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Facilitators and barriers to expanding scope of practice for pharmacist independent prescribers in North Wales: a qualitative study

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Abstract

Objectives: To explore factors that either enable or hinder pharmacist independent prescribers (PIPs) when they expand the scope of their prescribing practice.

Methods: Following ethical approval, PIPs who had expanded their scope of practice since qualifying, who worked within one Health Board in North Wales, self-declared minimum 2 years' experience and prescribed once a month or more were recruited via gatekeepers to a semi-structured interview study. Thematic analysis was utilized after de-identification of verbatim transcripts.

Key findings: Both intrinsic and extrinsic themes were identified. Confidence and attitude were intrinsic themes that acted as facilitators. Extrinsic themes included support, governance, service, and workplace. Support was a key facilitator encompassing mentors, time, funding, management, peers, structured programs, space for reflective practice and accessible colleague advice. Lack of each of these support factors was perceived as a barrier. Governance frameworks were deemed enabling by some and restrictive by other participants. Service factors (for example new roles, or skill mix change within teams) and workplace factors (including multidisciplinary working and role models) both enabled scope expansion. Not working in a multidisciplinary team setting was seen as a barrier.

Conclusions: Previous studies on implementation in independent prescribing (IP) identified similar themes, suggesting scope expansion for PIPs is enabled by the same factors that support development of IP in general. Further research with different contexts or methodology is required to validate these results and inform future guidance on this topic.

Keywords: professional training < education; independent prescribing < prescribing; professional practice < professional practice; workforce < professional practice

Introduction

Wales, on the west of the United Kingdom (UK) mainland, has a unique culture and heritage, including the Welsh language. Both Welsh and English are official languages in everyday use, although Welsh is more prevalent in rural areas. Wales is a devolved nation of the UK and has its own government, *Y Senedd*, with responsibility for delivering healthcare. Within Wales, seven local Health Boards (HB) manage and commission secondary (hospital-based) and primary (community-based) healthcare services. Primary care includes independent contractors that provide healthcare within general practice (GP), community pharmacy, dentistry, opticians and an out of hours (OOH) GP service. The aging population, changing technologies in healthcare and a policy of moving care from secondary to primary care settings across the UK, has led to the evolution of healthcare teams to include a wider multidisciplinary team [1, 2] particularly in rural areas such as North Wales, where recruitment of doctors is challenging [3].

Recent healthcare delivery changes in Wales have been informed by the development of non-medical Independent Prescribing (IP). Traditionally, doctors and dentists were the only prescribers, but from 2006 in the UK, and 2007 in Wales, legislation allowed pharmacists and nurses to prescribe, followed later by other allied healthcare professionals such as physiotherapists, optometrists, and podiatrists [4]. Internationally, similar changes occurred at first in the United States and Canada, and then Australia and New Zealand, although with variation between healthcare systems on whether prescribing is autonomous (IP), supplementary or collaborative [5]. Currently in the UK, all pharmacist independent prescribers (PIPs) must have completed a University postgraduate course accredited by the General Pharmaceutical Council (GPhC), which includes 90 hours of practice supervised by a designated prescribing practitioner, who are senior medical professionals or experienced independent prescribers. PIPs may prescribe any medication within their competence but initially, when undertaking the IP qualification, start with a small number of medications in specific clinical areas [their 'scope of practice'(SOP)]. Many PIPs do expand this over time and, in 2022, the professional support body for pharmacists in the UK, the Royal Pharmaceutical Society (RPS), published guidance for independent prescribers from any profession on expanding their SOP [6]. To ensure clinical governance, the

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HBs in Wales require PIPs to state their SOP on an annual basis.

Traditionally PIPs were most often practicing within the secondary care setting in Wales [7]. However, Welsh Government policy to improve primary care delivery of services in 2018 and the response to this in 2019 by the Welsh Pharmaceutical Committee (Pharmacy: Delivering a Healthier Wales) highlighted a target to have at least one PIP in each community pharmacy in Wales by 2030 [2, 8]. One example of expanding availability of patient centered services within the primary care setting is the Pharmacist Independent Prescribing Service (PIPS). In this service community pharmacists prescribe for acute medical conditions such as ear, chest, urinary and skin infections [9]. This would have previously only been available within GP services. Another example is the OOH service (which incorporates the national '111' telephone advice service), where doctors work alongside Advanced Nurse Practitioners and Pharmacists and other healthcare professionals [10].

Pharmacists in the UK register with the GPhC, who set education and training standards both for the initial development of undergraduate pharmacy students, and for their foundation year before joining the register. Due to the drive to increase numbers of PIPs to support transformation of healthcare services, these standards have been updated so that from 2026 in the UK, new pharmacist registrants will be prescribers [11]. This influx of PIPs means understanding how to facilitate their progression and development, including expanding SOP, is pertinent to the profession, the healthcare system and policy makers.

In the UK, and internationally, most literature to date has focused on implementation of IP [5, 12, 13] rather than development after qualification. In 2023, Alshehri *et al.* [14] found that PIPs in primary care were successfully able to expand their SOP if given opportunity, mentorship and supervision by senior staff. Both Green *et al.* [15] and Harding *et al.* [16] explored post-qualification learning needs of multiprofessional non-medical independent prescribers and found attending taught courses alone to be insufficient, with allocated time, peer and manager support being key to their further development.

The aim of this study was to explore factors preventing or enabling qualified and experienced PIPs to expand their SOP.

The principal investigator (PI) is an MPharm graduate and PIP of 14 years, who has expanded SOP in primary care from diabetes initially into several other areas, including mental health, menopause, pain and asthma. The study question arose from her work and insight into the experience of PIPs. The project was undertaken as part of a postgraduate novice researcher fellowship (First into Research Wales). The other authors, project supervisors, were non-prescribers but experienced post-graduate researchers in this area and facilitated critical discussion and feedback throughout the study period. Potential bias and assumptions arising from the PI's lived experience as a PIP was acknowledged throughout the study development and execution and balanced through discussion and feedback with the other authors.

Materials and methods

An exploratory qualitative approach was deemed best suited to investigate this novel area, utilizing a semi-structured interview design. As this project only recruited NHS staff and not patients, NHS ethics approval was not required. As per local policy, the School of Pharmacy Research Ethics Committee, Cardiff University reviewed and gave ethical approval on 30/10/23 (reference:2324-03). The researcher's local HB registered the study.

PIPs practicing in one HB in North Wales were invited to participate. Purposive sampling [17] was utilized which aimed to recruit individuals from multiple sectors of pharmacy practice (secondary, primary, and community). This enabled viewpoints from different prescribing services with varying demands and systems. The local HB in North Wales maintains registers of non-medical independent prescribers directly employed by the HB or working in community pharmacies for governance purposes. There were around 80 and 50 on each register respectively in November 2023. As such, gatekeepers within the HB, who had access to these registers, were utilized to assist in recruitment. These gatekeepers sent an invitation letter, information sheet and consent form to potential participants on the researcher's behalf. Recruitment documentation included details on the reasons for the study, data protection and the study process. To capture those PIPs not employed by the HB but employed directly by GP surgeries the PI, with permission, sent a group email to fifteen pharmacists not on the registers, using a list compiled by HB pharmacy teams and available to the PI in their employed role at the time, a final total of ∼145. Potential participants contacted the PI directly via email.

- So that participants could speak from lived experience, the inclusion criteria for the study were GPhC registered PIP working within one HB in North Wales.
- Qualified PIP for 2 or more years.
- Actively prescribing (in the past month).
- SOP had expanded since qualifying.

These criteria were stipulated in the participant information sheet so potential interviewees could assess their suitability to partake. Adherence to the inclusion criteria was then reconfirmed upon interview. Sample size was not pre-determined but when no new themes emerged from the body of interviews, recruitment was stopped as data saturation had been reached [17, 18]. A semi-structured interview schedule (Supplementary Material S1) was designed, informed by discussion and review with two experienced pharmacist researchers in the HB and among the authors. Interviews allowed in-depth discussion on the area of interest. Participants chose between an in-person or online interview and, as the PI was a fluent Welsh speaker, whether to speak Welsh or English. Conducting interviews in Welsh allowed natural conversation without impediment for first language Welsh speakers.

Audio recordings, with or without video, were captured on Microsoft® Teams, with consent. In person interviews were at work-based locations. All interviews were conducted by the PI. The automated transcribing function was utilized and checked for quality assurance purposes. Transcripts were de-identified and Welsh transcripts translated to English. Translations were reviewed by a Welsh speaking co-author. After two pilot interviews (included in the final analysis), the interview schedule was reviewed, and one question added.

No field notes or repeat interviews were used, and transcript review and participant feedback was not possible due to

time constraints. Inductive thematic analysis was conducted following Braun and Clarke's six steps [19]. Following de-identification by the PI, the first transcript and proposed coding was reviewed by all three authors and subsequent transcripts by the lead author. Themes and sub-themes were derived from the data without software on an ongoing process during data collection. Themes (Supplementary Material S2) were discussed and refined by all authors at multiple stages. A 'methods' theme was discarded as outside the remit of the research question, before agreeing final themes.

Results

From 14 expressions of interest, 10 interviews were conducted (December 2023 to March 2024). Interviews ranged from 18–46 minutes. One participant withdrew for personal reasons and three were non-responders after initial contact. All participants were PIPs and had been prescribing between 2 and 16 years. Examples of expanding their SOP included acute conditions, such as starting with ear infection and expanding to chest, urinary and skin infections, or expanding to further chronic conditions in primary care, such as from asthma adding in hypertension, or starting with a secondary care specialty and then adding acute infections in an OOH setting. Exact details of each prescriber's SOP are not provided due to risk of identification.

Participants included four pharmacists based in hospital, three from primary care, two from community pharmacy and one from an OOH setting. Three of the hospital pharmacists also worked in OOH and two of those were actively prescribing only in an OOH setting, although both had previous experience of prescribing in hospital or primary care settings. All the primary care pharmacists in the study were based in GP practices run by the HB rather than independent contractors. Seven interviews were conducted online with both visual and audio recordings while three were in-person, with audio only recording due to participant preference. Three interviews were conducted in Welsh (two online, one in-person). Only the researcher and participant were present in each interview to ensure confidentiality.

Themes

After discussion with the research team, themes were refined and divided into intrinsic and extrinsic factors. Themes encompass concepts that were mentioned by the majority of participants, unless otherwise stated. Themes and subthemes are outlined below and in Fig. 1. All concepts were deemed to be a facilitator, and many were also discussed as barriers, if lacking. No exclusive barriers to scope expansion were identified.

Intrinsic themes

Attitude

This theme arose from individuals' attitude to learning, which included their motivation and enjoyment of new challenges which was a driving force behind their decision to expand their scope: 'My approach,... is take every opportunity you can to, to do something new and learn something' *(participant 3)*.

Experience

This theme was derived from participants relating their experience as a qualified healthcare professional to their ability to expand their SOP. All but one participant mentioned confidence. Half of the participants explained that their clinical experience meant they could not only treat the specific conditions within their SOP but could appreciate the broader presentation of the patient. For example, a prescriber treating a urinary tract infection was able to consider additional social circumstances and whether the condition was caused by a sexually transmitted infection (STI). They subsequently progressed to prescribing STI treatments. All but one participant also discussed how their experience helped shape their professional boundaries giving them confidence to define their role and not feel pressured to practice outside their competence: 'I think it's really important that people understand their own limitations and when they can say no and what their scope should be' *(participant 6)*.

Extrinsic themes

Support

This sub-theme reflects the type of support each person did (or did not) receive. All participants highlighted that access to a supportive mentor was fundamental to their development in several areas. This included receiving informal advice through discussion of cases and scenarios, shadowing the mentor and practicing under supervision of the mentor. They believed time spent learning with their mentor was crucial for their learning, with funding needed to enable time for this. In addition to their mentor, shadowing other medics, PIPs and nurse prescribers, reflective thinking and peer support all enabled participants to draw upon the experience of others to facilitate their decision making and development. Access to structured learning competency frameworks (such as the RPS 111 and GP transition programs), and organizational support were also highlighted. Illustrative quotes for this theme are shown in Table 1.

Service

Factors that led participants to expand their SOP included moving to a new role or skill mix issues, such as lack of doctors, leading to some pharmacists being asked to take on prescribing roles: 'There was a push for... pharmacist prescribers to release doctor time' *(Participant 2)*.

Requests from patients for a new area of prescribing was mentioned by community pharmacists participating in PIPS. Several participants described an expectation from their employer that their role included prescribing in a particular area, leading to them to expand their scope to meet this requirement. One primary care pharmacist spoke about planning new areas of her prescribing role with her employer.

Governance

Standards and frameworks from both employers and professional bodies were enabling for some who appreciated the structure and validation while others found it restrictive, curtailing professional judgement as clinical practice often is complex with multiple morbidities and concurrent presentations:: 'The person in front of you could be on paper be within your scope of practice, but as a prescriber you need to recognise whether you are competent to manage that patients' needs or not and that will depend on how ill they are...lots of patient characteristics, both clinical and social, et cetera, and what's wrong with them' *(Participant 3)*.

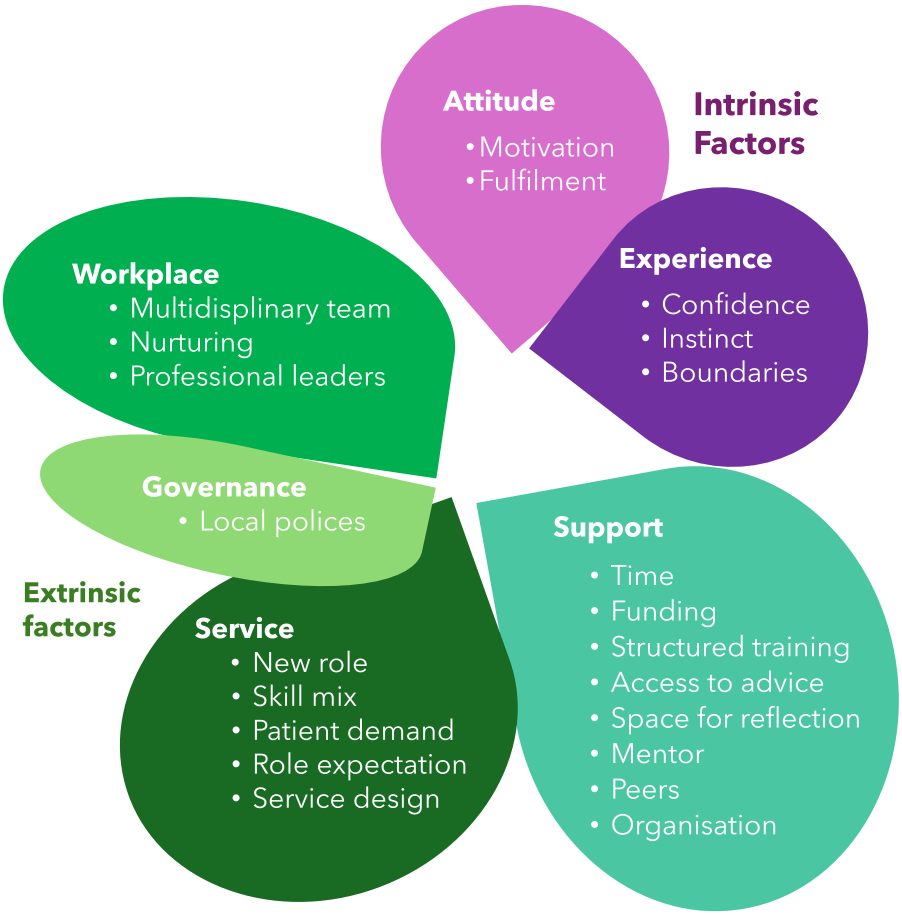

Figure 1. Infographic illustrating the themes and sub-themes.

Table 1. Representative quotes for support theme.

Theme	Sub-theme	Quote
Support	*Mentor*	*'I think one of the things that's really helped me is mentorship'(p3) 'It's really important to have a good . . . prescriber supporting you'(p6)*
	Time	*'You really need . . . protected time, and obviously the NHS is really busy and things–that can be a challenge'(p7)*
	Funding	*'For local health board funding, it was compulsory to do a minor ailments course'(p9)*
	Structured training program	*'when I moved from community into primary care, I was put onto the [RPS] transition program'(p1)*
	Access to advice	*'We have systems within the team . . . where I can just send to someone and say, "Would you agree?" . . . "My clinical plan would be—is this correct?" . . . something like that helps a lot'(p5)*
	Space for reflection	*'having a peer to have a conversation with, at the end of a phone, to discuss a case, helps you rationalise the case in your head as well, and things like that help your scope of practice'(p8)*
	Peers	*'They do peer review sessions, which are really good . . . so you learn through other people and you have that forum'(p6)*
	Organization	*'Your pharmacy managers . . . need to be very supportive and, and willing and able to give you that time'(p2)*

Workplace

The workplace also affected scope expansion. Sub-themes where the workplace had enabled expansion included those with nurturing team cultures where PIPs felt supported. Professional leaders who were independent prescribers themselves acting as role models and working within a multidisciplinary team were deemed supportive. In community pharmacy, lone working was perceived as a barrier due to the challenge of conducting discussions with colleagues: 'We don't work alongside other health professionals...it would be absolutely great to just have a catch up...with the [Doctors] or . . . nurses or.. pharmacists' *(Participant 9)*.

Discussion

This exploratory study provides insight into the factors that may enable or prevent pharmacists from developing their SOP. Such findings are pertinent to pharmacists currently practicing as PIPs, as well as newly qualified pharmacists who will be prescribers from the day they join the UK register from

2026. Factors identified are both intrinsic to the individuals' approach to self-development, such as confidence and motivation, and extrinsic factors such as the support provided to them and their workplace.

A small sample size of 10 participants may limit the transferability of the results. However, this is not always an impediment for qualitative research, saturation was reached meaning this potential limitation was minimized [18]. Welsh Government standards [20], as well as local HB policy, recommend PIPs specify their SOP and prescribing formulary annually. This, in combination with the rural setting, may present a unique context that drives PIPs scope expansion and as such, barriers and facilitators in this setting may differ from elsewhere. Furthermore, all participants had successfully expanded their SOP, so may have been intrinsically more motivated and confident individuals. A lack of pharmacists included from GP practices not run by the HB may have excluded some findings, however, facilitators identified in the study were broadly similar across all sectors of the profession. This study explored only the views of PIPs therefore the findings may not be applicable to other professions who are independent prescribers. Further research is therefore needed with these other professions to identify any similarities or differences. IP takes place in all parts of the UK, but specific policies and guidance vary in each of the devolved nations. Further research in other parts of the UK and internationally will allow confirmation or expansion of this work before recommendations could be incorporated into future guidance.

Despite a lack of previous studies into prescribers expanding their SOP, the themes identified are similar to those on IP development in prescribing across professions [21] and systematic reviews on barriers and facilitators of prescribing implementation [13, 22]. This suggests expanding scope may require the same level of support as the initial qualification. In this study, the support of an experienced mentor was identified by all and considered fundamental for enabling them to apply learning to practice. Currently there is no regulatory requirement for PIPs to have a prescribing mentor after qualification, although one guideline for health employers in Wales recommends this [23]. To the lead author's knowledge to date, there is no other requirement to this effect in the UK or internationally. In the current professional guidance on independent prescribers expanding SOP [6] the emphasis is on individuals needing to reflect, plan, act, and evaluate with sparse advice on how to 'act', and very little on the key elements of support. In this study, enabling support factors included mentor support to supervise consultations and structured programs or competency frameworks, access to advice when new to an area of prescribing and protected time either with a mentor or for reflection and study about the new area. Alshehri *et al*. [14] also found mentorship and time facilitated pharmacist prescribers' scope expansion in primary care settings, and suggested structured programs would help facilitate scope expansion. Several participants in this study spoke of the usefulness of time or opportunity to reflect on practice when new to a prescribing area. Prescribing is much more than a signature and involves complex decision making. Abuzour *et al*. [24] describe a need for metacognition to reflect on the elements of a prescribing decision, and found the clinical reasoning capabilities of independent prescribers were influenced by similar factors to those in this study—namely experience, attitude, interprofessional team, costs, trust requirements and resources.

Research on prescribing competency has highlighted the influence of the interprofessional interaction on prescribing practice [25]. Other studies have found pharmacist prescribers lack confidence although competent [26, 27]. Self-assessment of competence can be difficult and could explain why participants found structured pathways, working in a multidisciplinary team and feedback from mentors facilitators of scope expansion, owing to the external validation of their practice. Cope *et al*. [28] previously investigated nurse and PIPs' self-efficacy, a concept that describes an individuals' own certainty to achieve a level of attainment, which is considered a more precise term than confidence. They found healthcare professionals who had been registered and qualified as prescribers for longer had greater self-efficacy scores for prescribing tasks in an acute medical unit setting. This suggests self-efficacy (or confidence) is linked to experience. However, McIntosh [29] conducted a systematic review on influences on prescribing decision making and found mentorship and peer support facilitated confidence, which offers a further reason to recommend both of these measures.

Conclusion

This study highlights key enabling factors for PIPs' scope expansion. Government policy continues to expand the role of independent prescribers across the healthcare professions in the UK. For them to move beyond basic practice in small areas to developing their SOP to a wider range of conditions, support for both the intrinsic and extrinsic factors will be needed. In light of the literature so far and clear indications in this study, mentorship, multidisciplinary working and peer support could be key to facilitate PIPs' practice beyond the initial qualification phase. In the future it is hoped that both professional bodies and employers in the UK and further afield will draw on the growing body of evidence in development of policies, guidance and IP roles.

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Author contributions

Rachel Louise Kloss Davies (Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Writing—original draft, Writing—review & editing), Rhian Deslandes (Supervision, Validation, Writing—review & editing), and Rowan Yemm (Supervision, Validation, Writing—review & editing)

Supplementary data

Supplementary data is available at *Journal of Pharmacy Practice* online.

Conflict of interest

The authors declare that there are no conflicts of interest.

Data access statement

All authors had access to the complete study data throughout the study. Access is ongoing.

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Data availability

The data underlying this article will be shared on reasonable request to the corresponding author.

Ethical approval

(a) The name of the Institutional Review Board or Ethics Committee that approved the study and all protocols: *Cardiff University School of Pharmacy Research Ethics Committee.*

(b) The date of this approval: *30 October 2023.*

(c) The number of the certification or document which verified approval of the study: *2324-03.*

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