



Community pharmacists' and physicians' inter-professional work: insights from qualitative studies with multiple stakeholders

Emilia Paulino,* Mara P. Guerreiro,** Judith A. Cantrill,*** Ana Paula Martins,**** Filipa Alves da Costa,*****
S. I. (Charlie) Benrimoj*****

ABSTRACT

Objectives: To explore the opinions and experiences of a range of stakeholders on inter-professional working relationships between community pharmacists and physicians.

Study design: Five qualitative studies.

Setting: Primary care.

Population and Methods: Thirty-one community pharmacists, eight medical and pharmacy leaders, 12 physicians and 21 patients took part in interviews and focus groups reflecting on medicines management services in Portuguese community pharmacy. Data pertaining to inter-professional work was subjected to thematic content analysis with the aid of NVIVO® software.

Results: Generally, datasets offer evidence of immature inter-professional working relationships. Data analysis suggests a mismatch between the role pharmacists perceived for themselves and physicians' perceptions. A second key theme in explaining barriers to inter-professional work is its perceived benefits. Once again, a mismatch was found between physicians, who generally perceived little benefit for patients or for themselves, and pharmacists, who were keen to collaborate and anticipated benefits for patients. A third key theme was that of role encroachment. Analysis suggests that territorial behaviour was evident in both professions. More clinical roles were perceived as an invasion of physicians' professional practice both by physicians and community pharmacists, but the latter showed unwillingness to compromise on these newly extended roles.

Facilitators mentioned by participants included increasing awareness of the pharmacist's role and services, adopting aspects such as joint training, and informal and formal inter-professional meetings. The use of protocols for collaboration and clinical data sharing were also identified as facilitators for inter-professional work.

Conclusions: Inter-professional work between community pharmacists and physicians appears to be in an early stage of development. Multi-modal strategies combining top-down and bottom-up approaches seem necessary to advance inter-professional work to a collaboration level that can contribute to patient safety in the medication use process.

Keywords: Inter-professional; Pharmacist; Physician; Primary Care; Community Pharmacy; Pharmaceutical Services.

*MSc Student, Faculdade de Farmácia, Universidade de Lisboa

**Research associate (Research Institute for Medicines and Pharmaceutical Sciences (iMED.UL) & Invited Associate Professor (Instituto Superior de Ciências da Saúde Egas Moniz)

***Professor of Medicines, School of Pharmacy and Pharmaceutical Sciences, The University of Manchester, UK

****Associate Professor, Faculdade de Farmácia, Universidade de Lisboa & Research associate (Research Institute for Medicines and Pharmaceutical Sciences (iMED.UL))

*****Invited Associate Professor (Instituto Superior de Ciências da Saúde Egas Moniz)

*****Professor of Pharmacy Practice, Faculty of Pharmacy, University of Sydney, Australia.

INTRODUCTION

The provision of safe, efficient and effective health care depends as much on the expertise of practitioners as on competent systems; inter-professional collaboration is said to be a key feature of an optimally designed system.¹

The benefits of inter-professional collaboration between community pharmacists and physicians have been



demonstrated by empirical research. The literature suggests that it contributes to the avoidance of errors and delays in workflow,²⁻⁴ improves patients' outcomes,⁵⁻¹² and decreases health costs related to ineffective and unsafe medication use.^{5, 9-11, 13-15}

Inter-professional collaboration has been advocated by the World Health Organisation in influential policy papers, such as the Alma-Ata declaration.¹⁶ Moreover, several professional bodies, including the International Pharmaceutical Federation (FIP) and the World Medical Association (WMA),^{17, 18} have issued statements of support.

In spite of these benefits and institutional support, inter-professional collaboration remains limited across organisational boundaries and various levels of care with the literature offering limited examples of sustained inter-professional collaboration between community pharmacists and physicians. Some of the most commonly cited are pharmacotherapy consultations in the Netherlands,¹⁹ quality circles in Switzerland,^{20, 21} Home Medicines Reviews in Australia²² and Collaborative Practice Agreements in the United States.²³ The first two appear to have been successfully implemented at a local level, with the former going back to the late seventies, showing a positive impact on aspects such as adherence to guidelines and drug therapy cost. In Australia and United States, the services mentioned have been incorporated in national and/or state legislation and are under development.

In contrast, there is prolific literature on studies that identify factors influencing inter-professional collaboration, both from the pharmacist and physicians perspectives.²⁴⁻²⁷ These studies can be divided into ones that identify:

- Individual factors, related to characteristics of the individuals;
- Environmental or context factors, related to the practice setting and infrastructures;
- Exchange factors, related to the nature of interaction between professionals and the existence of shared knowledge and information.

McDonough and Doucette described a staged approach to developing collaborative working relationships between pharmacists and physicians, synthesising from models of interpersonal relationships, business relationships, and collaborative care.²⁵ The progressive stages of the pharmacist-physician collaborative working relationships are depicted in Figure 1. Stage 4 therefore represents the highest level of collaboration between pro-

fessionals, and signifies also a greater motivation to maintain the relationship. In contrast, at stage 0 interactions are minimal, for example pharmacists telephoning physicians to discuss issues arising during the dispensing process. At stage 1, efforts to collaborate are mostly unilateral and initiated by the pharmacist. In this stage, physicians may not see the value of establishing a relationship with the pharmacist. In stages 2 and 3, efforts to collaborate become more bilateral, as the relationship expands and becomes sustainable. The level of maturity of working relationships between two individuals is therefore affected by the different factors, which may act as barriers or facilitators to establish effective and sustainable collaboration.

The multitude of factors affecting the working relationship at both an individual and system level suggests that a wider range of stakeholders should be researched, rather than focusing solely on practitioners.

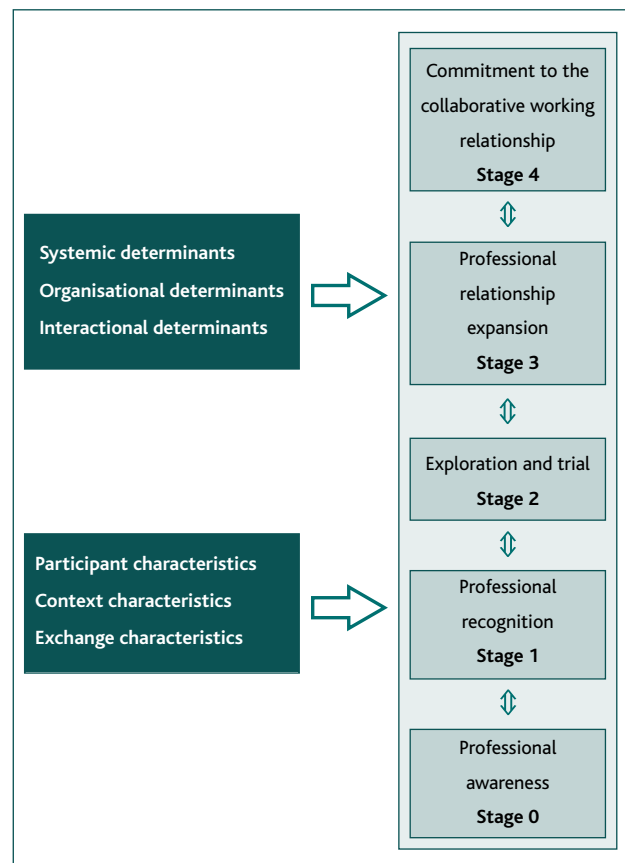


Figure 1. Model for working relationships between pharmacists and physicians (adapted from^{24,25}).



In Portugal, more patient-focussed services have been implemented in community pharmacy, namely pharmaceutical care programmes (Table I).²⁸ They require collaboration with physicians, but to our knowledge this topic has not yet been researched at a national level. Additionally, we did not find any international studies exploring and contrasting multiple stakeholders' perspectives on inter-professional work. Our research objective was to address these evidence gaps by exploring the views and experiences of practitioners, professional leaders and patients on inter-professional work between community pharmacists and physicians.

METHODS

A secondary analysis of qualitative datasets obtained for a PhD (MPG) and an MSc programme (EP) was undertaken. The aim of the PhD was to develop and test an intervention to improve the quality and safety of medication use in community pharmacy, underpinned by validated preventable drug-related morbidity (PDRM) indicators.²⁹ Four qualitative studies were conducted with

in this programme with community pharmacists, professional leaders and patients; details of the studies are provided in Table II. The aim of the MSc programme was to determine physicians' attitudes and opinions on the dissemination and implementation of pharmaceutical services in community pharmacy and to facilitate the development of a model that contributes to enhance collaboration (Table II).

Written informed consent was obtained from the purposively sampled participants in all studies. Interviews and focus groups were audiotaped with permission and anonymised at individual and institutional level during verbatim transcription.

Data were analysed in the original language (Portuguese) by means of thematic content analysis with the aid of QSR NVIVO® version 2.0. Two of the authors (EP and MPG), who served as primary analysts, devised a coding frame from the literature with themes relevant to inter-professional work, including categories such as "perceived role of the pharmacist" and "awareness". Codes emerging from data were then added to the coding frame (e.g. "mistrust", "communication"). This common coding frame was applied to all the datasets in order to compare and contrast. Interpretation was convened by mapping codes and discussing relationships and associations; conflicting views within and between stakeholders was considered to safeguard trustworthiness. For reporting purposes, quotations were translated into colloquial English by discussion between the primary analysts and native English speakers.

RESULTS

Barriers

Physicians expressed diverse and often conflicting perspectives on community pharmacists' role, varying from a health professional to a business person. No major differences could be discerned between medical practitioners and medical leaders on this issue. Unsurprisingly, community pharmacists' and pharmacy leaders' were more positive in relation to the role of their own profession.

Some medical practitioners described the pharmacists' role as a checker and reinforcer of prescribed medicines. Tasks that could be undertaken by pharmacists included educating patients on prescribed medicines and ensuring that patients followed medical instructions: "*When people go fill a prescription, the attention given to reinforcement, in taking the time to see if the person really knows what they*

TABLE I. Key features of pharmaceutical care programmes in Portuguese community pharmacy

- Programmes rolled out in 2003 targeting patients with hypertension, diabetes and asthma.
- Mandatory pharmacists' accreditation following completion of training.
- Programmes share a common structure, entailing regular patient consultations with the pharmacist in a community pharmacy private area.
- The monitoring of need, effectiveness and safety of drug-therapy; patient intervention and/or attending physician interventions are tailored accordingly.
- Counselling on lifestyle changes is provided as judged necessary.
- No shared clinical data; pharmacists rely on their own resources (e.g. pharmacy dispensing records, measurements performed in the pharmacy) and on information provided by patients (e.g. medication review, laboratory tests and other examinations for diagnostic or monitoring purposes in their possession).
- Patients pay a variable out-of-pocket fee.



TABLE II. Overview of studies design

Study aim	Sample size	Data collection technique	Sample description	Setting and duration	Questions or probes in the topic guide relevant to inter-professional work
To explore the applicability of preventable drug-related morbidity (PDRM) indicators in community pharmacy (PhD programme)	17 community pharmacists	Two focus groups	<ul style="list-style-type: none"> • FG1: 7 non-providers of pharmaceutical care (n=1 male) from urban (n=5) and rural (n=2) pharmacies; mean age 39 years; 11 years of practice (mean); predominance of owners (n=5) • FG2: 10 providers of pharmaceutical care (n=2 male) from urban (n=4) and rural (n=6) pharmacies; mean age 32 years; 7 years of practice (mean); 5 owners and 5 non-owners 	ANF headquarters, February 2004; 2 h each	<p>Piloted topic guide</p> <ul style="list-style-type: none"> • Would you use these indicators to make an intervention directed to a physician? • How would you like to communicate PDRM interventions to physicians in your own practice? • How do you think physicians would respond to this is type of intervention from community pharmacists? • Participants were asked to comment on the relevance to their practice of a list of facilitators and barriers to the use of PDRM indicators, including, respectively "I had training on communication skills with physicians and patients" and "It is not possible to maintain a co-operative work relationship with physicians" and "physicians regard community pharmacists' intervention as encroaching on their professional territory".
To explore leaders' views on the applicability of PDRM indicators in Portuguese community pharmacy (PhD Programme)	8 professional leaders	Semi-structured interviews	<ul style="list-style-type: none"> • Leaders with medical background (n=2) and pharmacy background (n=6); predominance of the male gender (n=6) – Member of the Parliament (community pharmacist); – President of the Good Pharmacy Practice programme; – National Association of Pharmacies (ANF) vice-president; 	Interviewees' workplaces, April – November 2004; 30 to 90 minutes each	<ul style="list-style-type: none"> • How can community pharmacists improve the safe use of medicines? • What do you think of the applicability of PDRM indicators to community pharmacy practice? • Community pharmacists that participated in focus groups identified "partnership with physicians" as an important facilitator to the use of these indicators – please comment. • Community pharmacists identified "physician-pharmacist relationship" and "lack of formal communication mechanisms" as important barriers to the use of these indicators – please comment.



TABLE II. Overview of studies design

Study aim	Sample size	Data collection technique	Sample description	Setting and duration	Questions or probes in the topic guide relevant to inter-professional work
To explore the acceptability to community pharmacists of using PDRM indicators as risk management instrument (PhD Programme)	14 community pharmacists that tested the intervention	Semi-structured interviews + one focus group	<ul style="list-style-type: none"> - President of the Pharmaceutical Society; - President of the Health Directorate General and High-commissioner for Health; - President of the Portuguese Association of General Practitioners; - President of the Regulatory Drug Agency; - ANF's head of Department for Pharmaceutical Care programmes. 	<p>Interviews: participants' workplaces, October – November 2005; 1 h each</p> <p>Focus group: ANF headquarters, March 2006, 2h</p>	<ul style="list-style-type: none"> • Interviews (piloted topic guide): <ul style="list-style-type: none"> - What was difficult about the use of the indicators (in patients receiving pharmaceutical care)? (after expressing their opinion participants were probed with a list of potential barriers, including 'Lack of formal mechanisms for cooperation with physicians' and 'Physicians' attitudes') - Experiences with indicators application involving physicians were explored • Follow-up focus group: preliminary analysis of interview data on inter-professional work was presented for comment



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To explore the acceptability to patients of pharmaceutical care programmes (PhD Programme)	21 patients	Telephone semi-structured interviews	<ul style="list-style-type: none"> All patients (n=12 females) received a community pharmacy based pharmaceutical care service. Mean age was 65 years old (min =54 years; max=80 years). Most patients had primary education (completed or not); two had attended high school and one had a university degree. 	February – April 2006; 30 min	<p>Piloted topic guide</p> <ul style="list-style-type: none"> Do you think that receiving this service in the pharmacy can affect your relationship with your physician? If the pharmacist needs to get in touch with your physician concerning your drug therapy or medical condition what is the best way of doing it? Did your pharmacist ever contact your physician with information on drug therapy or your medical condition? If yes, do you think the physician was happy with the information provided by the pharmacist? Do you think the physician took the information in consideration (discussed it with you or made changes in the medication)?
To determine physicians' attitudes and opinions on the dissemination and implementation of pharmaceutical services in community pharmacy (MSc Study)	12 physicians	Semi-structured interviews	<ul style="list-style-type: none"> Mix of general practitioners and hospital physicians; six had responsibilities in policy making and three were linked to academia. Predominance of female gender (n=7) and practice in urban settings (n=8) 	<p>Participants' workplaces, January – July 2005; Approximately 1h 30 min each</p>	<p>Perceived role of the pharmacist</p> <ul style="list-style-type: none"> How do you perceive the community pharmacists' role in patient management? How do you perceive pharmacists' duties and responsibilities towards patients and physicians? Expectations from pharmacists What expectations do you have of pharmacists in relation to your duties, and what additional tasks do you feel community pharmacists might add to your activities that would meet yours and patients' needs? <p>Perceived role of community pharmacies</p> <ul style="list-style-type: none"> How do you perceive community pharmacies and their role in healthcare? Which specific services do you feel most comfortable with and which services do you believe should not be offered to patients by community pharmacies?

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Study aim	Sample size	Data collection technique	Sample description	Setting and duration	Questions or probes in the topic guide relevant to inter-professional work
					<p>Experiences and involvement with extended services</p> <ul style="list-style-type: none"> • Are you aware of cognitive services available in community pharmacies? • If so, what is the added-value of the interventions? • What is your experience with the extended services? <p>Communication and collaboration</p> <ul style="list-style-type: none"> • In your view, what is the importance of effective communication and collaboration? • Can you identify barriers you have faced when establishing cooperative relationships with pharmacists? • Can you identify facilitators to rapport building? • Can you describe a positive experience you have had with a pharmacist?

are taking, what it's for, if they really understood what was said. 'Cos you know, even when we explain things really well (...) during the appointment, even those patients who know us really well, most of them don't catch everything we say, because they are nervous, because they are (...) anxious to know their test results. Usually people are more receptive outside of the doctor's office." [Phys9:P7].

However, in their discourse physicians sometimes referred to community pharmacy staff globally (and not to community pharmacists) and perceived differences between team members and pharmacists as problematic. In particular, concerns were expressed by a few physicians on whether staff had the knowledge to provide information to patients: "(...) sometimes I'm in the queue to buy a medicine, the people don't know that I'm a doctor, and I hear the most incorrect and incoherent information" [Phys8:P7]. This medical consultant offered additional views on how the pharmacist's role as checker was curtailed by what he perceived as lack of knowledge: "The first thing he (pharmacist) has to do is not kill...not mess up. If the doctor did wrong, fine, let him do wrong. Whatever he says, he has no scientific support to back-up anything he says." [Phys8:P7].

It is possible to discern in this quote a perception of a subordinate role for community pharmacists in medicines management, which was echoed by another medical practitioner. This contrasts with pharmacists' aspirations for inter-professional collaboration. In their accounts, pharmacists displayed a desire for an egalitarian collaboration with physicians. Pharmacists frequently indicated that they had additional patient information, such as being aware of drug-therapy prescribed by different physicians, seeing the patient more often than physicians, having more time available for patients and receiving information that the patient forgot to mention during the medical consultation or chose not to disclose: "we end up knowing everything about our



patients... their drug-therapy, their problems... stuff that the physician might not pick up. We could be of great assistance in this area, it's not about being at a higher or lower level." [Pharm2:P6]. While pharmacists described a complementary role in medicines management, due to physicians' responsibility for diagnosing and prescribing, there was no evidence that pharmacists felt subordinated in professional terms. However, one pharmacist perceived a hierarchical attitude of the medical profession as a hindrance to inter-professional collaboration: "it's a mentality that unfortunately hasn't changed, the 'doctor' – the physician, is high up on a pedestal and is unable to team-up with the nurse and the pharmacist." [Pharm10:P6].

The physician quoted previously suggests that community pharmacists are not able to contribute to the prevention of adverse drug events. Unsurprisingly, an opposing view was expressed by community pharmacists and pharmacy leaders. Similarly, most patients endorsed this involvement for pharmacists, whilst acknowledging physicians' responsibility for medicines management, based on their prescribing rights: "(if the patient) goes to the same pharmacy and (the pharmacist) realises something is wrong (...) the pharmacist should give a warning so that the physician can change the medication." [Patient10:P6].

In addition to the complementary role as checker and reinforcer, some physicians accepted additional roles for pharmacists independent of dispensing, such as medicines management and follow-up, screening for undiagnosed conditions, promoting self-management and lifestyle education. Underlying these roles was a feeling, shared by all stakeholders, of good accessibility of community pharmacy as opposed to medical practice: "(...) there are so many doors and registrations to get to us." [Phys3:P7]. Pharmacy leaders advocated an extended role (beyond dispensing) for the profession. This was echoed by community pharmacists who considered that physicians had a narrow vision of their role and accepted that their own passive attitude contributed to the problem.

About half of the physicians showed an awareness of services offered by pharmacists, but recognised that "(...) I dare say that the majority of physicians doesn't have the slightest idea of what pharmaceutical care is." [Phys5:P7]. Other cases illustrate how a lack of awareness can influence role perception: "I haven't the slightest clue what you study. I have no idea what you practice besides dispensing medicines, but I obviously believe that you know much

more about drug interactions than I do." [Phys9:P7]. However, data analysis suggests that on its own, lack of awareness has limited importance in explaining difficulties in inter-professional work, as other issues, such as benefit perceived by physicians, are likely to play a role. For example, one pharmacist described how the local surgery had been informed about the pharmaceutical care programme for diabetic patients but still preferred to refer patients to the practice nurse. The service was perceived by the pharmacist to be different to what was offered by the nurse but she felt physicians were unable to acknowledge it: "(...) there is a nurse in the surgery that is sort of specialised in this area (...) we have two or three physicians (...) that sometimes tell the patient "there is no need to go to the pharmacy, go to nurse X, it's fine". Therefore, they don't grasp how the pharmaceutical care programme could benefit the patient as they have a service which they consider similar in the surgery, with a professional whom they have daily contact with." [Pharm1:P6].

Finally, a concern with pharmacists' business interest influenced some physicians, who also referred to community pharmacists as business people. Physicians' views cannot be seen just as being on a spectrum between health professional to businessperson, as the same physician had sometimes different views when referring to pharmacists as a professional group versus specific pharmacists they knew (being more positive towards the latter). However, in one case a negative perspective was put, reflecting the belief that community pharmacists are merely "shopkeepers": "They sell medicines as they could be selling shoes." [Phys2:P7].

Previous experiences with and in community pharmacies recurred as a factor influencing the physicians' views: "Have you ever gone to buy a medicine at a pharmacy? Do they give you this big talk? Or just it's this much, how much was it, hand over x amount, give you a receipt..." [Phys2:P7].

Perceived benefit of inter-professional work

There is little evidence in the datasets indicating that physicians perceive benefits for patients or themselves in involving community pharmacists in patient care. Interestingly, pharmacists' and pharmacy leaders' recognised the perceived lack of benefit on physicians' side but held an opposite view.

There was a minority view among physicians that pharmaceutical care programmes benefited patients. One phy-



sician believed that their inception was determined by political and professional reasons (to “increase visibility” and “for people to feel useful, more than to be effective”) [Phys8:P7]. Viewing these services as profit-driven was also common, which lead to a feeling of mistrust about whether their aim was patients’ benefit or economic benefits for the pharmacy. One physician suggested this conflict of interest could be overcome if pharmacists had “(...) no extra fee. Either you consider that therapeutic education is worthy of an extra fee, or if the Government doesn’t consider that it is, then it isn’t for the public sector nor the private sector.” [Phys3:P7]. This quote also illustrates that in addition to organisational boundaries the public/private sector divide is perceived as a barrier to collaboration.

Pharmacists did not mention the lack of reimbursement for services in the context of profit, but linked it more to service sustainability. Additionally, such reimbursement was perceived as an endorsement of a professional role: “If something is not paid it means it’s not valued. (...) If these services were remunerated patients and also pharmacists would understand that what we do is not only dispensing medicines, it goes far beyond that (...). It (remuneration) should be based (...) on the therapeutic follow-up of patients that have difficulties in managing their medicines, on monitoring of outcomes (...) because it requires an extra effort (...) the remainder takes priority, all the stuff that is currently remunerated.” [Pharm8:P6]

Community pharmacists believed that clinical inter-professional work benefits patients and offered several examples from their practice: “(...) a patient (...) brought a prescription for itraconazole from a dermatologist and she had a repeat script for simvastatin [from the GP], and there was an interaction³⁰ (...) I talked to the GP, explained the situation and told her I would look for another option (...) fluvastatin could be used and the GP switched the patient to fluvastatin.” [Pharm13:P6].

As far as community pharmacists were concerned, the perception of little benefit on physicians’ side was determined by different clinical priorities and guidance. Pharmacists believed that physicians’ priorities were treating conditions and dealing with existing problems, and not reducing the risk of harm from medicines, which in turn was high up in their own priority list. In addition to what was perceived as a lack of alignment in clinical agendas, pharmacists described problems arising due to the use of different sources of guidance/protocols between the two pro-

fessions; they considered this could result in their actions being deemed unnecessary or irrelevant when they perceived them as appropriate. Furthermore, pharmacists’ considered that they were more compliant with guidance: “(...) we still rely heavily on theory, guidelines, updating information, and we try to have their recommendations as goals that should be achieved (...). My understanding of physicians (attitude) is that (...) certain values (above target) are satisfactory and they consider the situation to be controlled (...) while we’re more demanding (...). This generates a gap between pharmacists and physicians, as they don’t understand our requests and we don’t understand what we consider (...) a lack of interest on their side to improve the situation (...) it’s only by being a physician that we can understand this reality (...)” [Pharm9:P6:FG]

Pharmacy leaders acknowledged that physicians may not perceive benefit from collaborating, but were more optimistic than pharmacy practitioners with respect to the possibility of overcoming this problem. A pharmacy leader [Pharm3:P4] believed that “the problem is the lack of trust on the physician’s side”, and he contended that this stemmed from “unawareness of the expertise and competences of the pharmacist” due to “lack of regular contact” between the two professionals, thus considering that proactive communication from the pharmacists’ side would solve this predicament.

Time constraints were cited by a few medical practitioners as a barrier to inter-professional work, but the analysis suggests that benefit perception is the issue influencing inter-professional work: “People always find time for things that they consider important. If it’s not important, they don’t have time, it’s that simple” [Phys5:P7].

Role encroachment

Another key theme in explaining difficulties to inter-professional work is role encroachment. There is evidence of territoriality issues in all datasets, with community pharmacists offering more examples: “We talked to the surgery in an attempt to collaborate (in the context of pharmaceutical care programmes), but internally their opinions are divided. Some are (...) with us. Others are a bit hesitant; they think it’s their job.” [Pharm11B:P6]

When performing a more clinical role, pharmacists believed not only that physicians perceived them as encroaching on their territory, but also that they themselves were crossing the dividing line between professions. Data ana-



lysis indicates that the incomplete reprofessionalisation of community pharmacists, who have not yet fully embraced a more clinical role, is central to understanding this sense of encroachment. Firstly, it appears that pharmacists favoured broadening their role into territories that have traditionally been considered as belonging to the medical profession, but at the same time prescribed clear limits to their role extension. Reluctance to fully use their expertise in circumstances where patients could potentially benefit further confirms this: *“We can’t suggest an alternative drug because that could prompt an unpleasant situation, after all who is the ‘doctor’ (...) that is still the problem. After all who prescribes? It’s true, we have to shut up.”* [Pharm13:P6]. Although some pharmacists perceived physicians’ responsibility for medicines management linked to prescribing rights, there were variations in the extent to which pharmacist prescribing was accepted. Secondly, pharmacists acknowledged that the more clinically oriented services had only been taken up by a minority of the profession.

Both pharmacy and medical leaders agreed that role encroachment was an issue hampering inter-professional collaboration. A medical leader stated: *“The problem is always the border between the work of pharmacists and physicians, the conflicts this can create (...) and whether the patient could be disadvantaged by this instead of being benefited.”* [Phys1:P4]

Medical practitioners offered less evidence of the importance of role encroachment, but a few accounts corroborated pharmacists’ perceptions. For example, one physician was concerned that *“(...) diabetic patients can substitute...medical assistance with a trip to the pharmacy.”* [Phys1:P7]. Talking about more clinical roles for pharmacists another medical practitioner held stronger views on how *“Pharmacists aren’t doctors. I think every monkey should stay on his own branch.”* [Phys2:P7].

Finally, patients’ perceived physicians as disapproving of pharmacists’ involvement for territorial reasons, which corroborates pharmacists’ perceptions: *“the GP said to a friend of mine (...) ‘he’s (pharmacist) not a physician.’* [Patient4:P6]. However, a perception of impingement on the medical territory was not ubiquitous in patients’ accounts; for instance, in one case, the physician had actually recommended the pharmacy-based service to the patient.

In spite of data suggesting an incomplete reprofessionalisation of community pharmacists and a perception of

disapproval on physicians’ side, there was no evidence indicating that pharmacists with newly extended roles (e.g. pharmaceutical care programmes) were willing to give them up. In pharmacists’ accounts, there was a concern for maintaining both theirs’ and physicians’ credibility, in order not to affect their therapeutic relationship with the patient: *“I don’t like saying unpleasant things about physicians (...) but they (...) should respect our work a bit.”* [Pharm7:P6]. Comments perceived by pharmacists as depreciative were regarded as a violation of the duty of collegiality to a fellow health professional: *“(...) it’s very discouraging to hear people discredit our work, or not caring about what I say, because, they have a medical degree and I have a pharmacy degree, they’re not exactly talking to the neighbour down the street.”* [Pharm5:P6] – and were shown to elicit a territorial behaviour: *“each one looks after his own area.”* [Pharm13:P6].

Facilitators

Increased Awareness

Physicians cited joint training and education as a possible facilitator, providing the potential to increase awareness of each professions’ contribution to optimal patient outcomes and how to work as a healthcare team: *“Another way would be for our schools, like pharmacy and medical schools to (...) have classes or modules to promote a collaboration and interdisciplinary approach between pharmacy and medicine.”* [Phys12:P7]. A leader corroborated this view: *“(...) most of this experience should start to be developed at the undergraduate level, in university...we have a pharmacy school, we have a medical school (...) it’s true, there is little interaction between medical and pharmacy students, and situations could be made possible in order to have more contact and to stimulate collaboration, because these will be building blocks that will form a professional relationship.”* [Phys1:P4].

Physicians indicated that building a personal rapport with the pharmacist was critical to achieving a good working relationship: *“I have to know a person’s face when I work with them. (...) We usually create negative images of the other person, especially when we don’t know them and when they don’t have a face...When we actually know the person it’s easier, first because you can see what each other’s flaws are, find areas where people can be more useful, and in terms of working together possibly fill-in gaps in areas where the other person is weaker and be more tolerant of*



others errors... Even pointing things out, it's easier to point out someone's mistake when you know them, than it is to a stranger." [Phys5:P7]. Overall, this account was substantiated by leaders and practitioners of both professions, who believed that direct contact with pharmacists presented an opportunity to clarify attitudes that might create mistrust. As one leader put it: "(...) when people don't talk to each other about things... There is always petty talk and things get all messed up from the beginning." [Phys11:P7].

Direct communication, even if not face-to-face, was advocated by one medical leader: "they (pharmacist and physician) should communicate directly, by email, (...) by telephone but never through the patient, even if it's written, never orally." [Phys2:P4]. Pharmacists acknowledged that "physicians don't like it when patients pass on messages from the pharmacy" [Pharm2:P6] and did value two-way communication, in which they could engage in discussions about patients' medicines, instead of just sending information and receiving no feedback as to why their suggestions were not considered. Nonetheless, analysis suggests that direct communication as advocated by physicians may also serve the purpose of preserving their credibility, more than just reflecting a desire to engage in two-way communication: "The pharmacist (...) could say 'I've seen patient X who is on that (drug) and (he) is not doing this and that'. The physician may (then) consider it or not as he wishes. There are many ways (of doing this) without the pharmacist telling the patient 'Perhaps your physician has forgotten to prescribe (it) or to order some lab.'" [Phys2:P4].

It was argued by a few pharmacists that using the patient as the carrier of a message had disadvantages, such as unintentional "changes in the communication" [Pharm2:P6] and the message not actually reaching the physician. However, pharmacists appeared to perceive direct communication by letter or telephone as confrontational, and lacked confidence in pursuing it: "There are many times that pharmacists would consider it important to intervene but they don't want to do it because they are afraid of the physician's response" [Pharm4:P6]. In contrast, pharmacists showed that they felt comfortable discussing medicines management with patients.

Interestingly, the "carrier pigeon" role, as coined by Patient20:P6, was legitimated by another patient: "I inform one, inform the other, get messages from one, get messages

from the other. That's the way it has to be. The patient has to help (...) they (pharmacist and physician) are too busy to meet for (discussion of) each patient, isn't it?". In contrast to [Phys2:P4], who used the same term ("carrier pigeon") with a negative connotation, patients seemed to accept this role.

Physicians suggested that informal meetings would assist professionals to establish rapport and communicate more effortlessly: "Lots of people don't like what I say, but I think that informality is essential. Informality is essential for formal mechanisms to work. When you try to establish frameworks that are too strict and formal, they usually tend to be rejected." [Phys5:P7].

Structured and formal meetings were also cited as potential facilitators to achieve rapport, especially when professionals would not voluntarily meet informally: "Getting physicians and pharmacists to sit down and talk to one another. Or eventually it could turn into something more formal where someone would speak, and then they would speak to one another. This might...well at first there might be a lot of cakes or pies flying around, but I think this would be really important." [Phys5:P7].

A physician suggested that both professions could benefit from pharmacists' participation in the regular meetings in general practice: "(...) I think it's reasonable to have pharmacists participate for example in clinical sessions at surgeries so different drug therapies can be discussed, which drugs to prescribe, the introduction of new medications...For example, if healthcare centres had formularies, pharmacists could in some way discuss these issues." [Phys4:P7].

Physicians suggested a pro-active approach from pharmacists to create awareness of the benefits of collaboration, which was echoed by a pharmacy leader: "(...) the pharmacist has to play an active role, because the novelty comes from him, not from the physician." [Pharm4:P4]. In fact, pharmacists reported experiences of when physicians were informed about pharmaceutical care programmes this had a positive impact, both in inter-professional work and for patients: "I know of colleagues who went to the surgery and presented the programme and they have a fantastic collaboration with GPs. They're keen on calling, keen on going there and because of that patients are better controlled." [Pharm3:P6].

These marketing approaches have to take into account the motivators for engagement in inter-professional work.



However, when directly asked, physicians found it difficult to articulate which factors could motivate physicians. Some physicians noted that the benefit for patients may be a motivator for increased co-operation: *“Also, it is in the interest of the patient and in our interest. So your motivation now changes to something else. You work with a different satisfaction, you work in a different manner, you feel more successful, you feel useful and you feel involved.”* [Phys9:P7]. Another physician held an opposite view: *“Patient needs aren’t enough to motivate physicians.”* [Phys5:P7]. Similarly, pharmacy leaders noted this ambivalence; while one evoked mainly altruistic reasons – *“the physician’s objective is to treat patients better, most physicians have that perspective”* [Pharm3:P4] – the other highlighted how physicians would also have to perceive benefits for themselves: *“We have to understand what the physician’s business is. If he works in a surgery he spends 80% of his time seeing patients who don’t necessarily need a medical appointment and handling bureaucracy: (repeat) prescriptions and laboratory tests orders. Anything we can do to (...) avoid the patient going there more times is beneficial.”* [Pharm4:P4].

Existence of formal agreements or protocols

In addition to the establishment of a personal and/or professional relationship, most physicians cited the existence of formal agreements or protocols as a means to the development and maintenance of successful communication and collaboration. These protocols might prevent unnecessary concerns regarding role encroachment and the delivery of contradictory messages to the patient: *“Like, if there was a manual on good etiquette with clear-cut rules, we could have a coherent talk when patients arrive and we have to give them information and health care advice.”* [Phys12:P7].

Physicians mentioned that protocols should be established both at a professional organisations’ level and at an official level by the Ministry of Health: *“I personally think that work should be done, like...as two complementary lines: one between the professional organizations, well professional organizations and sectors... professional and scientific, that congregate physicians on one side and pharmacists on the other, they should establish more communication, and on the other hand the official entities, the Ministry of Health and its bodies should also promote this interaction (...) especially about...one possible area could be*

about big national programmes.” [Phys1:P4]. Pharmacy leaders mentioned international examples where this level of cooperation already exists and were initially imposed by the healthcare system itself: *“(...) in the U.K. (...) the government came up with a plan (...) where they wanted the collaboration of pharmacists (...) with local prescribing physicians (...) they have collaborative protocols between them which are well defined, and pharmacists can change certain medicines (...) the objective is to decongest medical services.”* [Pharm2:P4].

However, it was acknowledged that the existence of such protocols does not necessarily mean that they will actually be implemented. Therefore, it was suggested that top-down initiatives should be complemented by bottom-up strategies, which allow the flexibility to adapt protocols to local needs: *“I don’t see this being implemented from the top-down. I can see regulations saying: (...) A physician shall this, this and this, and only he can. A pharmacist shall, and only he can. And there are other areas where we can collaborate, as long as the rules are established locally, because the rules can’t be given at a national level, for everywhere, because it isn’t the same everywhere.”* [Phys9:P7].

However, one physician with a history of collaborating with pharmacists highlighted the significant workload to establish such protocols, noting that its absence does not seem to hinder successful collaboration: *“When we tried to establish protocols for these situations, the requirements were a tall order, in terms of bureaucracy, that the institutions stopped... We are working fine just the way we are, why do we need a protocol? (...) I think we work pretty smoothly with a lot (...) of patient success.”* [Phys11:P7]

Data sharing

Another emerging facilitator was the possibility of integrating software systems, which was considered of clinical value both by physicians and pharmacists: *“For me it is absolutely critical to be able to cross pharmaceutical history which could be gathered this way (pharmacy software), taking into account the medicines that are dispensed, with a clinical history, I think that’s a system that needs to be developed, it’s impossible for it not to be developed.”* [Phys1:P7]. Physicians believed that the new electronic prescriptions model could contribute to enhanced communication: *“I believe that now, with the new software models, some aspects will get better.”* [Phys5:P7].



DISCUSSION

Our research suggests that difficulties in inter-professional work are influenced by the perceived role of the pharmacist, perceived benefits, and role encroachment. Facilitators offered include increasing awareness on the pharmacist's role and services, the use of protocols for collaboration and clinical data sharing. The type of barriers and facilitators identified, which mostly focused on increasing awareness of each others' role and recognition of the potential added value of collaboration, suggest that the physician-pharmacist working relationship is still in a very early stage of development. Considering the McDonough and Doucette model for collaborative working relationships, we mostly found that accounts reflect a stage 0 or stage 1 level of maturity.²⁵

One of the strong points of our work is that we have researched a range of stakeholders, including patients, who are affected by inter-professional work and sometimes involved in it by carrying messages to pharmacists and/or physicians. However, two key limitations should be noted. Firstly, the influence of researchers' professional status in data collection and analysis. In general, participants were aware that the interviewer or focus group moderator was a community pharmacist and this may increase social desirability bias. However, less favourable views were expressed, which suggests that this bias was at least partly minimised. Trustworthiness in the data analysis was ensured through a systematic, self-conscious discussion between the two primary analysts of different perspectives and possible explanations for each theme, as well as loops of revisions from the other authors. Secondly, the studies relied on purposive samples that do not intend to be representative of stakeholders. For example, many pharmacists and physicians can be seen in the forefront of their respective professional groups; it is possible that other practitioners may have less favourable views.

Our findings are in accordance with the international literature on inter-professional relationships between physicians and pharmacists. The views of physicians on the role of community pharmacists have often been identified as a critical factor for collaboration. Most studies indicate that physicians agree with pharmacists providing health education to patients,³¹⁻³³ aiding patient compliance,³³⁻³⁶ screening prescriptions for possible problems and interactions,^{32,36,37} contacting the physician to discuss adjustments in a patients' pharmacotherapy,³⁵ and giving advi-

ce and treating minor illnesses.^{34,36,37} However, historically we have been able to observe that some physicians think that pharmacists should "stick to dispensing",^{31,38} and are generally less favourable of pharmacists providing health-related screening services^{31,33,35,37,39,40} and monitoring the effect of pharmacotherapeutic regimens.³² In general, the literature indicates that physicians are usually not supportive of activities they think would interfere with their own individual autonomy and authority, or have an impact on the physician-patient relationship.

In our study, physicians sometimes regarded community pharmacists as business people, and believed this represents a conflict of interest in health care. This view is supported by international findings^{31, 34, 38, 41, 42} although it appears to have less importance than what was described by other studies. For instance, Hughes and McCann conducted focus groups with GPs and community pharmacists engaged in inter-professional collaboration. They found that GPs had some awareness of community pharmacists' role but their perceptions were permeated by a shopkeeper image of these professionals.

Often we found discrepancies in the views of stakeholders; on their own they can create further difficulties to inter-professional work.^{33, 36, 43} For example, differences in views of pharmacists and physicians on extended roles for community pharmacists can act as barrier to collaboration, especially if the provision of certain services by pharmacists is considered inappropriate by physicians.

In agreement with similar international findings⁴⁴⁻⁴⁶ we found negative perceptions on boundary encroachment. In fact, role specification was the most influential factor supporting collaboration in a study looking at characteristics of collaborative relationships between physicians and pharmacists in the USA,²⁶ which corroborates the importance of creating national and/or local protocols.

Our findings on physicians' perceptions of benefit are consistent with previous research, which showed that pharmacists' interventions are not generally seen as having a significant impact on health outcomes.^{36,47,48} This issue appears to be of great significance when physicians prioritise their work. Our data suggests that collaboration with pharmacists is not usually high on the agenda also because other activities are seen as being more important in a time-constrained agenda. This accords with a recent qualitative study, which found that the concept of 'value' was key, as physicians consistently weigh up the percei-



ved patient benefit and the resources such as time and funding.⁴⁷ Activities that would have a positive effect on physicians' workload are usually well accepted by physicians.^{26,49} In fact, participants in our studies conveyed that a collaborative relationship could be initiated when physicians perceive not only benefits in terms of patient outcomes, but also benefits for themselves.

Overall, our study indicates, in agreement with the literature, that prior acquaintance and good rapport are positive and helpful to collaboration.^{22, 36, 50} Education and joint training were also identified as potential facilitators, leading to increased pharmacists' confidence and knowledge, which translates into more successful communications with physicians.^{22,45,51} It was suggested that the possibility of pharmacists and physicians to study together at a pre-graduate or post-graduate level would potentially benefit working collaborations. It also allows overcoming trust issues, which are a critical factor mentioned by participants and confirmed by several studies.^{36,50} After trust has been gained, physicians may be more willing to collaborate with pharmacists.

An obvious finding emerging from pharmacists' data on their relationship with physicians is that while pharmacists aspire to build a professional relationship with physicians, they are restrained by their lack of confidence to initiate such a relationship. This is evident in the mismatch between pharmacists' intentions (e.g. engaging in a two-way communication with physicians) and their reported behaviours (e.g. avoidance of direct communication with physicians by discussing drug-therapy issues solely with patients). Nevertheless, pharmacists who have taken up new clinical roles do not seem to be willing to forfeit them, even when they perceive physicians as less supportive of the new roles. Pharmacists believe their activity is clinically relevant and believe patients expect them to take an active role in their treatment decisions, a finding corroborated by a recent national study.⁵²

Although increased exchange of information and collaboration seems desirable in an increasingly complex healthcare system, with clear implications for patient safety, communication between physicians and pharmacists appears scarce and seems mostly of an administrative nature. As evidenced in an article exploring the causes of preventable drug-related admissions to hospital, communication failures between different healthcare professionals and knowledge gaps that derive from poor inter-

action across different levels of care have a significant impact on patient safety.⁵³

In conclusion, our work highlighted several factors influencing the establishment of a collaborative inter-professional relationship. Our findings suggest that a multimodal strategy that addresses these factors, involving both top-down and bottom-up approaches, is needed.

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CONFLITOS DE INTERESSE

Os autores declaram não existir conflitos de interesse na elaboração deste artigo

ENDEREÇO PARA CORRESPONDÊNCIA

Faculdade de Farmácia da Universidade de Lisboa
Av. Prof. Gama Pinto, 1649-003 Lisboa
E-mail: emapaulino@gmail.com

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RESUMO

FARMACÊUTICOS COMUNITÁRIOS E MÉDICOS: ESTUDOS EXPLORATÓRIOS COM *STAKEHOLDERS*

Objectivos: Explorar a opinião e experiências de um grupo de *stakeholders* relativamente à relação interprofissional entre farmacêuticos comunitários e médicos.

Tipo de estudo: Cinco estudos qualitativos.

Local: Cuidados de Saúde Primários.

População e Métodos: Foram realizadas entrevistas e/ou grupos focais a uma amostra constituída por 31 farmacêuticos comunitários, 8 líderes médicos e farmacêuticos, 12 médicos e 21 doentes. As questões investigadas relacionavam-se com serviços de gestão da terapêutica prestados na farmácia comunitária. Os dados relativos a relações interprofissionais foram analisados com recurso ao software NVIVO®.

Resultados: A evidência demonstra um estágio imaturo na relação interprofissional entre médicos e farmacêuticos comunitários. A análise dos dados sugere uma disparidade entre as percepções que os farmacêuticos tinham da sua própria função e a que os médicos assumiam ter. Um segundo factor determinante foi o benefício percebido do trabalho interprofissional, onde também se verificaram divergências. Os médicos percebiam poucos benefícios para os doentes e para si próprios; os farmacêuticos, pelo contrário, antecipavam benefícios para os doentes. Um terceiro factor foi a territorialidade decorrente da percepção de invasão de funções. A extensão da função do farmacêutico para áreas mais clínicas foi percebida como uma invasão da prática médica por médicos e farmacêuticos. Estes últimos, no entanto, mostraram-se indisponíveis para descontinuar as novas funções.

Os factores apresentados como facilitadores do fortalecimento da relação interprofissional foram o aumento do conhecimento sobre a função e serviços prestados pelo farmacêutico, através da formação mista e da realização de reuniões conjuntas. A existência de protocolos de colaboração e partilha de dados clínicos evidenciaram-se como temas relevantes.

Conclusões: A relação interprofissional entre farmacêuticos e médicos encontra-se num estágio inicial de desenvolvimento. Parecem ser necessárias estratégias multi-modais que combinem abordagens verticais nos dois sentidos para que a relação interprofissional se consolide de forma a contribuir para a segurança do doente.

Palavras-chave: Interprofissional; Farmacêutico; Médico; Cuidados de Saúde Primários; Farmácia Comunitária; Serviços Farmacêuticos.