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Fitness for purpose of pharmacy technician education and training: The case of Great Britain

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1 **Abstract**

2 **Background**

3 To enable pharmacists to become increasingly patient-centred, clinical professionals,
4 they need to work with suitably trained and competent support staff; pharmacy
5 technicians (PTs) may be the most appropriate to take on additional roles and
6 responsibilities. However, clarity on PT roles, particularly in community pharmacy, is
7 lacking, and pharmacists may be reluctant to delegate due to concerns over PTs'
8 competence.

9 **Objectives:**

10 This paper aims to explore the fitness for purpose of PT education and training in
11 Great Britain.

12 **Methods:**

13 A mixed methods study was conducted in 2013-14. Semi-structured interviews were
14 undertaken with face-to-face and distance education providers; and different types of
15 community (n=16) and hospital pharmacy (n=15) employers. Interviews explored
16 views on education delivery, work-based learning and assessment, and quality
17 assurance; they were transcribed verbatim and analysed thematically. Interviews
18 informed a questionnaire that was piloted and distributed (with reminders) to all 1457
19 recently registered PTs. Survey data were analysed using SPSS v20, employing
20 comparative statistics (Mann-Whitney U, Chi-Square). University ethics approval
21 was obtained.

22 **Results:**

23 Staff in 17 Further Education (FE) colleges, 6 distance providers, 16 community
24 pharmacies and 15 NHS organisations were interviewed. Participants from different
25 sectors, education providers and employing organisations questioned whether
26 standards met current practice requirements. Certain topics were considered as
27 redundant or over-taught whereas others, such as professionalism (attitudes,
28 behaviours), were perceived to be lacking. Hospital interviewees felt that PT
29 education and training lacked clinical detail, whereas many community interviewees
30 felt that requirements for PTs were more advanced than required. Various
31 comments suggested that PTs' roles in community pharmacy were not clearly

1 defined or sufficiently different from other support staff. In order to define
2 appropriate and up-to-date education and training standards, comments suggested
3 the role of PTs in all sectors of practice needed to be clearly defined. - Of the 464
4 returned questionnaires (response rate 44.3%), 632 were usable. Three-quarters
5 (475; 75.9%) of respondents had trained in community. The majority (n=550; 88.0%)
6 were female, with a significantly larger proportion of females in community pharmacy
7 (90.7%) than hospital (77.4% - $\chi^2=20.021$, $p<.001$). The average age of
8 respondents was 35.26 ± 10.22 . Respondents working in hospital were more likely to
9 agree (n=121; 84.0%) that their role in the workplace was clearly defined
10 ($U=10740.500$, $Z=-2.563$, $p=0.010$) than their community colleagues (n=303; 73.9%).

11 **Conclusions:**

12 Role clarity is required for PTs so that regulatory standards can be designed to meet
13 current and future practice needs. This will support effective skill mix configurations
14 to enable pharmacists, particularly in community, to take on extended, clinical roles.

15
16

1 **Introduction**

2 Pharmacists are the third largest healthcare profession (after nurses and doctors),¹
3 and over recent years, they have become increasingly clinical professionals. This
4 was first seen in secondary care settings, where pharmacists now provide routine
5 ward, clinic and outpatient-based clinical services.² Community pharmacies are also
6 providing increasing levels of clinical and public health services, and closer working
7 with other primary care providers, including General Practice.^{1,3} In the process of
8 taking on these additional roles and responsibilities, pharmacy has lost some of its
9 more traditional roles, such as the extemporaneous preparation (making) of
10 medicines. Other roles, particularly that of medicines supply (dispensing), however,
11 have been retained.

12

13 To enable pharmacists to become more clinical, patient-centred professionals, they
14 need to be supported by a well-trained, competent team, whose members can take
15 on some of the less complex and/or more routine, technical tasks. Parallels exist
16 here with other healthcare professionals: nurses have taken on roles previously
17 reserved for doctors,⁴⁻⁶ and more recently dentists are being supported by a whole
18 range of registered dental care professionals.^{7,8} Pharmacists in both hospital and
19 community pharmacies also work with different types of support staff.^{9,10} These
20 include medicines counter assistants, dispensers, assistant technical officers, and
21 pharmacy technicians (PTs), with PTs being the most qualified group of pharmacy
22 support staff and thus the most obvious group to take on some of the more
23 advanced roles, and indeed responsibilities.¹¹

24

25 In Great Britain (GB), besides pharmacists, PTs are the only group of pharmacy
26 staff, who are registered with, and thus regulated by, the General Pharmaceutical
27 Council (GPhC). In order to register as a PT, the GPhC standards and criteria for
28 the initial education and training of pharmacy technicians¹² must be met, which
29 require pre-registration trainee PTs (PTPTs) to undergo apprenticeship-type training.
30 This involves completion of a minimum of 2 years' work experience, where the
31 majority of learning occurs in employment, on the job, usually in 1 of the 2 main
32 sectors of the pharmacy labour market: hospital or community pharmacy. Alongside
33 this, 2 GPhC-approved qualifications¹³ need to be completed: a knowledge-based

one (for underpinning knowledge) and a competency-based one (to demonstrate task competence in practice). These qualifications are offered by face-to-face providers, mainly Further Education (FE) colleges and approved National Health Service (NHS) Trusts, or through private distance learning providers. More detail can be found in Table 1.

If PTs are to take on certain roles, and related responsibility and accountability, from pharmacists,¹¹ the GPhC, pharmacists, and indeed patients and the public need to be assured that education and training is fit for purpose and that the underpinning standards are appropriate. Concerns have been raised over the quality and comparability of different types of PT qualifications.¹¹ These concerns do, at least in part, contribute to community pharmacists' reluctance to delegate roles which PTs feel qualified and able to do safely, creating a barrier to effective use of skill mix in community pharmacy.¹¹ Nevertheless, the need for expanding the roles of PTs and standardising their education and training is recognised internationally, particularly in North America.¹⁴⁻¹⁶

In light of the recency of PT registration (mandatory since 2011), the GPhC, commissioned research with the aim of better understanding the quality of PTPT education and training, as delivered by different education providers, employing organisations and awarding bodies (in Great Britain).¹⁷ This paper draws on findings from this research and aims to specifically explore the fitness for purpose of PTPT education and training.

Methods

A mixed-methods approach was chosen to address the overarching aim of this study. Qualitative interviews, with purposively sampled education providers and employers, and a census survey of recently registered PTs were carried out. A sequential study design allowed early qualitative insights to inform survey design. University ethics approval was granted in November 2013 (reference number 13258). Data collection occurred between November 2013 and July 2014. Significant input into sampling, recruitment as well as topic guide and questionnaire design was received from the project advisory team (see Acknowledgements), who

1 had well-grounded experience in education, training and assessment of PTPTs in
2 both sectors.

4 ***Qualitative interviews with education providers and employers***

5 Education providers included the current range of face-to-face providers (FE
6 colleges and approved NHS Trusts) and distance learning providers. Employing
7 organisations were sampled to capture the existing range of working environments in
8 community pharmacy (independents; small to large chains; supermarkets) and
9 hospital (small vs. large NHS Trusts; teaching vs. district general hospitals).

11 Potential participants were identified through a combination of a database provided
12 by the GPhC, organisations' websites, and the authors' professional networks.
13 Contact was made by e-mail, to which a participant information sheet and consent
14 form were attached with a request to contact 1 of the authors (SJ); 1 reminder e-mail
15 was sent. Interview topic guides explored views on course delivery and assessment,
16 with regards to teaching, learning, feedback, student support, and resources. Views
17 were also sought on communication between different stakeholder organisations,
18 perceptions of quality, quality control, and the current process of accreditation.

20 All interviews were transcribed verbatim by a verified transcription agency and
21 analysed thematically using template analysis. This technique involves the
22 researcher creating a list of codes known as a template, which represents themes
23 identified in the data as well as those steered by a priori theories.¹⁸ The template
24 can change as the researcher analyses the data. The template is commonly
25 organised in a hierarchical manner in which relationships between themes are
26 defined and thus provides a platform from which to code data. Interpretation follows,
27 where the researcher also considers negative cases,¹⁹ to improve the quality and
28 trust in the qualitative investigations.²⁰

30 ***Survey of recently registered pharmacy technicians***

31 A questionnaire was developed to profile recently registered PTs and gather detailed
32 insights into the component parts of education and training, and views on, and

1 satisfaction with, these. The majority of questions were closed, including numerous
2 Likert-type statements. The questionnaire was piloted with 3 PTPTs training in
3 hospital and 3 PTPTs in community pharmacy. As there is no database of PTPTs
4 until they register, a census survey of all PTs registered within 1 year (February 2013
5 to February 2014) was undertaken. The GPhC provided the authors with an
6 encrypted file of postal and e-mail addresses for 1457 PTs (e-mail addresses were
7 available for 97.6%). The questionnaire was distributed by mail (with 1 reminder)
8 and electronically, using Qualtrix™ (with 2 reminders) between May and July 2014.
9 Survey data were entered into IBM SPSS v20, and analysed using comparative
10 statistics: Chi-Square, Mann-Whitney U, and Kruskal Wallis. The significance level
11 was set at $p \leq .05$.

13 **Results**

14 Relevant findings from interviews and the survey have been triangulated to address
15 the specific aim of this paper. The results will start with a select survey findings,
16 which help to profile the population of PTPTs and summarise their training
17 experiences and views. The focus of findings, however, will be on more in-depth
18 qualitative insights gained from interviews, where presentation will begin with the role
19 of a PT and then move into whether current standards and training are fit for
20 purpose. Further select survey findings will be added where relevant, to address the
21 specific aim of this paper.

23 ***Survey of recently registered pharmacy technicians***

24 A response rate of 44.3% was achieved by the return of 646 completed
25 questionnaires, with 632 usable responses. The majority of respondents ($n=550$;
26 88.0%) were female, with a significantly larger proportion of females in community
27 pharmacy (90.7%) than hospital (77.4% - $\chi^2=20.021$, $p<.001$). The average age of
28 respondents was 35.26 ± 10.22 , with respondents who trained in community
29 significantly older (36.86 ± 10.28) than those who trained in hospital (29.91 ± 8.33)
30 ($t(258)= 8.030$, $p<.001$).

1 About three-quarters of PTPTs (475; 75.9%) had trained in community pharmacy,
2 and 133 (21.3%) in hospital. These figures are comparable to where PTs (and
3 indeed pharmacists) work, with the largest sector being community.²¹ For their
4 knowledge qualification, the majority of community trainees (92.9%) had used a
5 distance provider, whereas most hospital trainees (78.0%) had used an FE college
6 ($\chi^2 (1, N=594) = 313.373, p<.001$). In community pharmacy, trainees were again
7 most likely to use a distance provider for their competence qualification (92.8%); only
8 4.7% used an FE college and 1.8% an approved NHS Trust. In hospital, the majority
9 of trainees (56.5%) used an approved NHS Trust, followed by 29.0% who used an
10 FE college and 13.7% who used a distance provider. These sector differences were
11 significant: $\chi^2 (2, N= 592) = 351.648, p<.001$.

12
13 Almost all respondents agreed that the content of the knowledge qualification was
14 relevant to their practice, both when they were a trainee (90.5% of those who used
15 FE colleges and 89.0% who distance providers agreed, respectively), and later,
16 when practising as PTs (86.0% who used FE colleges agreed, 87.3% who used
17 distance providers agreed). Most respondents also agreed that the content of the
18 competence qualification was relevant to their practice, but agreement levels for
19 these 2 statements were significantly higher for those using FE colleges (91.9% as
20 PTPTs; 87.3% as PTs) or approved National Vocational Qualification (NVQ) NHS
21 Trusts (94.2% as PTPTs; 91.9% as PTs) than distance providers (87.9% as PTPTs;
22 85.9% as PTs).

23 24 ***Qualitative interviews with education providers and employers***

25 Staff in 17 FE colleges and 6 distance providers; and 16 community pharmacy and
26 15 NHS organisations were interviewed. This section presents analysis of
27 responses to a range of cross-cutting and more general issues relating to PT
28 education and training. While they include some views on differences between
29 education providers, employing organisations and sectors, they focus in particular on
30 the qualifications and their fitness for purpose for current practice. The results will
31 conclude with a presentation of comments relating to the clarity of roles of PTs.

32 33 **Need to update education & training standards and accredited qualifications**

1 A common theme was that the GPhC's education and training standards (and
2 therefore related/ accredited qualifications) were seen as out-of-date. Interviewees
3 acknowledged the need to revise the standards and qualifications, to bring them
4 more in line with current practice.

5
6 *"I think it's a terribly academic course for such a practice based field. [...]*
7 *[Trainees] want the facts and they want to be able to put those facts into practice*
8 *now, and so therefore you've got to decide what's important, what do we leave*
9 *in, what might they use and what can we just get rid of."* [FE college]

10
11 Some subjects were mentioned as possibly being over-taught or redundant, such as
12 pharmaceutical chemistry and extemporaneous preparation.

13
14 *"I do get feedback from the students and their supervisors asking me why they*
15 *need to know pharmaceutical chemistry in such detail."* [Distance provider]

16
17 *"I think it's just making sure that the emphasis is there on what a tech has to do*
18 *day to day. There's still the requirement for them to know all about*
19 *extemporaneous practice, and that just doesn't happen in the majority of*
20 *pharmacies anymore. It's like we've got an entire module on how to actually*
21 *make medicines, and it's like yeah, they're going to come out of this knowing*
22 *how to make a suppository and how to make a tablet from scratch and how to*
23 *make a cream from scratch, and they'll never use it [...], but it's in the standards*
24 *so we need to do it."* [Community employer]

25
26 The PT qualification is a generalist one, which means PTs can practise in any
27 pharmacy setting (sector) once registered. However, some interviewees commented
28 that PTs' roles differed between community and hospital pharmacy and suggested a
29 possible change to having core and optional units, the latter allowing a differentiation
30 between sector needs.

31
32 *"I think it would probably be useful to have core mandatory community and*
33 *mandatory hospital units and then ... have some optional ones."* [Community
34 employer]

1
2 While community pharmacy stakeholders commented mainly on items and standards
3 that may be redundant in their current practice, hospital colleagues commented on
4 some additional topics which could be added instead. For example, hospital
5 interviewees suggested that, with PTs taking on increasingly ward-based activities,
6 such as medicines management and medicines reconciliation,²² preparation for
7 these should be included in PTPT's training.

8
9 *"The NVQ, it's quite behind with the times, really ... they don't do any medicines*
10 *management in the NVQ, so it's a shame really that we don't really get them to*
11 *go on the wards as much as what I'd like them to do, because they've got all*
12 *these other standards that they need to achieve. [...] We have pharmacy*
13 *assistants now that do the majority of what's in that NVQ around ordering and*
14 *maintaining stock on the ward and issuing stock, and really we're putting them*
15 *through areas that, as a technician, they'll never work [in] again, so ... I think the*
16 *NVQ needs updating."* [NHS Trust]

17
18 Related to the discussion of the content and scope of the PT qualification, and
19 whether more (mostly hospital interviewees) or less (mostly community) should be
20 covered, a few interviewees questioned whether the qualification was appropriately
21 positioned at its current difficulty level 3 (NVQ).¹³ They questioned whether the 'size'
22 of the qualification, or rather the amount of required content, was appropriate. A few
23 interviewees thought that more credit should be given for undertaking such a 'large'
24 qualification, and that it could be deemed to be a level 4 or 5 qualification (equivalent
25 to a certificate or diploma of higher education).

26
27 *"You're subjecting the students to doing a qualification that's disproportionate to*
28 *the level. A decision needs to be made about whether that qualification needs to*
29 *be level 5 or 4. If it is, make it 5 or 4. If it needs to be 3, treat it as a 3, it's as*
30 *straightforward as that."* [FE college]

31
32 Besides type and amount of required content, interviewees also commented that the
33 PT education and training standards were relatively prescriptive, particularly in

1 comparison to those applied to pharmacists. This restricted the way the
2 qualifications could be delivered.

3
4 Certain elements were recognised as lacking in the current standards. One of them
5 was an understanding of what it means to be a registered and regulated PT, and the
6 responsibilities and accountability that come with this.

7
8 *“Once they've qualified, they then have to register and I'm not sure that that*
9 *message of importance gets across very well. Once you're registered you are*
10 *now accountable and you're then working to the same standards as the*
11 *pharmacist. I'm not sure that GPhC or possibly the mentors that are looking after*
12 *the students [...] give the importance that it needs on that.” [Community*
13 *employer]*

14
15 Related to the professional status of PTs, many interviewees commented on the
16 importance of instilling elements of professionalism in PTPTs. Some suggested that
17 professionalism should probably feature more strongly in the standards and
18 qualifications, which would then allow explicit assessment.

19
20 *“Professional attitude and behaviour, because essentially with pharmacy*
21 *technicians now being a registered profession, they need to meet those*
22 *standards of conduct.” [NHS Trust]*

23
24 *“There should be something in our standards, in the NVQ standards, which*
25 *relates to behaviour and attitude, so that assessors feel comfortable, that's*
26 *something that they would say that they're not able to say the student's*
27 *demonstrated competency in.” [Distance provider]*

28 29 **Need for a clearly defined role for pharmacy technicians**

30 Many interviewees commented on the need for more clarity on PT roles and
31 responsibilities in the workplace. Without such clarity, it would be difficult to define/
32 determine education and training standards that fit these requirements and would be
33 fit for purpose. Indeed, more clearly defined roles may help alleviate some of the
34 ambiguity around what may be required to perform the role.

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"I think there's some lack of clarity as to why things are needed, and I think that comes from the fact that the role isn't defined very well within community pharmacy. If we understood that a technician would be expected to do X, Y and Z, and would have the opportunity to do it as well, then I think people would recognise that the role is maybe more than it currently is expected to be."
[Distance provider]

However, interviewees also recognised that, in community pharmacy, there was no clear role for PTs, and no clear differentiation from other support staff, such as dispensers.

"They don't always use what they've been taught because the role is basically the same [as for a dispenser], even if they've done the qualification. There's not very much scope for them to evolve that role." *[Distance provider]*

"I think sometimes technicians in community ... aren't given the credit for what they could do, and given the chances to expand. Whereas community pharmacy in general there is a lot that we could offer to people out there, different services and types of services if the infrastructure from the NHS or the CCGs [clinical commissioning groups] or the commissioning bodies were put in place to be able to extend those services. I think until that's there, the role of the technician in community for a lot of people will not differ much from a dispenser. Because the opportunities aren't there." *[Community employer]*

It seemed that the only clearly differentiated role in community was that of an accuracy checker. These are pharmacy staff who have undertaken an additional (currently not GPhC regulated or accredited) qualification, which allows them to check whether medication has been selected as prescribed, and that labelling is correct. This would normally be either preceded or followed by a pharmacist's clinical check. Accuracy checkers are PTs in many community pharmacies, but they do not have to be.

1 *"There isn't really currently a massive role that technicians play in a community*
2 *pharmacy setting. In my organisation our technicians progress on to becoming*
3 *accuracy checking technicians, and our accuracy checkers are all technicians, so*
4 *they do move into that."* [Community employer]

5
6 Hospital pharmacy, on the other hand, appeared to offer more clearly defined (and
7 indeed more clinical) roles, with better job and career opportunities and indeed better
8 financial reward.

9
10 *"[Trainees] spend a couple of rotations up there on the wards which I think is*
11 *fantastic because obviously that's the way technician roles are going, is to the*
12 *wards and medicines management. And they help counsel and discharge*
13 *patients from the wards and they get observed on doing that."* [NHS Trust]

14
15 *"In a hospital they can do a lot more. A couple of my ex-students finished the*
16 *NVQ3 course and as soon as they finished and got the qualification, they left to*
17 *go to the hospital, because they get better job opportunities there, better pay,*
18 *and there are so many other benefits in a hospital, whereas it's restricted ... in*
19 *the community."* [Community employer]

20
21 Further support for these qualitative findings can be located in the survey, where
22 respondents were asked to agree or disagree with statements about role clarity in
23 the workplace. Once registered, those working in hospital were more likely to agree
24 ($n=121$; 84.0%) that their role in the workplace was clearly defined ($U=10740.500$,
25 $Z=-2.563$, $p=0.010$) than their community colleagues ($n=303$; 73.9%). Survey
26 respondents were asked for salary details, during and after training. Mann-Whitney
27 U tests showed that salary bands for hospital trainees ($U= 10383.000$, $Z= -3.388$,
28 $p=.001$) and registered PTs ($U= 7415.500$, $Z= -7.4267$ $p< .001$) were significantly
29 higher than those in community.

30
31 [Insert Table 2 about here]

32
33 Respondents were also asked which sector they worked in when registered, allowing
34 some insight into sector mobility. The majority of survey respondents ($n=523$;

89.2%) did not move sector at the end of their training. Those who had trained in community were more likely to move to hospital (n=31; 5.5%) or other, including prison service and pharmaceutical industry (n=9; 1.5%); only 3% of hospital trainees moved, 1.5% to community (n=9) and 1.5% to other (n=9).

Discussion

This study is the first of its kind, providing detailed insights into the education and training of PTs in Great Britain. It allowed for valuable insights into participants' views on the fitness for purpose of the existing standards and learning provision, and particularly whether the current standards meet modern practice requirements.

PT education and training standards

There was a general view that the GPhC's PT education and training standards need revising. Study participants commented that the current standards were relatively directive and restrictive in what needed to be covered. This meant that certain aspects of practice, such as extemporaneous preparation of medicines, which had decreased in significance in every day practice in both of the main sectors (community and hospital), still needed to be covered. Other areas, however, such as professionalism (attitudes, behaviours), were perceived to be lacking, yet were considered important with PTs having to comply with the same standards of conduct as pharmacists.²³ Indeed, participants recognised a more general need for a better understanding of what it means to be a registered and regulated practitioner, and the responsibilities and accountability which come with this.

Beyond comments on specific subject areas, there were differing views on what a review of standards would and should involve, particularly depending on the sector of practice, i.e. hospital versus community pharmacy. Hospital interviewees felt that PT education and training lacked clinical detail, which would enable PTs to take on more ward based services and responsibilities, while some of the more technical and dispensing activities were performed by other, less qualified, staff, such as assistant technical officers.

1 In hospital, it appeared that the roles and responsibilities of different types of
2 pharmacy support staff were indeed relatively clearly defined. What was less clear
3 was whether all advanced or clinical roles should be covered as part of the initial
4 education and training of PTs. So one question might be whether PT qualifications
5 are appropriately cited at level 3 or whether they should be higher, or whether some
6 of this should, in fact, be reserved for foundation and specialist training post-
7 registration.

9 ***Role clarity***

10 Many interviewees from community, on the other hand, felt that requirements for PT
11 training were more advanced than they needed to be. They pointed out that, in
12 community pharmacy, there was little (if any) difference between PTs and other
13 types of support staff, such as dispensers who were level 2 qualified. There was
14 little clarity on what exactly the role of a PT was, what their responsibilities were, and
15 how they differed from other support staff. This vagueness as to what a PT is in
16 community pharmacy is fundamental and needs to be clarified before decisions can
17 be made about the specifics of their pre-registration training. This shows the
18 importance of regulators identifying and focussing on the outcome of what they are
19 trying to achieve, before drafting and implementing appropriate standards.^{24,25}

21 Pharmacy technicians, as the most qualified and (in GB) only group of registered
22 and regulated pharmacy support staff, may be the most likely group to enable
23 community pharmacists in extending their clinical, patient-centred roles. However,
24 PTs themselves, particularly in hospital, are becoming increasingly involved in ward-
25 based services such as medicines reconciliation. There may be similar role for
26 community PTs, such as support for self-care management, repeat prescribing
27 schemes or medicines supply more generally. These would equally require support
28 by others in the pharmacy team.

30 The expansion of extended services under the policy initiatives regarding community
31 pharmacy contracts has led to increasing levels of workload and stress amongst
32 community pharmacists,²⁶ who still see themselves as dispensers^{27,28} and spend the
33 majority of their time on assembling and labelling products.^{29,30} Furthermore, a

1 recent study undertaken to inform potential changes to the legal requirements for
2 pharmacists supervision³¹ showed that community pharmacists were reluctant to
3 delegate. This reluctance was, at least in part, due to a lack of clarity on PT training
4 and competence as well as who would be ultimately accountable.¹¹

5
6 The same study showed that whilst hospital pharmacists and PTs in community and
7 hospital considered a range of more technical activities (particularly those relating to
8 the dispensing process) as potentially safe to be performed by support staff,
9 community pharmacists were more likely to disagree.^{11,32} In hospital practice it
10 would seem that role clarity – for PTs and other pharmacy support staff – can be
11 achieved, and that this has successfully contributed to a more clinically focussed
12 pharmacist workforce, where clinical pharmacists spend the majority of their time on
13 clinical activities.³³ In order to enable community pharmacists to become truly
14 clinical professionals, they are likely to require a well-trained and competent support
15 team. Any review of PT education and training standards will need to take this into
16 account, as otherwise PT training may remain as the weak link in making the best
17 use of pharmacists and their team.

19 ***Policy recommendations***

20 The GPhC recently published a high level consultation on 'Tomorrow's Pharmacy
21 Team',³⁴ which is the first time the pharmacy regulator has considered the education
22 and training of the whole pharmacy team together. This demonstrates a recognition
23 of the importance of appropriate and effective use of skill mix in pharmacy.
24 However, this can only be achieved if required competencies can be set
25 appropriately and at the right level. The ability to do this effectively depends on
26 clarity about the roles and responsibilities of different members of the pharmacy
27 team, and specifically of PTs. Particularly community pharmacists' lack of trust and
28 resulting reluctance to delegate some higher level technical tasks to PTs is likely to
29 limit the potential for achieving this. However, pharmacists' aspiration to increase
30 their clinical contributions and extending their roles and services is only likely to be
31 achievable if skill mix models can be developed to support pharmacists in fulfilling
32 these roles. Rather than differentiating a PT qualification, which is currently
33 generalist, into one which differs between sectors, it may be more valuable to look to

hospital pharmacy for skill mix models which could be implemented in community to support and effect these changes. This role clarity would then need to be reflected in the regulator's approach to setting standards, which, in recent years, has been outcomes focussed in other areas of their regulation.

Conclusions

Role clarity is required for PTs so that regulatory standards can be designed to meet not only current, but future, practice needs. With skill mix configuration seemingly more advanced in hospital, community pharmacy may adopt these ways of working to support a model that enables pharmacists to take on extended, clinical roles.

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1 **Table 1. Level 3 pharmacy technician qualifications**

Type of qualification	Qualification	Awarding body	Offered by
Knowledge-based qualification	BTEC National Diploma Pharmaceutical Science	Edexcel	FE colleges
	Level 3 Diploma Pharmaceutical Science	City & Guild	
	National Certificate in Pharmaceutical Science/ Pharmacy Services	Scottish Qualifications Authority (SQA)	
Competency-based qualification	Level 3 Diploma National Vocational Qualification (NVQ)	Edexcel	FE colleges, approved NHS Trusts
	Qualifications and Credit Framework (QCF)	City & Guild	
	Pharmacy service skills	SQA	
	Level 3 NVQ Diploma Pharmacy Services Skills		
	Level 3 SVQ Pharmacy Services		
Both knowledge- and competency-based qualifications	PT training courses equivalent to Level 3 qualifications	Accredited directly by GPhC	Distance learning providers

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1 **Table 2: Salaries of trainees and PTs in hospital and community**

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	Trainee		Pharmacy technician	
	Community (n= 255)	Hospital (n= 113)	Community (n= 216)	Hospital (n= 125)
Salary (GBP)	n (%)	n (%)	n (%)	n (%)
≤ 9,000	12 (4.7)	13 (11.5)	0	0
10,000 – 13,999	101 (39.6)	9 (8.0)	38 (17.6)	0
14,000 – 17,999	105 (41.2)	75 (66.4)	90 (41.7)	6 (4.8)
18,000 – 21,999	18 (7.1)	12 (10.6)	55 (25.5)	99 (79.2)
≥22,000	4 (1.6)	0 (0)	13 (6)	14 (11.2)
Prefer not to say	15 (5.9)	4 (3.5)	20 (9.2)	6 (4.8)

3 This Table only shows figures for those working full-time (≥35 hours per week), as
 4 part-time hours were highly variable.
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