Health policy 152 (2025) 105223

Contents lists available at ScienceDirect

Health policy

journal homepage: www.elsevier.com/locate/healthpol

Key stakeholder's attitudes towards the professional accountabilities and responsibilities of newly qualified Pharmacist Independent Prescribers (IPs) in England and enablers to implementation at scale?

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ARTICLE INFO

Secondary key words:
Independent
Pharmacy
Responsibility
Accountability

Key words:
Pharmacist
Prescribing
Responsibilities
Accountabilities

ABSTRACT

Background: Independent prescribing is set to expand amongst community pharmacists in England in the next few years. This study aims to explore the different accountabilities and responsibilities associated with independent prescribing compared to more traditional pharmacist roles.
Objective: To inform commissioning frameworks that will allow independent prescribing by community pharmacists to be commissioned safely and appropriately at scale.
Design/Methodology: A series of qualitative semi-structured interviews were undertaken with key stakeholders. Interviews were analysed using thematic analysis, and over-arching themes developed from emergent findings.
Conclusions: This study identified three themes, supported by twelve sub-themes, associated with pharmacist independent prescribing being viewed positively. Those three themes were 'self', 'environmen't and 'competence'. Whilst pharmacists are well placed through their initial education and training to undertake a prescribing role, we found that there are perceived differences in responsibility between a prescribing and a non-prescribing role, attitude towards risk and the training and support needed to adapt to those changes. These differences are explored leading to a series of overarching themes and recommendations, including that ongoing support is critical and should be built into commissioning frameworks, that newly qualified prescribers need to start prescribing immediately after qualifying and that experiential learning should be built into all training programmes.

1. Background

Pharmacists in the UK have been able to prescribe in a restricted way since 2003 [1] but from 1 May 2006, Pharmacist Independent Prescribers have been trained and able to prescribe any licensed medicine for any medical condition within their competence [2], except for Controlled Drugs which was enabled in 2012 [3]. In 2007 the Department of Health [4] indicated that pharmacist independent prescribers should only prescribe within their area of competence and in the best interests of patients, and that they must accept full responsibility for their prescribing decisions, although their employer may also be held vicariously responsible for the pharmacist's actions. In 2021 the General Pharmaceutical Council (GPhC) revised its standards for the initial education and training of pharmacists [5] incorporating prescribing. As a

This work was supported by the University of Nottingham (Policy Funding). The funding body had no involvement in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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https://doi.org/10.1016/j.healthpol.2024.105223
Received 26 June 2024; Received in revised form 21 November 2024; Accepted 2 December 2024
Available online 4 December 2024

result, all MPharm graduates from 2026 onwards will also be qualified as independent prescribers on registration. The GPhC acknowledge that the new standards will transform the education and training of pharmacists and the care they are able to provide to patients [5].

Models of non-medical prescribing have been observed in a number of countries using a variety of implementation models [6]. Brennan et al. [7], identified that *"Pharmacist prescribing models varied within and between the systematic reviews and demonstrated implementation of different PP models globally. Collaborative practice agreement with a physician, dependant prescribing by protocol and/or formularies were common in Canada and the United States, while supplementary prescribing and independent prescribing models were described in the UK. Prescribing activity was evident in all care settings and for a wide range of clinical conditions."* Data from the GPhC [8] indicates that there were 15,969 pharmacist independent prescribers in England on the GPhC Register on 30th September 2024, out of a total of 55713 pharmacists. As pharmacist independent prescribing is set to become mainstream in the UK, there may be useful lessons to be learnt by other jurisdictions in terms of policy development and implementation.

Some of the opportunities presented by the implementation of pharmacist prescribing in secondary care were identified by Bourne, Baqir and Onatade in 2016 [9] and included improved prescribing safety, more efficient pharmacist medication reviews, increased scope of practice with greater pharmacist integration into acute patient care pathways and enhanced professional or job satisfaction. The same researchers identified barriers to implementation of pharmacist independent prescribing in secondary care as *"lack of support (financial and time resources), medical staff acceptance and the pharmacy profession itself (adoption, implementation strategy, research resources, second pharmacist clinical check)"* [9]. These issues will need to be addressed if rollout at scale in other sectors is going to be a success.

In a drive to help improve patient access to healthcare services and address health inequalities, NHS England has committed to the development and better utilisation of the clinical skills of community pharmacists working as part of primary care teams. *"Pharmacist independent prescribers will facilitate quicker and more convenient access to safe and high-quality healthcare, including the prescription of appropriate medicines for minor illness, addressing health issues before they get worse, providing monitoring of long-term health conditions and preventing ill-health."*[10]. Although pharmacist independent prescribers may legally prescribe any medicine as stated above, and the Labour manifesto 2024 [11] made a commitment to *"create a Community Pharmacist Prescribing Service"*, the detail how prescribing will be commissioned and utilised in practice in community pharmacies is yet to be determined. To ensure the expansion of independent pharmacist prescribing at scale into primary care is safe, effective and provides value for money NHS England established an 'Independent Prescribing Pathfinder Programme' [10] with the intention that these pathfinder sites will help develop governance and commissioning models that will help address several practical and professional challenges.

The GPhC standards for the education and training of pharmacist independent prescribers [12] state in learning outcome 8 that pharmacists must "*Recognise their own role as a responsible and accountable prescriber who understands legal and ethical implications*". In addition the GPhC standards for the initial education and training of pharmacists learning outcome 18 states that pharmacists must "*take responsibility for all aspects of pharmacy services, and make sure that the care and services provided are safe and accurate*" [5]. This research aims to understand how those learning outcomes are interpreted in practice and how well pharmacists understand them in relation to an independent prescribing role and what other factors are key to successful implementation of pharmacist independent prescribing at scale.

Understanding the responsibilities (pharmacist prescribers are responsible and accountable for their decisions and actions. This will include when they prescribe or deprescribe, and for their prescribing decisions [13]) and accountabilities (the obligation of one party to provide a justification and to be held responsible for its actions by another interested party [14]), and identifying the enablers to successful implementation of an independent prescribing role is key to ensuring the safe expansion of independent prescribing across all pharmacy sectors. This research considered personal accountability and responsibility rather than multiple accountability relationships within the system.

2. Methods

Approval was sought from, and granted by, the School of Pharmacy ethics committee at University of Nottingham (reference number 011-2023).

Seventeen semi-structured interviews (Appendix 1), lasting up to one hour each, were undertaken with participants as indicated in box 1:

Box 1. Interview Participants

6 Policy makers (including 3 experienced prescribers)
5 General Practice Pharmacists (all prescribers - 4 x experienced and 1 x newly qualified)
1 Community Pharmacist (non-prescribing)
1 Insurer
1 Educationalist (with a background in secondary care)
1 Educationalist panel
1 General practitioner
1 Professional Development pharmacist

All of the interviewees in this research worked in a multidisciplinary environment, although the nature of that environment varied.

As this research related to professional perspectives of accountabilities and responsibilities and the identification of enablers, it was not felt appropriate to include a patient perspective, although this could be considered a limitation.

All interviews were held online and recorded and transcribed using Microsoft Teams®. The transcripts were then examined to identify transcription errors and idiosyncrasies, and those were amended before further analysis. Interviews and transcript analysis were all conducted by the lead author, who has experience of working in all pharmacy sectors relevant to this research, and is a pharmacist qualified to doctorate level. The interviewer had worked at a senior level in the NHS and had worked on pharmacist independent prescribing development within that role, ensuring a thorough understanding of the context relating to this research. Interview participants were identified through purposive sampling, to provide a depth of understanding, by utilising the lead author's personal networks to ensure the range of participant experience as detailed in box 1. Interviewees were identified from a range of organisations and pharmacy sectors as well as non-pharmacists. Some participants were known to the interviewer before the interview, and some had been introduced to him through personal networks. This ensured a wide range of views and perspectives using a common interview schedule (Appendix 1)

Interview transcripts were individually analysed for emerging themes and key statements utilising a grounded theory approach based on the individual participants experience and perspective. The transcripts were then reanalysed, and commonalities and relevant quotes identified. The possibility of theoretical sensitivity being dulled was mitigated by the interviewer having worked in all the sectors that interviewees had experience of. Emerging themes were then consolidated, and sub-themes identified by comparing new data with existing data to refine and develop them further. Relevant quotes were identified for each sub-theme. Where comments were ambiguous or contradictory, an

assessment was made as to the interpretation from the interviewer's knowledge and recollection of the context in which those comments were made. An interpretation of those themes was then made by the authors using their own grounded experience.

Data saturation was reached after fifteen interviews and identified by observing that no new themes were emerging through transcript analysis. Interviews were analysed in series so that the potential point of data saturation could be identified. Two further interviews were then undertaken to ensure that data saturation had been reached and that different perspectives and experience did not produce any significant new themes to be explored. Themes were developed on the basis of consensus from more than one interviewee.

The findings were discussed and refined by the authors, before overarching themes and recommendations were developed.

3. Results

Three overarching themes were identified from transcription analysis, supported by twelve sub-themes, associated with the successful rollout of pharmacist independent prescribing as shown in Box 2:

Box 2. Themes and Sub-themes

Theme	Sub-Theme
Self	Confidence
	Attitude towards risk
	Responsibility
Competence	Baseline knowledge
	Prescribing training
	Experience
	Scope of practice
Environment	Liability
	Scrutiny
	Governance
	Relationship with other healthcare professionals
	Support

These were presented to policy makers, allowing them the opportunity to provide feedback on the findings.

Examples of interview quotes relating to the themes and sub-themes identified, and he subsequent interpretation, are shown in Box 3

Box 3. Example Interview Quotes

Theme	Sub -theme	Example quote	Interpretation
Self	Confidence	*"I think we'll probably see some of the prescribers not actually issuing a prescription at all. They may very well consult, but then refer on to somebody else"* (I6)	• Confidence comes with experience • It is important to have the confidence to say 'no', challenge and seek advice • Supporting infrastructure and hierarchies engender confidence
	Attitude towards risk	*"Actually, you don't know what you don't know, and having the confidence to say I need to go away and look it up is important"* (I9).	• Attitude towards risk can change with experience. • The perception of risk is different in prescribing and non-prescribing roles, with risk versus benefit decisions being considered greater when prescribing.
		"I think the moment you have to do something you put your signature on it does change the way you think, and I think that's when the risk averseness of pharmacy comes out" (I4)	
		"I'm nowhere near as comfortable with risk as a GP, and I don't think I ever will be. To be honest, I think it's something in their medical training that has primed them for this and management of risk" (I8)	• Medical training better prepares doctors to be more comfortable with risk than the training of pharmacists
	Responsibility	*"Just because you didn't sign on the bottom of the line doesn't absolve you of any responsibility"* (I4)	• Most prescribing pharmacists understand the responsibilities that go alongside a prescribing role and these are covered in curricula. • Perceptions of responsibility do change when a pharmacist becomes a prescriber • Prescribers are responsible for their own actions • There is a difference between individual responsibility and corporate responsibility in terms of a patient's overall care
		"I think pharmacists are completely unaware of the responsibility they are actually taking on when they start prescribing" (I5)	
		"Ultimately I work for the practice and the care of that patient sits with the practice and so it's any one of the directors or any one of the partners that are accountable" (I7)	
		"In the hospital model it tends to	

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		be the consultant who tells the junior and the junior writes, but it's the consultant who actually made the decision" (I6) *"It's great that prescribers respect your view, but ultimately they can disagree with you and take a different route"*(I9)	• The responsibility of prescribing is perceived differently compared to the more traditional pharmacist role of advising.
"You're prescribing something at somebody else's diagnosis. You still need to make sure that that diagnosis is correct. You need to ask if the initial diagnosis was correct and challenge it" (I4)			
Competence	Baseline knowledge	*Pharmacists have the opportunity, I think, to be quite broad because of their initial education and training and because of their practise they know the product better than any other professional across the breadth of the BNF rather than a particular area. (I1)* *Pharmacists I think are unique within non-medical prescribing in terms of their preparedness for independent prescribing because of their expertise and background as medicines experts and as pharmaco legal experts. (I3)* *The initial education and training of pharmacists, even before it was revised to incorporate independent prescribing, had particularly strong elements of learning outcomes relating to accountability, responsibility, professionalism, medico legal, and medicine law. So that's the first point I would make that actually the grounding for the profession is very strong. The foundations are very strong. (I3)*	• The baseline knowledge from the MPharm programme is generally considered to provide an excellent grounding in the action and use of medicines.
	Prescribing training	*"They're not going to get good at it until they start doing it. I've always said we need to start doing it from day one from first year. And what we need to be doing is giving them opportunities to be exposed"* (I4)	• Post graduate training can be varied but experiential learning is key
	Experience	*"The number of years practising is irrelevant; it depends on the type of experience"* (I4). *"What I say to them is that the difference between us is that your knowledge is more up to date. The only advantage I've got on you is the experience of how to apply it"* (I9)	• Confidence is developed through experience • The type of experience is more important than the quantity
	Scope of practice	*"Pharmacists feel that they're under pressure quite a lot and will do things that they know that they shouldn't but feel like they are put under that pressure by their employers"* (I7) *"I want to move to this scope of practise and then we described how you move, and it was a bit of supervised practise, a bit of learning and all that sort of stuff and then some very, very high-level kind of assessment that you've seen some patients, you've been supervised"* (I1)	• Pharmacists can feel pressure from employers to expand their scope of practice beyond their expertise • A common and recognised framework for developing scope of practice is needed.
Environment	Liability	*"From a liability issue this is going to be a mammoth change really. You know, in terms of responsibilities that prescribers*	• Liability may be more of a consideration when prescribers are newly qualified • There are misconceptions

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		have, in terms of diagnosing, misdiagnosing mis-prescribing and failing to refer on, all the liabilities that the GPs have as independent prescribing progresses" (I5)	regarding the extent of liability for prescribing and non-prescribing pharmacists
	Scrutiny	*"You know that that if it came to a court of law then there's a massive difference between the attention that would be paid to the prescriber and what advice they had given as opposed to what advice a dispensing pharmacist or a pharmacist in the practice may or not have given because it's not an absolute"* (I10)	*"I think we're still at the early stages of all of this, so wrongly or rightly, we may think we're more scrutinized, but I think it's just because we're in early days, I think still at a political level"* (I8)
		• High levels of scrutiny, which may be as political as it is clinical, should be expected during the early stages of widespread pharmacist independent prescribing	*"It's really helpful to have somebody looking at our prescribing data and plotting this against all the other GPs in the practice to see if we are a massive outlier"* (I14).
	"I'm really, really worried about all the remote workers. You know, just doing stuff and you don't know what they're doing. No one's looking at their work. No one's assessing it. It's just waiting for the bad stuff to happen" (I4)		
	Governance	*"I spoke to a community locum pharmacist, who said to me, 'do I really have to do the governance? Do I have to do this critical reflection because I don't think it's relevant to me, I'm not accountable to anyone because I'm a locum'(I14)* *"I think good clinical governance and*	• Governance frameworks can be helpful, and a common performance management framework for pharmacists would help engender confidence both within the profession and from scrutiny external to the profession

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		good monitoring is really important. We don't have a *performance list, but we do need to ensure that we have a way of monitoring what Pharmacists do and making sure we nip it in the bud"* (I4)	
		"In secondary care, you are aware of governance and accountability. You're working to guidelines that you know have already been validated so you're going down an already prepared pathway" (I15)	
	Relationship with other healthcare professionals	*"We are increasingly being exposed to pharmacist prescribers who seem to make sensible prescribing decisions. I think you're going to feel more confident that if a pharmacist is making a prescribing decision it's going to be a sound one"* (I10)	• Although many community pharmacists work in isolation, it is important that they are part of a multidisciplinary team and develop healthy trusted professional relationships with other healthcare professionals.
		"The two GPs are extremely supportive in having multidisciplinary discussions where we've got more complex patients. I feel, and they do feed that back to me,that we have a joint responsibility at that point, but it's a documented discussion" (I8)	• Non-pharmacist healthcare professionals recognise the skills that pharmacists have in relation to prescribing.
	Support	*"For the programme to be successful in Community Pharmacy, IP programme Pharmacists need that support because part of following guidelines will be 'before you prescribe X you need to run test AB and C' "* (I5)	• Robust support mechanisms, post-qualification, are essential to success and safety. • Support needs to be available both in 'real-time' and in a reflective environment. • It is a shared responsibility between commissioners, employers and

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	"Bottom line is this is vital. This is key. Without your network, your peer support and your local community of practise, you can't work, you're going down a very dangerous road "(I4). *"I think it's crucial to have a good support network behind you when you are a prescriber specifically in Community, because I don't think that in Community there's a lot of support, whereas in the hospital and GP there is support, you can ask for help, that it's always available, there's always someone"* (I11) *"We've not done them any favours by not embedding clinical supervision in all of the PCNs, and what's happening there is either people are working beyond where they should be working or they're going to work somewhere where they get support"* (I1) *"They are going to need it even more, to be able to have that kind of break glass moment where they press the button and go 'I just don't know, I need to talk to somebody' " (I16) *"Peer support and networking cultivates doing this together, so the GPs come to understand what the pharmacist's skills and competencies are. Similarly, that the pharmacist understands the GP, and you start to grow that together and*	prescribers to provide support, facilitate engagement and actively participate in it.

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	network along with the nurses and the paramedics. So that multidisciplinary approach is going to be really, really important" (I6)
"I think it is a shared responsibility, so I think it should be the employer who makes sure that there's the infrastructure for communication. And then I think it's a prescriber's responsibility to use this infrastructure and to build up their own network within this infrastructure that's been made up for them and build up their own support network" (I11)	

Overarching themes and recommendations developed from the themes, sub-themes and direct quotes are shown in box 4.

Box 4. Overarching Themes and Recommendations

Prescribers are ultimately accountable for their own actions
Ongoing support, both in real-time and reflective, is critical and whilst a shared responsibility between prescribers, employers and commissioners, should be built into commissioning frameworks
Newly qualified prescribers need to start prescribing, with support, immediately after qualifying
Experiential learning should be built into all training programmes
Recognised systems should be in place to facilitate widening scope of practice
Additional scrutiny should be expected with new roles
A multidisciplinary approach needs to be taken to pharmacist prescribing
Pharmacists should receive training in becoming comfortable with risk
There is confusion regarding liability associated with prescribing
There should be specific revalidation requirements for prescribers
A performance management framework should be in place for pharmacist prescribers

Whilst most themes were common to the different categories of stakeholder interviewed, it was interesting to note that pharmacist prescribers tended to be more mindful of their accountabilities and responsibilities than non-prescribers. Those working in secondary care valued support structures and frameworks, whereas those in primary care tended to have less experience of these. Non-pharmacists were very supportive of the pharmacist's role in prescribing and had more confidence in the abilities of pharmacists than the pharmacists themselves, although pharmacists did feel much more confident when working to protocols and guidelines rather than without them.

4. Discussion

The three overarching themes of 'self', 'competence' and 'environment', identified in this research could be considered analogous to James Reason's 'Three Bucket Model' [15]. In this model Reason

identifies three buckets that represent, 'self', 'context' and 'task'. The extent to which each of these buckets is filled at any point in time relates to the likelihood of something bad happening. The key is having an awareness of the state of the buckets and developing strategies to empty them when they look full. This study suggests a similar three themes that all need to be addressed if independent pharmacist prescribing is likely to be viewed as a success. This association only came to light on reflection of the results and subsequent analysis.

This research initially concentrated on the perceived accountabilities and responsibilities associated with pharmacist independent prescribing, but as the interviews progressed, enablers were uncovered which were then explored further.

4.1. Self

In the 'self' theme, are issues related to the individual including confidence, attitude towards risk and responsibility. Analysing these areas identifies a depth of understanding that is important if they are to be successfully addressed.

Analysis suggests that although confidence is an important concept, resources, organisational priorities and pragmatism do not always allow it to be fully developed. A lack of confidence could also have a direct impact on the patient and potentially result in patients not being prescribed the medicines they need. There was also some suggestion that confidence is not only important at an individual patient level, but also in terms of public perception of the profession.

Key to developing confidence was thought to be experience, which correlates with Cooper's comments [16] that prescribing confidence will increase with time and experience. Confidence also relates to the confidence to consult a colleague and operate appropriately within established hierarchies. Previous research [17,18] shows that people tend to overestimate their own capabilities and so having the confidence to acknowledge what you don't know could be considered a sign of maturity, described [19] as 'self-efficacy'.

Sector experience was considered less important as confidence develops over time, although working within a hierarchical multidisciplinary team structure has previously been demonstrated to influence prescribing decisions. Junior doctors have stated that they are often uncomfortable continuing prescribing initiated by a specialist where their position in a hierarchy makes it difficult for them to contend decisions made by their superiors [20,21].

That pharmacists tend to be naturally risk averse came up many times during the interviews associated with this research, although the extent of that was considered to vary between individuals. In 2016 Maddox et al. [22] noted that for Non-Medical Prescribers (NMPs) to feel more confident about taking responsibility for prescribing, the issues of competency, role and perceived risk need to be addressed.

Attitude towards risk is also considered to be different amongst professions. As prescribing becomes the norm amongst pharmacists, it is not unreasonable to suggest that learning how to be comfortable with, and manage, risk is something that needs greater emphasis during training.

In general terms interviewees thought that most pharmacists understood the responsibilities that go alongside a prescribing role, although perceptions of responsibility do change when a pharmacist becomes a prescriber. Department of Health Guidance [23] states that "*prescribers are accountable for all aspects of their prescribing decisions*". Non-prescribing pharmacists however clearly have a responsibility in advising others. Bourne, Baqir and Onatade [9] identified that "*The pharmacist workforce needs to embrace the associated patient clinical responsibility prescribing requires, in tandem with a co-ordinated strategic approach from the pharmacy profession and leadership.*"

The concept of corporate or framework responsibility, where a prescribing pharmacist is working as part of a larger team or as an employee, also emerged during the interviews. The importance of 'who is responsible for a patent's overall care' also seems to come into play. There seems to be a similar perception associated with hospital practice.

Cooper [16] recognised the individual elements of responsibility that are associated with the decision to prescribe. This is further exacerbated when the issue of diagnosis is considered, with interviewees stressing the need to not 'blindly' accept a diagnosis somebody else has made. Comparisons were drawn with shared care protocols where prescribing may be initiated in secondary care and then continued in primary care on specialist advice.

4.2. Competence

The second theme identified from this research is 'Competence'. Although this clearly relates to the individual, it warrants a separate thematic analysis as it introduces the concepts of baseline knowledge, prescribing training, experience and scope of practice.

In terms of baseline knowledge, work by Weiss and Sutton, said that pharmacists can argue their unique competence as a prescriber, given their background drug knowledge and attention to prescribing detail [24].

Post-graduate prescribing training also incorporates learning on responsibility and accountability, although it was acknowledged that there are differences depending on where training has been undertaken which can result in different understanding once qualified. Key to education and training however appears to be the concept of experiential learning. This research shows that interviewees felt very strongly that students need to be exposed to prescribing at the earliest possible opportunity, whether that be at undergraduate or post-graduate level. Aronson [25] suggested that assessment of competence was also important and introduced the concept of a 'licence to prescribe' and that "*continuing postgraduate education of all prescribers and others involved in the medication process should also be 'de rigueur*.' "

Experience per se was considered essential in developing confidence although the type of experience was considered more relevant than the amount of experience a prescriber had. Exploration of whether specific sector experience was relevant showed some differences in perception of the skills relating to both hospital and community pharmacy practice. Whilst those prescribers with a primarily hospital background were considered to have more defined clinical skills, their community pharmacy counterparts were considered have better holistic and communication skills.

Although stakeholders interviewed for this research expressed confidence in the prescribing skills of pharmacists, it could be recognised as a limitation of the findings that only one GP was interviewed. This was considered sufficient due to the focus of the work being on pharmacist independent prescribers and policy makers. Previous work by Hatah et al. [26] and Blenkinsop et al. [27] did however express concerns, particularly in relation to a pharmacist's diagnostic skills and the threat to professional boundaries, both stressing the need for a collaborative approach.

When exploring the relevance of scope of practice two issues emerged, namely scope of practice studied during qualification, and extending scope of practice once qualified. In respect of the former, interviewees drew a distinction between past specialist expertise, and area of practice studied whilst undertaking a prescribing course. Whilst previous specialist expertise suggested clinical competence in that area, many pharmacists are expected to work in much more generalist settings once qualified as prescribers and pressure from employers to increase scope of practice was highlighted. Key to resisting this pressure, and understanding limitations, is the provision of a recognised mechanism for expanding clinical expertise, that involves the prescriber and their employer.

4.3. Environment

The third identified theme relates to 'Environment'. The environment that prescribers practice in, including surrounding support

mechanisms, is critical to keeping patients safe, engendering professional satisfaction, and developing competence.

Perceptions, and the reality, of liability fall into this category and there is a degree of overlap with attitude towards risk. There was however a general finding that when practice changes then concern regarding liability also changes. Some interviewees did recognise that liability may be more of a consideration when prescribers are newly qualified, and also stressed the importance of recording all relevant information, which is perhaps not something pharmacists are necessarily used to doing.

Although assumptions are made regarding liability for certain actions, this is not always borne out as reality in a court of law. In 1982 a court found a prescribing GP, visiting GP, and dispensing pharmacist as 45 %, 15 %, and 40 % liable respectively in relation to a prescription error [28].

Although GPhC standards are embedded into professional practice [5,12], unlike doctors, for whom appraisal processes and supervision are much more developed, pharmacists are not subject to a performance list. It is important therefore that specific governance frameworks are in place as pharmacists start to prescribe. There may also be misconceptions from some pharmacists regarding the importance of governance frameworks.

Governance processes may be more established in secondary care, although there is anecdotal evidence that some primary care organisations are starting to put these in place. Cooper [16] made the observation that "*As more health care practitioners undertake prescribing, support from within multiprofessional teams as well as processes to monitor and audit prescribing decisions should be well established to support safe and effective prescribing*".

As prescribing by pharmacists becomes more common, it is to be expected that it will come under increased scrutiny, particularly at a political level. This is perhaps more a consequence of the relative newness of the role, rather than genuine concerns regarding competence. That additional scrutiny may also be a consequence of the fact that not all pharmacists are prescribers yet, and so there may still be uncertainty surrounding the role. It may however be helpful towards establishing confidence in the profession and the prescribing role of pharmacists. The monitoring of remote practice was also raised and is something that commissioners and regulators may need to address.

For prescribing practice to flourish amongst pharmacists, it is considered very important that it is embedded into multidisciplinary practice. Nuttall and Rutt-Howard [29] said that "*it is beneficial, when working in a multidisciplinary team, that team members have some knowledge of and respect for each other's roles. Not only does this make for more streamlined working, but it also gives professionals access to a depth of expertise that they would otherwise be unaware of*." As all of the interviewees in this research worked in a multidisciplinary environment, albeit in different formats, this may have influenced these findings.

If a multidisciplinary approach is going to work in the interests of patients, then it is also essential that prescribing pharmacists have access to supportive infrastructure, such as the ability to order tests and formally refer and handover a patient to another professional.

This research shows overwhelmingly that support mechanisms for new prescribers are essential if the role is to become embedded into clinical practice and new prescribers are to gain the confidence and skills required to make the role a success for patients. That support needs to come in the form of real-time clinical support, reflective support, clinical supervision, and infrastructure support including escalation pathways. This is particularly important when prescribers work in relative isolation as may be the case in community pharmacy, which is something that needs to be guarded against.

Clinical supervision can be confused with real-time clinical support. Although both are a vital part of the process, lessons also need to be learnt from previous initiatives. In 2022 Edwards et al. identified "*the importance of the post-qualification transition period in the development of prescribing confidence/competence*" and identified a high need for supervision and informal and formal support. [30]. This introduces the concept of conscious incompetence described by Flower in 1999 [31].

Multidisciplinary peer support mechanisms were deemed to be important to facilitate a reflective case-based support framework, which can also help develop a multidisciplinary understanding of the prescribing pharmacist's role, and links with the concept of managing expectations in relation to scope of practice.

When pressed about whose responsibility it was to establish support mechanisms, interviewees were clear that it was the joint responsibility of prescribers themselves, employers, and commissioners. Commissioners have a responsibility to create support frameworks as part of the commissioning process, but employers have a responsibility to facilitate and implement those frameworks whilst the individual prescriber has a responsibility to identify their own support needs and engage with that process. There was also a suggestion that higher education institutions could have a role to play in facilitating support, particularly in terms of establishing networks and mentoring schemes.

4.4. Overarching themes and recommendations

When looking at the results of this research in the round, self, competence and environment all have a role to play in the successful rollout of pharmacist independent prescribing. Within those constructs it is possible to establish several overarching themes and recommendations that are stated in box 4. Commissioners, employers, and individual prescribers need to take note of, and action, these observations if independent pharmacist prescribing is to become mainstream within the English healthcare system.

5. Conclusion

A fundamental shift towards pharmacist prescribing becoming mainstream requires pharmacists, employers, commissioners and policy makers to learn from previous experiences, including ensuring that service development is introduced in a way that offers the greatest possibility of long-term sustainable success if it is to achieve its aims of improving access to healthcare for patients. Whilst the changes to the standards in undergraduate pharmacy programmes mean that future generations of pharmacists in the UK will automatically qualify as prescribers on registration, many of the current generation of pharmacists still need to undergo specific post-graduate prescribing training programmes. This research shows that the success of such initiatives is not only dependent on training curricula, but on the ongoing experiential learning and support that will need to be put in place at scale. Essential elements of that learning and support relate to attitude towards risk and a full and consistent understanding of the responsibilities and accountabilities that are associated with an independent prescribing role. Confidence in pharmacist prescribing at scale needs to be established, not only within the profession itself but also with other healthcare professionals and most importantly with patients.

This research has the potential to support commissioners, employers, policy makers and pharmacist prescribers to establish key principles to support sustainable pharmacy practice, but only if the overarching themes and recommendations are noted and acted upon.

Data Statement

Transcription data is available on request

Funding

This research was funded by The University of Nottingham QR PSF 2023-24 UoN and RIS 20838135

CRediT authorship contribution statement

Bruce Warner: Writing – original draft, Visualization, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Tracey Thornley:** Writing – review & editing, Supervision, Methodology, Funding acquisition, Conceptualization. **Claire Anderson:** Writing – review & editing, Supervision, Methodology. **Anthony Avery:** Writing – review & editing, Supervision, Methodology, Conceptualization.

Declaration of Interest

National Clinical Director for Prescribing for NHS England, Recipient of non-commercial research grants, mainly from NIHR Through the University of Nottingham

Acknowledgements

This research was funded by The University of Nottingham QR PSF 2023-24 UoN and RIS 20838135. The author's thanks go to all participants who agreed to be interviewed as part of this research.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.healthpol.2024.105223.

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