BMJ Open

Contribution of supervision to the development of advanced practitioners: a qualitative study of pharmacy learners' and supervisors' views

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ABSTRACT

Objective To apply educational theory to explore how supervision can contribute to the development of advanced practitioners using the example of several postregistration primary care training pathways for pharmacy professionals (pharmacists and pharmacy technicians).

Design Qualitative semistructured telephone interviews applying Billet's theory of workplace pedagogy for interpretation.

Setting England.

Participants Fifty-one learners and ten supervisors.

Primary outcome Contribution of clinical and educational supervision to the development of advanced practitioners in primary care.

Results Findings were mapped against the components of Billet's theory to provide insights into the role of supervision in developing advanced practitioners. Key elements for effective supervision included supporting learners to identify their learning needs (educational supervision), guiding learners in everyday work activities (clinical supervision), and combination of regular prearranged face-to-face meetings and ad hoc contact when needed (clinical supervision), along with ongoing support as learners progressed through a learning pathway (educational supervision). Clinical supervisors supported learners in developing proficiency and confidence in translating and applying the knowledge and skills they were gaining into practice. Learners benefited from having clinical supervisors in the workplace with good understanding and experience of working in the setting, as well as receiving clinical supervision from different types of healthcare professionals. Educational supervisors supported learners to identify their learning needs and the requirements of the learning pathway, and then as an ongoing available source of support as they progressed through a pathway. Educational supervisors also filled in some of the gaps where there was a lack of local clinical supervision and in settings like community pharmacy where pharmacist learners did not have access to any clinical supervision.

Conclusions This study drew out important elements which contributed to effective supervision of pharmacy advanced practitioners. Findings can inform the education and training of advanced practitioners from different professions to support healthcare workforce development in different healthcare settings.

Strengths and limitations of this study

► This study applied Billet's theory of workplace pedagogy as an interpretive framework to better understand the mechanisms facilitating effective supervision of advanced practitioners in primary care settings.

► This study triangulated the views of learners and supervisors from different primary care learning pathways to explore the role of clinical and educational supervision across the board.

► Participants volunteered to take part in this study, which increased the potential of self-selection, self-reporting, social desirability and recall bias.

► Only five clinical and five educational supervisors participated in this study, which limited the depth of findings.

BACKGROUND

Increasing patient demand, workforce shortages and escalating costs are key challenges encountered by healthcare systems worldwide.[1] Both in the UK and internationally, there has been a drive to develop a flexible, multidisciplinary healthcare workforce that can competently work in different organisations and sectors to enable effective service provision across integrated care systems.[2–5] The reported benefits of expanding the role of non-medical workforce (eg, nurses, pharmacists, optometrists, chiropodists, physiotherapists, psychologists, occupational therapists, dietitians) include improving patients' access to healthcare, reducing healthcare costs, controlling prescribing expenditure, detecting and resolving drug-related problems, and making clinical interventions to patients' medicines.[6–8] In the UK, in part driven by the current National Health Service (NHS) workforce pressures,[9] 'advanced practice' roles are increasingly

being introduced so that new services can be provided by staff who are competent and have clinical capacity.[3] Advanced practitioners include healthcare professionals from a range of professional backgrounds (eg, nursing, pharmacy, paramedics, occupational therapy), widening their scopes of practice, working more autonomously, and taking on more patient-facing roles and clinical work in a range of healthcare settings.[2] Similar policy initiatives on advanced practice and optimising healthcare workforce skill-mix exist in other countries.[10]

Of particular importance is preparing advanced practitioners to move between different primary and secondary care settings working as part of a multidisciplinary team and to gain the skills and confidence needed to do so. Effective supervision plays a key part in this preparation, supporting trainees to apply their learning in practice to facilitate deeper learning.[11] While there are different forms of, and approaches to, supervision (eg, clinical supervision, educational supervision, managerial supervision, informal supervision, mentoring, coaching), they share a common goal, which is to promote trainees' personal and professional development.[12] Hence, supervision often involves one-to-one encounters between trainees and supervisors which promote the development of competence and reflective practice. This includes (but is not limited to) guidance, management, training, assessment or remediation.

In medical education, the most common form of supervision is clinical supervision, which consists of oversight of day-to-day clinical performance with regular feedback.[13] The benefits of effective clinical supervision in facilitating learning and performance have been widely recognised in both the medical and nursing literature.[14–19] Common features of effective supervision in medicine, pharmacy and nursing literature include availability of supervisor, informative feedback, effective communication and a supportive relationship between the supervisor and the supervisee.[18–22] These features have also been found to facilitate effective clinical supervision of physiotherapists, occupational therapists, social workers, dietitians, psychologists, podiatrists and speech pathologists.[23] Of paramount importance is having clinical supervisors with experience, skills and knowledge to support learners in the workplace.[22–24]

Another, more recently established form of supervision is 'educational supervision'. In the medical literature, this role involves establishing trainees' learning needs and reviewing progress to ensure that trainees are making the necessary clinical and educational progress.[11] The medical literature on educational supervision suggests that educational supervision is beneficial when supervisors provide learners with adequate support to identify their learning requirements, along with sufficient access to appropriate training opportunities.[25 26] On the other hand, inadequate time, lack of training and clarity on supervision role detract from the benefits of educational supervision.[13 25] Apart from physicians and nurses, research is limited in relation to different types of supervision models in the

training and development of a wider range of healthcare professionals which will support the expansion of skill-mix within healthcare teams.

Pharmacy professionals' skills have been increasingly recognised in the UK, and they have been deployed across a range of primary care settings, partially due to funding from the Pharmacy Integration Fund (PhIF). Therefore, pharmacy offers a good exemplar to explore the role of supervision to support a move to advanced practice. The PhIF was launched by NHS England in 2016 to commission and evaluate activities that integrate pharmacy professionals in community pharmacies and other primary care settings to deliver medicines optimisation and clinical pharmacy services to patients as part of an integrated system.[27]

In UK pharmacy, there is no formal support/framework for registered pharmacy professionals' support or supervision. There is emerging research that considers the process (or lack) of supervision and support for pharmacists and pharmacy technicians in the workplace, mostly stemming from the period prior to registration.[28–31] Community pharmacists, for example, commonly work as the sole pharmacist and do not have access to peer support or supervision in the workplace. Another issue is the lack of consistency in work-based experiences for pharmacy professionals within and between hospital and community pharmacy sectors. For instance, hospital pharmacists learn about specialist medicines on ward rotations, whereas in community pharmacy pharmacists develop knowledge of over-the-counter medicines.[32] In addition, pharmacy technician education and training lacks the clinical focus required to take on extended roles, and in community pharmacy technicians' roles are not clearly defined or sufficiently different from other support staff.[31]

More recently, pharmacy professionals increasingly work in a range of primary care settings, where other professionals and support staff in the different settings have a limited understanding of the role and potential learning needs of pharmacy professionals.[33] To support pharmacy professionals, and indeed other types of advanced practitioners, to fit into a multidisciplinary team and be supported to do so for best patient care, it is important to understand what supervision is required. A better understanding of supervision requirements can help design a supervision model which supports the learning of pharmacy professionals and other healthcare professionals in advancing their practice.

The aim of this paper is to explore how supervision can contribute to the development of advanced practitioners using the example of a number of PhIF-funded postregistration training pathways for pharmacy professionals (pharmacists and pharmacy technicians) in England.

Pharmacy integration programme in England

In the context of pharmacy in England, Health Education England (HEE) (the NHS statutory body responsible for education and training of the health workforce)

Table 1 Summary of PhIF learning pathways in scope of the evaluation

Learning pathways	Definition	Aim	Mode of delivery*	Supervision
Medicines optimisation in care homes	Pharmacist independent prescriber works as a member of the multidisciplinary team to support care home residents achieve medicines optimisation according to need. Pharmacy technician ensures the efficient supply and management of medicines within the care home, supporting care home staff and residents.[52]	To give pharmacists and pharmacy technicians working in care homes the confidence and skills to deliver medicines optimisation for care home residents as part of a multidisciplinary team.	One provider; used a blended approach of online and workplace-based learning.	Provided by educational and clinical supervisor.
Integrated urgent care	Pharmacist independent prescriber works in urgent care as part of the multidisciplinary team, where they handle medicines-related enquiries and issues, undertake clinical assessment and treatment of minor ailments, and where appropriate prescribe for repeat prescription requests and provide self-care advice.[53]	For pharmacists to develop the knowledge, confidence and adaptability to work effectively in NHS 111/ integrated urgent care settings as part of an multidiscplinary team (MDT).	One provider; used a blended approach of online and workplace-based learning.	Provided by educational and clinical supervisor.
Accuracy checking pharmacy technician	An accuracy checking pharmacy technician provides the final autonomous accuracy check of dispensed medicines, following clinical check by a pharmacist.[54]	To ensure pharmacy technicians are able to check dispensed items safely and effectively, taking a greater leadership role in pharmacies.	Used a blended approach of online and workplace-based learning.	Provided by work-based supervisor.
Postregistration programmes†	Provides community pharmacists and pharmacists working in health in justice settings to choose from a range of courses and modules which focus on service improvement, extended skills, patient activation, delivering medicines optimisation and NHS England clinical priorities.[55]	To ensure community pharmacists have the skills and confidence to deliver a range of clinical services across a range of care pathways.	Range of HEIs commissioned; varied blended approach and others providing the learning almost entirely online.	Provided by educational supervisor.

*These pathways commenced in 2018/2019. Following the COVID-19 pandemic, mode of learning became almost entirely online for all pathways.
†Postregistration learning pathway mainly involved community pharmacists but was also open to prison pharmacists. The evaluation only involved community pharmacists.
NHS, National Health Service; PhIF, Pharmacy Integration Fund.

commissioned a range of training and development pathways to support the development of pharmacy professionals to extend their scope of practice, funded through the PhIF.

As defined by the HEE, 'advanced level practice isn't a specific role, it includes all practitioners who have progressed to an advanced level through further education and training'.[34] The PhIF is providing support for a number of learning pathways which facilitate advanced practice. The focus of this paper is on the following pathways: medicines optimisation in care homes (MOCH), integrated urgent care (IUC), accuracy checking pharmacy technician (ACPT) and postregistration programmes (table 1). These pathways, while having some commonalities, were also quite different, with some (postregistration and ACPT) focusing on training without pharmacy professionals moving to a new role or setting, while others encompassing employment in a new role (urgent care setting or care home) accompanied by a programme of learning. Learners on MOCH, IUC and some postregistration pathways were provided with educational supervisors. The role of educational supervisors was to guide learners in an educational capacity on behalf of the training provider. Learners on the MOCH and IUC pathways were also assigned clinical supervisors to guide them in their clinical practice at their place of work. On ACPT, pharmacy technicians had workplace supervisors which worked alongside learners in the same setting and provided guidance on day-to-day activities. Table 1 provides a description of the key elements of the learning pathways.

Theory of workplace pedagogy

This paper draws on educational theory to shed light on the contribution of supervision in supporting the development of pharmacy professionals as advanced clinical practitioners. Billet's theory of workplace pedagogy[35] focuses on learning opportunities and resources made available in the workplace and how the trainee engages with opportunities and resources provided in that workplace (box 1). Billet's workplace theory[35] is grounded in the idea that learning solely through participation in everyday work activities may not be sufficient without guidance of more experienced coworkers. In the context of this study, pharmacy professionals' learning and development were reliant on them obtaining the support, resources and guidance required to contribute to the workplace. This also depended on what was offered to pharmacy learners and on their personal characteristics and motives. Hence, using Billet's theory of workplace pedagogy[35] as a lens to analyse and interpret findings helps uncover what contributes to an effective supervision model to support the learning of healthcare professionals in advanced clinical practice roles.

Box 1 Three planes of workplace pedagogic practices taken from Billet[35]

► *Participation in work activities:* organising of access to and the guidance and monitoring of engagement in work activities of increasing accountability, including access to the direct and indirect guidance that workplaces provide freely through everyday work activities.
  – Learning through undertaking everyday work activities.
  – Sequencing of tasks (from low to high accountability (peripheral to full participation)).
  – Opportunities to participate, observe and listen.
  – Opportunities to access goals required for performance.
► *Guided learning at work:* direct guidance in the form of intentional learning strategies (eg, modelling, coaching, questioning, analogies, diagrams) directed towards developing the values, procedures and understandings that would not be learnt through experience or discovery alone.
  – Close guidance by experienced workers.
  – Use of modelling, coaching and scaffolding.
  – Use of techniques to engage workers in learning for themselves.
  – Use of techniques to develop understanding.
► *Guided learning for transfer*:* extending the adaptability of individuals' knowledge to other situations and circumstances.
  – Use of questioning, problem-solving and scenario-building to extend learners' knowledge to novel situations.

*Transferable outcomes will also be developed on the other planes.

Design

This study is part of a wider mixed methods evaluation of the PhIF learning pathways. Data from semistructured qualitative interviews with learners and supervisors were analysed to unpack the role of supervision and what contributes to or detracts from effective workplace learning in these pathways.

Learners from each of the learning pathways in the PhIF evaluation were invited to take part in these interviews. To recruit educational and clinical supervisors on the PhIF pathways, learning providers distributed email invitations among their networks, requesting those interested to contact the research team. Recruitment adverts were also distributed by the research team via social media.

Telephone interviews were conducted by three members of the research team with learners and supervisors between January and March 2020. Interviews ranged from 25 to 60 min. Field notes were taken during or after the interview. Those conducting interviews had considerable experience conducting qualitative research from previous research. They were paused for 2 months at the start of the COVID-19 pandemic and resumed from June to November 2020. Interview questions were tailored to understand the views and experiences of learners and supervisors in relation to the learning pathways and the subsequent application of learning in the workplace. Topic guides were informed by relevant literature and the Theoretical Domains Framework, a model of behaviour change used to understand how learning and policy interventions influence changes in practice. Questions relating specifically to supervision explored the role of educational and clinical supervision in facilitating learning and application. Although not pilot-tested, topic guides were refined following discussions between the research team and relevant PhIF stakeholders. Data collection continued until data saturation was reached.

All interviews were audio-recorded and transcribed verbatim. Transcriptions were imported into NVivo V.11 to manage the data analysis process. Interview transcripts were analysed using an abductive approach, integrating inductive data-driven coding with deductive theory-driven interpretation[36] by positioning empirical findings against the components of Billet's work-based theory. Taking a combined iterative and theoretical approach to analysis ensured that Billet's work-based educational theory was used in an exploratory way to make sense of findings.[37]

Fifty-one learners and ten supervisors were interviewed. Interviewed learners included 20 postregistration pharmacists, 13 MOCH pharmacists, 7 MOCH pharmacy technicians, 7 IUC and 4 ACPTs. Supervisors included five clinical supervisors (MOCH=4, IUC=1) and five educational supervisors from the postregistration pathway.

Patient and public involvement

Patients were not involved in the design or conduct of this study as the evaluation looked at learning pathways for pharmacy professionals.

RESULTS

Using Billet's theory of workplace pedagogy,[35] findings have been grouped into three themes under clinical supervision and educational supervision to provide insight into supervision models in terms of developing advanced practitioners (table 2).
► Clinical supervision
  – Participation in workplace activities and guided learning at work.
  – Workplace affordances
► Educational supervision.
  – Ongoing support to help meet learning needs.

An additional theme was identified from inductive data-driven coding but did not map on to Billet's theory:
► Support offered for supervisors.

Clinical supervision

Participation in workplace activities and guiding learning at work

Billet[38] highlights the importance of supervisees being provided with opportunities to observe and participate in workplace activities and receive guidance from supervisors as well as experienced coworkers. This was reflected in learners' accounts regarding their experiences of clinical supervision. Those who portrayed supervision as a beneficial source of support typically described clinical supervision as an opportunity to shadow, be observed by and receive feedback from an experienced clinician. Learners described having protected time to undertake learning within the workplace, often supported or

Table 2 Mapping of themes against the components of Billet's theory	
Components of the Billet's theory of workplace pedagogy	**Themes**
► Learning through undertaking everyday work activities. ► Opportunities to participate, observe and listen. ► Use of modelling, coaching and scaffolding.	► Participation in workplace activities and guided learning at work.
► Use of techniques to develop understanding.	► Participation in workplace activities and guided learning at work. ► Ongoing support to help meet learning needs.
► Opportunities to access goals required for performance.	► Workplace affordances. ► Ongoing support to help meet learning needs.
► Close guidance by experienced workers.	► Participation in workplace activities and guided learning at work. ► Workplace affordances. ► Ongoing support to help meet learning needs.
	► Support offered for supervisors.*

*Additional theme identified from inductive data-driven coding but did not map on to Billet's theory.

facilitated by colleagues and undertaken in conjunction with their supervisor.

> what she [supervisor] would do is just take me through, before a case came in, she would take me through her thought process of what she thought and expected. And then you'd see during the consultation how things change and how things develop. And then we'd debrief afterwards…, it helped that learning experience and then we'd discuss it afterwards and identify anything that I wanted to work on further or anything in my portfolio that I had to get experience, to tick off that competency. (Pharmacist learner; IUC.136)

Billet[38] refers to guided learning as 'a more experienced co-worker (the mentor) using techniques and strategies to guide and monitor the development of the knowledge of those who are less skilful (the mentees)'. Guided learning was an essential component of the clinical supervisory role. Clinical supervisors typically conceptualised their role in terms of supporting learners to develop proficiency and confidence with regard to translating and applying the knowledge and skills they were gaining into their clinical practice.

> …it's about practical application of what they learn through, you know, reading or on study days or through their discussion groups. The course needs to put in a foundation of clinical knowledge that we can then apply, on the one hand almost patient by patient because it's a very patient focused service in real terms, but equally, it's also about the clinical confidence… (Clinical supervisor; MOCH.502)

Several clinical supervisors highlighted their role in supporting learners to overcome initial challenges, including a lack of established professional networks and information governance agreements between organisations. This included supporting learners to understand and orient themselves within their practice

environments while navigating the relational and structural aspects of their new role and work environments:

> …it's an enabling role, I think it's somebody who, I think more of this is about relationships and actually facilitating and navigating these individuals to embed them locally. And when we are talking about primary care and integrated care, actually making that as seamless as possible for them to do that. (Clinical supervisor; MOCH.500)

Supervisors frequently described facilitating critical reflection as a key element of their role:

> …it's all about encouraging people isn't it? And making sure that they're aware of their own working practices, making sure that they're aware, what their strengths and their own weaknesses are, so that they can regulate themselves a little bit more. (Work-based supervisor; ACPT.203)

Signposting learners to other sources of relevant support was additionally referenced as a means of enabling learners to progress their learning and expand their support networks.

> I've had lots of discussions about trying to enable those individuals to get what they need, and it's not always from me, but actually from a number of different individuals, depending on what the nature of the problem of the challenge is that has presented itself. (Clinical supervisor; MOCH.500)

Learners on different pathways valued support from the wider team (particularly other pharmacists) to ease their transition into new advanced roles. However, some learners thought that teamwork and collaboration between pharmacy teams and wider healthcare professionals still needed improvement.

> Because naturally in the team previously I think pharmacists have been the ones doing the medication, main medication review and when it gets, you know,

and it's like, oh technicians do that bit whereas now we're becoming more as a team… so sometimes there is a bit of resistance, a bit of natural resistance because people fear the unknown. (Pharmacy technician learner; MOCH.104)

Workplace affordances

Billet[35] describes 'workplace affordances' as the way the workplace shapes learning by providing learners access to activities and the direct and indirect guidance that individuals are able to access at the workplace. In this study, clinical supervisors who also acted as learners' line managers were a good fit as they were frequently able to offer a combination of regular prearranged face-to-face meetings alongside the opportunity for more ad hoc contact as and when learners felt this was needed.

On the other hand, several learners felt their clinical supervisors were mismatched to their needs. Reasons that learners felt this ranged from supervisors lacking relevant experience, to being located geographically far away and lacking understanding of the role or course. These factors/conditions led to a lack of affordances:

because the person [supervisor] hadn't done the course themselves and had only had the training that's offered, didn't understand a lot of what had to be done and things and relied very heavily on me explaining to her, so I think that the training was obviously lacking. (Pharmacist learner; MOCH.109)

Lack of proximity to the learner also created challenges in respect of observing learners' practice and assessing competencies.

I think the idea of the clinical supervisor would be that you are spending time directly with that individual during their clinical practice and some of the physical examination assessments and observing those, you know, the way in which the assessments were structured and the criteria were put in place that I just couldn't fulfil the role that was described, I think that's the way to put it, because of the lack of capacity that I had really. (Clinical supervisor; MOCH.502)

Workplace affordances were not solely derived from the supervisor. The delegation of observation and assessment responsibilities to others was frequently cited as a means of overcoming challenges regarding capacity and geographical spread.

Well we managed to work round it by very kind nurses and doctors working alongside him [clinical supervisor] to get us signed off for all the bits that needed to be signed off and they supervised us. (Pharmacist learner; MOCH.115)

Using the skills and expertise across the workplace was beneficial to learners. Learners who described receiving clinical supervision from other types of healthcare professionals, particularly those receiving supervision from general practitioners (GPs) and nurses, tended to describe the experience positively.

The organisation helped me shadow different GPs and different nurse practitioners to get a good flavour of the different kinds of consultation styles and different kinds of cases that you'd be dealing with. Because a nurse practitioner will deal with different things than a GP sometimes and handle them in a different way. (Pharmacist learner; IUC.136)

Issues with supervisor availability and expertise were less frequently encountered by ACPT learners who were all allocated a supervisor within their workplace, which afforded them high accessibility, level of support and feedback.

Having the [work based] supervisor was quite handy because I always spoke to them. Whenever I worked there, they're there, so I can speak to them and then they could guide me. They would see the way that I work as well and he will give me the improvements and guidance. They were very supportive. (Pharmacy technician learner; ACPT.151)

Educational supervision
Ongoing support to help meet learning needs

Educational supervision offered a way to fill some of the gaps where local clinical supervision was not available and in settings like community pharmacy where learners did not have access to clinical/work-based supervision at all, yet still needed support. Educational supervisors characterised their role in terms of supporting learners to identify their learning needs and the requirements of the learning pathway, and then as an ongoing available source of support in relation to any personal or academic challenges that learners encountered as they progressed through a pathway. Setting realistic and manageable aims and objectives with learners was described as a key component of the educational supervisor role.

…it's having that initial meeting over the telephone, or even in person with the student, to really develop a development plan and their learning needs analysis, because we want to find out initially, because we need to plan ahead, what their backgrounds are, what their aims are, what they want to achieve and between us we come with objectives and realistic objectives, because a lot of people think coming here expecting one thing, when in reality it's completely different. (Educational supervisor; postregistration pathway.200)

For some learners, educational supervision appeared to be structured and readily available. These learners discussed receiving frequent structured reviews that were planned in advance. On the contrary, some learners described the educational supervision that was available as being largely learner-led. These learners felt they

would have benefited from more proactive support from their supervisors.

Support offered for supervisors

When asked about support or training received for supervision, some supervisors described feeling well supported in their role. This was attributed to having access to other supervisors with vast experience for support as well as wider networks. Other supervisors often reported feeling largely unsupported in their supervisory role, particularly those that supported learners who were not based within a service that they managed. Suggestions for additional support included face-to-face supervisor training sessions and additional structure and clarity around expectations and monitoring associated with the role.

> …going forward, we probably want to put in some kind of face-to-face clinical supervisor training session or contact session. (Clinical supervisor; MOCH.500)

DISCUSSION

Drawing on qualitative data from a wider mixed methods evaluation of the PhIF learning pathways, this paper explored pharmacy learners' and their supervisors' views on supervision models which can contribute to the development of advanced practitioners. Using Billet's theory of workplace pedagogy[35] as an interpretive framework enabled an understanding of the mechanisms facilitating effective supervision. Findings from this study should be considered in future policy interventions relevant for enhancing the education and training of advanced practitioners.

Participants in this study drew out important elements for effective supervision of advanced practitioners, highlighting key workplace pedagogic practices such as supporting learners to identify their learning needs (setting realistic and manageable aims and objectives), guided learning at work (ie, opportunity to shadow, be observed by and receive feedback from an experienced clinician), and combination of regular prearranged face-to-face meetings and ad hoc contact when needed, along with ongoing support as learners progressed through a learning pathway. These findings are consistent with studies on supervision in medical and nursing education, where setting clear goals and actions to achieve learning outcomes, facilitating learners' participation in workplace activities, and providing regular ongoing feedback and responsive support facilitate personal and professional development for learners.[39-41]

The educational and clinical supervisory roles in this study were described as complementary, offering distinct but connected contributions to learning, with clinical supervisors aiming to support learners to apply their learning in practice and educational supervisors focusing on supporting learners to navigate the requirements of a learning pathway. These findings complement existing research and guidance in medicine and nursing

around the roles of clinical and educational supervision.[11 13] However, our evaluation highlighted that supervision needs to be more consistent in terms of supervisors' availability and accessibility, knowledge and experience, and level of support.

Achieving effective supervision requires a flexible approach to supervision suited to local circumstances and context of the setting. Important considerations involve having clinical supervisors in practice settings with good proximity, good understanding and experience of working in the setting. Our findings highlighted the importance of trainees using the skills and expertise across the workplace. Hence, it is beneficial for learners to have clinical supervision from different professions to support the breadth of development necessary across all areas of advanced practice. Advanced practitioners come from a range of professions and there will be some overlap in roles and responsibilities across different professions. This was gleaned from learner accounts in this study, where learners receiving some form of clinical supervision from other types of healthcare professionals tended to describe the experience positively as they developed a broader understanding of how different professions provide patient care. Such multiprofessional approaches are common in training of medical students.[42]

In addition to clinical supervision focusing on specific individual learning needs in the workplace, more formative educational supervision is needed to identify learning needs and provide continuous and responsive support with a focus on guiding learners' development from single-sector healthcare professionals to cross-sector healthcare professionals. Educational supervisors in this study also offered a way to fill in some of the gaps where there was a lack of local clinical supervision and in settings like community pharmacy where pharmacist learners did not have access to clinical supervision at all—where they are otherwise isolated and relatively unsupported.[43] There may also be a role for an arm's length clinical mentor, who has the clinical knowledge but does not work close by—particularly in situations where learners work in isolation (eg, community pharmacy). Structured mentoring programmes have been implemented to facilitate specific career advancement of healthcare professionals (mainly nurses), where reported benefits are consolidation of the mentees' professional and social skills, increased self-confidence, improved communication skills, leadership development and succession planning.[44 45]

Our findings also highlight the need for developing a flexible healthcare workforce with supervision skills in a variety of settings so they can meet the needs of the learners, where advanced practice and behaviour and practice change are the goal. Training and support for supervision should include a range of flexible supervision models/styles which can be adapted by supervisors to facilitate interaction and ensure continuity regardless of setting. These models should be underpinned by an integrated approach to supervision which recognises communication pathways between different

types of supervisors and other means of support (eg, mentors, line managers, etc) involved within the learner's training and education pathway.[46 47] Supervisors also need organisational support to facilitate their professional development and balance supervision duties with daily practice.[23]

It is also advisable that healthcare professionals from different disciplines are made aware of the professional role and capabilities of learners to offset challenges with professional identity formation and adjustment in new workplace settings.[48] Findings from this study suggest that having a more experienced healthcare professional in the workplace from the same discipline as the learner could help facilitate development of the trainee's professional identity. Interprofessional education and training in the workplace are also other means which can enhance professional identity formation and a collaborative approach to patient care.[49–51]

Study limitations include self-selection, self-reporting, social desirability and recall bias making findings more positive. Any potential bias that could occur due to two of the authors being pharmacists was mitigated as those conducting and analysing the interviews were not pharmacists. Another limitation is that there were only five clinical and five educational supervisors. In addition, all the educational supervisors who participated in our study were from the postregistration learning pathway, which limited the depth of findings on educational supervision. Nonetheless, the views of learners from other learning pathways (although limited) helped us gather some insights into the role of clinical and educational supervision across the board.

CONCLUSION

Using educational theory, this study highlights important considerations for effective supervision of pharmacy learners in advanced practitioner roles. These include supporting learners to identify their learning needs (educational supervision), guiding learners in everyday work activities (clinical supervision), and combination of regular prearranged face-to-face meetings and ad hoc contact when needed (clinical supervision), along with ongoing support as learners progressed through a learning pathway (educational supervision). Insights from this study can inform the education and training of advanced practitioners from different professions to support healthcare workforce development and integrated multidisciplinary working in different healthcare settings. Future research should focus on developing models which encourage interprofessional supervision and mentoring to support the development of advanced practitioners in different settings and to aid with supervisory capacity in the existing workforce.

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