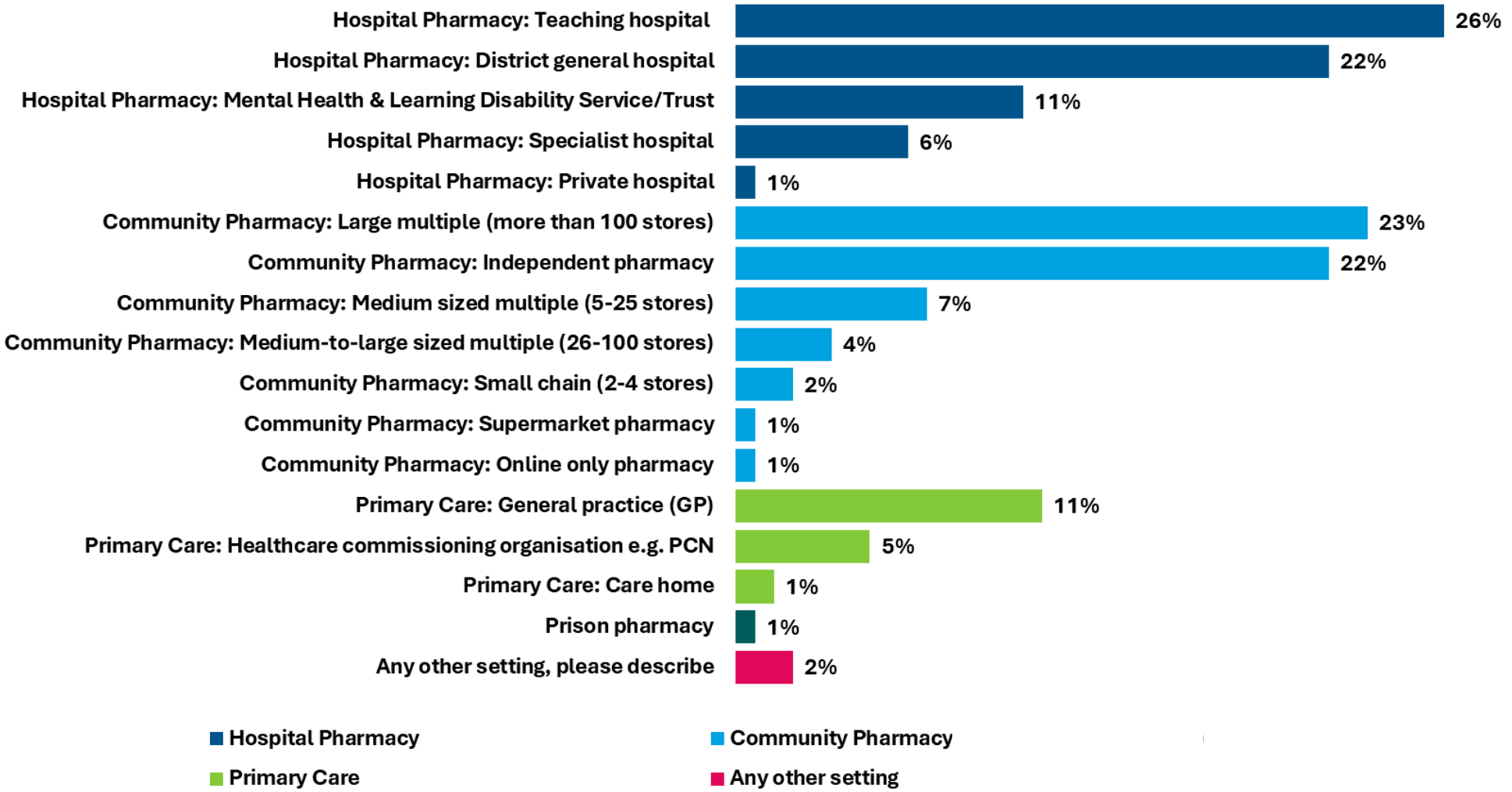
2.2.1 Trainees' workplace settings (training sector)

Figure 2.1 below shows the settings that PTPTs worked in during training. Teaching hospitals (n=37; 26%), large community pharmacy multiples (n=33; 23%), independent community pharmacies (n=31; 22%) and district general hospitals (n=31; 22%) were the most typical workplace settings where PTPTs trained.

In Figure 2.1 below, the sector in which trainees carried out their training is represented by different colours: blue for the hospital sector; orange for the community pharmacy sector; and green for primary care.

[3] Defined as those who had registered since 2021 under one of the new qualifications meeting the 2017 standards.

Figure 2.1 Setting in which respondents carried out their training



2.2.2 Demographic characteristics

The majority of survey respondents (n=121; 85%) had trained in England, 16 in Scotland (11%) and five in Wales (4%). This reflects the data available on the location of pharmacy technicians' work, which shows that 82% work in England; 11% in Scotland; and 6% in Wales.[5]

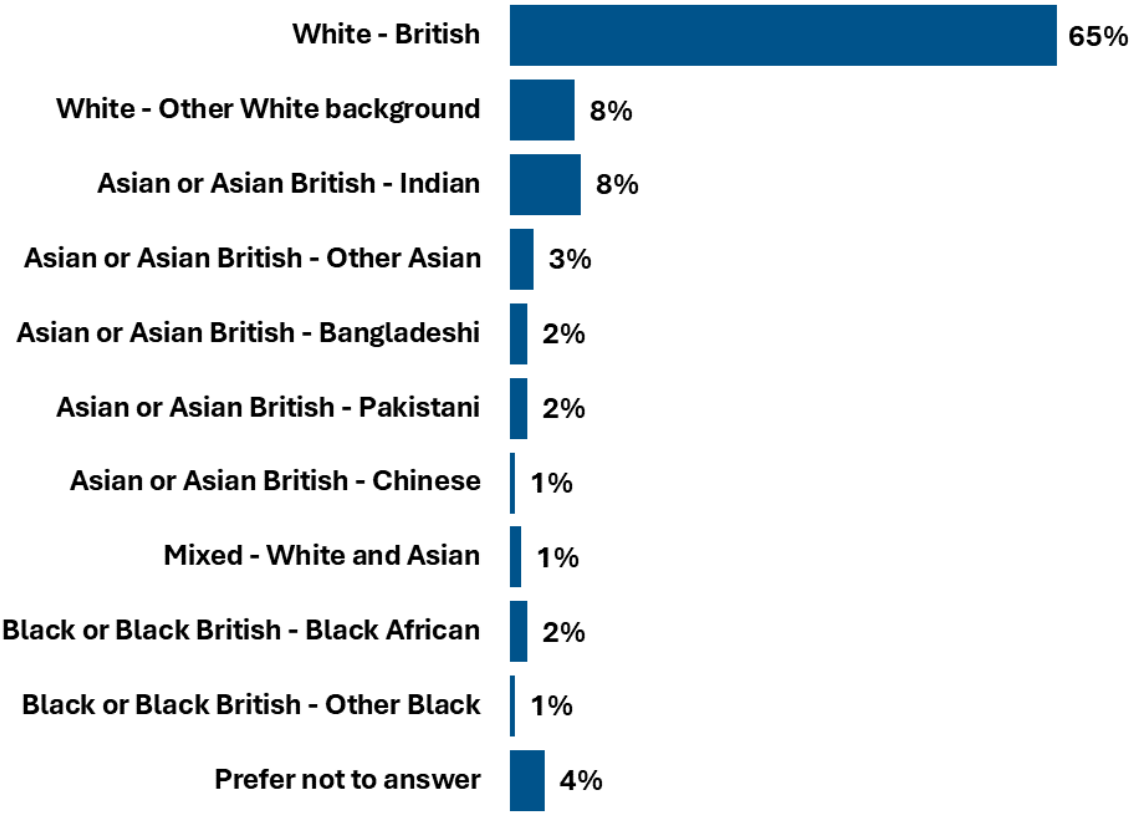
Of the 142 survey respondents who answered the question about their sex, 77% (n=109) were female, whilst 21% (n=30) were male. The remaining 2% (n=3), preferred not to say. This profile is similar to the profile of recently registered pharmacy technicians in Great Britain, which was reported to be 88% female in 2019.[4]

The majority of respondents were between the ages of 20 and 30 years old (n=58; 43%) or aged 31 to 40 (n=50; 37%).

Respondents were asked to describe their ethnic origin. The majority of respondents were White British (n=92; 65%), with equal numbers of 'Asian or Asian British Indian' respondents and 'Other White background' respondents (n=11; 8%). See Figure 2.2.

In the 2013 survey, respondents similarly came from a wide range of ethnic backgrounds, with a slightly greater proportion (79%) being White British.

Figure 2.2 Ethnicity of respondents



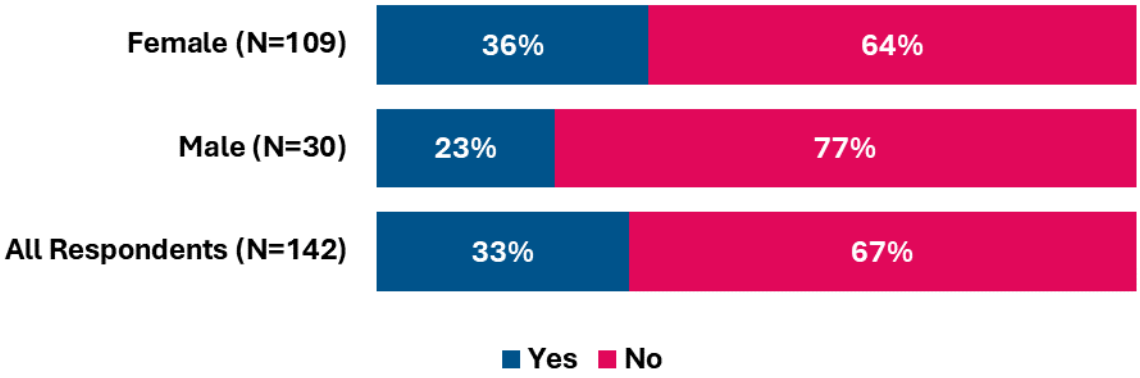
[4] GPhC (2019). Survey of registered pharmacy professionals Equality, Diversity and Inclusion Report. GPhC; 2019.

Chi-squared analysis was conducted to assess if **ethnicity** differed between **those who trained in community pharmacy** and **those who trained in hospital pharmacy**. Due to scarcity of respondent data across individual ethnic group categories, the data were recoded into dichotomous variables of White and all other ethnicities.

No significant difference was found in ethnicity between training sectors (X^2=0.901, p=0.343).

Forty-seven respondents (33%) reported having caring responsibilities. More females reported having caring responsibilities (n=51; 36%) than males (n=33; 23%). See Figure 2.3.

Figure 2.3 Respondents with caring responsibilities

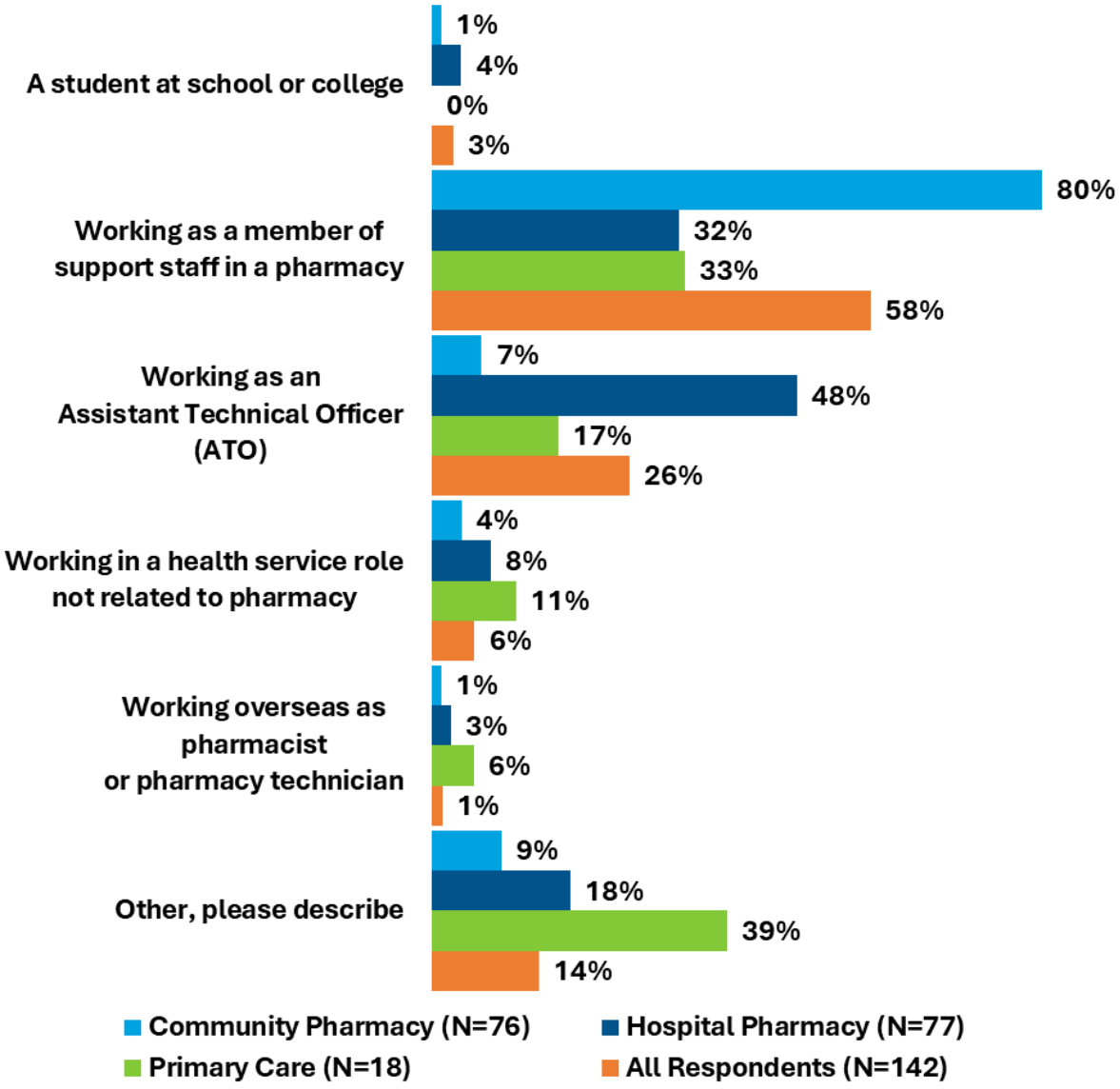


Seven respondents (5%) identified themselves as having a disability and a further six (4%) answered 'prefer not to say'.

2.2.3 Roles worked in prior to training as a pharmacy technician, and prior qualifications

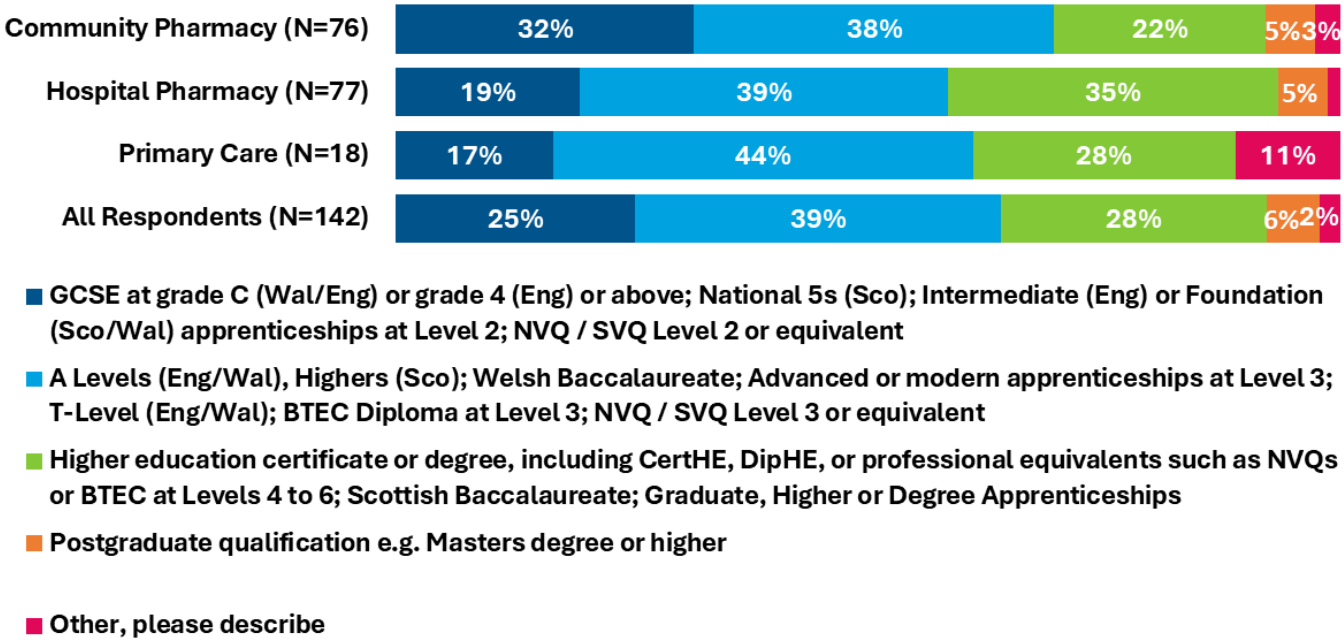
Respondents were asked to specify the role they worked in prior to starting their pharmacy technician education and training. Figure 2.4 shows a majority of respondents were working in pharmacy support staff roles, e.g. as a member of support staff in a community pharmacy (n=82; 58%) or as an Assistant Technical Officer (ATO) in hospital (n=37; 26%). Across all sectors, there were a few respondents who had worked in a health care setting not related to pharmacy and those who came into training from roles unrelated to healthcare ('Other' in Figure 2.4).

Figure 2.4 Role worked in prior to starting education and training, by training sector



Respondents were also asked about the highest academic qualification achieved prior to starting their pharmacy technician training. Most respondents (n=55; 39%) had completed A-Levels or equivalent, followed by higher education certificates (n=40; 28%), and GCSEs at grade C/4 or above (n=36; 25%). 'Other' responses included having a bachelor's or master's degree completed overseas. Community pharmacy had a relatively larger proportion of entrants with Level 2 qualifications (n=24; 32%) in comparison with hospital pharmacy. See Figure 2.5 below for a further breakdown by training sector of academic qualifications achieved prior to entering training.

Figure 2.5 Highest academic qualification achieved prior to starting training, by training sector



Trainees in the hospital sector were more likely to have a qualification at Level 3 or higher prior to starting their course to become a pharmacy technician, compared with community pharmacy.

Chi-squared analyses were conducted to assess if there were associations between the **highest academic qualification achieved** prior to starting their course to become a pharmacy technician by **training sector**, **sex**, and **ethnicity**. Data on qualifications were recoded into dichotomous variables: Level 2 (GCSEs or equivalent) and Level 3 or higher (A-levels or equivalent or higher). A t-test was also conducted to assess if there were associations between **age** and highest prior qualification achieved.

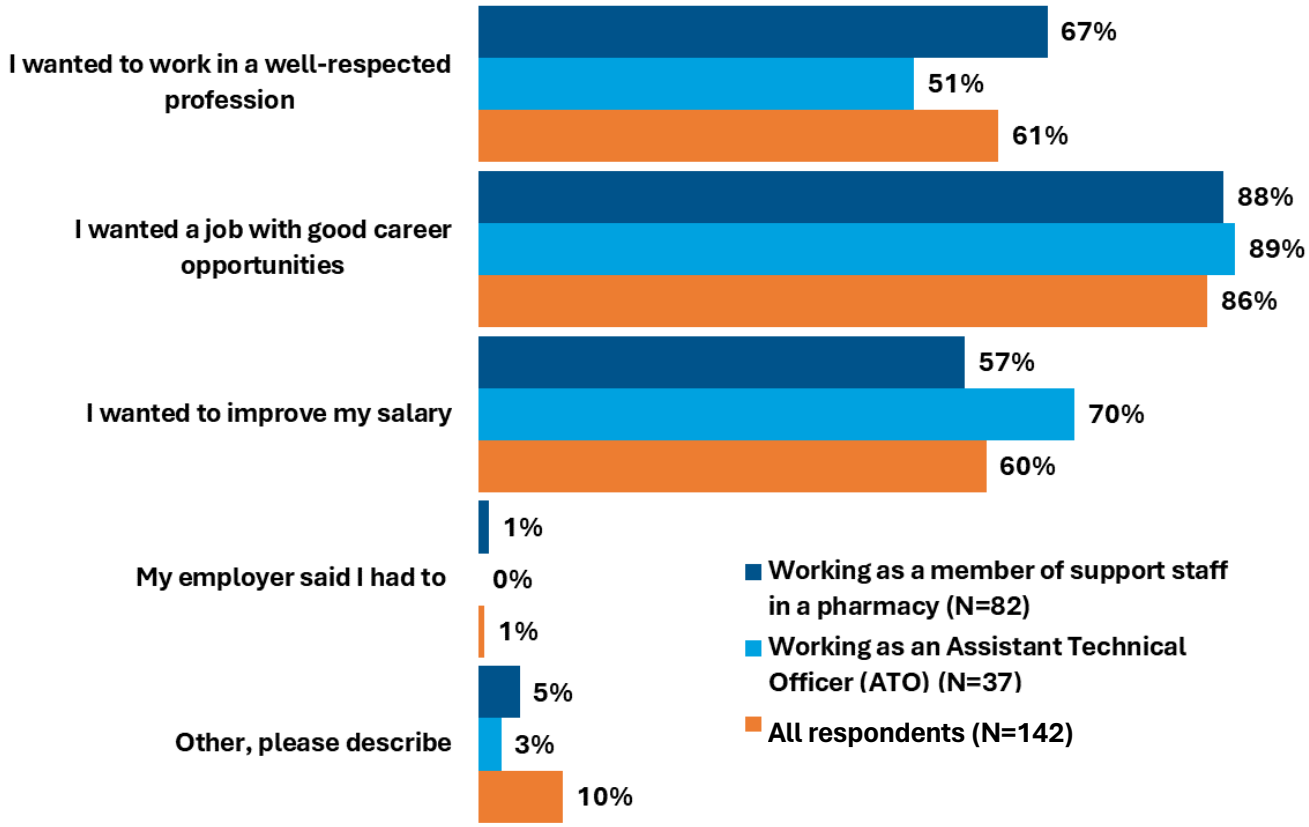
- A significant association was found between highest qualification and sector, with those who trained in hospital pharmacy being more likely to have a Level 3 qualification or higher, relative to those who trained in community pharmacy (X^2=4.469, p=0.035).
- There was no significant association found with sex (X^2=1.699, p=0.192) or with ethnicity (X^2=0.541, p=0.462).
- There was no significant difference in mean age for those who had a Level 2 qualification (36.09, SD=9.565) and those who had a Level 3 or higher qualification (M=33.28, SD=8.869).

We were unable to run a chi-squared test for **disability** due to insufficiently populated data across the responses.

2.2.4 Motivations for becoming a pharmacy technician

Respondents were asked about their motivations for becoming a pharmacy technician. As can be seen from Figure 2.6, which shows the motivations for becoming a pharmacy technician by their previous role, a desire for a job with good career opportunities was seen by 86% (n=122) as a key motivator regardless of their previous role. Over half of the respondents wanted to work in a respected profession (n=87; 61%), and improve their salary (n=85; 60%).

Figure 2.6 Respondents' reasons for becoming a pharmacy technician, showing main previous roles



2.3 Delivery of pharmacy technician education and training

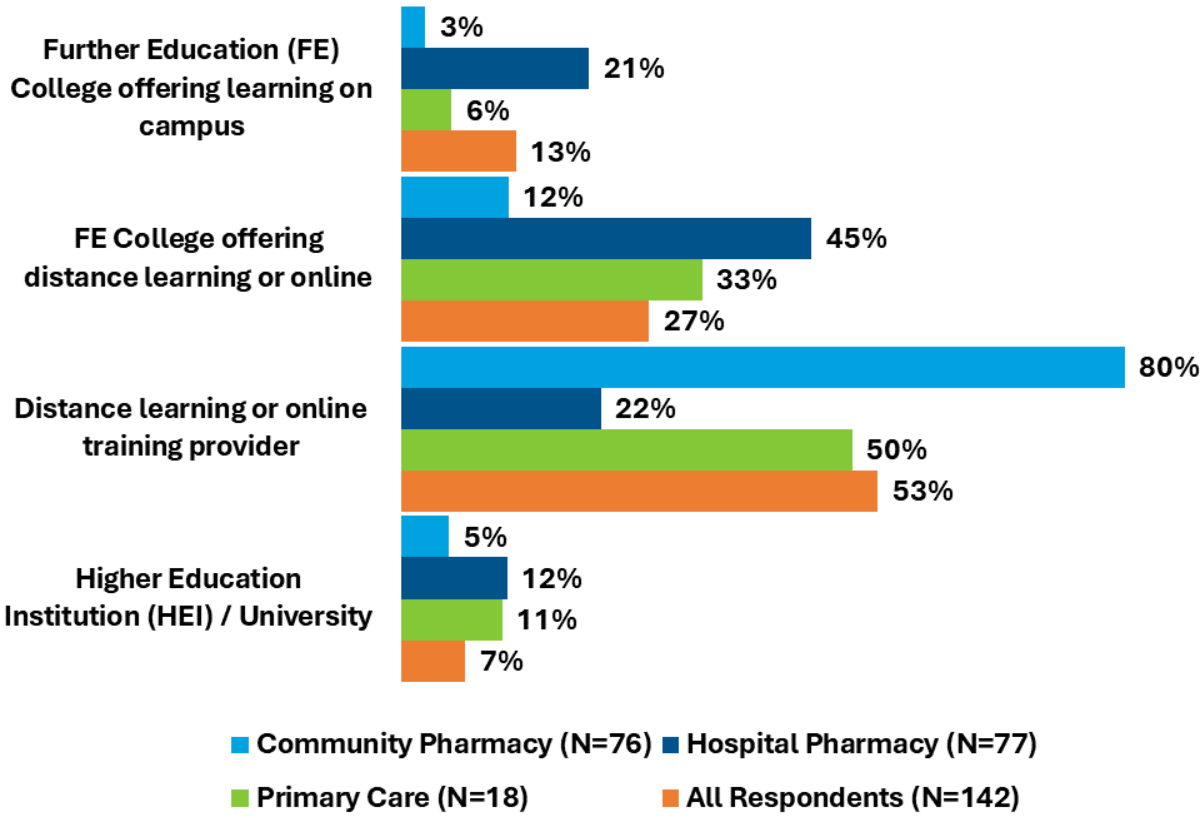
This section of findings focuses on how education and training were delivered, the type of course provider used and the methods of course delivery, qualifications gained and the time taken to complete education and training.

2.3.1 Types of course providers used

Figure 2.7 below shows the range of course providers that respondents used. Most respondents used distance learning providers (n=75; 53%), with most of those respondents specifying Buttercups. Fewest respondents (n=10; 7%) used a Higher Education Institution (HEI) / University.

Figure 2.7 below shows that there was a higher percentage of respondents who trained in community and primary care who used a distance learning provider, whereas most respondents from hospital pharmacy used an FE college.

Figure 2.7 Type of course provider used by respondents, by training sector



Distance learning providers were much more likely to be used by trainees in community pharmacy.

Chi-squared analysis was conducted to assess if there were associations between the **type of course provider** used, and **training sector**. The training provider categories were recoded into dichotomous variables: distance provider and higher/further education.

- A significant association was found between provider type and training sector. Those who trained in community pharmacy were much more likely to have used a distance learning provider (n=50; 91%) relative to those who trained in hospital pharmacy (n=10; 17%) (X^2=63.387, p<0.001).

2.3.2 Methods of course delivery

Figure 2.8 shows the main methods used by providers to deliver the courses that respondents were enrolled in. A majority of respondents stated that self-study was the predominant method (n=116; 82%), followed by online learning delivered to groups (n=109; 77%). Face-to-face learning (e.g. study days, learning in college) was chosen by the fewest respondents as the main learning method. Across all sectors, self-study was the method reported to be used most frequently by providers. For pharmacy technicians working in the primary care sector and community pharmacy, face-to-face learning was the least used method, although in hospital pharmacy, 34% (n=26) of respondents reported learning this way. For both distance and FE/HE providers, self-study was the most frequently used method of delivery. See Figure 2.9 below for a breakdown of delivery methods used by type of provider.

We were unable to use chi-squared analysis to test for associations between course delivery and other responses, due to having insufficient respondents left after excluding those who selected more than one mode of course delivery.

Figure 2.8 Methods of course delivery experienced by respondents, by training sector

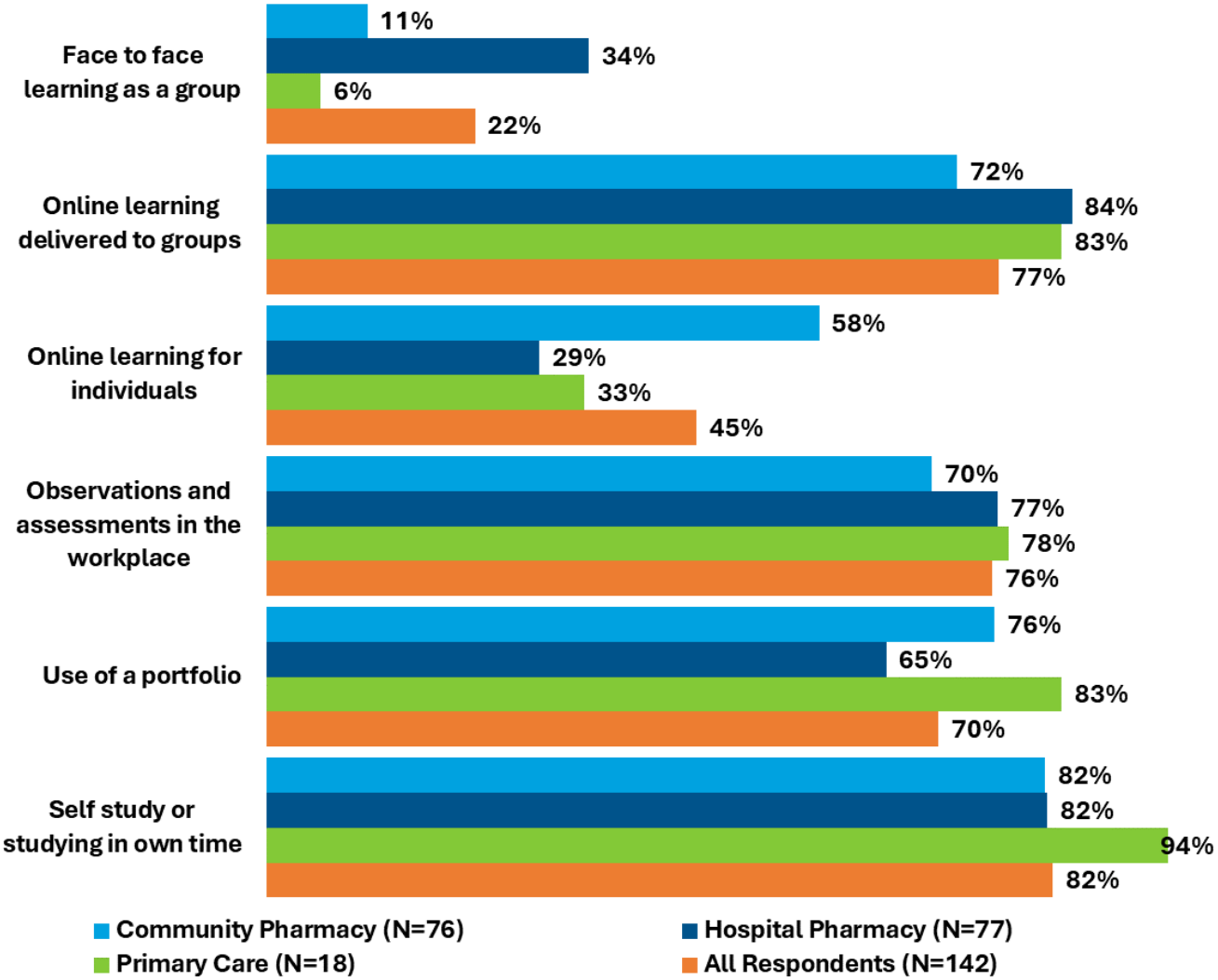
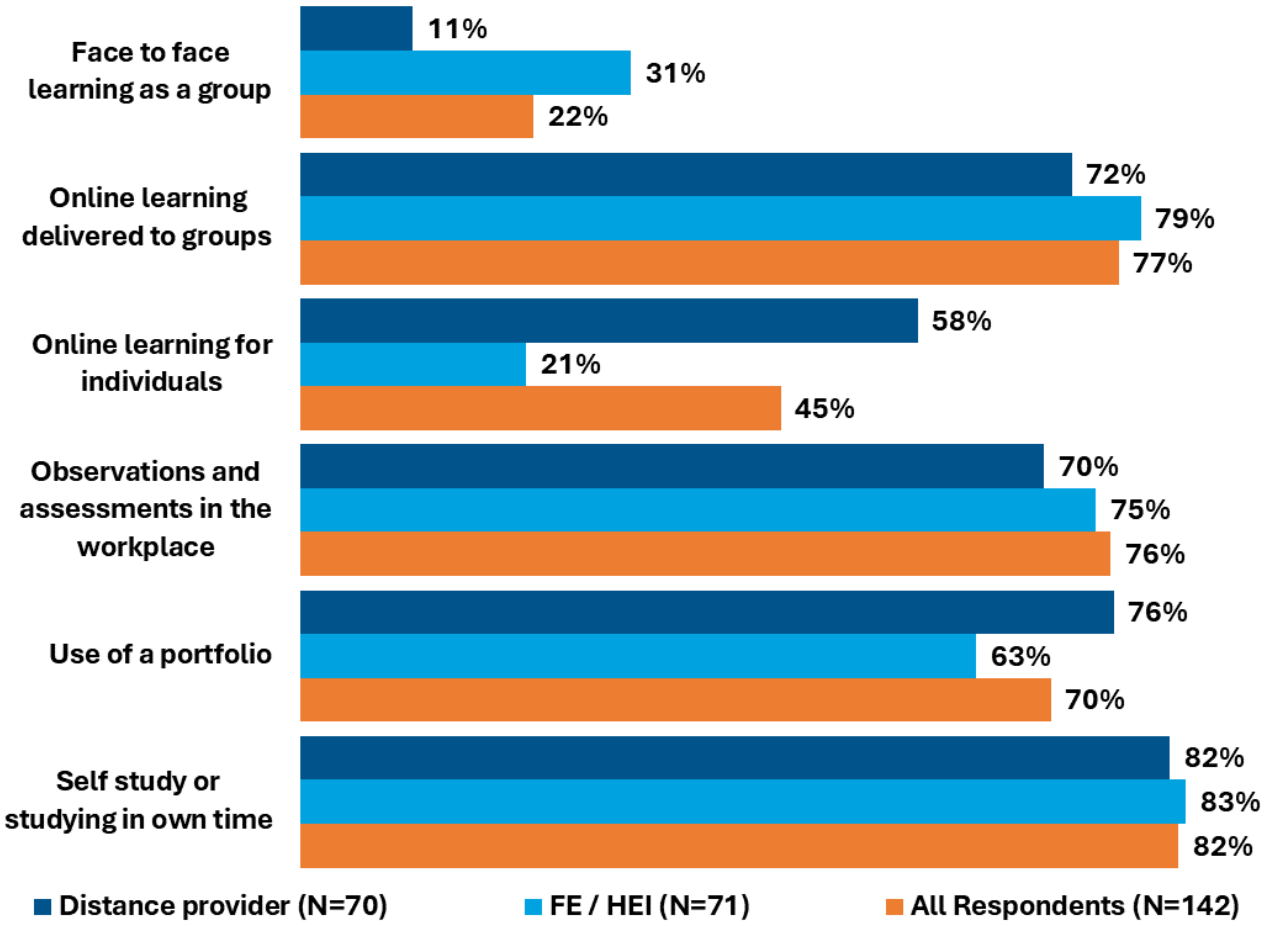


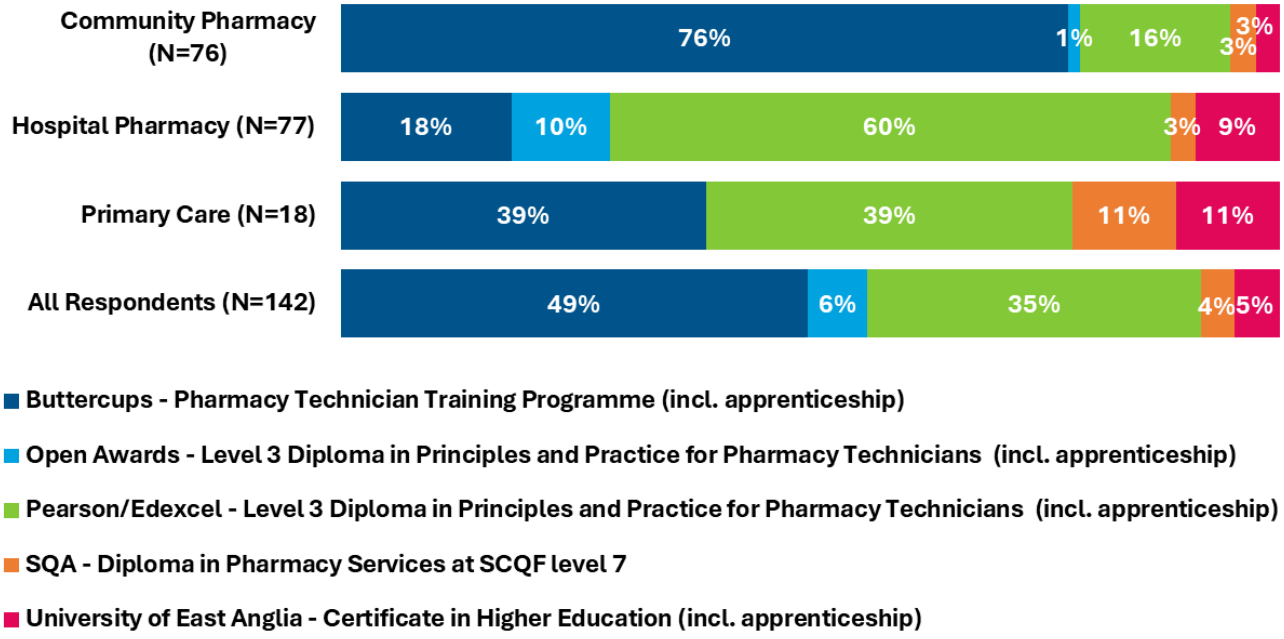
Figure 2.9 Methods of course delivery experienced by respondents, by type of provider



2.3.3 Qualifications gained

Figure 2.10 shows the qualifications that respondents attained at the end of their course.

Figure 2.10 Qualifications achieved by respondents (routes), by training sector

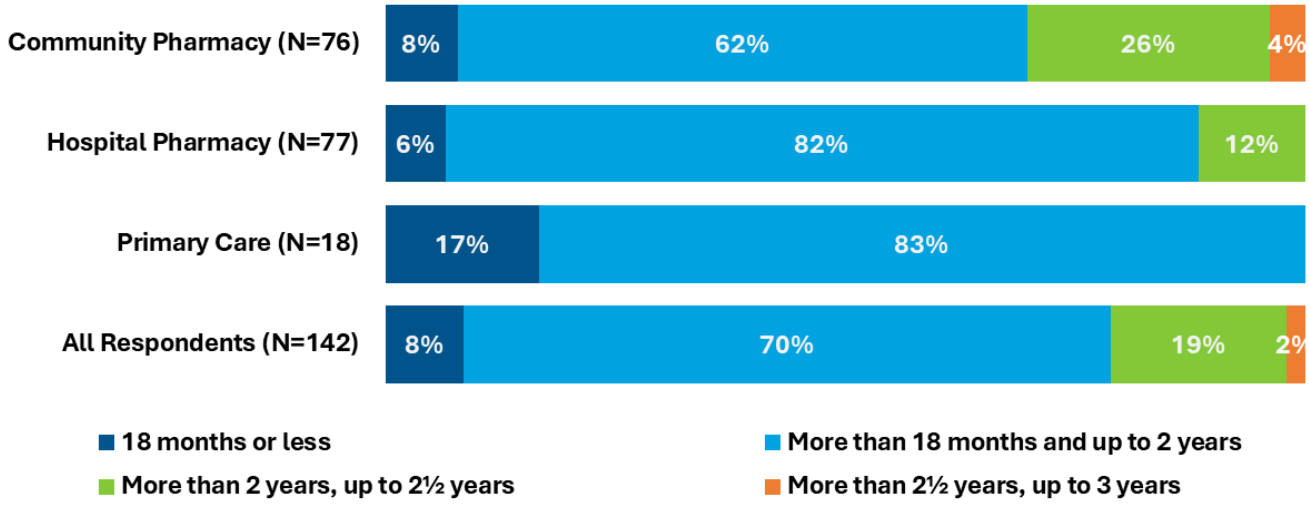


2.3.4 Time taken to complete training, and costs to trainees

Respondents were asked the length of time it took to complete their education and training, see Figure 2.11. Most respondents took between 18 months and 2 years (n=99; 70%), with a minority (n=3; 2%) taking more than 2 and a half years. A majority of respondents from the hospital sector (n=63; 82%) and community pharmacy (n=47; 62%), and all respondents who trained in primary care completed their training in less than two years.

In the 2013 survey, across all types of education providers, most respondents completed both the knowledge and competence-based qualifications in 2 years or less. Similarly to the current survey findings, those in community pharmacy took longer to complete their qualifications than those in hospital pharmacy.

Figure 2.11 Time taken to complete training, by training sector



Respondents who trained in community pharmacy were more likely than those in hospital pharmacy **to take more than two years to complete their training**.

Chi-squared analyses were conducted to examine associations between **time taken to complete training**, **training sector**, and **sex**. Time taken was recoded into dichotomous variables for comparative analysis: two years or less, and more than two years. A t-test was conducted to understand any associations between age and time taken to complete training.

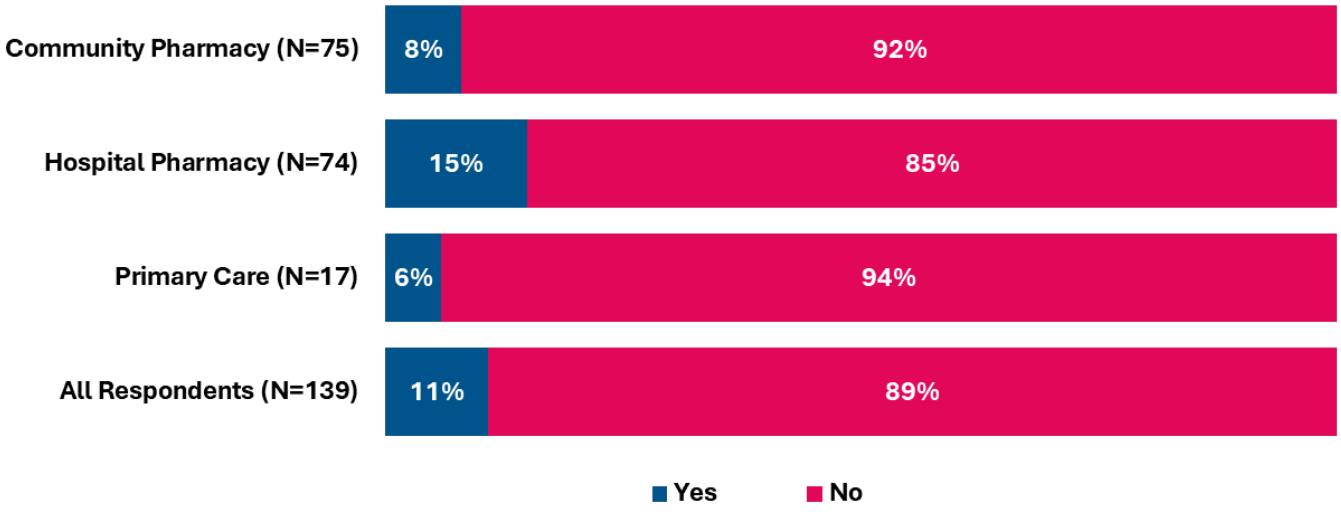
- A significant association was found between time taken to complete education and training and training sector, as those who trained in community pharmacy were more likely to have taken more than two years to complete their training and education relative to those who trained in hospital pharmacy (X^2=10.556, p=0.001).
- No significant association was found between time taken to complete the training, and sex (X^2= 0.408, p-0.523). There was also no significant difference when we examined if the mean age of respondents differed between those who took two years or less, compared to those who took longer (t= -2.063, p=0.187).

We were unable to carry out chi-squared analyses for **ethnicity** or **disability** due to the distribution of values on these variables.

Respondents were also asked if they had to pay for any aspects of their training themselves, and if so, for which aspects of it they were expected to pay. A majority of PTPTs did not have to cover costs associated with study (n=124; 89%) irrespective of the sector they trained in; see Figure 2.12.

In the 2013 survey, more than 80% of respondents in the community sector and more than 90% in the hospital sector stated that the course and associated costs were covered fully by their employer. This was across both the knowledge and competence-based qualifications.

Figure 2.12 Whether respondents paid towards the cost of their studies, by training sector



We were unable to use chi-squared analysis to examine associations between whether or not respondents paid towards the costs of their studies, and training sector, sex, ethnicity, or disability, due to insufficient data across the response variables. A t-test to assess for age differences between those who did and did not have to pay towards the costs of their studies also found no significant differences (t= -0.420, p=0.111).

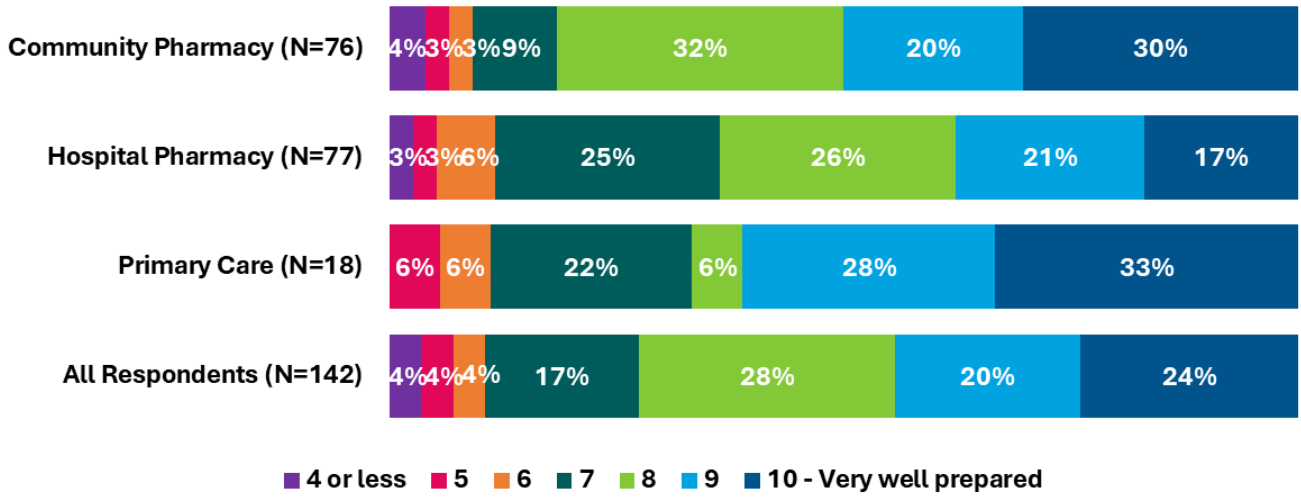
2.4 Overall impact of pharmacy technicians' initial education and training

This section looks at findings of questions relating to respondents' views on the overall impact of their education and training, and outcomes of the education and training – looking at respondents' current roles and their satisfaction with them.

2.4.1 Perceived impact on preparedness for practice

Respondents were asked how prepared for practice they felt after completing their initial education and training, on a 10-point preparedness scale, where 10 was the most well prepared. Across all sectors, the majority of respondents felt well prepared for practice, defined as those who rated themselves at 8 points or above. See Figure 2.13.

Figure 2.13 Respondents' views on preparedness for practice following their initial education and training, by training sector



Respondents who trained in community pharmacy were more likely to rate themselves as being well prepared for practice.

Chi-squared analyses were conducted to assess if there were associations between the self-reported level of respondents' **preparedness for practice** as a pharmacy technician following their initial education and training, and **training sector**, **highest qualification gained prior to training**, **sex**, and **ethnicity**. The 10-point preparedness scale was recoded into dichotomous variables: less prepared (comprising respondents who rated their preparedness level as 1-7) and well prepared (comprising respondents who rated their preparedness level as 8-10). A t-test was conducted to examine if there were associations between self-reported preparedness for practice, and **age**.

- A significant association was found between feeling prepared for practice as a pharmacy technician, and training sector. Those who trained in community pharmacy were more likely to state that they felt well prepared for practice, compared with those who trained in hospital pharmacy (X^2=6.274, p=0.012).
- No significant associations were found with sex (X^2=0.858, p=0.354); ethnicity (X^2=0.51, p=0.821); or highest qualification gained (X^2=0.665, p=0.415). There was no significant difference in the mean age of those who said they were less prepared for practice compared to those who said they were well prepared (t= -1.482, p=0.395).

We were unable to run chi-squared tests for **disability**, due to insufficiently spread data, and **education and training delivery method**, due to lack of respondents after excluding those who selected more than one method.

An open text question asked respondents to expand on how well prepared they felt following their training, and if there were aspects for which they felt unprepared. In total, 102 respondents added detail; the majority (73 responses) from those who had rated themselves as 8 or above:

- Respondents stated that they gained the skills and clinical knowledge needed (e.g. of different classes of drugs, relevance to the GPhC standards): *"I felt prepared and confident in my new job role as the training I was provided was sufficient to cover most eventualities in my job"*.
- Some respondents felt the course involved good practical on the job experience, so working as a pharmacy technician felt like a natural continuation. Those who had prior pharmacy experience felt they already had a strong foundation which the course built on: "*I also think it helped that I had nearly 8 years experience prior to completing my course*".
- Many comments focused on the in-depth nature of the training and the level of commitment required to complete all the requirements: "*The course was extensive, thorough and took a lot of commitment in and out of the workplace. That material and resources were extremely informative, no detail left out and a variety of teaching methods were used. It built my confidence".*

- Fewer answers reflected on feelings of unpreparedness. Respondents mentioned lack of preparedness in relation to knowledge of drug effects on patients; the patient facing aspect of the role; leadership skills; and medicines management, due to lack of time in the workplace to develop these skills during their training. For example: "*I feel that I gained a lot of knowledge on the course, but not day to day community pharmacy technician guidance. I feel that the course should provide more knowledge on what a technician is required to do once trained, for example DMRs, smoking cessation*". Workplaces' ability to offer time, support, and encouragement to develop practical experience, was therefore a factor influencing the level of preparedness.
- Some comments from primary care respondents reflected on their lack of preparedness for more 'clinical' roles: one respondent who transitioned to primary care after qualifying, found their role to be more 'clinical' than expected (e.g. carrying out blood tests), which their training had not covered; another felt the course was aimed more at hospital and community pharmacy technicians and suggested that less time could be spent on teaching health promotion, for example.
- In some cases, respondents completing the course via distance learning felt that some aspects of learning could not be effectively replicated via an online delivery method. There was also an acceptance that there were some aspects of the job that the course could not fully prepare people for, and that courses were there to provide the confidence and knowledge to know where to go to seek answers or support.
- A few comments related to impacts of Covid-19 specifically: "*Having to part take in the course during covid. Would have been nice to meet other training technicians*"

2.4.2 Current roles in which respondents work

The vast majority of respondents work as a pharmacy technician (n=133; 94%). The majority of respondents work in hospital settings: either district general hospitals (n=31; 23%) and teaching hospitals (n=25; 19%); while 34% work in community pharmacy (n=46), and 12% (n=16) work in general practice. See Figure 2.14 below.

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Figure 2.14 Where respondents worked at the time of the survey

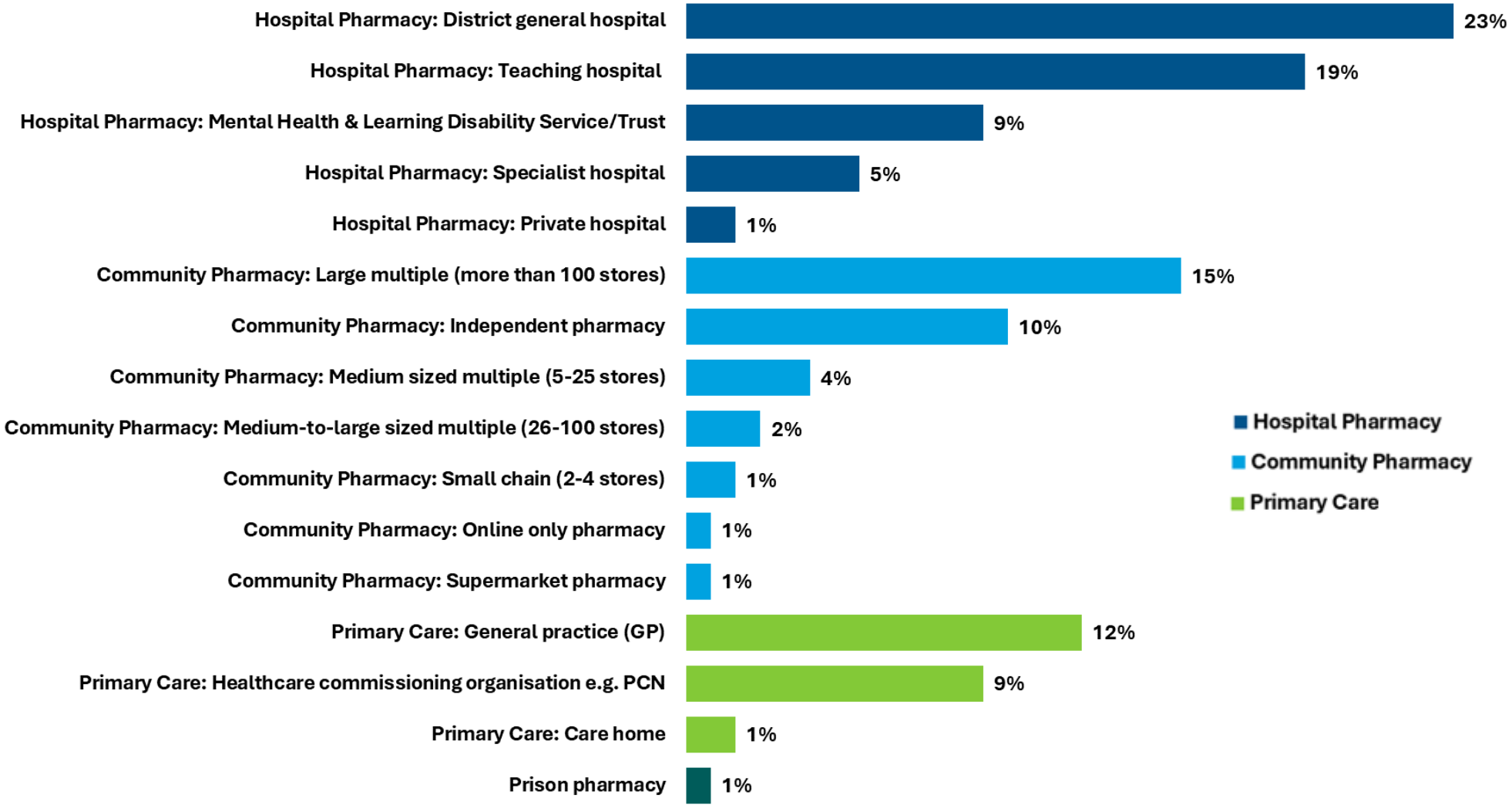


Figure 2.15 shows that there is movement from training in community pharmacy to working as a pharmacy technician in other sectors. It can be seen that most respondents who trained in the hospital sector were still working there; whereas just under half of respondents who trained in community pharmacy subsequently found work in another sector. Furthermore:

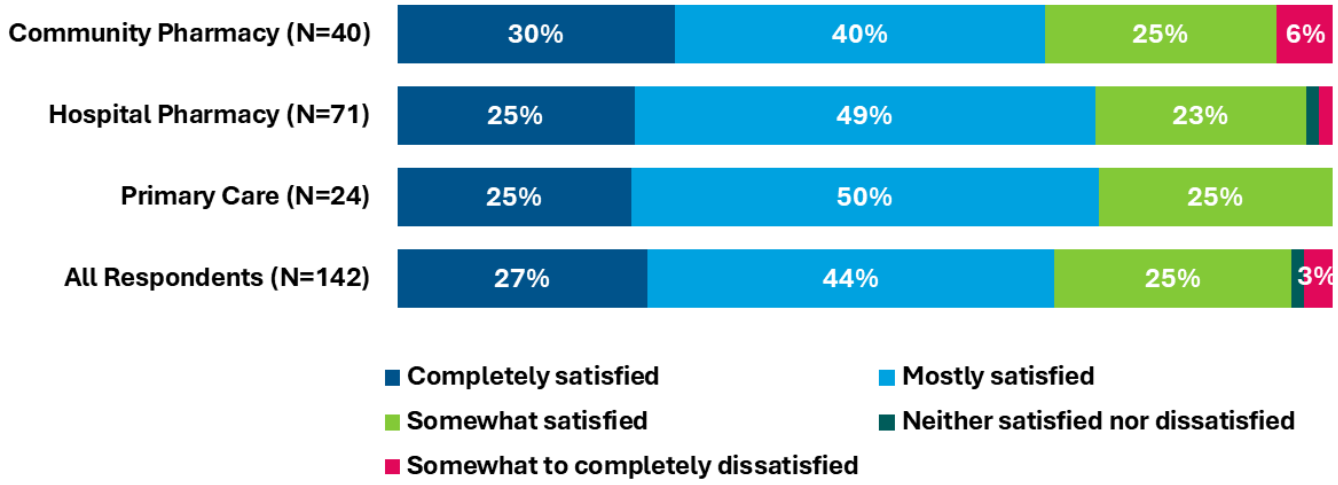
- Out of those who trained in community pharmacy, 20 (27%) now work in hospital pharmacy and 15 (20%) now work in primary care.
- Out of those who trained in hospital pharmacy, 2 (3%) now work in community pharmacy and 10 (14%) now work in primary care.
- Out of those who trained in primary care, 1 (6%) now works in community pharmacy and 6 (33%) now work in hospital pharmacy.

Figure 2.15 Settings in which respondents trained and where they currently work

2.4.3 Satisfaction with current roles and awareness of the GPhC standards

Respondents were asked to rate their satisfaction with their job as a pharmacy technician on a scale from 'completely satisfied' to 'completely dissatisfied', see Figure 2.16. A majority of respondents (n=136; 96%) were satisfied with their role, which includes 27% (n=38) who were 'completely satisfied'.

Figure 2.16 Satisfaction with current role, by training sector[5]



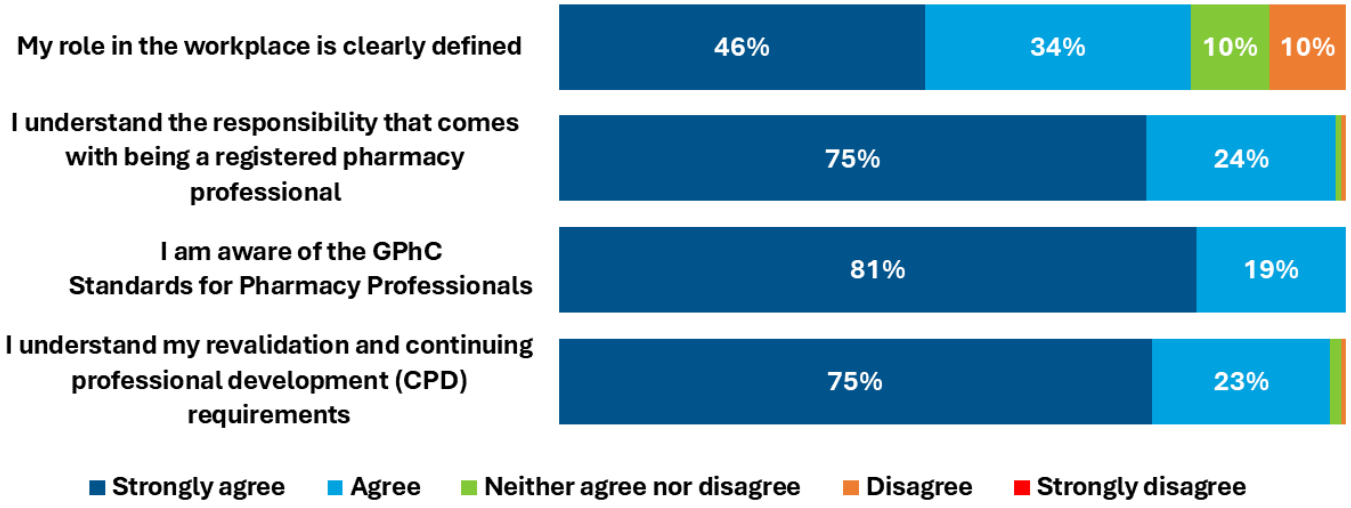
We were unable to use chi-squared analysis to examine associations between overall satisfaction with respondents' current job as a registered pharmacy technician and training sector, sex, ethnicity, and disability due to the distribution of data across the variables. A t-test to assess for differences in mean age between those who were satisfied with their current role and those who were not satisfied did not reveal any significant association (t=0.641, p=0.201).

[5] Note that for all percentage charts, where a number is shown without the % symbol, this also refers to a percentage (because of the space available, the correct symbol cannot be displayed)

Participants were asked to (strongly) agree or disagree with statements relating to their current role, displayed in Figure 2.17. All respondents (n=142) felt that they were aware of the GPhC Standards for pharmacy professionals; 81% (n=115) 'strongly agreed' with this statement. A majority of respondents either 'agreed' or 'strongly agreed' that their role in the workplace was clearly defined (n=114; 80%), and that they understood the responsibility that comes with being a registered pharmacy professional (n=141; 99%) and their CPD requirements (n=139; 98%). However, 10% (n=14) of respondents disagreed that their role in the workplace was clearly defined.

There appears to have been an improvement in PTPTs feeling that their roles were clearly defined – in 2013, agreement with the equivalent statement was 69% for PTPTs in community pharmacy and 61% for those in hospital pharmacy[6].

Figure 2.17 About respondents' current roles



[6] For more on the extent to which clarity of roles was a significant issue raised in the 2013 study, see Schafheutle et al (2014).

2.5 Course providers

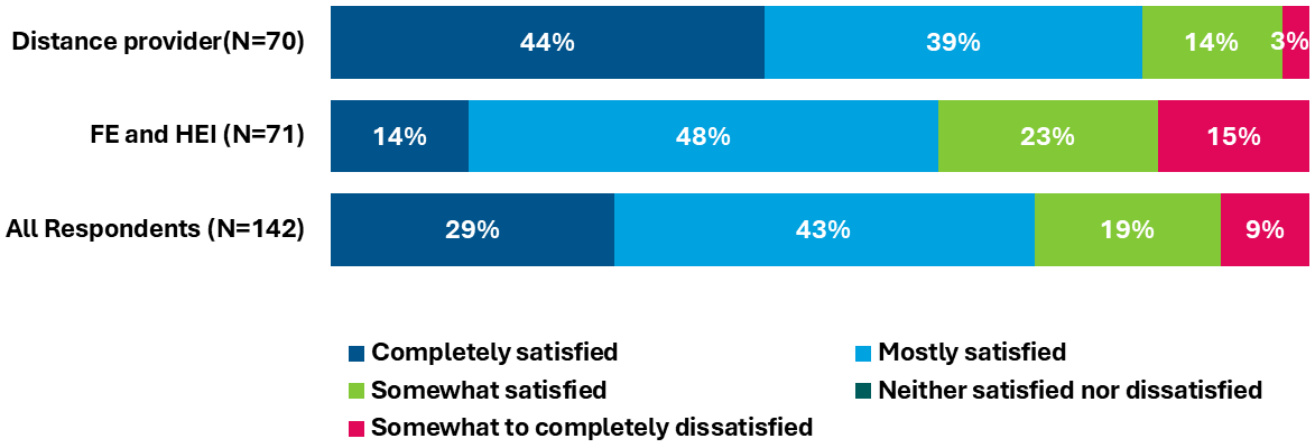
This section focuses specifically on course providers and examines respondents' overall satisfaction with the training they received from their course provider (satisfaction with their workplace is covered in section 2.7). Questions in this section cover overall satisfaction with their course providers, views on the course content and support from the course provider, and the extent to which the education they received covered the GPhC learning outcomes domains.

2.5.1 Overall satisfaction with course providers

Respondents were asked to rate their level of satisfaction with the education and training they received from their course provider. Figure 2.18 shows that a majority of respondents were satisfied with their course, with 29% (n=41) 'completely satisfied'. 9% (n=13) of respondents found the education and training to be dissatisfactory ('somewhat dissatisfied' or worse).

Similarly, in the 2013 survey, satisfaction levels were broadly high with both the knowledge- and competence-based courses, regardless of type of provider. In 2013, 68% of those using FE colleges were satisfied and 81% of those using distance learning were satisfied (for the knowledge qualification).

Figure 2.18 Respondents' level of satisfaction with training received, by type of provider



Female trainees were more likely to be satisfied with the education and training from their course provider.

Chi-squared analyses were conducted to examine associations between **overall satisfaction with the education and training received from the course provider** and **sex**. The 7-point satisfaction scale was recoded into dichotomous variables: satisfied (comprising of completely satisfied, mostly satisfied, and somewhat satisfied) and not satisfied (comprising of neither satisfied nor dissatisfied, somewhat satisfied, mostly dissatisfied, and completely dissatisfied). A t-test was also conducted to assess if there were associations between **age** and satisfaction.

- There was a significant association found between sex and overall satisfaction, with females being more likely to have been satisfied with their education and training relative to males (X^2=6.267, p=0.012).
- No significant difference was found in mean age between those who were satisfied with their education and training (M=34.57, SD=9.287) and those who were not satisfied (M=29.92, SD=4.814).

We were unable to run chi-squared analyses to examine associations between satisfaction and **training sector**, as well as **provider type**, due to insufficiently distributed data across the 'dissatisfied' responses for both respondents who trained in community pharmacy, and respondents who used a distance learning provider. We were also unable to run chi-squared tests for **ethnicity** or **disability** due to distribution of values across responses.

Respondents were asked an open question to expand on their satisfaction ratings with their course provider. Many respondents had positive experiences with their supervisors who were helpful and supportive.

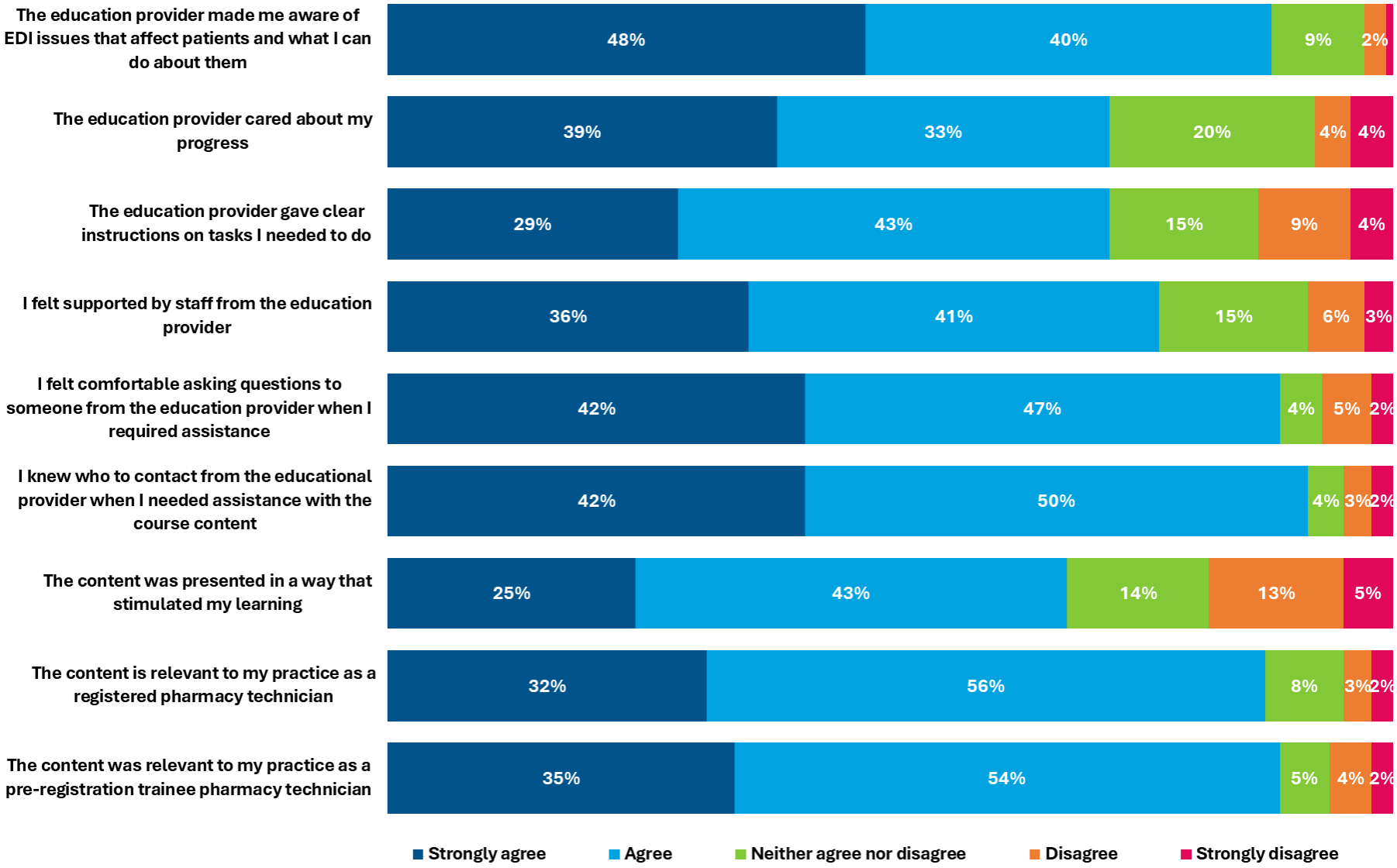
Although the majority of respondents felt positively about the feedback that they received (see Figure 2.20 below), some respondents commented that feedback on coursework was slow and not timely (particularly prior to exams), with one of the colleges reportedly attributing this to not having enough assessors. Others pointed to a lack of clarity on coursework and assessments, or poorly timed assignments. Staff turnover had an impact on satisfaction for some respondents: for example, one respondent had had three tutors over the two year training period and experienced poor handovers which caused stress.

2.5.2 Views on course content, delivery and support

Respondents were presented with a series of statements relating to course content, delivery, and support available from the education provider. They were also asked about the extent to which the topic of equality, diversity and inclusion was covered. Agreement ratings for these statements are presented in Figure 2.19 below.

All statements received high agreement levels. The highest number of positive responses was recorded for respondents stating they knew who to contact if they needed assistance with their course. Nearly ninety percent (88%; n=125) of respondents agreed that the education provider made them aware of issues relating to diversity and inclusion which could affect patients and how to act accordingly.

Figure 2.19 Respondents' feedback on course content, delivery and support from their course provider



We also compared the responses to the above statements across community and hospital pharmacy. Findings suggest that the majority of respondents in all sectors 'strongly agreed' or 'agreed' with the statements about the content of their course. Generally, respondents using a distance provider were more likely to agree with the statements, with the exception of the statements around knowing who to go to for assistance and the coverage of equality, diversity and inclusion, where an almost equal number of respondents 'strongly agreed' or 'agreed' from both provider types. See Annex A1.1.5 for further detail of differences between responses to statements by training sector, and type of provider.

Respondents who trained in community pharmacy were more likely than those in the hospital sector to agree that their content was presented in a way that stimulated their learning. We also found **that respondents who used a distance learning provider were more likely to agree with this statement**, as well as agreeing that the content was relevant to their practice, and that their course provider cared about their progress, compared to respondents using a further/higher education provider.

Chi-squared analyses were conducted to assess if there were associations between the above statements, with **training sector**, and **provider type**. When conducting the analysis, the 5-point agreement scale was recoded into dichotomous variables: agree (comprising of the responses 'agree' and 'strongly agree'), and did not agree (comprising of the responses, 'neither agree nor disagree', 'disagree' and 'strongly disagree'.

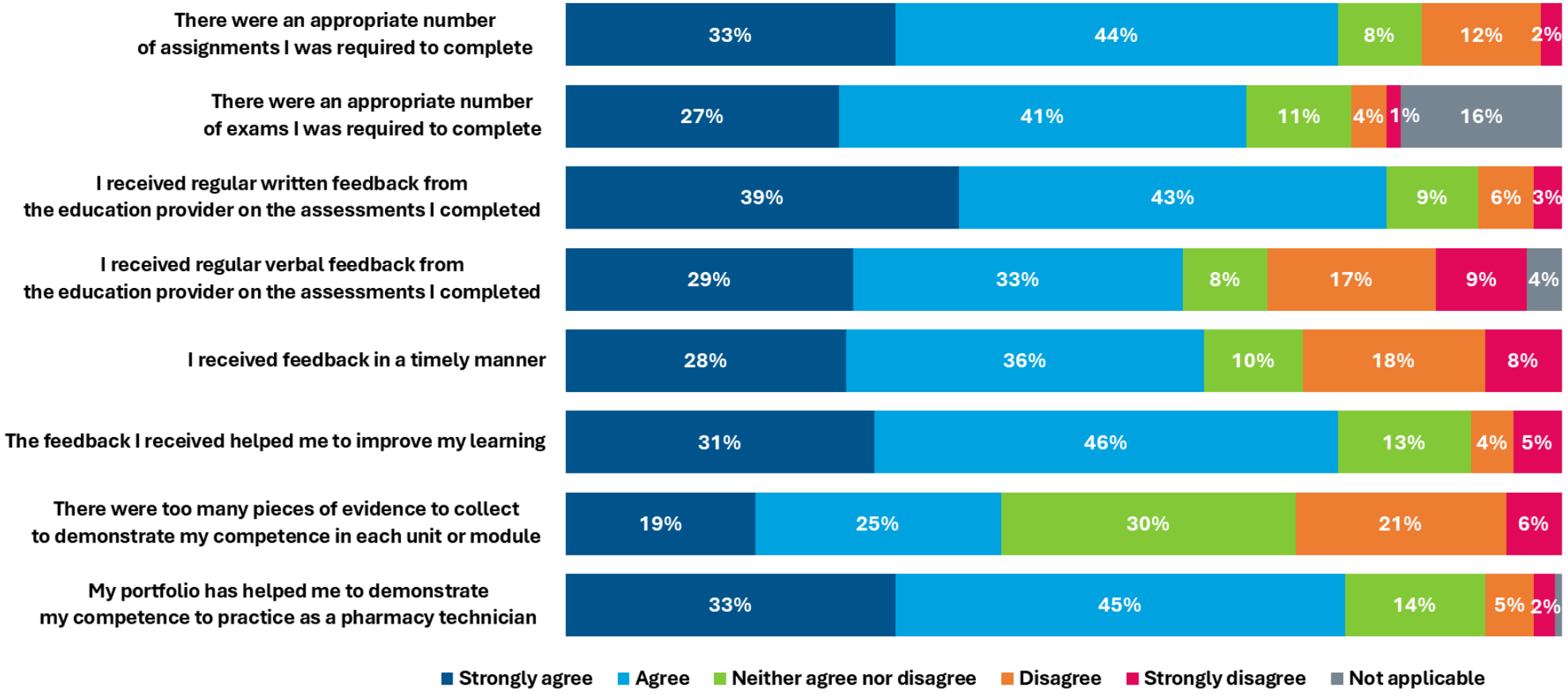
- For sector, only one statement yielded a statistically significant association: respondents who trained in community pharmacy were more likely to agree with the statement 'The content was presented in a way that stimulated my learning', relative to those who trained in hospital pharmacy (X^2=7.484, p=0.006).
- For provider type, respondents who used a distance learning provider were more likely to agree with three statements, relative to those who used a further/higher education provider: 'The content is relevant to my practice as a registered pharmacy technician' (X^2=3.947, p=0.047); 'The content was presented in a way that stimulated my learning' (X^2=15.158, p<0.001); 'The education provider cared about my progress' (X^2=5.738, p=0.017).

For all other combinations of statements and variables, there were either no statistically significant findings, or analysis was not possible to carry out due to distribution of values on these variables. See Table 2 in Annex A1.1.1. for further detail.

Respondents were also asked to agree/disagree with a series of statements relating to the assessment and feedback components of the course, see Figure 2.20 below. A majority of respondents agreed with these statements. The highest number of respondents agreed that they received regular written feedback on assessments (n=118; 82%), although fewer respondents (n=87; 62%) agreed that they received regular verbal feedback from their provider. See Annex A1.1.6 for further detail of differences between responses to statements based on type of provider used.

In the 2013 survey, the majority of respondents agreed with the statements listed here. The exception for this was for respondents that used distance learning providers, with regards to receiving regular verbal feedback from the assessor(s) where more disagreed (45.6%) than agreed (39.0%). In 2013, 81% of community pharmacy respondents agreed that they received regular verbal feedback from their provider, compared to 40% of hospital pharmacy respondents, suggesting a largely unchanged picture.

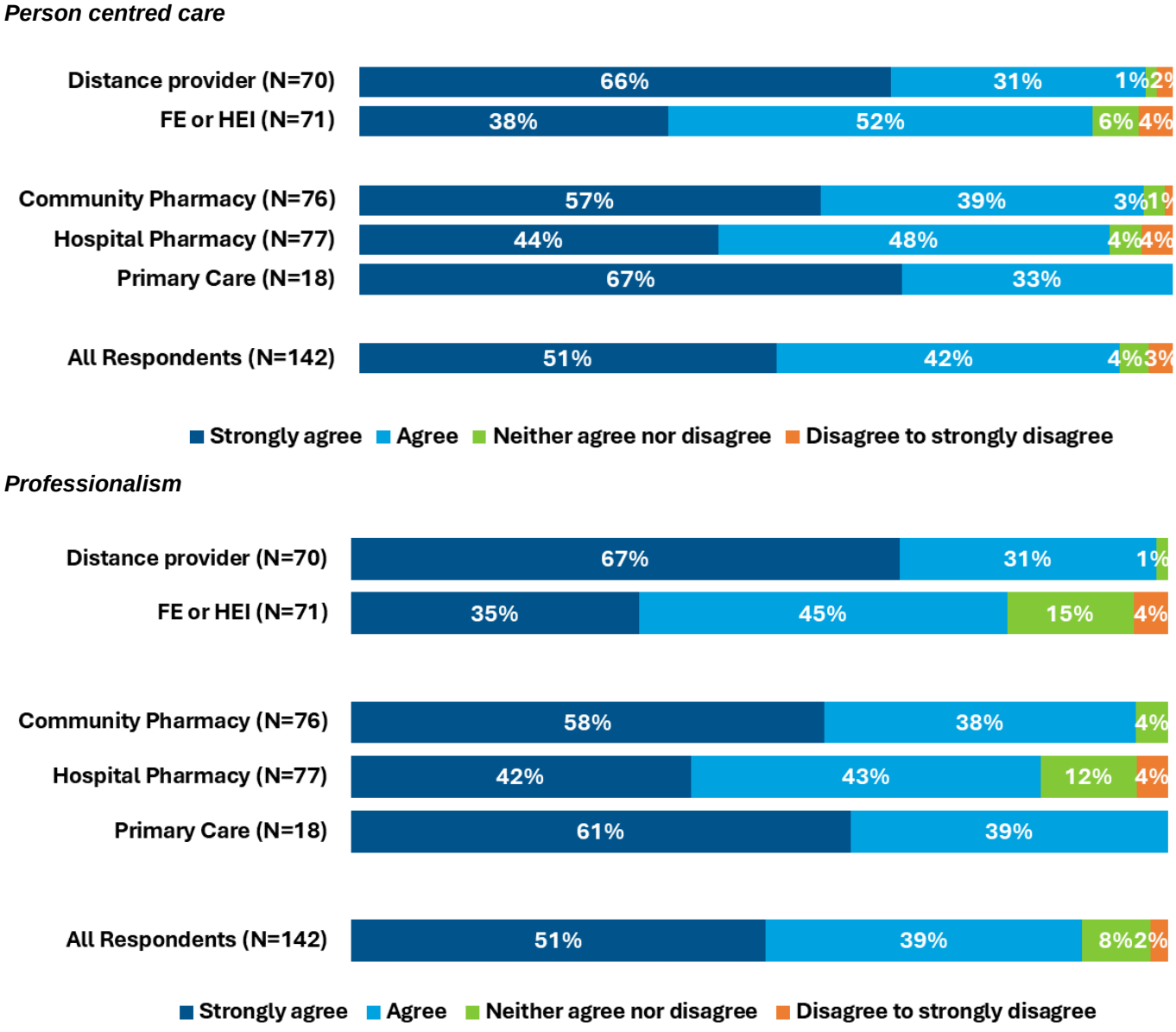
Figure 2.20 Respondents' feedback on assessments and feedback



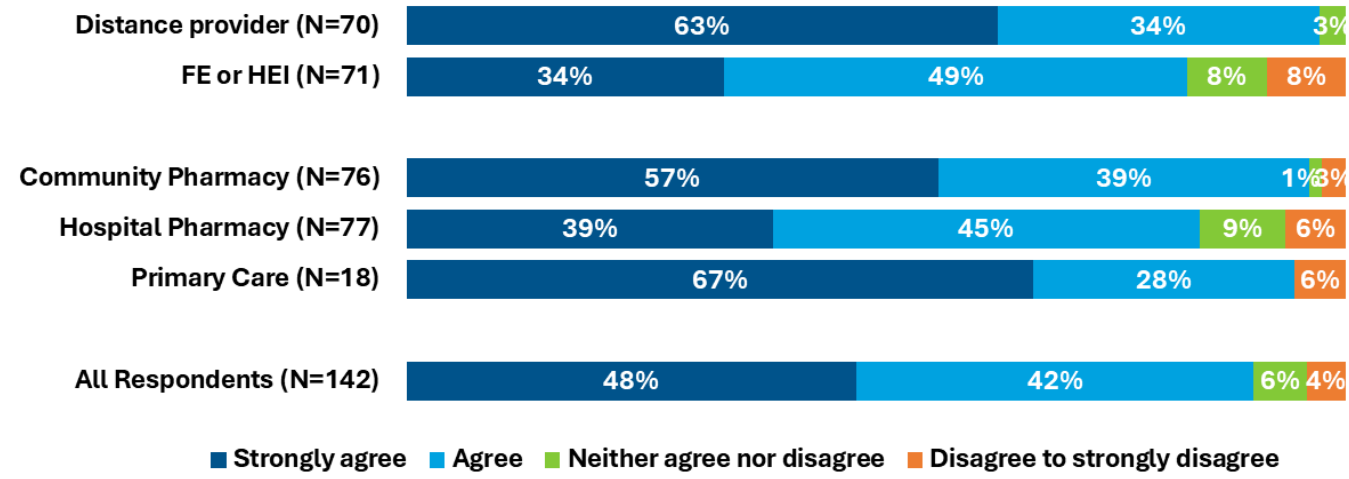
2.5.3 Views on coverage of learning outcomes within each domain

Respondents were asked to rate the extent to which the course content covered each of the learning outcomes within each domain and subsequently prepared them for practice (Figure 2.21). A majority of respondents agreed with these statements. 90% or more of respondents (n=128) agreed that the GPhC learning outcomes domains of 'person-centred care', 'professionalism', and 'professional knowledge and skills' were effectively covered by the course provider in the course content. Fewer respondents (78%; n=111) agreed that the course provider covered the 'collaboration' learning outcomes domain; respondents in community pharmacy were more likely than those in hospital pharmacy to agree that this was the case. See Figure 2.21 for further detail on responses by type of provider and training sector.

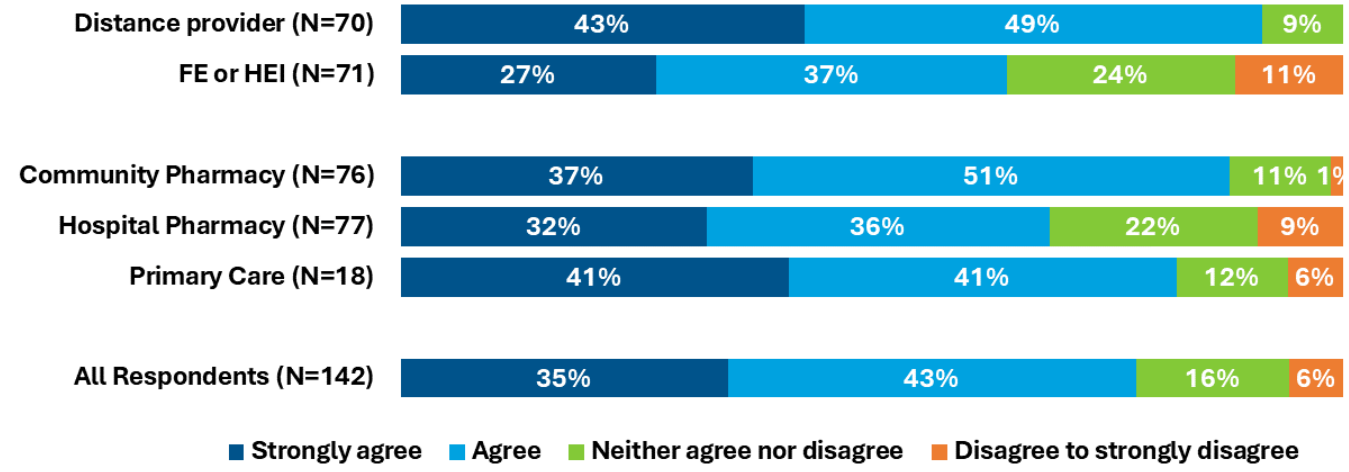
Figure 2.21 Respondents' views on coverage of learning outcomes domains, by type of provider and training sector



Professional knowledge and skills



Collaboration



In relation to examining associations between **training sector** and **coverage of learning outcomes domains**, one chi-squared test was feasible: we found that **respondents who trained in community pharmacy were more likely to agree that collaboration was well covered** within the course content, relative to those who trained in hospital pharmacy (X^2=8.008, p=0.005).

We were unable to run any chi-squared analyses for three of the four learning outcomes domains: person centred care, professionalism, and professional knowledge and skills due to insufficiently populated data across the 'disagree' responses.

2.6 Supervision

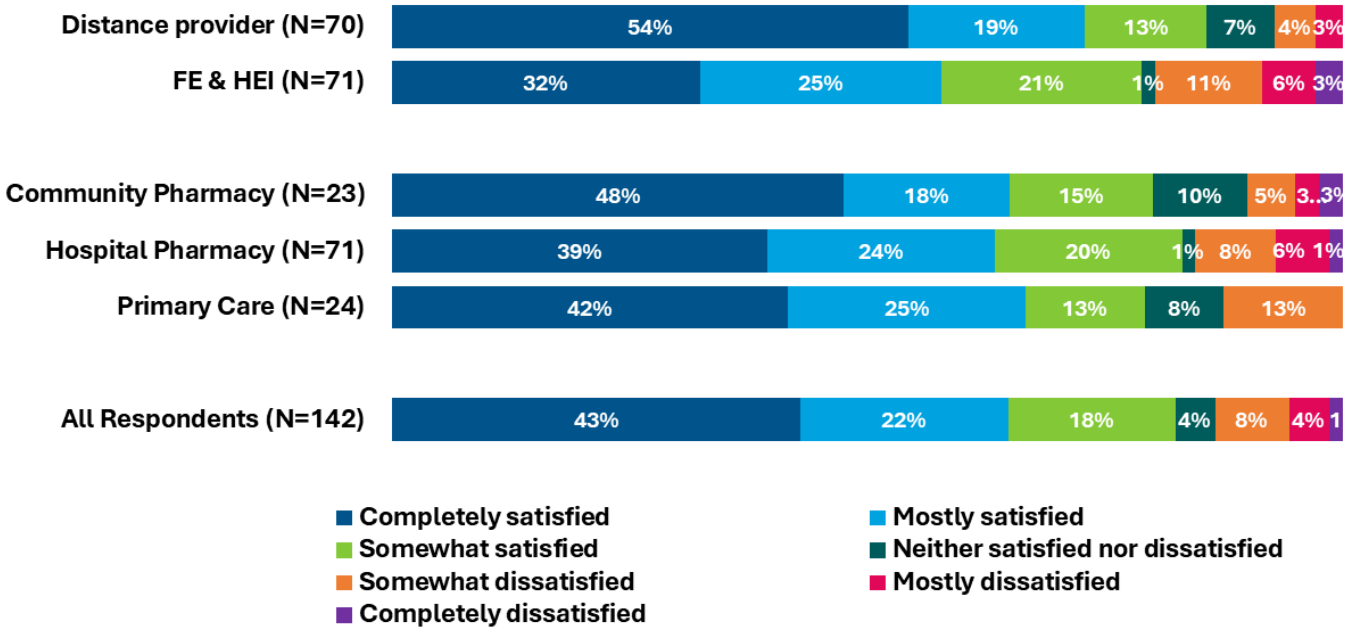
This section focuses on respondents' views of supervision in their workplace.

2.6.1 Overall satisfaction with supervision

Respondents were asked to rate their overall satisfaction with their supervisor(s). Almost half of the respondents (n=61; 43%) were 'completely satisfied' with the supervision they received, with a further 22% (n=31) being 'mostly satisfied'. In contrast, only 13% of respondents (n=18) were dissatisfied with their overall supervision. See Figure 2.22 below for a breakdown of responses by training sector and provider type.

In the 2013 survey, a majority of respondents were also satisfied with their supervisor, regardless of the education provider used (93% using an FE college and 85% of those using a distance provider were either 'somewhat' to 'completely' satisfied).

Figure 2.22 Respondents' overall satisfaction with their supervisor, by type of provider and training sector



Chi-squared analyses were conducted to assess if there were associations between **satisfaction with supervision** and **training sector**, **sex**, and **ethnicity**. The 7-point satisfaction scale was recoded into dichotomous variables: satisfied (comprising of completely satisfied, mostly satisfied, and somewhat satisfied) and not satisfied (comprising of neither satisfied nor dissatisfied, somewhat satisfied, mostly dissatisfied, and completely dissatisfied).

No significant association was found between overall satisfaction with supervision in the workplace and any of these variables.

2.6.2 Views on supervision

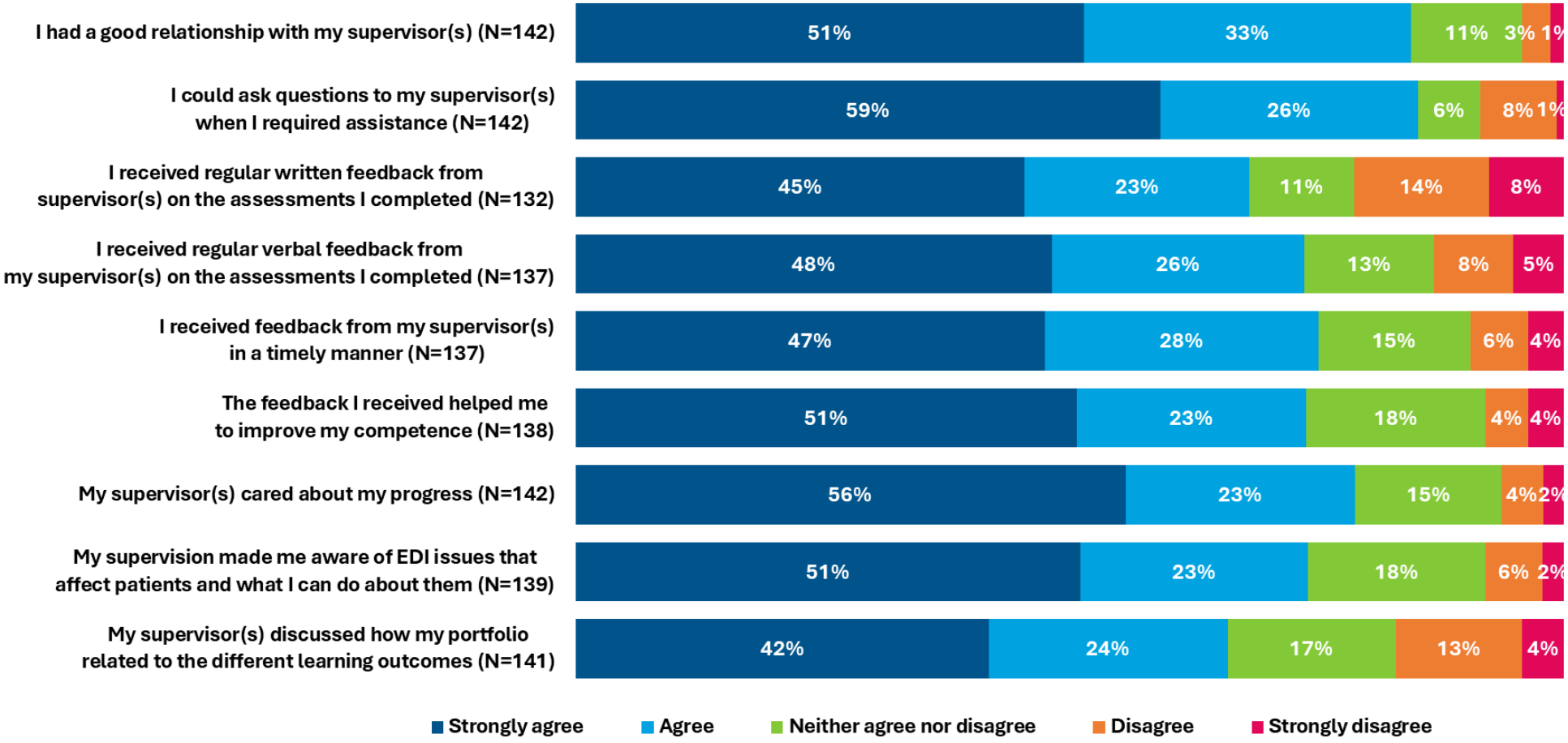
Most respondents (n=135; 95%) reported that they had been assigned a named supervisor as part of the course, only 5% (n=7) had not[7]. This includes 96% (n=67) who used a distance provider and 92% (n=65) who used an FE/HE college.

Similarly, in the 2013 survey, over 95% of individuals using an FE college or distance provider for their competence portfolio had a named assessor.

A majority of respondents agreed with a number of statements relating to the support they received from their named supervisor, see Figure 2.23 below. In total, 85% of respondents (n=121) agreed that they could ask their supervisor questions when assistance was required and 84% felt that they had a good working relationship overall.

[7] Note that trainees can only complete IETPT if signed off by a designated supervisor. It is unclear why those respondents did not think they were assigned a supervisor; it may be reflected in the small number of open text comments in the survey relating to unclear or under-resourced supervision arrangements.

Figure 2.23 Levels of agreement with statements relating to support received from supervisor



Across all sectors, the majority of respondents 'strongly agreed' with the statements about their supervisor. The highest level of agreement was with the statement that respondents felt able to ask their supervisor questions as and when they arose. These results are displayed in Annex A1.1.3, which compares responses by training sector and type of provider used.

Respondents that used distance learning providers were more likely to agree with five of the above statements concerning regularity of feedback and good relationships with supervisors.

Chi-squared analyses were conducted to examine if there were associations between **agreement with each of the above statements** and **training sector**, **provider type**, **sex** and **ethnicity**. T-tests were also conducted to assess if there were differences in mean **age** between those who agreed or did not agree with each statement.

- Five statements yielded significant results for association with provider type; respondents that used a distance learning provider were significantly more likely to agree with the following statements, relative to those who used a further/higher education provider:
  - 'I had a good relationship with my supervisor(s)' (X^2=5.219, p=0.022).
  - 'I received regular written feedback from supervisor(s) on the assessments I completed' (X^2=4.725, p=0.030)'
  - 'I received regular verbal feedback from my supervisor(s) on the assessments I completed' (X^2=8.574, p=0.003).
  - 'I received feedback from my supervisor(s) in a timely manner' (X^2=14.029, p<0.001).
  - 'The feedback I received helped me to improve my competence' (X^2=5.666, p=0.017).

When running chi-squared tests on the other four statements by provider type, no significant results were found. For sector, one statement did not have sufficiently populated data across the responses to conduct the analysis, and the remaining eight tests did not yield any significant results. Lastly, there were no significant associations found between agreement with the statements on supervision, and sex, ethnicity, or age.

Respondents were asked an open question if they had further comments on their experience of supervision as a trainee; 57 responses were received. Many respondents found their supervisor to be strongly committed to their PTPTs learning and development: *"I found myself in a very supportive environment, which extended beyond just my supervisor, but definitely included her. The team had time to help me learn, and would go out of their way to provide learning opportunities".* For some respondents, their workplace supervisor was the key reason for their continuing to the end of the course: *"My support was incredible and I'm so fortunate to have experienced this"*.

There was a balance of positive and negative comments about supervision. Some respondents stated that they thought that supervisors were learning as they went along or were not sure of what they needed to do to support the PTPTs: "*I found there were areas of the course that were very unclear in terms of what I needed to achieve or even the learning outcome I was working towards. I found the same was true for my workplace supervisor who was often unsure how she was supposed to be supporting me and what exercises I should be working on*". Sometimes, this was attributed to the trainees being the first cohort to complete the course. Frequent turnover of supervisors was also identified as an issue by a few respondents. Furthermore, several respondents shared that due to the pressure the

pharmacy workforce were under, supervisors were overworked and it was difficult for supervisors to give PTPTs the time they required: "*Didn't regularly get the protected work time. Supervisor wasn't aware of what was required of me unless I told them*".

2.7 Employer or Workplace Support

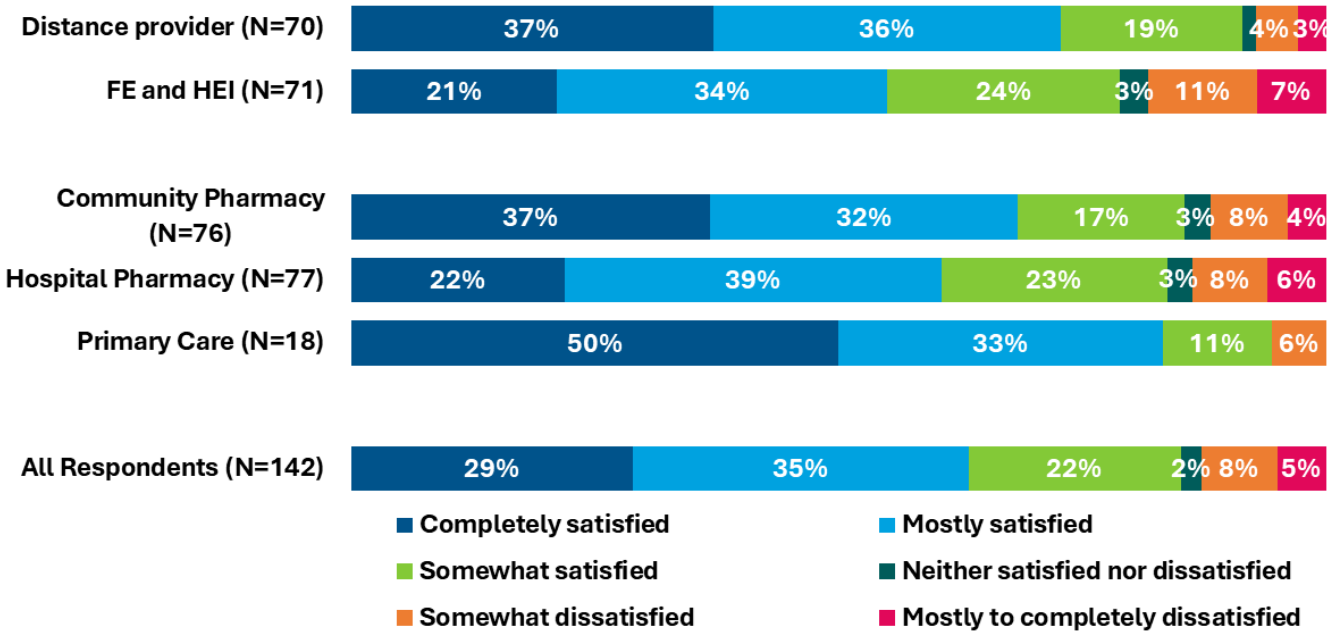
The final section covers the experiences of respondents in the workplace during their training, the average time they spent completing activities related to their education and training and how well their training in the workplace covered the learning outcomes domains.

2.7.1 Overall satisfaction with workplace support

Figure 2.24 shows respondents' level of satisfaction with their experience in the workplace as a trainee pharmacy technician, on a scale from 'completely satisfied' to 'completely dissatisfied'. More than half of respondents (64%; n=91) reported that they were either 'completely' or 'mostly' satisfied with the experience they had in the workplace as a trainee, with 13% (n=18) dissatisfied with their experience. There were similar levels of satisfaction between those working in hospitals (n=65; 84%), and in community pharmacy (n=65; 86%). Those using a distance provider were more likely to be satisfied overall with their experience in the workplace (92%; n=64), than those using a FE/HE institution (79%; n=56).

The 2013 survey revealed that most respondents were satisfied overall with their experience in the workplace during training, 65% (n=309) in community pharmacy and 85% (n=113) in hospital pharmacy.

Figure 2.24 Respondents' level of satisfaction with their experience in the workplace, by type of provider and training sector



Most respondents were satisfied with their experience in the workplace regardless of sector, and **those who used a distance learning provider were more likely to have been satisfied**. We also found that **satisfaction was not associated with age**.

Chi-squared analyses were conducted to assess if there were associations between satisfaction with experience in the workplace as a trainee with **sector trained in**, and **provider type**, and a t-test was conducted to assess if there were associations between **age** and satisfaction level.

- A significant association was found between provider type and overall satisfaction with experience in the workplace as a trainee. Respondents who used a distance learning provider were significantly more likely to have been satisfied with their experience, relative to respondents who used a further/higher education provider (X^2=4.907, p=0.027).
- No significant association was found between sector trained in and satisfaction with experience in the workplace as a trainee (X^2=0.125, p=0.723). In relation to age, there was no significant difference in the mean ages between those who were satisfied with their workplace experience as a trainee (M=34.23, SD=9.156) and those who were not satisfied (M=33.75, SD=8.735) (t=0.217, p=0.825).

We were unable to run chi-squared tests for **sex, disability, or ethnicity** due to insufficiently populated data across the responses for each variable.

Respondents were asked an open question if they had any other comments about their experience of support from their employer in the workplace; 35 comments were received across a range of sectors. Responses relating to feeling supported included line managers regularly checking in on progress and offering advice and feedback. Colleagues in the wider organisation were also said to be supportive: "*My line manager would regularly check in on my progress and offer encouragement and feedback. This was the first time pre-reg technicians were taken on in primary care in my health board and it was clear that we were well supported and looked after*".

Although those that left comments were in the minority, most of those comments reflected on shortcomings. An area where many respondents felt less supported was in gaining experience in a range of pharmacy sectors outside of their main workplace: "*Would have been useful to include other settings for example to see how a GP surgery operates and the role pharmacy technicians play in a GP surgery. Similarly would have been useful to see a hospital and/or prison*". A few of those that were broadly satisfied in other respects qualified their response by pointing to missed opportunities to get multi-sector experience: *"Whilst I feel confident to work in a hospital environment, I did not get the opportunity to experience different sectors. Covid may have played a part in this, but also even without this additional pressure, I don't think my workplace were particularly focused to let me experience pharmacy roles in other sectors".* In addition, some respondents highlighted the lack of sufficient protected learning time; some respondents did not feel supported by their employer in completing the course, as they were not given any time to do the course in work hours, and they had to complete tasks in their own time/ over the weekends.

Furthermore, the lack of facilities such as insufficient quiet spaces in the workplace to complete online learning or virtual classrooms was also identified by a few respondents, although Figure 2.25 below shows that the majority of respondents thought that facilities for learning in the workplace were appropriate. There was a sense that management did not understand the course requirements and therefore could not effectively support their trainees, or did not understand why learning time was needed: "*There was no sufficient space or quiet place to complete my online learning … My line manager/supervisor granted me a study day from home on average once per month to complete these types of task, but*

would then use this as an excuse when confronted with unachieved targets as if my course was a disruption to the work environment".

Nevertheless, most respondents were satisfied with their experience: "*It is a brilliant course and I have learnt so much and it made me improve on my skill set that I already had"*, although for the most part the satisfied trainees left no comments.

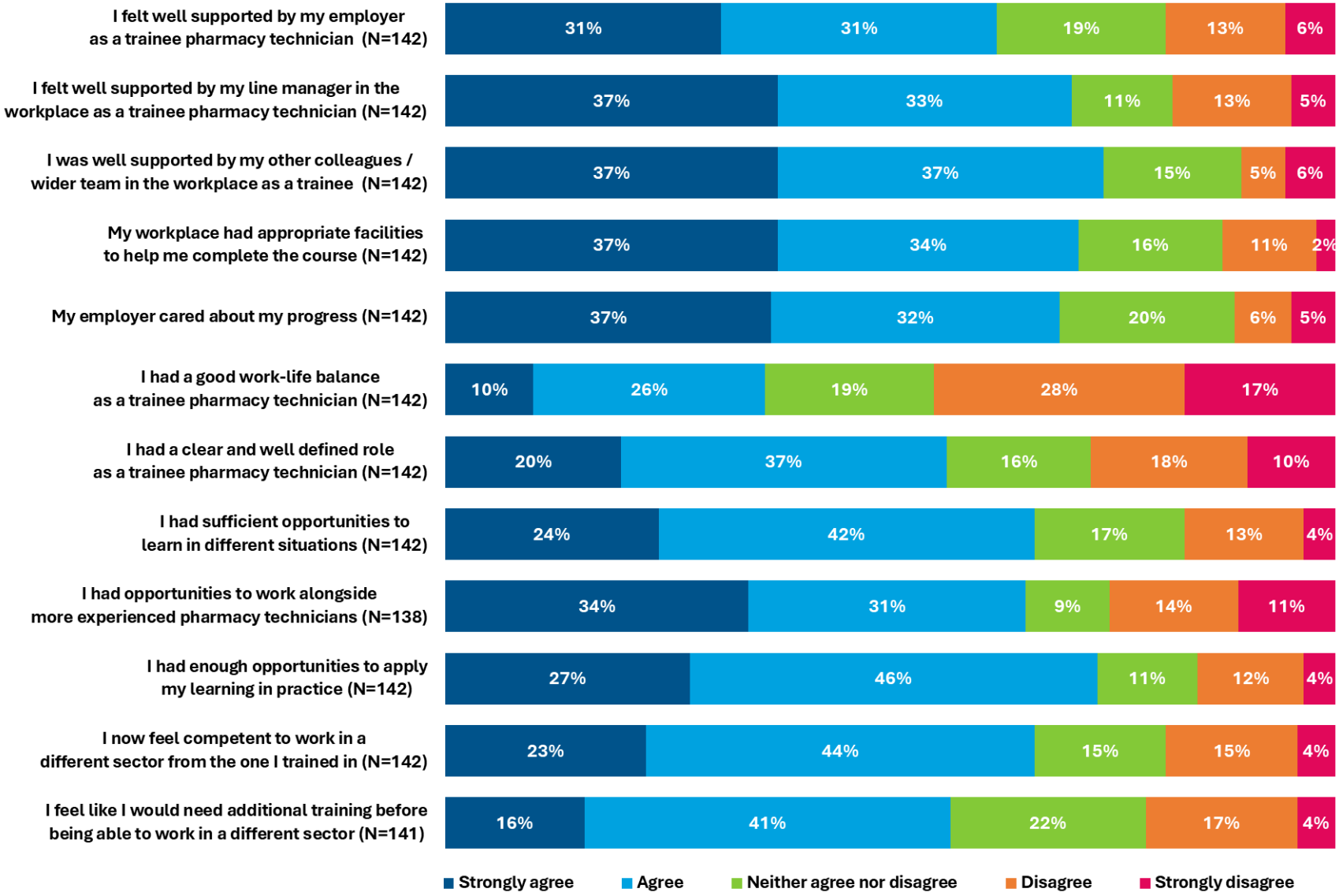
2.7.2 Views on workplace support

Participants were asked to agree/disagree with statements about their experience in the workplace, including support in the workplace, their wider team and opportunities for learning (Figure 2.25 below). The highest level of agreement (n=105; 74%) was with the statement around the extent to which PTPTs felt supported by other colleagues and the wider team during their time as a trainee. Most respondents also agreed that there were adequate opportunities available to them in the workplace, for example the ability to apply learning in practice, experience different sectors and work alongside more experienced pharmacy technicians. However, fewer respondents agreed (n=51; 36%) than disagreed (n=64; 45%) with the statement 'I had a good work life balance as a trainee pharmacy technician'.

In addition to the positive statements shown in Figure 2.25 below, respondents were asked if they agreed whether they felt isolated as a trainee pharmacy technician in the workplace: 27% (n=38) of respondents agreed with this statement .See Annex A1.1.4 for a further breakdown of findings by training sector.

In the 2013 survey, most respondents agreed that they felt well supported as PTPTs by their employing organisation, line managers and colleagues. Most respondents also felt their workplace had appropriate facilities to help them complete their qualifications, that their employer cared about their progress and that their role as a trainee pharmacy technician was clear.

Figure 2.25 Respondents' experience in the workplace



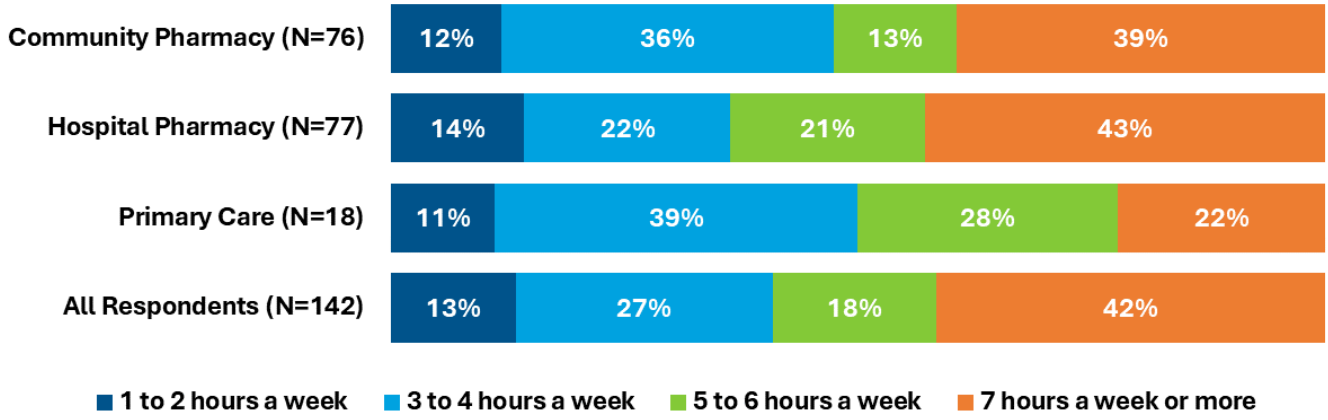
We found that **trainees in the hospital sector were more likely to agree that they could work alongside more experienced pharmacy technicians**, compared to those in community pharmacy.

Chi-squared tests were conducted to examine associations between **level of agreement with each statement above** and **training sector**. Of the 13 statements, only one yielded a significant result, 'I had opportunities to work alongside more experienced pharmacy technicians'**.** Here, it was found that those who trained in hospital pharmacy were significantly more likely to agree with this statement, relative to those who trained in community pharmacy (X^2=21.985, p<0.001). See Table 4 in Annex A1.1.2 for further detail.

2.7.3 Time spent on education and training outside working hours

Respondents were asked about how much time each week they spent, on average, on completing the education and training requirements for their course provider, outside normal working hours. As seen in Figure 2.26, a majority of respondents (n=84; 60%) spent at least five hours a week on fulfilling their course requirements outside normal working hours.

Figure 2.26 Length of time respondents spent on their education and training requirements outside normal working hours, by training sector



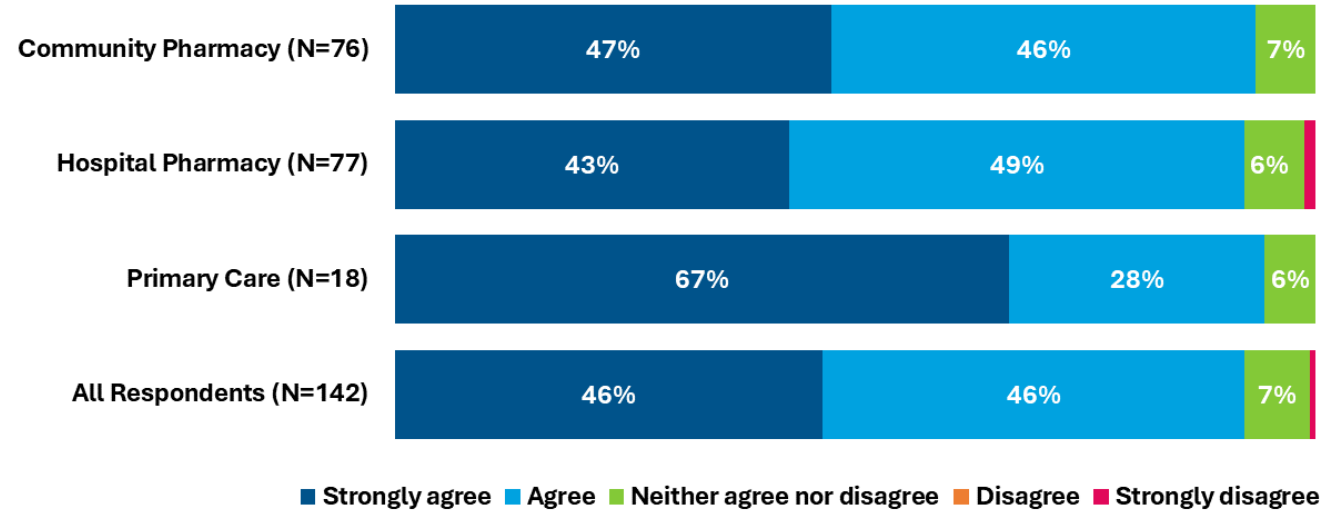
Chi-squared analysis did not yield significant results, and no association was found between **average time spent completing education and training requirements outside normal working hours** and **training sector** (X^2=2.762, p=0.430).

2.7.4 Coverage of learning outcomes within each domain

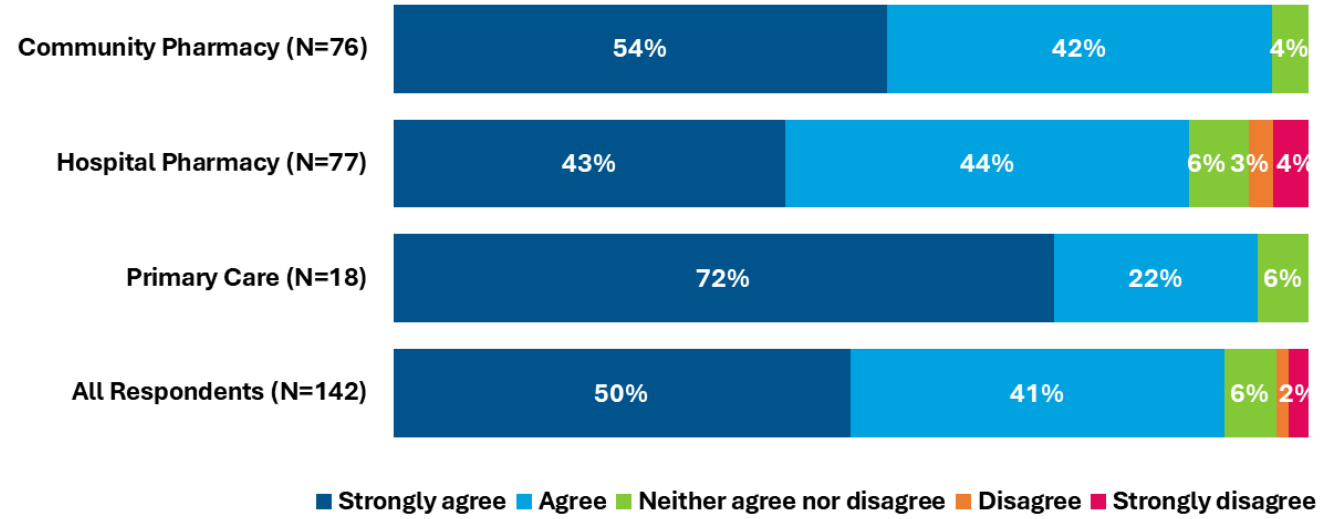
Most respondents agreed that all four learning outcomes domains were covered in a way that allowed them to feel prepared to practise as a pharmacy technician, with 90% or more of respondents agreeing that person-centred care, professionalism and professional knowledge and skills were effectively covered in the workplace. See Figure 2.27 for further detail.

Figure 2.27 Respondents' views on the extent to which learning outcomes domains were covered in the workplace, by training sector

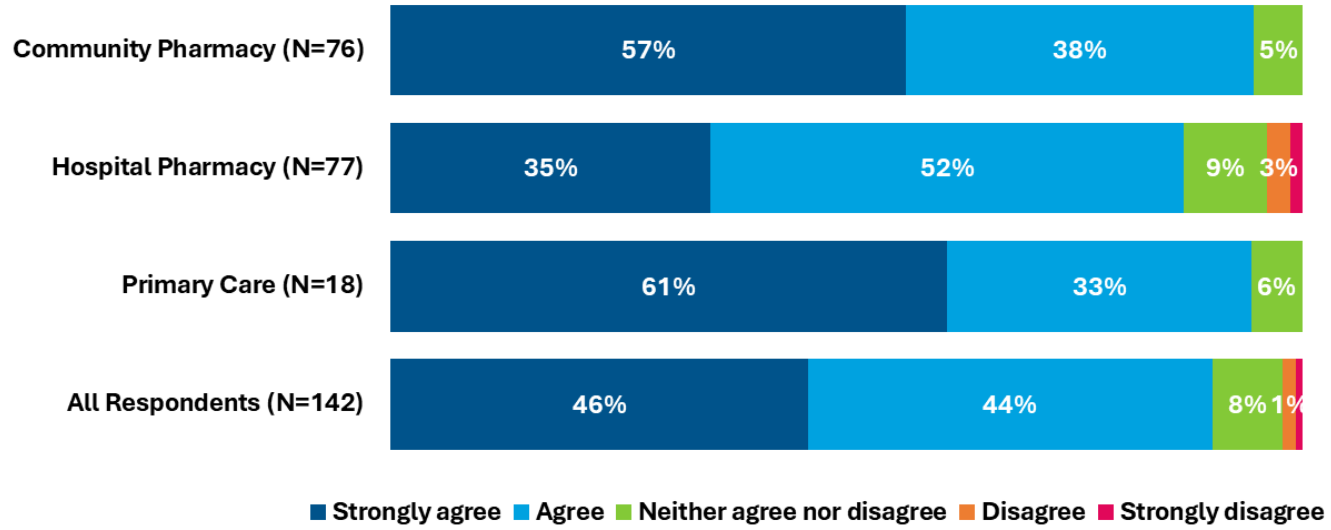
Person centred care



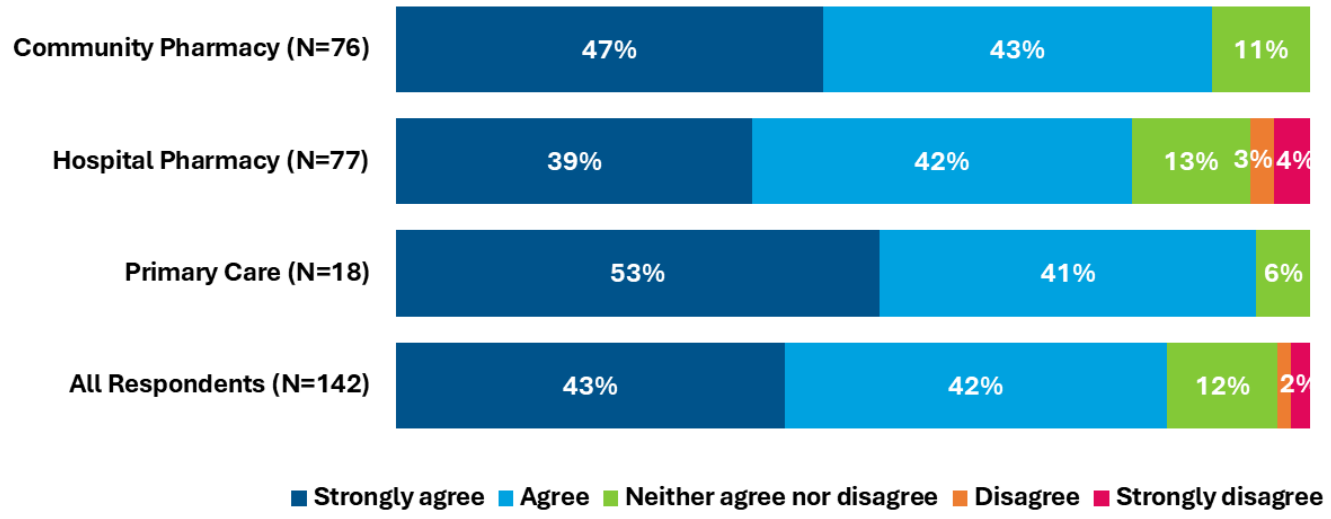
Professionalism



Professional knowledge and skills



Collaboration



We were unable to run chi-squared analyses for the first 3 learning outcomes domains due to insufficiently spread data. The chi-squared test for associations between training sector, and agreement with the collaboration domain being well covered in workplace training yielded an insignificant result (X^2=2.293, p=0.130).

3 Qualitative interviews

3.1 Introduction to qualitative interviews

In this chapter, findings from the semi-structured qualitative interviews conducted with PTPT employers, supervisors and course providers are considered.

The first part of the chapter outlines how employers and supervisors managed PTPTs and recently registered pharmacy technicians in the workplace, outlining the ways this had changed since 2010. Employers' and supervisors' views on the advantages and disadvantages of the current standards are discussed, with a focus on comparing these views to the 2010 standards. Finally, employers' and supervisors' feedback and recommendations are provided.

The second part of the chapter details course providers' feedback on training delivery, and how PTPTs' educational experience has changed since 2010. Course providers' perception of the advantages and disadvantages of the current standards – and how they impacted approaches to training – are discussed. Finally, course providers' recommendations and feedback to the GPhC are discussed.

3.2 Employers and supervisors

In total, 21 semi-structured qualitative interviews were conducted with a range of employers and supervisors from different pharmacy sectors. Of those interviewed, five were community pharmacy employers, of which two were from a large multiple. The remaining 16 interviewees were from larger teaching hospitals/NHS trusts.

Fifteen of the 21 employers/supervisors interviewed had experience overseeing PTPTs under both the 2010 and 2017 IET standards. Three interviewees had trained as pharmacy technicians under the 2010 IET standards but had only supervised PTPTs since the 2017 IET standards.

The remainder of this section is structured as follows:

- A brief outline of how PTPTs and recently registered pharmacy technicians were managed in the workplace;
- How the management of PTPTs changed following the publication of the 2017 IETPT standards;
- Supervisors' and employers' views on the advantages resulting from the 2017 IETPT standards, compared to the 2010 standards;
- Supervisors' and employers' views of the disadvantages of the changes resulting from the 2017 IETPT standards, compared to the 2010 standards; and
- Key recommendations and feedback to the GPhC.

3.2.1 How PTPTs and recently registered pharmacy technicians are managed in the workplace

Supervisors and employers described similar approaches to managing PTPTs and recently registered pharmacy technicians. In hospital settings, PTPTs completed rotations across different pharmacy areas – including dispensary, procurement, clinical governance, and quality assurance. Hospital PTPTs were assigned a dedicated supervisor for the duration of their course, with whom they had regular (generally bi-weekly) check-ins to discuss workload, learning, course progress and any challenges.

The approach to supervision in community pharmacy was more variable. For example, an independent community pharmacist in Scotland said they supervised PTPTs who were employed by the local health board, under the broader Health and Social Care partnership. The PTPTs they supervised spent two days per week working in their pharmacy. Another employer from a large multiple said workplace supervisors were assigned to PTPTs prior to their course enrolment. However, they noted it could be challenging to have a consistent supervisor throughout the two years of training due to high staff turnover. To mitigate this, some could use trainers employed by head office who could provide extra support to PTPTs where needed.

In most cases, supervision of PTPTs was not a full-time role and needed to be balanced with other day-to-day responsibilities. This was noted as a particular challenge in community settings, where pharmacies may be managed by locums, and pharmacists may struggle to balance their supervisory duties with the demands of running a community pharmacy. As one community employer noted:

> *"[W]ith the current workforce challenges that we've got going on, I think being able to free up people to do [be PTPT supervisors] is probably one of the challenges that we face."*

Employers and supervisors across different settings said they viewed PTPTs as an investment in their workforce, and generally sought to employ them once they had qualified. As one hospital-based supervisor said:

> *"Wherever possible, we like to keep our own students. We don't … guarantee them a job at the end of their two-year placement, but … if we've put in our resources to train, then we do like to keep them wherever possible. So, if there are posts…that they are able to apply for, we would encourage them to apply. We don't very often lose any of our trainees."*

3.2.2 Changes to Pre-registration training since 2010

Most interviewed supervisors and employers agreed the experience of PTPTs had evolved significantly over the past 10 years, both because of changes to the standards and due to wider contextual changes such as the acceleration of online learning driven by the Covid-19 pandemic. The key changes described by employers and supervisors are outlined below.

Supervisors' involvement in PTPTs education

Following the introduction of the current standards and subsequent changes to training courses, many supervisors noted they felt more closely involved in PTPTs' education. one hospital-based supervisor noted that the new training approach was more in-depth and demanding, and as a result:

> *"[R]elies on the workplace supervisor a lot more… there's a lot more supervision involved and a lot more asked of the supervisor."*

In addition to general oversight and learning support, supervisory tasks may include monthly progress reports, conducting OSCEs[8] with PTPTs, and completing end-of-module reports. This was thought to be an improvement on the previous approach of gathering evidence of 'what was done' such as learning logs and witness statements that were typical of courses under the 2010 standards.

[8] Objective Structural Clinical Examinations (a form of workplace assessment).

Although the responsibilities of supervisors were thought to have grown and diversified, employers and supervisors also perceived clear benefits in that employers had a greater say in their trainees' development.

Wider perceptions of the pharmacy technician role and career path

Supervisors and employers suggested that due to pharmacy technicians being registered professionals, they were now considered in the same category as nurses or physiotherapists. As one employer from a large multiple noted:

> *"Technicians absolutely are being seen as registrants in their own right… and I think the 2017 [IET] Standards have enabled that to happen."*

In addition to instilling a greater sense of professionalism, the emphasis on pharmacy technicians as registered professionals was seen as encouraging PTPTs to view their initial education as the first step in a journey of practice accompanied by continuous professional development and learning. Supervisors noted that PTPTs who completed the two-year course had the confidence to work independently and were excited to *"grow with the job."*

One community employer said community pharmacies are increasingly relying on staff other than pharmacists to take on leadership and management roles – and pharmacy technicians were now expected to take on those roles:

> *"[The] running of the pharmacy and that management element is definitely coming out stronger from the technicians. And I think there's an understanding that when you're going through [the PTPT course], you are stepping up."*

Not all interviewees shared the view that PTPTs were stepping up to take on more advanced roles. One hospital-based supervisor said they felt that there was not a clear understanding among potential PTPTs of what a pharmacy technician's day-to-day role and career pathway entailed.

Training delivery had shifted to online and/or blended approaches

An important contextual change noted since 2010 was the increased availability of distance/online learning – which was further accelerated by the COVID-19 pandemic. The majority of course providers now offered blended or fully online training courses.

While online and distance learning was considered beneficial for some, it could also make it more difficult for PTPTs to benefit from protected learning time, as one supervisor argued:

> *"It doesn't go down well with some of my operational managers who do not understand that time spent behind the desk is that protected study time."*

Several supervisors/employers noted that online courses had benefited PTPTs living in remote areas and/or those with caring responsibilities. One hospital-based supervisor also felt the online course delivery encouraged the PTPT course to be more student led, by forcing PTPTs to take more ownership of their education:

> *"Now PTPTs take ownership of their learning more, because it's delivered online as well… it's a very much, very much more of a student led qualification."*

3.2.3 Benefits of 2017 standards (vs. 2010 standards)

The majority of employers and supervisors interviewed had positive views of the 2017 IETPT standards and considered them a significant improvement to the 2010 standards. Supervisors said they felt the current standards better prepared PTPTs to meet the growing demands of the pharmacy technician profession. Many described the current standards as more demanding, which reflected the upskilling of the pharmacy workforce more broadly. Specifically, as pharmacists become independent prescribers and spend more time on

patient consultations, this requires pharmacy technicians to take on more responsibilities such as accuracy checking and giving advice, particularly in community settings.

One supervisor described the 2017 standards as a step in the right direction which signalled that the GPhC were taking time to reflect on what the *"reality on the ground is"*. Another supervisor observed the current standards had translated to much better courses and training content, stating:

> *"Personally speaking… if I can remember all the way back to the 80s when I did my [pharmacy technician] training, I would have loved what these [PTPTs] are getting now. That would have certainly…prepared me better for the workplace."*

The benefits in the view of employers and supervisors can be grouped into two main themes:

- Higher levels of technical knowledge balanced with professional skills
- Patient-centred training and ward-based activities

Higher levels of technical knowledge balanced with professional skills

The 2017 IETPT standards were generally perceived to have a good balance of technical requirements and professional skills, which supervisors and employers felt was reflected in the quality and depth of training courses. All interviewed supervisors and employers noted that the current standards included a much stronger emphasis on professional skills, including leadership and communication skills, which contributed to PTPTs' development and improved preparedness. Several supervisors noted the emphasis on professional skills enabled PTPTs to be more confident and better prepared, with clearer pathways for progressing into senior leadership or management roles. As one hospital-based supervisor noted:

> *"It's been a positive change, and it certainly equips people to take on more, progress sooner, and opens up career options as well."*

A community-based employer echoed this sentiment, stating it was important for PTPTs to develop the professional skills required for them to progress into management roles.

Another community employer said they believed the more demanding course had contributed to higher retention rates among pharmacy technicians in the workplace, saying of the PTPT course:

> *"I think because it takes such commitment to complete, people are in it for the long haul."*

Several supervisors noted the integration of the competencies and knowledge components was a positive outcome of the 2017 standards, as it allowed PTPTs to continuously apply and test the concepts they were learning. Under the previous standards, it was noted that knowledge and competencies were treated as separate, and as a result, PTPTs would often quickly progress through the knowledge elements and then get stuck on their practical applications. Now, PTPTs cannot progress until they have learned both, because of the structure of the integrated courses. In addition, supervisors noted the courses now included more on developing reflective practice, encouraging PTPTs to improve their practice as part of their broader professional development.

Patient-centred training and ward-based activities

All interviewed supervisors and employers noted the 2017 IETPT standards placed stronger emphasis on patient-centred approaches. In hospital practice, this was reflected in more ward-based training activities. This was seen as a positive shift by many supervisors, who said it resulted in a better prepared pharmacy technician workforce, who entered the job feeling less intimidated taking on patient-centred roles. However, some also noted that these changes required more oversight and time from supervisors, which made the overall

training process more resource-intensive. However, these supervisors also noted the short-term effort of overseeing and facilitating ward-based activities was worth the long-term benefits of a better prepared pharmacy technician workforce.

One hospital supervisor noted that, in addition to strengthening PTPTs' interpersonal and professional skills, working with patients on the wards enabled PTPTs to understand early on whether they enjoyed working in patient-facing roles, which allowed them to adjust their career paths and trajectories accordingly.

A community pharmacy supervisor considered the patient-facing requirements of the 2017 standards to not be fully relevant for community pharmacy. She found it was challenging to provide this type of exposure and training to community PTPTs. To ensure her PTPTs fulfilled this training requirement, they needed to arrange for them to complete patient-facing tasks outside of the community pharmacy.

3.2.4 Challenges from the employer perspective related to 2017 standards (vs. 2010 standards)

Although their views on the impacts of the 2017 IETPT standards were largely positive, varied employers raised (and held mixed views on) several specific concerns that are noted below, including:

- The role of accuracy checking in the current standards
- Higher entry requirements
- Asks for more specificity in the standards e.g. on aseptics

Accuracy checking

Several employers and supervisors raised the issue of accuracy checking under the 2017 IETPT standards. Whilst accuracy checking itself is included in the 2017 standards, a final accuracy checking qualification is not, but can be completed alongside those pre-registration pharmacy technician courses, or can be completed post-registration. While many employers and supervisors from both hospital and community settings were not opposed to the inclusion of accuracy checking in the standards, they noted the phrasing with regards to accuracy checking in the standards was vague and potentially misleading. This led to confusion among employers, who felt they were left to decide whether – and at what level – accuracy checking should be taught.

Of the five community pharmacy supervisors interviewed, only two mentioned accuracy checking. One said they were in favour of pharmacy technicians being final accuracy checkers upon registration, as they generally felt pharmacy technicians needed to take on more responsibility in community pharmacy. An employer from a large multiple said they would like more clarity around whether final accuracy checking was a requirement of the current standards or not (it is not).

Those in favour of recently registered pharmacy technicians conducting final accuracy checks said it was a necessary and essential part of the role that did not require years of on-the-job experience to do safely. One hospital-based supervisor said they were initially sceptical of the inclusion of the final accuracy checking qualification; however, they eventually changed their mind after seeing how eager PTPTs were to learn, and seeing how they were not intimidated by it. Another hospital-based supervisor stated:

> *"I think…they've proven that they've done it through the course [and] just because they've not got years of experience doesn't mean that they're any less capable."*

Another hospital-based supervisor felt comfortable with PTPTs becoming final accuracy checkers upon registration – but only because many already had experience working in pharmacy settings:

> *"Because of a lot of our PTPT are already employed by us as assistants, they perhaps got the dispensing experience already under the belt. [But] I think for anybody that's coming…externally it is quite a lot to get into the two years."*

Many hospital supervisors stated that they were aware of the need to guide newly qualified accuracy checking pharmacy technicians, with one of them saying one of her PTPTs only started feeling confident carrying out final accuracy checking 6-8 months after their qualification. Another argued that they needed more 'real-world' experience:

> *"[The have only practised in a] bubble environment… because you take your items, you go somewhere quiet, you check them slowly… you're not given anything that's urgent that's got to go out the door… you haven't got that real world pressure of checking."*

Regardless of whether they favoured the inclusion of the final accuracy checking qualification as part of pre-registration training, several supervisors noted the language around accuracy checking in the 2017 standards should be more explicit.

PTPT course entry requirements and framing of the pharmacy technician roles

Most supervisors and employers acknowledged the entry requirements and criteria for PTPT selection had increased in recent years. Some believed this was a positive measure to attract more highly motivated PTPTs, and to screen out individuals who would otherwise struggle with the highly demanding coursework and workplace requirements. As one supervisor noted:

> *"It's so important that [PTPTs]…have that academic capability…So the recruitment processes are changing to…attract those people."*

However, some supervisors and employers noted the higher entry requirements might have deterred potential PTPTs from applying – particularly those who had been working in pharmacy for many years and whose qualifications did not meet the entry requirements. Some also argued the higher entry requirements had resulted in fewer applications – which they said was especially problematic given the difficulties with filling pharmacy technician vacancies across the sector.

2017 IET Standards: broad and generic vs. more specific

Supervisors and employers acknowledged that the IETPT standards must be equally relevant for different pharmacy settings (hospitals, primary care, community pharmacy) and described the benefits of this approach (see section 0). On the other hand, some supervisors and employers felt the ambition to make the Standards applicable to all PTPTs and workplaces had resulted in them being overly generic and vague – and thus not covering the specific needs of different settings, or offering clarity on what to include.

Hospital-based supervisors and employers had mixed views on the removal of aseptics from the 2017 IETPT standards. Community-based supervisors and employers did not comment on aseptics, due to its lack of relevance to community pharmacy.

For example, one employer from a larger hospital said they understood aseptics was removed to make the training relevant to pharmacy technicians working in primary care and community pharmacy settings. However, they felt this was *"short-sighted"* and placed the burden on employers to train their recently qualified pharmacy technicians in aseptics. Some employers said they offered their own aseptics training alongside the standard pharmacy technician course, as they felt this was an essential skill for their pharmacy technician workforce in hospital settings.

One hospital-based interviewee acknowledged that aseptic medicines were often available from large suppliers at lower prices. However, they felt the removal of aseptics from the PTPT course training was a mistake, especially as the pandemic highlighted the need for such skills in emergency situations where there may be supply chain disruptions. They

feared that, in a few years, members of the pharmacy workforce would have no interest in learning aseptics and technical services, which could result in harm to patients in cases where essential medicines were not readily available from regular suppliers[9].

In contrast, other employers and supervisors favoured the removal of aseptics training because they felt it was not an essential skill for pharmacy technicians to learn – particularly given their growing scope of responsibilities in other areas. They also believed aseptics was adequately covered by another course, and therefore not necessary as part of the PTPT courses.

In community pharmacy, one community-based employer said the 2017 IETPT standards had significant gaps in certain non-patient facing roles, which were specific to community pharmacy – such as offsite dispensing and service hubs. As such, they struggled to provide guidance to her PTPTs on offsite dispensing. They also said the 2017 standards placed too much emphasis on patient-facing training, which they struggled to provide for PTPTs working in those community settings.

3.2.5 Suggestions for improvement to the GPhC standards

All five community pharmacy interviewees said there was a need to increase the scope of pharmacy technicians' roles in community pharmacy, discussing how IET could be a tool to help expand the scope of practice (or that IET needed to keep up with the changing scope of practice). Community employers and supervisors said a culture shift away from a pharmacist-centred approach was required. This meant that the GPhC's standards would need to prepare pharmacy technicians for roles where they may need to take on more responsibility and accountability.

For example, one employer said pharmacists working in community needed the autonomy to delegate tasks to their pharmacy teams, including pharmacy technicians, and training would need to prepare them for this.

Two community supervisors said the GPhC should provide more explicit guidance on which tasks pharmacy technicians are legally able to carry out in place of the pharmacist. One hospital-based supervisor echoed this concern, saying they needed:

> *"[A] clear demarcation of 'yes as a regulator, we are comfortable with technicians doing XY&Z, but we are not comfortable with them doing ABC'."*

GPhC's approach to engaging with stakeholders

Several employers said they felt the GPhC was not responsive to their requests for clarification or information. One employer said it would be beneficial to have a direct contact at the GPhC for queries related to PTPTs (and recently qualified pharmacy technicians), although this would be beyond the remit of the GPhC. They found the GPhC to be quite distant and felt a more proactive approach to engagement and communication would be beneficial, because currently *"we don't hear from GPhC unless an inspector walks through the door."*

This more proactive engagement with the profession may support the current standards in being fit for purpose today, but also tomorrow, as the role of pharmacy staff was constantly evolving and standards would need to be updated to reflect this:

> *"I would encourage the GPhC to think about is how they work with community sectors and other providers to think about future proofing the [IET] Standards for another five to six years."*

[9] Note this comment is not applicable in Wales, where medicines are manufactured at a national hub.

Indeed, the same employer felt it could be beneficial to have more regular discussions among the GPhC, course providers, employers and supervisors on the relevance and suitability of the standards:

> *"I just wonder how the GPhC could work with providers and training providers on a more regular basis because otherwise it does feel as though we end up having big conversations every five years. I wonder if there would be value in having smaller conversations more frequently.".*

3.3 Course providers

This section discusses the key findings and themes emerging from interviews with course providers, including:

- A brief outline of how courses are delivered and changes following the publication of the 2017 IETPT standards;
- Course providers' views on the advantages resulting from the 2017 Standards, compared to the 2010 standards;
- Supervisors' and employers' views of the disadvantages of the changes resulting from the 2017 IETPT standards, compared to the 2010 standards; and
- Course providers' recommendations and feedback to the GPhC.

In total, ten semi-structured qualitative interviews were conducted with individuals from six course providers. Of these: one offered only in-person teaching; two offered a blended online and in-person teaching course; and three offered fully online courses.

3.3.1 How courses are delivered and how they have changed since 2010

Among the six course providers interviewed, course delivery ranged from fully online to blended. The key changes to the PTPT course discussed since the introduction of the current standards are outlined below, and include changes to collaboration with employers, changes in learning and assessment, and the shift to online /blended learning.

An integrated, three-way approach to learning:

Course providers described a three-way approach to PTPTs' development based on close collaboration with employers, tutors and PTPTs. This shift largely resulted from restructuring the course to better integrate theory with practice (or knowledge with competencies), wherein PTPTs were continuously applying what they learnt in the workplace – which required ongoing support and cooperation from supervisors. As one online course provider recalled:

> *"When we started delivering in 2019, we had to train [supervisors] on what the new standards were, how they were going be assessed…how they needed to engage with [and] support their learner, because it was very much more a three-way conversation. So now…we are signing off the learner in conjunction with the workplace and they need to input into those decisions… [now we] need to work in partnership [so] the employer agrees that [trainees] are progressing."*

Most providers viewed employer funding as a commitment to PTPTs' supervision and development over the two-year course. While supervisors were closely involved in PTPTs' development, course providers nonetheless highlighted the importance of fostering independence and self-sufficiency among PTPTs, as these were essential workplace skills.

Higher standards of learning and assessments

Course providers said the volume of information and assessments were more demanding than under the 2010 IET standards. One online course provider said,

> *"The further into the two-year programme you go, the more complex the learning becomes. You're using the knowledge [of] pharmacology, physiology, making decisions about drugs…you're combining information. So the skills that learners need to have [now] are different to the skills they needed to complete to the earlier programme… I think the outcome of that is…we are getting better quality technicians because we're pushing them harder to think and we're challenging and stretching them throughout the programme."*

This was similar to the views expressed by employers and supervisors and was seen as a reflection of the broader upskilling of pharmacy professionals, and growing scope of pharmacy technicians' responsibilities in the workplace.

Shift to blended learning

Several course providers noted the shift to online or blended learning had been accelerated by the COVID-19 pandemic. One interviewed course provider, who offered a blended teaching approach before the pandemic, said,

> *"The idea pre-Covid [was] that we were going to do both [online and in-person teaching], but then because we'd already got the online version in place when we went into Covid, we just moved everything online and it was quite seamless really and we found that it didn't impact on anything. So we've decided that in the last couple of years to run everything online and it works very well."*

Many course providers felt this sustained change towards online delivery and blended learning had enabled more innovative and agile approaches to training delivery, which also became more accessible to individuals in remote areas or those with caring responsibilities.

3.3.2 Benefits of the 2017 standards and positive changes to PTPT training courses

Course providers had generally very positive views of the 2017 IETPT Standards and the changes they brought about, including:

- The development of outcome-based learning as a result of integration
- Better prepared pharmacy technicians
- Flexible assessments

Learning that is more relevant to the workplace

One course provider noted the 2017 standards were *"a big step forward for the industry"* and allowed for a much more holistic approach to developing a training programme. Course providers said the current standards gave them the flexibility to design an outcome based curriculum, where knowledge was continuously tested and applied in the workplace.

Course providers said training under the 2010 standards involved "*silo-based learning*" and often felt "*tick-box.*" As an online course provider commented,

> *"Half of the course in the old programme you could do without stepping into a pharmacy, whereas actually this is an integrated course, and the workplace provides you with the environment in which you need to do the learning. You're gathering the evidence; you're developing the communication skills. We ask learners to use real life case studies as part of their assignments and their assessments…it's definitely more integrated with the workplace".*

Better prepared pharmacy technicians

Under the current standards, course providers interviewed felt that PTPTs were more able to understand the relevance of their training modules in their day-to-day jobs – which was ultimately resulting in better prepared pharmacy technicians:

> *"What we're seeing from employers is that they feel that these candidates are much better prepared and much more proactive in their learning and are able to deliver more in their workplace."*

Another course provider similarly noted that feedback from employers suggested PTPTs were registering with more confidence in their skills and knowledge. PTPTs thus felt more confident in working in the dispensary, communicating with patients, and being members of multidisciplinary teams.

As noted by supervisors, course providers said the new course structure included more emphasis on reflective practice and patient counselling. Course providers also described greater emphasis on professional skills – which were previously learned *"on the job"* after qualification – including digital, communication and presentation skills.

Several course providers noted that the emphasis on professional skills was directly benefiting recently registered pharmacy technicians, who were becoming more effective and adaptable healthcare professionals. One course provider noted one of their recent trainees had progressed into a management role within a year of registering, and now managed five staff members. Another course provider observed similar trends among recently qualified pharmacy technicians:

> *"We had our first graduation last week...and I was speaking to [former] trainees there, and we've got people who are…taking on really skilled roles and going into more leadership roles really early in their career, which is great to see."*

Another course provider said the training's emphasis on professionalism was directly linked to the 2017 standards, saying the new course is:

> *"[Setting out] what's expected of them in the workplace, what we're expecting of them in terms of their journey on their programme. So I think actually a new set of Standards allowed us…to take a step back and think about how we can integrate these two elements."*

Flexibility and relevance of assessments

Course providers also described greater flexibility around assessments due to the 2017 standards being more outcome focused. As such, PTPTs completed more longitudinal assessments, patient case study assessments, simulated audits, OSCEs, and mental health reports, for example. Such diverse assessments contributed to more *"well-rounded"* PTPTs via a more reflective (and useful) approach to evidencing how learning was applied in practice than under the previous standards. Another course provider explained their approach to assessments, saying:

> *"[W]e have a blended…holistic approach to observe our learning. So [PTPTs] will do traditional logs. They will have their observations, but there will also be essays, [an] audit. We ask them to [complete] a project and present those projects, so we've also built in the soft skills, like presentation skills… that's not necessarily part of the Standards, but we embed presentations in the programme. So we have flexibility."*

One online course provider said that early observations and data suggested learners under the 2017 standards were completing the course at a faster rate (within two years), compared to those under 2010 standards. However, they also noted that rates of dropout / attrition had not decreased in relation to their course – especially in the early stages of the course. They attributed this to the course itself being more demanding, and therefore some PTPTs may have chosen to drop out early on.

3.3.3 Challenges relating to course provision and learners' experiences (2010 vs. 2017 standards)

Challenges from the course provider perspective included the increasing difficulty of ensuring protected learning time, especially in community pharmacy; the (ultimately beneficial) efforts required to upskill tutors and supervisors, and engage with employers who may not understand the requirements of the current standards; and the lack of perceived clarity on accuracy checking.

Demands of PTPT course and difficulty of ensuring protected learning time

Several course providers noted that, as the revised pharmacy technician training courses were highly demanding, it could be challenging to ensure PTPTs had sufficient protected learning time amid the demands of their workplaces. As one course provider said, PTPTs are *"first and foremost employees of their workplace."* As such, it could be difficult to balance the demands of everyday work with sufficient time for attending courses, self-study, or completing assessments. This challenge was especially highlighted in community pharmacy, as one online course provider noted,

> *"[C]ertainly in community pharmacy, it's underfunded, there are still workplace pressures, and you know, learners are working incredibly hard… under difficult circumstances and sometimes it's really clear that they need further support with, with being agile, being able to adapt to different scenarios whilst maintaining resilience and maintaining that bar in terms of the professionalism."*

Similarly, another online course provider said that they observed that community based PTPTs struggled the most to complete the course in two years, saying:

> *"They tend to be community students that…sort of push it as long as possible. We have 100% pass rate for anybody that is on the programme and…we put a lot of time and effort into getting them through. … [community students] don't get the study time, they are working a lot of hours – a lot more than they do in hospital."*

Upskilling tutors and familiarising employers/supervisors

Course providers described the 2017 IETPT Standards and subsequent changes to training approaches as *"a shock to the system"* for tutors. One online course provider noted the 2017 Standards led to an overhaul of the PTPT course structure and teaching approach, to the extent they referred to the previous and current course as *"old world"* versus *"new world."* For tutors, the new course has required a shift away from a "checklist mentality" and to instead think about holistic learning outcomes. As such, they had had to upskill their tutors to ensure they were able to teach effectively, saying:

> *"We've had to almost retrain our workforce in the last four or five years and ultimately that comes with a cost, but I do think we are seeing better outcomes for it."*

While course providers' new training approaches (based on the current standards) required upskilling of tutors and adjustment among supervisors, these were generally seen as short-term challenges that would ultimately be outweighed by the improved outcomes for PTPTs in terms of professional skills, and increased scope of practice.

Another course provider said it was challenging to bring learners and employers on board with the 2017 standards. They noted that community pharmacies were not necessarily prepared for the shift to the outcomes-based learning approach:

> *"Like anything, when you get change, nobody likes it and it takes a lot of time to adapt to change. Everybody was used to the old NVQ world [where] they knew what their role was and what they had to do."*

They added:

> *"I genuinely think they were expecting a new front cover on the existing set of standards…getting them used to some of the new terminology, getting them used to recognising that actually these are now new skills and capabilities that we need to develop has probably been a bigger battle than developing the new course."*

One course provider noted that employers in primary care seemed to be particularly unfamiliar with the 2017 standards and requirements of the training courses, saying:

> *"There is kind of quite a big divide between how the hospitals work and how the community and GP practices work. GP practices tend to be quite unfamiliar with the expectation of the qualification, so we have to give them quite a lot of support."*

Lack of clarity around accuracy checking

Some course providers agreed with employers (see section 3.2.4) said the lack of clarity around the inclusion of accuracy checking was confusing for them. While some course providers included the final accuracy checking qualification as part of their standard course, others offered it as an optional certificate (left to the discretion of employers). However, the lack of clarity (and lack of consistent approaches across course providers) was generally seen as a negative aspect of the 2017 standards.

3.3.4 Suggestions for improvement from course providers

Ensure IET Standards account for PTPTs' diverse work settings

Some course providers said the 2017 standards made it difficult for some sectors – especially community pharmacy and primary care – to provide all the experience required. For example, it was noted that PTPTs in primary care did not have access to a dispensary, which was essential for completing the course. As such, course providers noted the importance of ensuring that the standards considered the diverse work settings of PTPTs. This concern was echoed by supervisors and employers.

Adjust requirements for work-based supervisors

Given the challenges of finding suitable workplace supervisors – particularly in community pharmacy – some course providers said standards for work-based supervisors should be adjusted to allow pharmacy technicians with fewer than two years' experience to be PTPT supervisors (this had also been raised by a community-based PTPT employer). As one course provider stated:

> *"You can have a perfect qualification, but if you can only get 100 people through it in a year, it's not really fit for the industry… you've got to have some compromises somewhere that allow the numbers you need to get through in the industry. And I think the question for GPhC is, where's that balance point?"*

The course provider therefore felt it was important for the GPhC to consider the balance between the need to have experienced supervisors with the practical consideration of having sufficient supervisors to train more pharmacy technicians, given the sector's workforce shortages, particularly in community pharmacy.

4 Discussion and policy implications

4.1 Strengths and limitations of the study

This study has provided a range of valuable insights into the extent to which the current IETPT standards have shaped course delivery and the experience of training for PTPTs, and perceptions of their preparedness for practice. Using mixed methods, we have been able to explore the views of recently registered pharmacy technicians, employers and supervisors, and course providers; and understand more about what changes have taken place as well as consider whether there are differences between settings.

There are some limitations to the study. Only those successfully completing their training and registering with the GPhC will have been included in the sampling frame, meaning that experiences of, for example, those who did not complete their PTPT training would have been excluded. While the survey sample achieved was broadly representative of recently registered pharmacy technicians[10] in terms of age, sex, ethnicity and location, the limited response (n=142; 15.2%) made it difficult to make comparisons and determine whether there were statistically significant differences between subgroups. For these reasons and the somewhat low response rate overall, sectoral comparisons should be treated with caution, although they can point to important differences between pharmacy technicians' views that could be investigated further.

The choice of in-depth interviews, focused on respondents with experience of working under both the 2010 and 2017 IETPT standards, allowed for a greater exploration of change over time and comparison between the two (which trainees would not have been able to describe). Nevertheless, even interviewees who had experienced both did not always recall the 2010 standards readily, and therefore had difficulty making specific comparisons. While purposive sampling allowed for data saturation to be achieved for employers and supervisors in hospital pharmacy, employers and supervisors in primary care did not come forward and are not represented. While views from five community pharmacy interviewees are included, this important group was under-represented in this study, and data saturation could likely not be reached. We did not interview any employers who were part of cross-sector training arrangements, which have been piloted and have been found to be beneficial for developing cross-sector awareness (Hindi et al., 2022). Furthermore, we did not manage to interview any representatives from awarding bodies.

Owing to the small number of employers and supervisors included in this sample, findings and conclusions relating to their views should be treated with caution, and their views may not be representative of the much larger number of employers of pharmacy technicians across the whole sector.

[10] GPhC (2019). Survey of registered pharmacy professionals Equality, Diversity and Inclusion Report. GPhC; 2019.

4.2 Summary of findings from survey of recently registered pharmacy technicians

- The survey was distributed to 933 recently registered pharmacy technicians, and a total of 142 responses were analysed (response 15.2%).
- The sample was broadly representative of recently registered pharmacy technicians in terms of age, sex, ethnicity and location.
- The most important motivation for aspiring pharmacy technicians was to work in a job with good career opportunities (86% of respondents agreed with this statement).
- Distance and online learning was reported to be the main method of course delivery for more than half of the respondents (53%). PTPTs in community pharmacy were more likely to have undertaken training with distance/online providers in comparison to those in hospital pharmacy, who were more likely to have an FE or HE provider.
- Self-study was the most common means of learning experienced by respondents (82% of respondents). Only 11% of PTPTs in community pharmacy had experienced face to face learning, whereas 34% of hospital based pharmacy technicians had experienced this form of course delivery.
- Overall, there has been a shift to online and blended delivery models in comparison to 2013, including by FE and HE.
- PTPTs in community pharmacy were more likely than those in hospitals to take longer than the 'standard' two years to complete their studies; this remains unchanged since 2013.
- Respondents felt well prepared for practice as a result of their training: 72% rated themselves as 8 or above on a 10 point preparedness scale, where 10 was the most well prepared.
- There was recognition that opportunities to apply learning in the workplace were particularly important for developing professional skills such as leadership and team working.
- Most respondents (71%) were completely or mostly satisfied in their current roles, as recently registered pharmacy technicians.
- All respondents agreed or strongly agreed that, following their training, they were aware of the GPhC standards for pharmacy professionals, and almost all respondents (98%) said that they understood their responsibilities and CPD requirements as registered professionals.
- Satisfaction levels overall were mostly high. 71% of respondents were completely or mostly satisfied with their course provider; 65% were completely or mostly satisfied with their supervision; and 64% were completely or mostly satisfied with their experience of support in the workplace.
- Proportionally, a large number (90% or more) of respondents agreed that person-centred care, professionalism and professional knowledge and skills, were domains of GPhC learning outcomes effectively covered by their course. Somewhat fewer respondents (78%) agreed that their course covered the domain 'collaboration'. Respondents working in hospital pharmacy had the lowest level of agreement that 'collaboration' was effectively covered (68%).
- Views on supervision were generally positive – 85% of respondents agreed that they could ask their supervisor questions when assistance was required and 84% felt that they had a good working relationship overall. Receiving regular written feedback from supervisors was a relatively less widely reported, with 68% agreeing that they received it.

- Open text comments relating to supervision were generally positive: there appeared to be some very committed supervisors, although respondents also said that there were also others who were not able to commit time due to pressure or supervisors who felt insufficiently prepared for their role.
- In relation to support in the workplace, respondents shared mixed experiences, e.g. being supported well by colleagues; but also not having sufficient learning time. PTPTs working in both community and hospital pharmacy reported concerns about poor work life balance in spite of broadly high levels of satisfaction with other statements relating to workplace support.
- Most trainees (60%) spent five hours a week or more on completing education and training requirements for their course provider, outside their normal working hours.
- In relation to the GPhC domains of learning outcomes, the majority (90% or more) of respondents agreed that person-centred care, professionalism and professional knowledge and skills, were effectively covered in the workplace.
- Respondents who had trained in hospital pharmacy were more likely to agree that they had opportunities to work alongside more experienced pharmacy technicians, relative to those in community pharmacy. This remains unchanged since 2013.

4.3 Summary of findings from interviews with employers, supervisors and course providers

- The 2017 IETPT standards were seen as an improvement on the 2010 standards by employers, supervisors and course providers. They were seen as leading to better courses and content that is more relevant to current and future practice.
- Integration of knowledge and competence was also thought to be an improvement. Integrated courses were seen as more suitable for the demands of patient consultations, especially in community pharmacy. The new focus on professional skills, including leadership and communication skills, and reflective practice was thought by almost all employers to be an improvement. Course providers largely agreed; they thought that integration had brought together theory with practice and enabled them to design courses that were better aligned to the needs of employers and trainees.
- Course providers also thought that the 2017 standards had led to courses that fostered more independent learning. They also thought that they had driven more outcome focused training models (a key objective for them), and increased opportunities for more ‘real life’ learning for PTPTs.
- Providers stated that there is now greater flexibility around assessment and a greater range of assessment methods such as reflective essays, patient case studies and OSCEs, alongside projects, audits and presentation skills. This was thought to be an improvement on the previous approach of learning logs and witness statements. As a result, communication and team working skills were emphasised and improved under the current standards.
- In the view of employers, pharmacy technicians were increasingly recognised as skilled professionals who were responsible for their own CPD, and who had the potential to take on leadership and management roles, especially in community pharmacy. They also found recently registered pharmacy technicians were more comfortable with patient facing roles than previously. Providers reported that they received similar positive feedback from employers.

- At the same time, employers and supervisors thought that the new courses reportedly demanded much more of workplace supervisors (as well as learners), so quality of supervision was considered as particularly important. Employers in all sectors had responded to changes to the IETPT standards by increasing supervision.
- Many course providers and employers were able to give examples of working more closely together to design training that was built around employer needs. Course providers stated that they had to make considerable efforts to (re)train and upskill supervisors and work together with employers in order to redesign their training offers. Some course providers expressed concern that greater numbers of experienced supervisors were needed in order to expand access to training.
- Whereas hospital PTPTs had structured learning in the workplace to support their training (rotations, dedicated staff in learning and development teams), employers in the community sector reported that some PTPTs and supervisors struggled to balance their responsibilities between day to day work and training / supervision.
- Course providers also noted that there was a particular challenge in community pharmacy when it came to balancing the demands of employment with the demands of learning, with PTPTs in community settings thought to have less protected learning time (paid time during working hours for professional development activity). Others also reported challenges in engaging community pharmacy, and primary care / general practice employers, so they could manage course changes.
- In the hospital sector, there were perceptions among employers that it may be getting more difficult to attract candidates into the profession, where some potential trainees lacked the prior academic qualifications that are now required. Therefore people who might have previously applied (with pharmacy experience) were discouraged, and some employers highlighted the impact that this had on filling vacancies.
- Employers highlighted the shift towards more distance / blended learning accelerated by Covid-19, with trainees seemingly more responsible for their own learning, which was seen as a positive development. However, they recognised that more online provision also impacted negatively on protected learning time, because employers no longer had to release trainees to study outside their workplace.
- Many course providers felt that keeping the online delivery that they had developed during the pandemic enabled more innovative and agile approaches to training delivery, which also became more accessible to individuals in remote areas or those with caring responsibilities.
- There were differences in opinion on whether final accuracy checking ought to be part of the two year training or not; the perceived lack of clarity in the 2017 GPhC standards around accuracy checking was also raised by some employers and course providers.
- Employers also had differing views on the benefits of having broader standards in 2017 than in 2010; some thought that there were disadvantages to them because certain specific topics (e.g. offsite dispensing and service hubs in community, aseptics in hospital settings) were not specified as requirements and therefore no longer covered in courses based on the post-2017 standards.

4.4 Discussion and policy implications

The following section brings together the findings from both the survey and the qualitative interviews, and discusses their policy implications. The structure follows the main aims of the study as set out by the GPhC in the invitation to tender.

What has the impact of the 2017 IETPT standards on recently registered pharmacy technicians been?

The changes brought about by the current 2017 standards are viewed by stakeholders as positive developments for the most part, that have led to improvement in the performance and readiness for practice of recently registered pharmacy technicians and the wider workforce.

Overall, some of the perceived benefits of the 2017 standards were the integration of knowledge and competence, leading to more applicability of learning in the work setting, and better integration between course provider and work-based learning. The new courses based on the 2017 standards were seen by many employers and course providers as preparing trainees better for patient consultations, team working, leadership roles, and the expectations of the wider workforce.

Echoing the comments from course providers and employers about recent registrants learning more professional skills, the survey also demonstrated high levels of awareness of the GPhC standards for pharmacy professionals, and almost all respondents said that they understood their responsibilities and CPD requirements as pharmacy professionals. Most respondents also agreed that the GPhC domains of learning outcomes were well covered in their course content and in their workplace, across all the sectors. There appears to have been an improvement since 2013 in PTPTs feeling that their roles were clearly defined, and it is possible that changes in trainee roles and experiences as described in this study have contributed to this.

Covid-19 had an impact too – it accelerated the development of online and blended learning, whilst offering more flexibility and better accessibility; it also meant that protected learning time became more challenging, particularly in community pharmacy.

The broader focus on learning outcomes was perceived as positive by both survey respondents and interviewees. Interviewees recognised that, in line with the expectations of the current 2017 standards, that there were benefits in preparing early-career pharmacy technicians to develop a broad base of skills and qualities, enabling them to more easily work across sectors. Although some employers did not think that course providers' new curricula met all of their specific needs, most recognised that this was an inevitable consequence of trying to design standards applicable across all sectors. Nevertheless, greater and more proactive engagement between the GPhC, course providers and employers in all sectors was viewed as potentially beneficial, and enabling all in developing and supporting the pharmacy profession for now and the future, where roles continue to change.

One area where there appears to have been little change since the previous standards is that trainees in community pharmacy still tended to take to complete their training than those who trained in hospital pharmacy. This will likely be due to a number of different factors, but it appears that a lack of protected learning time is important. The pressure of the demands of day-to-day work in community pharmacy are likely to be a factor; and trainees in community pharmacy are less likely to have more experienced peers as role models in their practice. In hospital pharmacy PTPTs benefited from a more structured approach to supporting learning and development, and exposure to a larger team of professionals, including other registered pharmacy technicians. Similar concerns were raised in the 2014 CPWS study on the quality of pharmacy technician education and training (Jee et al., 2014).

What were providers' views on differences in course delivery, and the extent to which these have changed? Have the Standards enabled innovative training models?

The shift towards an outcome focused approach was thought to be highly beneficial, driving changes such as greater flexibility around assessments and a greater range of assessment methods. The role of high quality supervision in the workplace has become more important, and while most respondents were satisfied with their supervision, some comments suggest that there is room for improvement so that supervision is better aligned with the requirements of the 2017 standards, particularly in community pharmacy – so that supervision is more consistent, structured, and enabling of timely opportunities to apply learning in practice. In addition, providers highlighted the importance of opportunities to enable learning in the workplace for the development of professional skills such as communication, and high quality supervision is critical to this.

Course providers stated that they had to make considerable efforts to train supervisors and work more closely with employers in order to redesign their offers under the 2017 standards. Supervisors agreed that they had to adapt and change their ways of working, and upskilling the supervisor workforce was an important outcome of the change to the current standards. Some providers reported challenges in engaging community pharmacy and primary care / general practice employers, so they were able to manage the changes and the different expectations of the new standards. As pharmacy technicians' roles in GP practices are relatively new and evolving quickly, this may not be surprising (Hindi et al., 2023). They also expressed concern that more and higher quality supervisors were needed in order to increase the numbers of pharmacy technicians coming into the profession.

Entry criteria to enrol on PTPT training have increased under the current 2017 Standards. This was seen by stakeholders as positive and supporting preparedness for courses that were perceived as increasingly demanding for trainees and workplaces, and ultimately better preparedness for practice. However, these higher entry requirements may pose difficulty to some potential candidates, with many coming into this career from previous roles in pharmacy; hence there may be a need to recognise alternatives, including relevant experience, in relation to entry requirements. This may be particularly important in the current workforce crisis and high vacancy rates for pharmacy technicians (found to be 20% in the most recent Community Pharmacy Workforce Survey)[11].

Covid-19 reportedly accelerated a shift towards online learning. Course providers and employers highlighted many positive aspects of blended learning for access and delivery; and overall, the move to trainees becoming more responsible for their own learning in this way was perceived positively. However, some trainees (mostly in community pharmacy) commented that aspects of learning such as peer networking could not be effectively replicated via an online delivery method; and there may be room for improvement in relation to the provision of high quality feedback from supervisors. There is a risk that online learning that is self-directed and can take place at a time that is intended to be suitable for the employee (asynchronous learning) is not accommodated in protected learning time, so PTPTs are expected to undertake more learning in their own time. Feedback in the survey from respondents on work-life balance and the amount of learning that trainees in community and hospital pharmacy alike have to undertake in their own time are likely to reflect a lack of protected learning time in the workplace. This also risks impacting negatively on those trainees with caring responsibilities, who accounted for a third of all trainees in our survey.

[11] HEE (2023) Community Pharmacy Workforce Survey

What are registrants' views on their preparedness for practice?

We found high satisfaction among recently registered pharmacy technicians across all the different aspects of the integrated training and with their current roles, and the evidence here shows there have been improvements under the current 2017 standards, compared to the 2010 standards. The vast majority of recently registered pharmacy technicians surveyed (94%) had continued to stay in the profession.

Overall, most recently registered pharmacy technicians, regardless of sector, thought themselves to be well prepared for practice (i.e. rated themselves as 8 or above on a 10 point preparedness scale, where 10 was the most well prepared). There was a statistically significant difference in that respondents that had trained in community pharmacy thought they were better prepared for practice than those in hospital pharmacy; this may be a reflection of other stakeholder comments about the importance of specific clinical skills for day-to-day work across all sectors. Although such skills are important for both community and hospital pharmacy, it may be that they are more emphasised in hospital based roles. However, those who trained in hospital pharmacy were more likely to stay employed there, in comparison to those who trained in community pharmacy, who were more likely to move sectors after completing their training. The reasons for this were not explored in the survey, although clarity of role, workplace support, and quality of professional development opportunities may be important; according to open text comments (even though our survey found that perceptions of role clarity had improved since 2013).

Comments from respondents on preparedness for practice indicated a lack of time in the workplace to develop clinical skills during their training. Workplaces' ability to offer time, support, and encouragement to develop practical experience, is therefore likely to be an important a factor influencing levels of preparedness. The survey also suggested that the 'collaboration' domain of GPhC learning outcomes was felt to be somewhat less covered in course content and in the workplace, so this may be a further area of attention for course providers.

Cross-sector training also seems to present a particular challenge, with some employers describing difficulties in arranging this because of the effort needed, and because it involved them releasing their trainees to work for another organisation – although increasing the amount of this is also an important objective for the 2017 standards. In our survey we observed a net movement among those who had trained in community pharmacy to working as a pharmacy technician in the hospital sector once qualified. Considering pharmacy technician vacancy rates across the sector, further work to clarify roles and create career opportunities and progression in all sectors will be important for community pharmacy to retain its workforce. Pharmacy technicians will be needed in all sectors to support the changing and advancing roles in pharmacy and the wider healthcare system.

What are stakeholders' views on potential changes or improvements to the 2017 standards?

As already noted, the response among stakeholders towards the 2017 IETPT standards had been broadly positive. There were a number of suggestions expressed by employers and course providers in relation to the current standards.

While most stakeholders felt positively about the general direction of the 2017 current standards, in aiming for a pharmacy technician workforce with broadly applicable skills, relevant across all settings and sectors. Nevertheless, there was also demand among some for greater clarity and specifics in the standards in future, such as in relation to accuracy checking. This was particularly relevant with regards to a (final) accuracy checking qualification being included or not prior to registration, and a perceived lack of clarity in the current standards with regards to this. Views also differed on whether aseptics ought to have been removed from the current 2017 standards. Final accuracy checking and

aseptics were examples of areas where more proactive engagement between GPhC and employers may be beneficial in building support for updating the IETPT standards in the future. Feedback also showed that some stakeholders may not have a strong understanding of the role of the regulator in the wider pharmacy landscape; so improved communication between the GPhC and its stakeholders is likely to yield positive results.

Just as importantly, both employers and course providers discussed the importance of ensuring that IETPT standards continue to keep pace with change across the pharmacy profession, the diverse roles that pharmacy technicians work in, and the increasing scope of pharmacy technicians' role. This suggests that future IETPT standards could be used to drive changes in scope of practice. Community pharmacy employers and supervisors in particular said a culture shift away from a pharmacist-centred approach was required. This meant that the GPhC's standards would need to prepare pharmacy technicians for roles where they may need to take on more responsibility and accountability. Therefore, this may be an area for future development and may go hand in hand with raising the level of pharmacy technician courses in the future.

5 Key recommendations

Considering the remit of the GPhC in relation to educational standards across the pharmacy profession, our recommendations are presented below:

Using future standards to communicate expectations to the sector

An important focus for GPhC in any updates to the standards should be for them to keep pace with (and enable) changes to pharmacy technicians' scope of practice.

- Updating the standards also offers the opportunity to GPhC to further clarify what is expected in terms of consistent supervision, protected learning time, the need for timely opportunities and feedback to help trainees develop their skills, the importance of being able to experience training across different sectors, and communicate the reasons for a broad-based foundation to learning outcomes.
- Clarifying the requirements on accuracy checking would be helpful specifically, as some employers and course providers were confused about what was part of the 2017 standards and what was not, and the reasons for this.

Communication and Engagement

The GPhC should continue to pursue a collaborative approach to the development of future standards, and engagement with stakeholders should aim to ensure mutual understanding of the implications of the current standards and the aims of the GPhC. This would include giving clarity on the GPhC's remit, next to those roles and responsibilities of employers and course providers.

- Although supporting trainees in the workplace is a matter primarily for employers and course providers, there is a role for the GPhC in emphasising the importance of protected learning time, and high quality supervision as part of communications around IET standards in the future, helping to set higher standards for learning in the workplace.
- Moreover, greater engagement with community and primary care employers will be helpful in removing some of the (longstanding) inconsistencies in PTPTs' experiences between sectors and communicating the relevance of the current standards across all sectors.

Continue to work with course providers to develop their offer

Considering how course delivery seems to have largely changed to a blended learning model, the GPhC in future should set out more clearly what course providers (and employers) are expected to provide in terms of a consistent, and high quality learning programme ,to include expectations of learning time and multi-sector training (as above) – in particular for community pharmacy.

Development of supervisor capability and capacity

The GPhC should consider how it could work with partners in order to address concerns around developing sufficient numbers of well qualified practitioners to support trainees as supervisors. Although this lies outside the remit of the standards themselves, engagement on this topic with wider stakeholders is important for their successful implementation.