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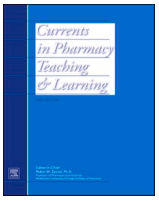

Short communication

Undergraduate pharmacy placements in the primary care clinical environment: An exploration of students' experiences of a pilot placement

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ABSTRACT

Objectives: To explore the experiences of undergraduate pharmacy students, undertaking a pilot placement in a primary healthcare setting.
Methods: A longitudinal placement for undergraduate pharmacy students in primary healthcare was designed in collaboration with practice management staff, doctors, nursing staff, pharmacists and academics. The placement was designed to facilitate the application of students' clinical skills and provide them with an opportunity to collect evidence of their professional development. A primary healthcare centre was identified to host the pilot longitudinal placement and pharmacy students in their third year of undergraduate study were recruited to take part. Following completion of the longitudinal placement a focus group was conducted with the students who completed the pilot to determine their experiences.
Key findings: Students reported that the longitudinal placement allowed them to become integrated into the primary healthcare team, apply knowledge they had gained during their academic studies and develop their clinical and decision-making skills. Students also valued the authentic interactions they had during the placement with other members of the multidisciplinary team and the opportunity to develop their professional identity.
Conclusions: The evaluation of this pilot suggest that placements in primary healthcare could support pharmacy students to develop their physical assessment skills, clinical decision making and apply the knowledge they have gained at university in a live clinical environment.

Introduction

In 2021 the General Pharmaceutical Council (GPhC) published new educational standards for the initial education and training of pharmacists in the U.K[1]. These standards outline the requirement for training providers to prepare pharmacists for an enhanced role in delivering clinical care to patients, including the independent prescribing of medications, from the first day of registration. Additionally, in 2022, the Department of Health and Social Care (DoHSC) in the U.K. added pharmacy to the list of professions eligible for clinical tariff funding for undergraduate placements.[2] These reforms have prompted statutory educational bodies across the U.K. to

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collaborate with providers of undergraduate pharmacy education to significantly increase the time students spend in the workplace from the earliest stages of their training.

There is an expectation that increased placement time will enable students to contextualise the knowledge gained in the classroom and to develop and apply clinical skills.[3] The challenge for providers of undergraduate pharmacy education is to expand placement capacity and design placement structures and activities. Consideration of how students are assessed in the workplace and supported to gather evidence of clinical competence and professional development is also needed.[4] Specifically, how students' clinical competence is assessed at the action 'does' level of Miller's framework[5] which reflects real workplace actions as opposed to the 'shows how' level that evaluates student performance in simulated or controlled settings.[6]

Clinical pharmacists are increasingly part of the multidisciplinary primary healthcare team both in the U.K. and internationally. The NHS Long Term Plan published in 2019[7] outlined proposals for an increase in the number of pharmacists working in primary healthcare. To develop this future workforce, the Pharmacy Integration Fund[8] in England commissioned an initiative to facilitate pharmacy graduates to spend a proportion of their postgraduate foundation training year in primary healthcare. This demonstrated significant benefits including improved trainee ability to work within multidisciplinary teams and the development of their clinical and communication skills.[9]

This study seeks to explore undergraduate pharmacy students' experience of taking part in a pilot longitudinal placement in primary healthcare. The aims of the pilot were to test the feasibility of placing pharmacy students in a primary healthcare centre for a longitudinal placement (one day per week for multiple weeks) and to develop a placement model which facilitates the development and assessment of students' clinical skills.

Methodology

Study design and sample

A pilot placement was designed in collaboration with practice management staff, doctors, nursing staff, pharmacists and academics. This involved a series of meetings at which discussions were informed by participants' previous experiences of delivering placements for healthcare students. Research into longitudinal placements and primary care placements for pharmacy students was also considered.[9–11] An induction guide and timetable were developed, and workplace-based assessment tools were chosen from those recommended for use in foundation pharmacy training in the U.K. A primary healthcare centre was identified to host the pilot placement. The opportunity to take part in the pilot placement was advertised to all students in the third year of the MPharm programme, as it was determined this cohort would have developed adequate clinical knowledge and skills to engage fully with the placement. Five students initially expressed interest in participating. However, two were unable to engage for the full placement duration. As a result, three students were recruited to take part in the pilot placement and its subsequent evaluation. The placement took place at the end of the academic year in June and July 2023. Each student attended the primary healthcare centre for one day each week over a five-week period. During this time, students engaged with a range of activities including attending clinics run by doctors, nurses and healthcare assistants and participating in patient consultations under their supervision. Students' overall activities throughout the placement were supported by pharmacy tutors with clinical and academic experience. Supervision for individual tasks and patient interactions were delegated to members of the multidisciplinary healthcare team. Students were provided with the opportunity to undertake physical assessments of patients (blood pressure, pulse, respiratory rate and temperature measurement) and have their skills assessed by their supervisors. Students also performed non-patient facing roles during the placement including undertaking a clinical audit designed to evaluate aspects of prescribing safety within the organisation.

Data collection

Phenomenology informed the exploration of the students' experiences of the pilot placement as it aims to understand lived experiences both in terms of what was experienced and how it was experienced.[12,13] Following completion of the longitudinal placement a focus group was conducted with all three students who had undertaken the pilot. Focus groups were chosen as the method of data collection as they stimulate discussion and lead to enrichment of data because of reflection, sharing and clarification between participants and researcher through that discussion.[14] The research team, composed of academics with expertise in qualitative methods, developed an interview guide to structure the focus group discussions. This was designed to explore students' experiences of pharmacists' roles in primary healthcare, the interactions they had with the healthcare team, their experiences of developing their clinical skills, being assessed in the workplace and collating evidence of their professional development. Focus groups were held at the university led by a female researcher (C·C) who had not been involved with the design or delivery of the pilot placement. Participants were encouraged to provide honest and open answers and discuss all aspects of their experience of the pilot placement and a conversational style of interviewing was used to encourage dialogue between the participants and researcher. Participants were aware that the pilot placement and evaluation was designed to inform future placement developments at the university.

The participants provided written informed consent prior to the focus group which lasted 120 min. Ethical approval was obtained for the pilot placement and its subsequent evaluation.

Data analysis

The focus group was audio-recorded and transcribed verbatim to aid qualitative analysis. Initial analysis of the focus group

transcript allowed familiarisation with the data followed by coding. A qualitative codebook was developed with codes generated inductively from the transcript content. Following the completion of coding, salient themes were identified, and a thematic framework was developed by the study team individually and then collectively reviewed. Themes were refined until definitive concepts and final interpretations were agreed.

Results

Three students took part in the focus group comprising two males and one female whose ages ranged between 20 and 23 years old. All three students had completed the first three years of their undergraduate pharmacy education including placements in both hospital and community pharmacy. Additionally, two of the students also had significant previous paid work experience in a community pharmacy setting outside their academic studies. Six inter-related themes emerged from the data: *application of prior knowledge, clinical skills development, clinical decision-making, supervision and assessment, multidisciplinary teamwork and professional development.*

Application of prior knowledge

The students reported that the experience of the pilot placement provided them with an opportunity to reflect on the knowledge they had gained in their academic studies and apply this knowledge in a clinical context.

"It was a good way for us to consolidate the knowledge we have built" Respondent 2

Students also described how placement activities supported them to retain and consolidate clinical knowledge.

"When we've gone out of our way to look for [information during placement activities] as opposed to someone just…stood at the front telling us…I think we're more likely to retain and digest the information" Respondent 2

Examples were provided of how the location of the placement within primary healthcare enabled students to use their existing knowledge to support patient care and how they were supported to explore the limits and scope of their knowledge.

"The GP's [doctors] and the nurse practitioners were very willing to listen to our opinions on conditions and give us the opportunity to analyse [the patient's symptoms] and it gave us that opportunity to really test the knowledge that we've built up" Respondent 2

Students were able to identify gaps in their knowledge and take steps to address them.

"[It] let me like identify weaknesses like in areas of learning" Respondent 3

During the placement students engaged with a range of clinics and gained exposure to a significant number of patient interactions. Students reported that this required them to recall a large amount of clinical knowledge which they described as challenging but beneficial.

"The fact that it [patient interactions] could be anything from anything we've covered up until this point…challenged all of us." Respondent 2

Clinical skills development

The students highlighted that they had not previously had the opportunity to apply the physical assessment skills they had been taught in the university setting with patients in a live clinical environment.

"I haven't used them [physical assessment skills] since second year and then only in exam scenarios or in seminars in the classroom" Respondent 1

Although their baseline skills had been acquired at university, students highlighted that working directly with patients during the placement allowed them to apply these skills and adapt their communication and consultation style to the needs of the patient.

"In the university setting we only have a chance to sort of role play within lectures and seminars. Whereas in the [primary healthcare centre] you're talking to an actual patient [in] like a completely different setting. So, you need to be able to adapt…the way you speak… for them [the patient] to understand." Respondent 1

The extended longitudinal nature of the placement gave students the time to develop confidence around their clinical skills.

"It was like quite nerve-wracking cause we'd never done [physical assessment skills] on an actual patient and so this was their actual reading, and this meant something to them. Whereas through the weeks I feel like it really developed, having that practice with the patients, after doing it all the time by the last session we had, I was really confident." Respondent 1

Clinical decision making

The placement provided an opportunity for students to engage in clinical decision making.

"We could give our own opinions and if our own opinions were not the same as the practitioner, we could either justify why we chose that [clinical decision] or the practitioner would justify why they chose the route that they want to go with" Respondent 3

Students also had opportunities to observe decision making around prescribing.

"It helps seeing the [full] prescribing process because we had not seen that in hospital or community [practice] as much" Respondent 3

The longitudinal structure of the placement enabled students to develop their decision-making skills and gain confidence.

"Over the course of placement, I grew confidence in my own clinical decision making… I'm able to trust the decision that I've made" Respondent 2

The placement enabled students to develop and consolidate decision making skills around the interpretation of the results of the physical assessment of patients.

"At the beginning of the placement, I was quite confident with just blood pressure interpretation in general…by the end, if I was asked what the range should be or the target for a diabetic patient, I was able to say it, so my confidence definitely grew." Respondent 1

Supervision and assessment

Students emphasised that they were supervised by a range of healthcare professionals, and this supported their development.

"You didn't feel like you were [a] student and you actually felt part of the team because the GPs [doctors] referred [to you] in some cases…'oh what do you think about this'… [in other placements you just felt like] a student being told about things." Respondent 3

Comparisons were made between being assessed in the live clinical environment and students' prior experiences of university-based assessments.

"We get a role-player for OSCEs, we still don't get the full feel of what it would actually be like when we have to communicate our ideas to a doctor… out in the real word instead of having a simulated setting." Respondent 1

Students highlighted that practice staff may experience difficulties combining their roles as supervisor and assessor during the placement.

"I felt as though the healthcare professional was a bit reluctant to give a bad score" Respondent 3

Multidisciplinary teamwork

Students felt they had gained a lot from working closely with the multidisciplinary team during the placement.

"It was interesting to work in such close proximity with other professions and have that interdisciplinary communication" Respondent 2

Specifically, they highlighted how observing consultations supported them to enhance their communication with patients.

"I thought it was interesting because all of the different disciplines within the team were all trained slightly differently. So, seeing how they undertook consultations, how they engage with the patient was also quite eye open[ing] and in ways that we can sort of change and adapt our consultation skills to improve communication" Respondent 2

Students described experiencing more authentic interactions with other healthcare professionals during this placement compared to other placements.

"The access to different members of the team was a lot easier… feel like if we're to try to have conversations with doctors, with nurses in the, in the hospital setting, I feel like we would have just been in the way…whereas in the [primary healthcare centre] there was that availability, we were able to ask questions" Respondent 2

The placement experience enabled students to envisage their future roles within the multidisciplinary team.

"It was really good to see other job roles as well as ours to see how we all come together as one big team to be able to give the patient the care they need" Respondent 1

Professional development

All students valued the opportunity to work in primary healthcare which aided their decision-making around their future professional and career development.

"I think… as a pharmacy student, it's not a sector that we're really getting much experience [of]… we've had access to community and hospital… it gives [a] really good …idea for people that might want to do it in the future." Respondent 1

Students felt their professional development was enhanced by having opportunities to contribute to service delivery.

"I think we could be very beneficial to the [primary healthcare centre] in terms of…going through audit[s] identifying issues and then beginning to highlight the pathways needed to rectify the issues that we found." Respondent 2

The placement supported students to develop additional skills including time management and prioritisation of clinical tasks.

"We had to be able to adapt quickly and time management was improved" Respondent 1

Students considered how the placement experience started to influence their transition from students to healthcare professionals and the development of their professional identities and self-efficacy.

"I personally found that…there was a bit of a dynamic change like we weren't really considered pharmacy students. We were treated more as professionals…I felt like there was an increased pressure for us to be able to perform at a higher level in terms of our clinical knowledge." Respondent 2

Discussion

Previous research has shown that longitudinal placements for pharmacy students on hospital wards are a viable placement model and have demonstrable benefits for students' learning and development.[10] Students' experiences in this pilot suggest that placements in primary healthcare could support learners to develop their physical assessment skills, clinical decision making and to apply their knowledge in a live clinical environment.

The NHS Long Term Plan[7] outlines the importance of an integrated primary healthcare team in which pharmacists play a significant role. The students in this pilot were introduced to the primary healthcare workplace and reported having meaningful interactions with the multidisciplinary team which could prepare them for these future roles. The placement pilot also demonstrated that students could make contributions to the work of the primary healthcare centre by undertaking audit work necessary to ensure safe prescribing practices. As a requirement of receipt of the NHS tariff,[2] placement activities must represent more than workplace shadowing, this pilot

indicates that undergraduate pharmacy students could participate in some aspects of service delivery.

Noble et al[15] highlighted how the transition from student to pharmacist and into the workplace is challenging and a lack of high-quality workplace experiences which enable patient-centred interactions during undergraduate training contributes to this. Students in this pilot reported that they valued being embedded into the primary healthcare team over a prolonged period and were treated as professionals with views and opinions, rather than students unto whom information was imparted by academic staff.

Further work is needed to evaluate the use of work-based assessments for pharmacy students in primary healthcare to achieve the action 'does' level of Miller's triangle assessment of clinical competence. There is evidence that healthcare staff in the workplace may find the balance between supervisor and assessor challenging without appropriate training and support[16] which also requires consideration.

A limitation of this pilot and its evaluation was the small cohort of students involved and further work is needed to determine the scalability of this project. There are well known infrastructure challenges facing primary healthcare in the U.K. A recent report by the Royal College of General Practitioners highlighted the need for extended training capacity in primary healthcare both in terms of physical space and the number of available trained educators and supervisors.[17] A further limitation of this pilot is that the perceptions of primary healthcare staff supporting the students were not formally explored.

Conclusions

Providers of the initial education and training of pharmacists are challenged to prepare students to undertake advanced clinical roles at the point of registration. This pilot project provides some initial evidence, through the self-reported experiences of students who took part, that longitudinal placements in primary healthcare could support the development of some of the knowledge and skills required to meet this challenge.

Previous work has shown that the formation of professional identities is highly responsive to the context of work.[11] Providing placements in which students can develop their identities within a supportive environment is likely to be critical in developing a workforce which can rise to the challenges faced by primary healthcare in the U.K and internationally. The evaluation of this pilot suggests that work to develop the training capacity within primary healthcare would benefit students and could meet future workforce needs.

Data access statement

All authors had full access to the study data and this access is ongoing.

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CRediT authorship contribution statement

Jessica Hardisty: Conceptualization, Methodology, Writing – original draft, Visualization, Resources, Data curation, Supervision. **Carlie Robertshaw:** Conceptualization, Methodology, Investigation, Writing – review & editing, Visualization, Data curation, Supervision. **Charlotte Collins:** Investigation, Writing – review & editing. **Rob Goring:** Conceptualization, Investigation, Writing – review & editing. **Sarah Cope:** Conceptualization, Methodology, Visualization, Supervision.

Declaration of competing interest

The authors declare that there are no conflicts of interest.

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Data availability statement

Data available on request.

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