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General Practice Pharmacists in England: Integration, Mediation and Professional Dynamics

Introduction

Over the past 5 years, the recruitment of pharmacists into general practice (GP) in the UK has increased due to a pilot funded by NHSE (National Health Service England). The pilot was designed to relieve the increased workload experienced by primary care professionals resulting from a combined shortage of general practitioners (family medicine physicians) and nurses treating an aging population and includes partial funding for the pharmacists' salaries, structured training and support and clinical mentorship. Before the pilot, employment of pharmacists within English general practice clinics was not wide spread, therefore the evidence supporting this role is still emerging in UK contexts. Even though many pharmacists have been working in general practice for many years, investigation into the outcome of this integration and the experience of the stakeholders remains relatively sparse.

The development and evolution of the pharmacist role within general practice has been well explored in North American (Alkhateeb et al, 2009, Kelly et al, 2014, McDonough and Doucette, 2001, Mirtallo and Sacks, 2013, Zillich et al, 2004) and Australian contexts (Hoti et al, 2011). Whilst these studies largely focus on the perceptions of physicians and service users rather than the experiences of the pharmacists themselves, they offer insight into the professional and organisational implications of such a shift. There is a consensus throughout these papers that pharmacist roles should be developed, and that collaboration between other members of the medical team would concurrently improve, however there was also evidence of jurisdictional tension, particularly between physicians and pharmacists in recently enhanced roles (Hoti et al, 2011).

A systematic review from Chisholm-Burns et al (2010) has explored the literature on the influence of US pharmacists on healthcare teams. The review found that the integration of pharmacists into healthcare teams had a positive effect on patient outcomes. Whilst this review focused primarily on the implications for patients rather than professional dynamics, this helps to reinforce the objective significance of the pharmacist as a member of the healthcare team. Professional dynamics, and moreover collaboration have however been explored in a US context by Zillich et al (2005, 2006), who developed an instrument and then latterly a questionnaire which measured physician-pharmacist collaboration from the perspective of the physician. Van Winkle et al (2011) have also validated an instrument which measured students' attitudes towards physician and pharmacist collaboration, thereby collectively strengthening the evidence base for the integration of pharmacists and pharmacists' knowledge into more 'mainstream' healthcare contexts.

Bergman et al (2016) have also explored the relationship between pharmacists and physicians, and acknowledge that although effective communication is crucial for effective patient centered care, the complexities inherent in the changing responsibilities of the workforce will need to be accommodated in further analysis and intervention. This has been supported by a study from Jaruseviciene et al (2013) who investigated the relationship and communicative dynamics between nurses and family physicians, and the influence of a shift

in role and the multiple associated perceptions. Mian et al (2012) have explored the problems associated with a lack of understanding of a new or distinct professional role, and offer key insight into the issues for efficient integration within a contained healthcare setting. Pre-existing attitudes surrounding role and purpose within an intentionally integrated healthcare setting have also been investigated in a Croatian context by Selsej-Persin et al (2015), who broadly conclude that structured interprofessional education is central to the effective reduction in professionally determined prejudices. In addition, Tan et al (2013) have identified a number of barriers and challenges to effective integration between new forms of pharmacist and existing GPs, and suggest that these be fully analysed before more strategic collaborative interventions are implemented.

Bradley et al (2009) offer insight into the integration of enhanced pharmacists into UK GP contexts. Enhanced pharmacists have been described and defined as professionals who now have independent prescribing responsibilities without intervention from medical colleagues, and access to new forms of 'medicines management' which offer far greater depth and scope beyond previous prescribing duties. These models suggest that the scale is tipping towards investigation and diagnosis to a far greater extent than ever before. In spite of this however, Bradley and colleagues have indicated that coherent interprofessional collaboration between pharmacists and general practitioners is likely to be a 'piecemeal' process, affected, as above, by the professional complexities that inhabit a changing healthcare context. Although more recently, progress has been made, as Ryan et al (2018) reported that whilst there were hurdles for pharmacists entering GP settings, largely associated with hierarchy and jurisdictional tension, communication and collaboration between pharmacists and physicians has been both positive and broadly facilitative. This work has emerged alongside two further studies, published in the last year which investigate the evolving role of pharmacists in England (Bush et al 2018, Bradley et al 2018).

In Ryan et al's qualitative study (2018), the authors investigated the experience of one GP federation in west London comprising eight clinics that subcontracted non-pilot pharmacy services from a private company. The reported experiences were positive and included decreased workloads for general practitioners, increased patient safety, improved job satisfaction, improved patient relationships, and enhanced cost savings. However, participants reported the need for time to develop and understand the various roles, implement communication processes and build interprofessional trust. Areas for improvement included patients' awareness of services, pharmacists' training and regular, onsite access for practice staff to the pharmacy team.

Bush et al (2018) explored the interventions and the resulting cost savings and burden relief incurred by the utilisation of non-pilot pharmacists (5.4 FTEs) over 9 months operating across 49 GP practices. The total number of interventions was 23 172 resulting in a cost saving in excess of 1 million pounds. Over 4 months, the pharmacists saved the GPs 628 appointments and 647 hours that they usually dedicated to medication reviews and repeat prescriptions.

Bradley et al (2018) reported on the first evaluation from the national pilot scheme focusing on integration and role evolution. The main findings from a cross sectional survey of 145

pharmacists revealed a varied role across a portfolio of activities ranging from administrative/clerical tasks to complex clinical patient facing roles.

Overall, the results from these studies demonstrate the potential cost saving from this role and the positive impact on both practice and patient care. However, there is significant focus on relieving GP pressures as opposed to a unique value added. Moreover, none explored the staff experiences in depth to gauge integration, interprofessional working and professional dynamics.

This study aims to investigate and map the experiences, thoughts and perceptions of pharmacists, physicians and nurses working in GP clinics throughout the South East of England. In doing so we focus specifically on interprofessional relationships, power dynamics, changing interprofessional roles and barriers and facilitators to the integration of the pharmacist.

Methods

Adopting an exploratory multiple case study design (Yin, 2003) we attempted to explore how a range of healthcare providers' experience working within a GP setting and utilise the pharmacist role. In adopting this approach we specifically analysed interprofessional experiences within clinics. This then enabled an investigation into interprofessional relationships, changing interprofessional roles and power differentials under different contextual conditions. A conceptual framework was developed based on an in depth literature review. This framework guided the design of the research tools and the subsequent analysis. The interview schedule comprised of two sections: a general section and a profession specific section. The questions explored the perceptions of the pharmacist's role, the working relationships, impact on the practice, barriers and facilitators to the integration of pharmacists in general practice.

A patient questionnaire was designed to investigate the patients' perception and experience following a consultation with a pharmacist. The questionnaire was adapted from a study evaluating the patient satisfaction with pharmacist led clinics (Martin et al 2016). It consisted of 8 five point Likert scale questions that requested the patient to reflect on their experience following their appointment with the pharmacist. The questions included comfort level, appointment time, confidence in the recommendations provided and shared decision making.

Data Collection

The study was conducted within general practice surgeries throughout the South East of England in which non-pilot pharmacists have been employed. Using a purposive snowball sample enabled us to invite participants from a population of 24 clinics who have a pharmacist on staff.

We conducted semi-structured, in-depth interviews with at least one nurse, one pharmacist and one physician from each clinic, which resulted in a total sample of 37. These demographics are detailed in Table 1 below.

INSERT TABLE 1 ABOUT HERE

Multiple interviewers were used. They all came from a postgraduate research background and had all received qualitative interview training and were randomly allocated to participants. By engaging with a variety of healthcare providers we were given an in-depth insight and achieved greater understanding of the interprofessional experience from a range of perspectives. Data collection continued until saturation was achieved.

Survey data was also collected from 38 patients following their consultation with a practice pharmacist. They were provided with the survey and were asked to submit the completed forms to a collection box available at reception. The survey approach was used in the interests of convenience. Whilst undertaking interviews with these participants would have been preferable, the insight which the surveys offered was also revealing.

Data Analysis

A thematic analysis of the interview transcripts was undertaken. Identification of prominent themes and patterns was conducted alongside the data collection itself, enabling a more integral iterative approach to the exploration (Gale et al, 2013). Interviews were audio recorded and transcribed verbatim. Using a line-by-line coding mechanism enabled a combination of inductive and deductive analyses. This process was performed by two members of the research team (SF, SR), who then cross referenced their initial findings to ensure consistency and rigour. The data were specifically interrogated for thematic areas including interprofessional relationships, power dynamics and changing roles, although members of the research team were also able to identify a number of additional themes through the course of the analysis. The four themes which were identified included: role introduction, role uncertainty, professional tension and interprofessional tension. An analytical framework was developed which categorised the coded data and then used to compare with subsequent transcripts (Gale et al, 2013). Data was also analysed using Nvivo qualitative data analysis software (QSR International Pty Ltd., Version 10, 2014 NVivo (Version 10). Characteristics and differences between the data were identified in order to explore the relationships of themes related to interprofessional experiences within GP clinics.

Survey responses were analysed using descriptive statistics facilitated by IBM SPSS Statistics for Windows, Version 21.0.

Ethical considerations

The research study was approved by the Kingston University ethics committee. Participation in the study was voluntary and the identity of the participants has been kept private and confidential. All data has and will be stored in a secure and confidential manner.

Results

37 healthcare professionals from 10 clinics agreed to participate (Table 1) and consisted of 19 pharmacists, 9 nurses and 9 GPs. The results focus on four key themes from the analysis

(role introduction, role uncertainty, intraprofessional tension and interprofessional tension), providing an insight into how the new role was affecting pharmacists and their professional and interprofessional practice.

Role introduction

Participants reported on a number of key motivations behind hiring a pharmacist. These supported the official justification for the national pilot scheme which all primarily revolved around easing the burden on medical and nursing colleagues:

It [pharmacy role] has emerged because we were in the position; all the partners resigned apart from me. 4 partners resigning was 1 partner left behind. 2 partners joining and ending up being in a position of trying to recruit and not being able to get anybody. So I think (we) looked at all the other options. What could we have. Who else is out there? From me, pharmacists have had so much training in physical illness because really you need to be able to understand the illness to understand the pharmacology. I kind of felt that they were a good match and that was proven to be the case really. How it has evolved has been partly to do with the interest that our pharmacist has, in that she has the opportunity to learn more about diabetes and taking the lead on that at the time. So she has done that course. I have been in that course. And then I guess it has evolved on what we need. I guess the QOF targets: if we don't meet those we don't get paid. Do you know about QOF? (General practitioner 2)

So, one of the partners at the practice is very proactive and we were going through an incredibly busy time a couple of years ago when one of the GPs were off sick and there was a real peak in workload, a real spike in workload and it was getting quite unbearable. Everyone was getting incredibly stressed so we started to look around different ways that we could try and ease that burden so looked at things like nurse prescribers coming into the practice to work in these nurse practitioner clinics and a pharmacist to come in as well and that's where it came from and it has made an enormous difference to the workload. It is now much more manageable. (General practitioner 3)

Role uncertainty

As noted above, the reasons behind recruiting a pharmacist has led to a lack of distinct role definition, as echoed in the comments below.

Interviewer: Is there a clear consistent job description for each....

Pharmacist: No because I am not a pilot pharmacist so they make it up as they go along. So there is no pre-defined. Because this surgery where I work, it is around the corner from the pharmacy where I managed so I have like a close relationship before I started and because I am doing now a prescribing course...independent prescribing course, so it was sort of beneficial you know, mutually beneficial they employed me to help them with the new surgery and they are mentoring me as well in my course. So there was no (advert?) place, there was no...so the role was created for me from the GP practice resources so there was no government money, no NHS money so they just paid me from their own budget. (Pharmacist 1)

In one instance this was seen as positive, providing variety and increased professional insight:

I would say my role is you know sometimes prescription clerk, sometimes manager, sometimes healthcare assistant, sometimes I can be dipping urine one minute and then seeing a patient that's acutely unwell the next. So, I do do some of the GPs roles as well and the nurses roles so I kind of do a bit of everything really. (Pharmacist 2)

However, this lack of definition was also perceived to be problematic by the pharmacists themselves:

I kind of work from bottom to top really so I kind of supervise the prescription clerks as well. So, the only problem with the role is that it's quite varied so I kind of am jack of all trades and master of none. (Pharmacist 2)

Leading also to a lack of understanding of the role and purpose of the pharmacist from other professions:

So when I first came, it was very much focused on getting the medication reviews done and just that role and I don't think the GPs really understood what I could do. (Pharmacist 3)

And significant limitations on introduction to practice:

It's tricky because for any other role say the practice nurse, GP you always sort of have a template that you can fall back on. Whereas for a pharmacist you can always be a bit stuck like where do I begin? There is so much stuff and you are not quite sure where to begin. As I said, the role evolved for all practices and also each practice is in its own different world so what may work for one practice may not work for another. So it is tricky. (General practitioner 4)

Intra-Professional tensions

The new role has also had significant implications for professional relations within pharmacy itself. Some practitioners were particularly critical of community pharmacy:

... working in the general practice you sometimes see the stupid things that community pharmacies appear to be doing like particularly...I am not going to mention any names but the large multiple prescription re-ordering systems are absolutely atrocious. And there is no way I can justify those. I think in some way it is setting you against your community pharmacy colleagues which shouldn't be happening. (Pharmacist 5)

There is always a suspicion from the GP side (staff and GP) that the community pharmacy is ripping them off. It's not helped by the fact that in terms of ordering

repeat prescriptions and managing repeats, some community pharmacists are less than scrupulous. You will find them ordering repeats for patients for items they don't need ... It doesn't do well for relations. If GP practices see all pharmacists in that vein, it doesn't encourage them to want to employ them in the practices. I have to say unfortunately and really sadly, some pharmacists do take the mickey in terms of over-ordering repeats. Sometimes you have your suspicions. (Pharmacist 3)

So, all they (community pharmacists) are, are checking monkeys really and you know you don't go, well I was only at university for 3 years and obviously, the guys now are at university for 4 years but what for exactly? To work in a shop is how it feels quite a lot of the time (Pharmacist 2)

There was also a description of knowledge gaps between community pharmacy and clinical practice:

I think patients are able to see what we are experts at and we have been under-utilised in community pharmacy. But in a GP practice there is time, there is in-depth knowledge and that can be shared. And we have trained for this in our academic background in our undergraduate roles. But if you are working in community, you don't really get to use this in-depth knowledge and skill whereas if you are face-to-face in a GP practice, you get 10-20 minute appointments, you can actually motivate and support patients more effectively. (Pharmacist 6)

Whilst community pharmacy was deemed less professionally valuable by those in integrated roles, the financial rewards for remaining in such settings is diminishing the incentive for a move towards practice pharmacy, providing further complexity to an already fractured relationship:

I don't know how it is sustainable. But in the community you can earn more money than in GP practice. That's the one thing. But you know job satisfaction is important. It is good to try everything to know about things then you can compare. (Pharmacist 1)

In addition to this were fairly significant tensions between pilot and non-pilot pharmacists:

I look at pilot pharmacists of having all had it given on a plate. But we've kinda used our initiative to have to force our way in and actually earn our position and we are getting no support from the RPS. On top of that in a couple of years' time when the pilot pharmacists do mature and emerge as IPs it's gonna be our jobs at first in jeopardy because they're the ones that are gonna be more qualified than us. In that sense I'm not quite happy in that sense to be honest. (Pharmacist 4)

I have had to go out and find every bit of support and help myself. Pilot pharmacists have got funded education, protected time, mentoring, an education mentor set up, a clinical mentor set up. I have had to do every single thing myself. And I have been very lucky that I have been taken under the wing of some fantastic GPs but it wasn't for my initiative and asking for help and them sometimes offering me help this wouldn't have happened. I did it 7 years before all of this took off whereas I was perhaps ahead of the game. (Pharmacist 6)

Interprofessional tensions

The data suggested that there were a number of interprofessional issues with the pharmacist's role within the practice. The following section presents the perspectives of pharmacists, GPs and then nurses, in an attempt to represent the disciplinary dynamics behind the interprofessional tensions which we identified.

Pharmacist perspectives

The data uncovered tension between medical staff and pharmacists, and the statements below reflect a lack of collaboration, and professional insecurity on behalf of both the doctors and pharmacists:

I think certainly before you do anything else you have got to get the trust of the doctors. And I think for somebody just starting out, that could be quite a challenge really because doctors are quite assertive and very definitely you do get this 'we are in charge, you are not'. (Pharmacist 5)

I do think the doctors genuinely think I know more about medicines than they do. They are not concerned about us at all. They are happy to pass on any sort of things they don't understand onto me which of course quite often means if I get stuff like baby milk (laughs) which I don't know a lot about either but you have to learn it don't you. (Pharmacist 5)

I think the younger the GP's are the less resistant they are. The older GP's are sort of quiet, you know not necessarily sceptical, but wary about our role. I think they are leaving. Older generation GP's are more resistant but it is not that many of them left so I think that resistance will....to be fair the GP's have may not have had the best experience with pharmacists. Because some pharmacists mess things up and from my own experience you know and you are trying very hard to maintain their name and it is enough one bad experience for a GP with a community pharmacist and it stays with them so it is difficult to work around that. (Pharmacist 1)

In addition to this, was evidence of discord between pharmacists and nursing staff based around perceptions of role encroachment:

That is quite hard because they (nurses) are being slightly closed minded about this. And nurses as a profession have seen us as a threat. I have had that experience. Why do we need to employ her we currently do this. And they have been in GP practices working with GP's for years and suddenly pharmacists have come along and they can prescribe, show in depth knowledge and are more confident- definitely feeling it as a threat. (Pharmacist 2)

And an admission that pharmacists are somewhat undervalued, and only perceived to be in post in the interests of easing the strain on medical and nursing colleagues. The statement below also speaks of a conflation on behalf of medics and nurses between integrated and community pharmacists, in addition to evidence of intra-professional discord between integrated and community practitioners as referred to above:

Pharmacist: The problem is that GP's are only investing in pharmacists because they are forced to. GP's and nurses are in short supply. They are looking for someone else that can fulfil a role within the practice that can take some of the strain. It's at that stage they think 'maybe we could use a pharmacist'. They don't think of pharmacists in terms of hospital pharmacists but community pharmacists and to be honest community pharmacists do not promote this role very well because of the way it is business orientated. (Pharmacist 3)

GP Perspectives

The GPs interviewed also drew attention to the disruption felt by the nursing staff after the introduction of the enhanced pharmacists:

I think there was [interprofessional] tension yes. I mean I guess none of us knew exactly how it [the new pharmacy role] was going to work. We just felt it was a viable option for what we needed. It wasn't an option to get another doctor because we couldn't find one. So we looked at actually parts that could be done and felt that a pharmacist could fulfil that role but we maybe hadn't sold that to the nursing team. (General practitioner 4)

In addition to instances of jurisdictional trespassing:

We have definitely found that with having the pharmacist that the overlap with the nursing role actually is quite dramatic you know in terms of doing asthma reviews, diabetic reviews, diabetes management. And so our pharmacist at the moment is..., well she has done training...she has done something called MERIT which is insulin...well diabetes training including insulin and non-insulin medications and she is currently trained to become a prescriber in diabetes being her sort of interest so there has definitely is a lot of overlap between their roles. And I think it is fair to say when she started there was a bit of a turf war going on. (laughs) (General practitioner 4)

Although they also displayed tacit discomfort with the integration of pharmacists into a context in which they previously dominated without question:

The challenges probably are....do you spend that much money on a pharmacist or do you spend that much money hiring a salaried doctor for these sessions. What is going to give you the most benefit? And I think that is the difficult question. Everyone is feeling massively overloaded and are they going to see it as do you spend that money on a doctor or a nurse practitioner who can see patients or do you spend it on a pharmacist and go off on a different way. Unfortunately sometimes there are quality issues which are related to having a pharmacist (General practitioner 1)

Nursing perspectives

Although most nurses broadly accepted and largely supported the integration of pharmacists into GP practice, there were implicit examples of frustration in amongst this.

There was some evidence of a workload imbalance:

Interviewer: Do you think there are any limitations of the (pharmacist) role?

Nurse 3: yes because she will only see them for a while as a follow up. The nurses do all the general...for chronic diseases we do all of that.

In addition to an admission from the same nurse that she did not often utilise the pharmacist:

Nurse: I don't really use her (pharmacist) that much to be honest. She does use the medicines management meetings so she liaises with us for that. That is very useful. Anything new or changing policy she can let us know.

And a further comment about the need for pharmacists to adapt to a more rigorous environment in GP settings:

Nurse: And it's something quite new, she has come from a hospital environment which is a completely different environment to working in a GP practice.

Interviewer: Yes definitely hospital is *very* different

Nurse: Obviously they have more leeway

Patient perspectives

Surveys were collected from 38 patients who had appointments with a practice pharmacist. Of this small sample of patients, 20 were women and 18 were men, with nearly 80% of them aged over 60 years old. Typically, most patients (n=25, 66%) were in their general practice clinic for a medication review, with most appointments lasting between 10 and 20 minutes (68%). The mean appointment time was 16 minutes.

In general, patients stated they were 'very satisfied' or 'satisfied' with their appointment (n=35/92%). Most were 'very comfortable' or 'comfortable' discussing their medications with the pharmacist (n=37/97%). In addition, 36 patients (95%) reported that they strongly agreed or agreed with the clinical recommendations made by the pharmacist at their appointment. See Table 2 for further responses from the survey. As can be seen from the shaded areas in this table, bulk of the patients held positive views of their experiences with a pharmacist.

INSERT TABLE 2 ABOUT HERE

Comments generated from open-ended questions supported the positive nature of the closed-end responses in Table 1. For example, as the following three quotes indicate, "I think consulting a pharmacist is an excellent idea, I am very happy with this", "Amazing, first-rate" and "Pharmacist was brilliant in all respects". It was stated that in comparison with seeing a GP, the "quicker appointment" to see the pharmacist was particularly appreciated. Five patients, were unaware they were actually seeing a pharmacist, as the following quotes demonstrate, "I didn't even know she was a pharmacist" and "unaware

that she was a pharmacist” and “didn't realise she was a pharmacist – thought specialist GP”.

Discussion

This is the first UK study to explore the intra and interprofessional dynamics of the relatively new role of practice pharmacists. On the surface, the role is seen as positive and the impact on care promising. This is in line with the other UK studies. However, a more in depth analysis has revealed several areas that need attention.

Front and back stage comparison

Although the patient perspectives report overwhelmingly positive perceptions about the introduction and integration of pharmacists into GP settings, the interviews revealed a far more complex picture. Introduced in the main to ease the burden on medical and nursing colleagues, the role uncertainty, which was also reported, reflects this relatively haphazard introduction. The picture is then obscured further by both intra and interprofessional tensions which were clearly not anticipated at the outset.

It is useful in this instance to acknowledge Goffman's interpretation of a dual frontstage/backstage representation of the self in the social and professional everyday. In his (1959) book: *The Presentation of Self in Everyday Life* he suggested that the frontstage audience, in this case the patients, enforce a heavily mediated, acutely curated act which is further sustained by a range of dynamics which are determined by context. The audience expects the actor to behave in a predetermined way and the frontstage provides the environment in which to perform. Exploring the pharmacist and their attempt to integrate into a GP setting enables a development of this, as an *audience* is present in both frontstage and backstage contexts. This has implications for the stability and status of the pharmacist as the backstage is described by Goffman (1959, p. 488) as a setting in which the performer can relax; he can drop his front, forgo speaking in his lines, and step out of character'. Whilst the patient may perceive the pharmacist to be a well-established, inherently valued and equal member of the healthcare team, the reality, once this act has been obscured, is one of tension and dislocation. That this takes place in Goffman's 'backstage' further reinforces the isolation of the pharmacist, who is again required to act in this setting, jostling for position among professional colleagues who are far more able to treat the backstage as a patient free sanctuary.

The mixed method findings above enable an illustration of the frontstage/backstage concept, and furthermore allow us to critically situate the pharmacist in contemporary GP contexts. The results from the surveys suggest that the status and responsibilities of the pharmacist in the GP setting are at high levels. Whilst this is undoubtedly in part a reflection of good levels of service from these practitioners, the way in which the integrated role has been communicated to patients, in which the pharmacist is professionally separated, given what appear to be consultation responsibilities akin to that of their medical colleagues and in a sense 'promoted' to an office from behind a counter, should not necessarily be viewed as benign.

However when we explore the interview transcripts we are met with a more accurate, yet less well integrated picture, and one which also suggests that Goffman's backstage

constitutes a privileged environment. Medical and nursing colleagues form a new audience for pharmacists, and the backstage is subsequently 'deferred' until they are able to interact with members of their own profession. This has however proved difficult, as reported isolation and a lack of peer support combined with consistent division amongst the various and increasing categories of pharmacist contributes to the necessary continuity of frontstage pressures.

Our study expands knowledge in a number of related areas. Professional dynamics in pharmacy itself are explored as our findings provide insight into a profession which is not only complex but relatively disparate. Motivated by practical schisms, in which financial incentives and qualification are disruptively mismatched, and the perceptions around status and role which provide more ethereal but no less impactful sources of discord, the widening gulf between pharmacists in differing roles which we explore here provides scope for equivalent future research.

We have also interrogated the intricate cross-sectional tensions and insecurities which the introduction of the role provokes, providing key implications for studies of interprofessional collaboration. Although interprofessional dynamics in UK GP settings have been well explored, the introduction of the pharmacist in a different and still developing role offers our study distinction to this end.

In addition to this, the largely positive experiences of the patients when interacting with pharmacy staff, which was reflected in the survey data, goes some way towards reinforcing the levels to which these tensions are obscured from the public gaze. This remains problematic as it presents GP settings as locations of professional harmony when of course there is evidence which supports the opposite. Our survey data therefore uncovers an important example of miscommunication, in which the patient is unaware yet still potentially affected by the myriad of difficulties which endure behind closed doors.

The potential limitations of this study include the small sample size for the patient survey and the geographical constriction of the study. Utilising a different research strategy such as interviews and focus groups would perhaps have provided a more in depth understanding of the patient experience. Member checking was not performed and the participants were solely from South East England which may limit extrapolation of our results to other parts of the country.

Conclusion

The study found that the evolving role of the pharmacist in primary care is well received by patients and HCPs and is perceived to have positive long-term effects. However, the integration of the pharmacist needs to be planned in an effort to reduce the challenges that were observed in the study. The lack of role clarity led to complexity, fragility and professional tensions due to overlap in responsibilities. Most importantly, the needs of the clinic and the population of patients it serves should be evaluated first to help specify the job description. Pharmacists need protected education time for professional development and further training to develop their role. There needs to be a strategy to improve the patient awareness of the enhanced role. Finally, further interprofessional education is needed at undergraduate and postgraduate level to strengthen professional relationships.

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Table 1:

Category:	Number of participants recruited	Duration in practice: years median (range)
Pharmacists	19	0.92 (0.17 -9)
General practitioners	9	4 (1 - 24)
Nurses (nurse practitioners/practice nurses)	9	9 (1– 18)

Table 2

Questions	Responses				
	CS	US	N	S	VS
How would you rate you appointment with a pharmacist?	-	-	3	6	29
	VC	C	N	U	VU
How comfortable did you feel discussing your medication(s) with the pharmacist?	31	6	1	-	-
How comfortable did you feel discussing your condition(s) with the pharmacist?	32	6	-	-	-
	SD	D	N	A	SA
I feel involved in decisions about my care	-	-	-	10	27
I am confident that the pharmacist has sufficient knowledge	-	-	2	10	26
I am confident with the pharmacist's recommendations	-	-	2	11	25

Notes:

CS = completely unsatisfactory; US = unsatisfactory; N = neutral; S = satisfactory; VS = very satisfactory
 VC = very comfortable; C = comfortable; N = neutral; U = uncomfortable; VU = very uncomfortable
 SD = strongly disagree; D = disagree; N = neutral; A = agree; SA = strongly agree

Appendix 1

Interview schedule

General questions

1. **Please describe your professional experiences/clinical posts since qualification**
2. **Please describe your current role within the GP surgery and how long you have been based.**
Prompts: Responsibilities, Daily tasks, team meetings, organisation of patient care, inter-professional communication.
GP Pharmacists - Patient facing (medication reviews, clinics), Back office (audits, medicines management, repeat prescriptions) - alone or collaborative?
Which roles are the most and least beneficial?
3. **Please describe your working relationships with the surgery staff such as GPs, nurses, midwives, support staff**
Prompts:
Clear consistent job description for each healthcare professional (Personal knowledge of each staffs role). Role overlap between different professions (if yes... nature of overlap? Examples? Any tensions?)
Frequency of communication (Errors, Surgery Targets, Team Meetings)
Level of collaboration
Support, Hierarchy of professional roles within surgery.
4. **What do you know about the extended role of the pharmacist in the GP surgery?**
Prompts: patient facing and non patient facing roles, independent prescribing role (clinics). Knowledge of a pharmacist (prior to integration vs after). Involvement in developing role, management issues, clinical, patient care issues.
5. **What do you think are the benefits and limitations of the expanded pharmacy role?**
Prompts: Professional, clinical, organisational, education issues, future of role
Benefits – workload, staff shortage, targets, patient load, increased patients with certain conditions (clinics), waiting times, inter-professional collaboration (better understanding of the role of a pharmacist), better link with primary and secondary care (hospitals, community pharmacies, GPs and Pharmacists).
Limitations: Space (does it affect inter-professional relationships?), resistance to change, remuneration (non-pilot not funded by Government), role boundaries/inconsistency, lack of support, unclear on role of a pharmacist and its benefit, time and money spent on training & CPD.

For pharmacists:

6. **How did your expanded pharmacy role emerge and how, if at all, has it evolved since you've started?**
Prompts: Reasons for becoming a GP Pharmacist. Why did the surgery hire you (workload, short

staffed, open clinic)? Describe your initial roles and how they have developed/changed.
Preparation for new role: Qualifications, training courses, Independent prescribing.

7. As a pharmacist, can you describe your experiences working in your expanded role within the GP surgery?

Prompts: Consistency in job description, role overlap (tensions), support from staff and knowledge on your role, impact on the surgery (prescribing targets, errors, patient satisfaction – waiting times), inter-professional learning and team work

8. Do you think your expanded role may change over time as you work in the GP surgery? If so, how do you think these changes will affect your role?

Prompts:

Do you feel that your skills are utilised effectively?

Are there any roles that you can do to help the surgery that you are not currently doing? How will these potential roles help the surgery?

9. From a pharmacy perspective, what opportunities and challenges of working in your expanded role in the GP surgery?

Prompt:

Opportunities: better links with the community pharmacy and hospital pharmacist (discharge/meds rec), better utilisation of pharmacist's clinical skills, enhanced knowledge of role of a pharmacist and involvement in the primary health care team.

Challenges: resistance to change/lack of support, insurance, role boundaries, unclear on role of a pharmacist and its place in PHCT and training.

What changes are needed to overcome these challenges?

10. How do you feel your experience differs from a pilot pharmacist?

Prompt:

Benefits, drawbacks, lack of educational structure, lack of support, integration

For GPs:

11. From your medical perspective, how did the expanded pharmacy role emerge and how, if at all, has it evolved since it started?

Prompts: knowledge on the role of a pharmacist (IP, clinical skills) prior vs after integration. Why did the surgery decide to hire the GP Pharmacist (workload, staffing, open clinic)? How has the GP Pharmacist role developed or changed within the practice?

12. As a GP, can you describe your experiences working with a pharmacist using their expanded role in the GP surgery?

Prompts: Consistency in job description, role overlap (tensions), support from staff and knowledge on their role, impact on the surgery (prescribing targets, errors, patient satisfaction – waiting times), inter-professional learning and team work.

13. Do you think the expanded role of the pharmacist may change over time as they work in the GP surgery? If so, how do you think these changes will affect your role?)

Prompts:

Do you feel that their skills are utilised effectively?

Are there any roles that they could do to help the surgery that they are not currently doing? How will these potential roles help the surgery? Will this change in role cause overlap between other healthcare professional roles – if yes, will this cause tension?

14. **From a medical perspective, what opportunities and challenges of working with the expanded pharmacy role in the GP surgery? (Prompt: what changes are needed to overcome challenges?)**

Prompt:

Opportunities: inter-professional work, better links with primary and secondary care (pharmacies/hospitals), overcome time pressures

Challenges: resistance to change, role boundaries (GP and Pharmacist – medication reviews), workload increased, time spent training, unclear on role possibilities

What changes are needed to overcome these challenges?

For nurses:

15. **From your nursing perspective, how did the expanded pharmacy role emerge and how, if at all, has it evolved since it started?**

Prompts: knowledge on the role of a pharmacist (IP, clinical skills) prior vs after integration. Why did the surgery decide to hire the GP Pharmacist (workload, staffing, open clinic)? How has the GP Pharmacist role developed or changed within the practice?

16. **As a nurse, can you describe your experiences working with a pharmacist using their expanded role in the GP surgery?**

Prompts: Consistency in job description, role overlap (tensions), support from staff and knowledge on their role, impact on the surgery (prescribing targets, errors, patient satisfaction – waiting times), inter-professional learning and team work.

17. **Do you think the expanded role of the pharmacist may change over time as they work in the GP surgery? If so, how do you think these changes will affect your nursing role?)**

Prompts:

Do you feel that their skills are utilised effectively?

Are there any roles that they could do to help the surgery that they are not currently doing? How will these potential roles help the surgery? Will this change in role cause overlap between other healthcare professional roles – if yes, will this cause tension?

18. **From a nursing perspective, what opportunities and challenges of working with the expanded pharmacy role in the GP surgery? (Prompt: what changes are needed to overcome challenges?)**

Prompt:

Opportunities: inter-professional work, better links with primary and secondary care (pharmacies/hospitals), overcome time pressures

Challenges: resistance to change, role boundaries (Nurse and Pharmacist), workload increased, time spent training, unclear on role possibilities

What changes are needed to overcome these challenges?

General question (ending):

19. **Is there anything else you would like to raise or mention at this point in the interview?**

Prompt: What would you do differently if you could restart the integration process?

