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Understanding public trust in services provided by community pharmacists relative to those provided by general practitioners

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Abstract

Objective To apply sociological theories to understand public trust in extended services provided by community pharmacists relative to those provided by general practitioners.

Design Qualitative study involving focus groups with members of the public.

Setting The west of Scotland.

Participants Twenty-six theoretically sampled members of the public were involved in one of 5 focus groups. The groups were composed to represent known groups of users and non-users of community pharmacy, namely mothers with young children, seniors and men.

Results Trust was seen as being crucial in healthcare settings. Focus group discussions revealed that participants were inclined to draw unfavourable comparisons between pharmacists and GPs. Importantly, participants' trust in GPs was greater than in pharmacists. Participants considered pharmacists to be primarily involved in medicine supply and awareness of the pharmacist's extended role was low. Participants were often reluctant to trust pharmacists to deliver unfamiliar services, particularly those perceived to be "high risk". Numerous system based factors were identified which reinforce patient trust and confidence in GPs, including GP registration and appointment systems, GPs' expert/gatekeeper role and practice environments. Our data indicate that the nature and context of public interactions with GPs fostered familiarity with a specific GP or practice, which allowed interpersonal trust to develop. By contrast, participants' exposure to community pharmacists was limited. Additionally, a good understanding of the GPs' level of training and role promoted confidence. Conclusion Current UK initiatives, which aim to implement a range of pharmacist led services, are undermined by lack of public trust. It seems improbable that the public will trust pharmacists to deliver unfamiliar services which are perceived to be "high risk", unless health systems change in a way that promotes trust in pharmacists. This may be achieved by increasing the quality and quantity of patient interactions with pharmacists and improving working relationships

Summary

Article Focus

Why do the public access GPs for services which are also available in community pharmacies?

What sort of services do the public trust community pharmacists to deliver?

What factors underpin greater public trust in GP services relative to community pharmacy services?

Key messages

Public trust in GPs was greater than in pharmacists;many were often reluctant to trust pharmacists to deliver unfamiliar, “high risk” services.

Numerous system based factors reinforce public trust and confidence in GPs, including GP registration and appointment systems, GPs’ expert/gatekeeper role and practice environments.

This study suggests that increasing the quality and quantity of patient interactions with pharmacists and improving working relationships between pharmacists and GPs could build trust.

Introduction

The global undersupply of trained healthcare professionals has resulted in initiatives to expand the roles of allied health professionals to complete tasks which were previously the preserve of General Practitioners (GPs).[1;2] International models of pharmacy funding, regulation and service provision vary; however, there are certain commonalities.[3] In most countries community pharmacists have traditionally been involved in medicine supply. UK policy and pharmacists' professional organisations have emphasised the potential of community pharmacists to extend their roles.[4-8] Extended pharmacy services include preventative roles aimed at improving public health and reducing health inequalities, managing long term conditions, and medicine reviews.[9;10] However, International uptake of such extended services has been disappointing.[11-14] Box 1 provides information on NHS GP and pharmacy services in Scotland. The general public are known to defer to GPs for many services which are also available in community pharmacies.[15] Previous studies have explored barriers to pharmacists' role expansion from the perspective of GPs, pharmacists, service users but the general public's views have seldom been canvased.[16-19]

Box 1: General Practice and Pharmacy Services in Scotland

- The National Health Service (NHS) is a national system operating in the UK which is financed primarily by public taxation and it is usually free at the point of access.
- In Scotland general practitioners and community pharmacies operate as independent contractors providing a range of services within the NHS.
- Most people are registered with a general practitioner and appointments are not charged.
- General practitioners usually work in a clinic setting.
- In some cases GPs charge for certain services or products not funded by the NHS for example there may be charges for some travel vaccinations.
- Pharmacists in Scotland provide dispensing services; as well as, a chronic medication service, minor ailment services, public health services, acute medication services, flu vaccination supply and some locally commissioned services (these include advice to residential homes, methadone supply, needle exchange and domiciliary oxygen).
- The pharmacy services listed above are funded by the NHS and there is no charge to the patient. Prescription charges were abolished in Scotland in 2011.
- Most people are not registered with a pharmacist, unless a specific service has been used which requires registration, examples include the minor ailment service or chronic medication service.
- A number of non-NHS services are available at specific pharmacies at a charge, in Scotland, including weight management and seasonal flu vaccination.
- Community pharmacies in Scotland tend to be operated by commercial operations in retail settings. Most generate profit from the sale of medicines, medical equipment and other sundry items.

Trust in healthcare

This is the first known study to apply sociological theories to understand public trust in services provided by community pharmacists relative to those provided by general practitioners. This is important because trust is central to medical relationships and is essential to effective therapeutic encounters.[20] Trust underpins patients' willingness to seek care, reveal information, follow treatment plans and recommend a service.[20] Trust can, therefore, be seen to mediate health outcomes and is critical to the production of health. It is important to understand the sources of (mis)trust in health services, in particular, to inform the development of trustworthy services.

Trust is a complex phenomenon, and is a concept that has yet to be universally defined within and across disciplines.[21-25] However, health sociology literature does provide some consistency. Trust may be defined as the "*optimistic acceptance of a vulnerable situation which is based on positive expectations of the intentions of the trusted individual or institution".*[20;22;26] In the case of healthcare, vulnerability arises because health service users are ill and require care in an environment of specialist knowledge which creates asymmetries, establishing agency relationships between users and providers.[20] Interpersonal trust is an emotional assessment of motivations and intentions of the provider not just the results.[20] In the case of healthcare, trust in individuals and in the system are important. Trust in health provision relies on a combination of trust in individuals and systems.[27]

Trust, familiarity, confidence and risk.

It is beyond the scope of this paper to provide an exhaustive analysis of the theoretical literature on trust; rather, we will focus on relevant theoretical constructs and their applicability to this healthcare setting. Trust functions as a way to reduce complexity in society.[28] Placing trust in individuals and systems simplifies our decisions to act.[29] Risk is central to understanding the phenomenon of trust.[30] Trust helps people to make future decisions based on experience but also uses the knowledge of the past to minimise risk .[29] Luhmann discussed trust and familiarity as related concepts[29]; both reduce complexity in society on the basis of past experience. Trust develops with familiarity and familiarity is used as a mechanism to calculate risk.[28] Luhmann argues that individuals base decisions to place (mis)trust in an individual or system on both experience and risks associated with decisions made for the future. In the context of healthcare,

individuals are likely to establish trust with known health professionals, as their experience of that person increases. Trust is likely to be enhanced in established systems known to an individual.

Confidence is required in situations of unfamiliarity. By confidence Luhmann meant having faith in an individual or system such as politics, banking, education, transport, business and health care. When an individual relies on confidence there is an expectation that they will not be disappointed. When expectations are not fulfilled, trust results in an internal attribution of blame whereas confidence results in an external attribution of blame. This is because an individual chooses to trust; by contrast, confidence is based on expectation and is not a matter of choice.

Declining Trust in healthcare

Research suggests that the move from what is termed 'modern' to' late/high modern' society has been accompanied by a declining level of public trust in healthcare.[31] Lack of trust can be described as distrust or mistrust. Distrust can be defined as a healthy skepticism while mistrust comprises a more unhealthy cynicism driven by actual or suspected misdeeds.[32] Public concerns about healthcare stem from evidence of inequitable allocation of resources, as well as high profile medical and safety scandals.[31] The overarching declining trust in government and social administration is linked by uncertainty in science, technology and expert systems.[33;34] It is important to consider that despite public mistrust of medical practitioners the public continues to access services.[31] Hall suggests that Individuals have no choice but to trust the motives and competence of medical professions since they do not have the knowledge or skills to judge levels of expertise.[20] Additionally, general practitioners, in particular, act as gatekeepers to resources as well as specialised services in secondary care.[16] This results in hierarchical relationships between healthcare providers and reinforces user dependence.[35] Greener (2003) proposes that the increasing power base of the medical professional results in coercive or dependent trust relationships.[35]

Interpersonal and institutional trust

Trust can be placed in individuals (interpersonal trust and/or the social systems they represent (institutional trust). Institutional trust could include the medical system (knowledge of medicines), the scientific system (evidence-based practice), the economic

system (the retail or consumer setting), the legal system (their ability to restrict access to certain medicines on legal grounds), or the artistic system (the aesthetics of the stores). The two types of trust are inter-related in that an individual represents the health system and, therefore, might influence trust in the system. It is entirely possible, however, for an individual to trust an individual health professional and distrust the underlying system. Moreover, individuals can mistrust an individual working in a trustworthy system. Interpersonal relationships can shape how people feel about health systems and trust in the system can contribute to the development of interpersonal trust[36]; although, the way in which interpersonal trust might affect institutional trust is much less clear.[37] The majority of the research conducted into trust in the healthcare setting has focused on the interpersonal aspects of trust. Evidence suggests that despite declining trust in health systems interpersonal trust in specific health practitioners remains relatively high.[38] Few studies have considered system based trust issues.

This paper applies sociological theories of trust to qualitative data gathered from the public in Scotland on experiences and expectations of community pharmacy. This paper particularly focuses on public trust in pharmacy services relative to GP services and the system/institutional based trust factors which underpin relatively high levels of interpersonal trust in GPs.

Methodology

This exploratory qualitative study used a focus group design to elicit the views of the general public on experiences and expectations of community pharmacy. A topic guide was developed that would provoke opinions and generate discussion (see appendix 1). All focus groups were conducted between 5th and 24th March 2010. University of Strathclyde Research Ethic Committee approval was obtained.

Justification for methodology selected

Focus group methodology was chosen to address the study aims as it is reported to provide the richest data in relation to public views of priorities in health services.[39] Furthermore, focus groups are useful for in depth exploration of health research topics and provide an unobtrusive method for collecting data on public views of health services, whilst providing more critical comments than other more conventional data collection

techniques, such as individual one-to-one interviews.[39;40] Focus groups are regarded as an ideal method for exploratory qualitative research due to their ability to "inductively generate research ideas" and are useful for exploring participants' perceptions, actions and the meaning assigned to them.[41]

Participants

Data collection continued until theme saturation was achieved. A total of 26 people participated in one of 5 focus groups in the vicinity of Glasgow, Scotland. Participants were recruited through non-pharmacy or national health related voluntary and charity organisations. Participants were compensated for their time (a £15 shopping voucher was distributed at the end of the focus group discussions).

Focus groups

The same facilitator (JC) and observer (LM) coordinated each focus group. The focus groups were conducted in a place convenient and familiar to the participants and lasted an average of 53 minutes. Information sheets were provided to potential participants during the recruitment stage and demographic details and consent were obtained prior to participation. Each focus group was recorded, transcribed, anonymised, and analysed using thematic analysis.[42]

Analysis

Analysis was inductive with themes being derived from the data.Two researchers (WG and LM) separately analysed the transcripts and discussed emerging themes [43;44]. A third researcher (PW) independently verified themes and data analysis. Themes were redefined where necessary to ensure coherence with coded text and representation of the data set as a whole. Finally, themes were considered in relation to one another and trust theoretical frameworks. One of the criticisms levelled at the reporting of findings from focus groups has been that the interaction and discussion is often neglected.[39] Therefore, we have aimed to retain some of the discussion in the use of our direct quotations.

Results

Trust emerged as a core theme from the data which could be divided into 2 major sub themes. Specifically analysis considered data in the context of trust, familiarity,

confidence and risk. Additionally, thematic analysis was used to identify system/institutional factors which affected public trust.

Sample

Details of the focus groups are provided in tables 1 and 2. All participants were resident in Scotland and were of British nationality apart from those in Group 3 (mothers with young children), who were from various regions of Africa. This group was of interest because immigrant populations might have different views of community pharmacy services. Poor health outcomes in immigrant populations have been linked to inequitable access to health services, due to cultural differences and low levels of health literacy.[45;46] The other groups were composed to represent known groups of users and non-users of community pharmacy, namely mothers with young children, seniors and men. The most regular pharmacy users are females aged 35-74 and males aged over 55.[12] Males aged 16-24 use pharmacies the least.[12]

Insert table 1 and 2 here

Trust, familiarity, confidence and risk (See box 2)

Focus group discussions were primarily intended to center on community pharmacy; although, participants drew comparison between pharmacists and GPs in all groups. From discussions it seemed that many used community pharmacy as a first port of call for convenience. However by preference the majority would consult a GP for most primary healthcare needs. Participants commonly rationalised preferences by stating that they were more familiar with the GP and levels of confidence and trust in GPs were higher. Some participants discussed establishing strong personal relationships with GPs over a period of time. Many considered that the GP knew their medical history. By comparison, relationships with community pharmacists were more distant and less consistent. It seemed that although pharmacy staff were considered to be approachable there was seldom a sustained relationship with a particular pharmacist. This resulted in lower levels of familiarity with pharmacists which did not allow a rapport to develop undermining interpersonal trust. The higher quality personal interaction and enhanced trust in GPs resulted in open and honest discussion; the cornerstone of effective therapeutic relationships. By contrast, some participants specifically discussed being less likely to discuss sensitive topics with a community pharmacist.

Other than medicine supply, the most commonly used community pharmacy services were perceived to be “low risk”. Examples include minor ailment services and smoking cessation. In particular, young mothers valued uncharged minor ailment services for their children. One participant discussed a positive experience of the pharmacist’s superior knowledge of over the counter medicines and this established trust in the professional and the service provided. However, participants frequently deferred to GPs for “serious” higher risk health concerns. Those with long standing health conditions preferred a GP led service at all times. There were multiple explanations offered for this. Critically, participants considered that GPs offer safer services and a more complete package of care. Specifically, GPs can diagnose, prescribe, reference and alter medical records as well as refer to specialist services if necessary. Most participants who had long term conditions considered that medical records were central to their care. As an example, participants were concerned that the results of pharmacy health screening, for example blood pressure monitoring, would not result in prescribed treatment or be recorded in medical records. Some perceived that trusting pharmacy services could, therefore, seriously threaten their health. In addition, most considered that the GP would repeat diagnostic tests carried out at the community pharmacy, rendering a visit to the pharmacy unnecessary.

Box 2: Trust, familiarity, confidence and risk

Trust, familiarity and confidence

Importance of familiarity and trust

I think the role of a community pharmacist, you would need to get to know, you know, going back to the same person and getting that rapport and trust.R1

It's the trust. R2

Familiarity and safety

… the doctor knows you best. He knows what he can give you safely and what he can't give you safely. The chemist doesn't know that. R13

Stability of relationship with GP

Surely a doctor knows your records, he knows your history, he knows you from when you were born till you're ready to die. A chemist doesn't. A chemist can give you something that can have an adverse effect on you. Just as easily as something that would help. R13

Importance of medical history

I would trust the doctor far before I would trust a pharmacist to give me something ……because they've got your whole history there. R3

Interpersonal trust and communication

"If I go to my GP I'm so open about anything I need to say, but with the pharmacist there is that… You don't feel like there is a personal relationship that enables you to open up and seek out more advice." R15

Risk

Pharmacist trusted in low risk situations

Aha…I think they know a lot more than some of the doctors know. I'm thinking about my daughter with the head lice. The doctor didn't really know what he could give her. He said, you can try this and you can try that but we had tried that and it didn't work and she ended up with them again and again and again eventually the pharmacy was well use this and it worked, it was fine. R18

Pharmacist not trusted in high risk situations

It's like they can go and say, 'Oh it's nothing' and then go away and drop dead quick from trusting the chemist. R24

Again it's what, how much you are expecting the chemist to do for you. R25

I don't think the chemist would take, I don't think they would take that type of responsibility. R22

The chemist would take your blood pressure and not prescribe you anything. They'd say 'Your blood pressure is high so I would see your doctor. Go to the doctor'. That's it, end of story. If your cholesterol is that high go to see the doctor. But they can't prescribe anything anyway. R23

…… ……..I would never do, go for anything important like that. I would never use a pharmacist. Just because of the recording of it and it could be sky high at that time, so what would I do then? I then have to go to the doctor. I would be as well going to the doctor in the first place. R3

Institutional trust (See box 3)

It was clear from data analysis that numerous system/institutional based factors could be linked to greater public trust in GPs relative to pharmacists in the Scottish setting.

Familiarity with traditional roles

Commonly, participants considered that the pharmacist's central role was medicine supply. Even those who used community pharmacy services extensively, and were familiar with this route of access, had a limited and relatively fixed view of the role of the community pharmacist. Awareness of extended pharmacy services was low; although, knowledge of services did not result in service uptake. Participants appeared to have established expectations of health providers and tended to trust them to deliver familiar services. Participants appeared reluctant to alter patterns of behaviour.

Registration and appointment systems

When considering interpersonal trust in health professionals the context and setting of interactions is clearly influential. In the UK, individuals register with one GP based in a practice. Therefore, the patient becomes familiar with one GP, or a limited number of GPs, allowing a rapport to develop, which leads to trust. Conversely, people in the UK can choose to use a variety of community pharmacies for consultations without the need to register for most services. The flexibility of access to pharmacy services can result in a lack of allegiance to any one community pharmacy. In general, GPs are seen by appointment in a private consultation room; whereas, pharmacists operate no appointment necessary consultations in a retail setting. Although participants expressed frustration with the restrictive GP appointment systems, and welcomed the relative convenience and ease of access to community pharmacist consultations, GP consultations were seen as preferable for clinical discussions. Importantly, the pharmacy setting was not seen to offer the privacy required for confidential consultations and health screening. In recent years community pharmacies have installed consultation rooms in an attempt to provide an element of privacy. However, participants were reluctant to use these due to the consultation room's association with the provision of methadone substance services for problem drug users.

The service setting

A number of participants suggested that the GP practice could be unwelcoming and intimidating and a minority made positive comments relating to brightly lit open plan community pharmacies. However, all focus groups discussed concerns relating to the commercial context and retail environment of community pharmacy. Interestingly, many commented that pharmacists tended to be “in the back” and, therefore, out of public view. Pharmacists derive much of their income from prescription processing. This activity normally takes place out of view of the public in the dispensary. The physical separation of the pharmacist from the “serving area” in community pharmacy limits public interaction preventing a rapport developing. Interestingly some contended that interacting with the public was not core to the pharmacist’s role. Some suggested that pharmacists should be focused on prescription processing to minimise the risk of errors.

Participants also perceived that the commercial context of community pharmacy was at odds with delivering NHS services; these services are usually free at the point of access in the UK (see box 1). Our data suggest that participants question whether pharmacists prioritise profits or patient care and they distrust pharmacists’ motives. Others seemed confused about how the commercial aspects of community pharmacy relate to NHS service provision. Some were concerned about the increasing dominance of pharmacy chainstores. Despite concerns about diminishing trust in the NHS, it did seem that public trust in the NHS as a health service provider is high relative to commercial enterprise. [38]

Hierarchies in healthcare

Importantly GPs were viewed as established authority figures who were seen to “tell the pharmacist what to do.” In fact, some seemed to question whether GPs support pharmacist interventions. In some cases participants looked for tacit signs that GPs supported or endorsed pharmacy services. One participant specifically made the point that, in his experience, the GP is likely to refer patients to the practice nurse not the pharmacist.

Medical education

There was a common understanding that GPs complete many years of education at university. Participants considered that medical qualifications resulted in GPs being infallible. Conversely, participants were less certain about pharmacist education and

what it equipped pharmacists to do. Mistrust in pharmacist education lead many to question the validity of pharmacist's advice.

Box 3: Institutional trust

Familiarity with traditional roles

You see the posters about contraception and things like that but because you don't feel inclined to go ahead and ask the pharmacist, ……you don't feel that you are comfortable talking to the pharmacist about…. I am more comfortable talking about it with my GP and yet I access the pharmacy more often than I do the GP, but I'm not comfortable asking the pharmacist about that. Just because of the way… The service they give, you just get it in your head, like you just go to pick up medication from there and you are out, you do not have that relationship that you have with your GP……. R15

Registration and appointment systems

I wouldn't say, you know, if somebody said to me 'where is your community pharmacist?' I'll say, well if I go a mile that way I'll get this one, if I go a mile that way, and if I go a mile, you know. So it just depends what's convenient at the time, whereas I think the role of a community pharmacist, you would need to get to know, you know, going back to the same person and getting that rapport and trust. R4

The service setting

What I even find at the chemist, the ones coming in. There's younger people coming in and they're much more approachable than some of the older… You never saw the chemist, he'd stick his head out and that was it, but now they actually come out and 'How are you doing?', and stuff like that. I've noticed a big difference in it. R23

They do really need to get to know you. It needs to be a local thing. To actually get to know you personally. Normally, the pharmacist is not, he or she is not in what I call the serving area, they're in the back. You know, and although there are cameras, security cameras, if they're concentrating on doing their job, they shouldn't be looking at the cameras. They shouldn't actually know who you are. R12

What I think is bad is the fact that it's a business, a pharmacist is a business. R3

I think they should be part of the NHS. R3

I don't like the idea of [pharmacy chainstores] taking over all the individual chemists. R6

The chemist in Renfew has now got a little cubicle and the only people that use that are the ones who're getting the Methadone. R1

Hierarchies in healthcare

…. those of us that are older because we're just not accustomed to going into a pharmacy and saying there's this wrong with us or that wrong with us, what can you recommend? We've always gone via the GP and the GP decides and tells the pharmacist what to do, you know, about it. So it takes a bit, I think, when you're a bit older to slot yourself into that system, so personally I think it comes down to a matter of trust, trust in what the person's telling you. R2

But I've never, any times I've been to the doctor, I've never had him refer me to the chemist. I'll go up there and he'll take my blood pressure. If you go to the doctor to get

your blood done, I'm only using that as an example, keeping going on about blood pressure. (Laughs) If you go down there then he'll refer you to the practice nurse. R22

Medical education

Doctors don't make mistakes. R23

…they've had so many years at university to learn this stuff…R24

So do chemists.R23

Are they going to go to university to learn about all the stuff doctors are and things like this? R24

Do you feel that sometimes some of the advice given in the pharmacist is not …? (facilitator)

It's not a hundred percent gospel. R24

Or taken seriously because of the difference in the qualification thing. R23

Discussion

Overview of findings

Trust was a central discussion point in all focus groups and was seen as being crucial in the healthcare setting. Focus groups discussions revealed that participants were inclined to draw comparisons between GPs and pharmacists. Our data suggest that public trust in GPs is greater than in pharmacists. This contradicts repeated international surveys which indicate that the public rank pharmacists as more trustworthy than medical doctors.[47-49] It is possible, however, that survey findings reflect macro level public trust in the medical profession as a whole relative to the pharmacy profession. By contrast study participants were discussing micro level interpersonal trust in their own GP and contrasting that relationship with their personal experiences of community pharmacy. Our data indicate that familiarity with a specific GP or practice promoted trust by allowing a relationship to develop over time. This is congruent with the theory that trust develops with familiarity with a specific individual.[27;34] By contrast, most people can use any pharmacy they choose to access services and most did not refer to a strong relationship with a particular pharmacist.

If we consider our data in the light of Luhmann's theories on familiarity, confidence, trust and risk it is clear that system/institution factors heavily reinforce high levels of interpersonal trust in GPs relative to pharmacists. Familiarity with traditional methods of service delivery will lead to confidence and trust. Consequently new routes of service delivery are likely to be less trusted at the outset. Therefore, it might be expected that GPs would be the preferred choice for some services based on familiarity with that route of access. Additionally, the way in which funding and registration mechanism operate in the UK builds trust in GPs relative to pharmacists. Although GPs and pharmacists are both NHS contractors payment systems differ. GPs typically operate capitation systems and register patients; whereas, in the main community pharmacy payments do not require registration. UK GP registration systems necessitate sustained contact between patients and specific GPs. Additionally, NHS GP services usually involve face-to-face, one-to-one appointments between GPs and their patients. By contrast, consultations with community pharmacists are generally ad hoc and they occur on the shop floor in a retail setting. Patently GP consultations are more likely to allow trust to develop and are more suited to discussing personal matters.

Sources of (mis)trust in pharmacy

It is useful at this point to specifically consider the sources of (mis)trust in community pharmacy services. Hall proposes that trust comprises 5 dimensions.[20] These are fidelity, competence, honesty, confidentiality and global trust. Fidelity relates to putting the patients' interests above personal interests. This implies respect, care and avoiding conflicts of interest. Competence relates to avoiding errors and achieving optimal outcomes. Patients have difficulty in judging technical competence and assessments of this aspect relate strongly to practitioners' communication skills. Honesty entails telling the truth. Confidentiality involves protecting sensitive information. Global trust relates to the less easily categorised holistic aspects of trust which can not be easily described but are linked to all other aspects of trust.[20] If we apply this framework to our data it becomes apparent that there are multi-dimensional aspects of public mistrust, and possibly distrust, in pharmacy and pharmacists. The commercial setting of community pharmacy raised concerns about fidelity; participants expressed doubts about pharmacists' motives and intentions. Specifically, the commercial context of community pharmacy created dissonance as it raised concerns about conflicts of interest. Additionally, participants questioned pharmacists' competence and level of training. Furthermore participants were concerned that consultations in the community pharmacy setting were often conducted in view of other service users which raised concerns about confidentiality.

Dependency on GPs and perceptions of risk

Increasingly the medical profession occupies a powerful social position and has growing influence over resource allocation in UK healthcare. The public have no choice but to trust GPs to access some forms of healthcare due to the lack of alternatives or limited awareness of alternatives. For example, GPs are gatekeepers for referral for specialist care. In many situations the public are dependent on GPs for medical care whether they trust the provider or not. Importantly extended pharmacy services often duplicate services which were historically only available from GPs; consequently people are not dependent on community pharmacy for these services. It was clear from our data that in many instances participants preferred GP services compared to pharmacy alternatives.

The patient is dependent on the medical professional and the medical system in times when 'expert' information is needed.[50] Importantly public awareness of, and confidence

in, medical education underpins the GPs' expert status. If this is considered in the context of Luhmann's theories of power,[29] the GP's expert knowledge confers power over the patient. In situations of risk, the power imbalance between doctors and patients becomes more defined.[29] As discussed in the introduction risk is central to understanding the phenomenon of trust; the greater the risk the greater the potential for trust. As public trust in pharmacists is lower than in GPs the public tend to trust pharmacists primarily in situations which are perceived to be low risk. Specifically, they trust pharmacists to deliver familiar medicine supply services or to conduct "low risk" interventions. The public are likely to prefer to visit GPs for long term health condition management and health screening as these are perceived to be higher risk and may need specialist referral or access to medical records.

In the context of previous research

Previously identified barriers to community pharmacist role expansion include, restricted time for service delivery, pharmacist workloads, funding, lack of GP support, lack of public awareness, the community pharmacy environment and lack of pharmacist knowledge.[16-19;51] Our data concurred with these findings but the application of sociological trust theory and qualitative approach has helped us unpack this further. Importantly identified barriers can be mapped onto trust theoretical frameworks. For example, lack of time, high pharmacist workloads and restricted funding result in limited patient interaction impeding the formation of interpersonal trust. GPs head hierarchical structures in primary care; consequently, lack of support for community pharmacy services can erode public trust.[16;17;52] As outlined, the pharmacy environment also negatively impacts on public trust.

Policy implications

In recent years changes in UK health policy have promoted an extension to the community pharmacy role following years of rhetoric claiming that community pharmacists' skills are underutilised. [4;7;8;10;53-55] Community pharmacist role expansion could potentially reduce GPs workloads and improve access to health services. There is mounting evidence that community pharmacy extended services can be effective.[56;57]. Hypothetically community pharmacy services could reduce health inequalities and healthcare costs. However, across the world, initiatives aiming to extend pharmacists'

roles have been met with limited success.[11-14] The results of our analysis suggest that lack of public trust is likely to explain, at least in part, observed patterns of pharmacy use amongst health consumers. It seems that existing infra-structure, resource allocation and the perceived level of expertise of pharmacy staff might not adequately support role expansion.

This study has identified multiple institutional factors which underpin enhanced trust in GPs relative to pharmacists. Policy makers should be aware that, without considerable changes to systems or institutional aspects of service delivery, it is improbable that the public will trust pharmacists to deliver unfamiliar services, which are perceived to be "high risk". Our analysis helps us to understand how to develop trustworthy community pharmacy services in the future. Specifically, initiatives that result in well publicised, evidence-based pharmacy services which coordinate with other primary care services will facilitate the development of trust. In particular, funding mechanisms which incentivise confidential patient consultations over a sustained period with a specific pharmacist are likely to build interpersonal trust. Public trust is likely to improve if community pharmacy services are endorsed by GPs and integrate with other primary care services. Currently it seems that role expansion gives rise to duplication of tasks because health professionals' roles are not complementary. [58] This is likely to increase costs rather than reduce them. Patently re-engineering pharmacy services to increase public trust will necessitate new approaches to funding primary care services to improve public trust. Policymakers need to take into account the way in which public trust is likely to affect patterns of service uptake.[59]

This study indicates that many consider that access to medical records is necessary for quality healthcare in many situations. It is not certain whether allowing pharmacists to access medical records would improve public trust; clearly, the public has concerns about confidentiality in this setting. This study also raises questions about the suitability of overtly combining retail activities with the provision of NHS services. This common international model of service delivery may undermine attempts to extend the clinical role of pharmacists by diminishing public perceptions of professional integrity. It is important to note that our data suggest that the public distrust large commercial pharmacy chainstores more than the NHS. This is of broad relevance because there is

increasing international pressure to allow deregulation of pharmacy ownership. Indeed, pharmacy deregulation in Europe has resulted in the expansion of pharmacy chainstores.[60]

Strengths and weaknesses of the study

Previous studies examining community pharmacy services have considered pharmacist's and GPs' opinions;[16;19;52] however, few qualitative studies have considered the general public's attitudes to extended services in pharmacies.[18] It is important to consider the views of the general public, rather than service users, when considering health promotion and opportunistic screening interventions as these services aim to reach people who may not specifically be seeking a health intervention. This is the first known paper to explore trust in community pharmacy by applying sociological theory. This approach is valuable in that it facilitates understanding of observed public preferences for routes of access to primary care services. This study adopted a qualitative approach and necessarily the sample size is small relative to quantitative studies. Research of this type does not aim to be statistically generalisable. Rather a diverse range of individuals (known users and non-users) was purposively selected with the aim of exploring the range of opinions. A further limitation of this study is that participants were recruited within a specific geographical area. The opinions of study participants might not be representative of those living in other areas. However, the theoretical informed sample frame accessed key informants and theme saturation was achieved.

Data Sharing

There are no additional unpublished data from this study.

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Contributorship

Wendy Gidman secured the study funding and contributed to study design, data analysis and was lead author on the paper.

Paul Ward contributed to data analysis and was a co-author on the paper.

Lesley McGregor contributed to data gathering, study design, data analysis and was a co-author on the paper.

Conflict of Interest

None

Appendix 1

Focus group topic guide and questions
What do you understand by the term community pharmacy? How many of you have been to a community pharmacy recently? What services did you use and what did you think of the service offered? What services would you like to see your community pharmacy provide? (E.G. BP, Cholesterol, CHD Risk assessment, Weight management, Physical activity advice) What do you think of these services? Is this the right place for them? Tell me about any positive or negative experiences you have had in your community pharmacy? Are there any other comments, or does anyone have anything else to say about the services provided by community pharmacists?

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Table 1: Details of focus groups

	Focus groups					Total
	1	2	3	4	5	
Number of participants	6	7	4	4	5	26
Gender (M:F)	0:6	4:3	0:4	0:4	5:0	9:14
Age (mean)	73.67	62.57	27.00	29.75	47.40	51.69
(SD)	(14.51)	(9.03)	(6.98)	(7.27)	(17.07)	(21.16)
Range	58-94	52-77	18-35	23-40	21-63	18-94

Table 2: Details of focus group participants

Respondent	Age	Sex	Group	Group description
1	58	F	1	Seniors 1
2	76	F	1	Seniors 1
3	87	F	1	Seniors 1
4	62	F	1	Seniors 1
5	65	F	1	Seniors 1
6	94	F	1	Seniors 1
7	68	F	2	Seniors 2
8	65	M	2	Seniors 2
9	77	M	2	Seniors 2
10	66	F	2	Seniors 2
11	53	F	2	Seniors 2
12	52	M	2	Seniors 2
13	57	M	2	Seniors 2
14	28	F	3	Mothers 1
15	27	F	3	Mothers 1
16	35	F	3	Mothers 1
17	18	F	3	Mothers 1
18	27	F	4	Mothers 2
19	29	F	4	Mothers 2
20	40	F	4	Mothers 2
21	23	F	4	Mothers 2
22	62	M	5	Male group
23	63	M	5	Male group
24	21	M	5	Male group
25	47	M	5	Male group
26	44	M	5	Male group

Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist
Barriers to medicine use in secondary schools: a qualitative study

Developed from:
Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

YOU MUST PROVIDE A RESPONSE FOR ALL ITEMS. ENTER N/A IF NOT APPLICABLE

No. Item	Guide questions/description	Reported on Page #
Domain 1: Research team and reflexivity		
Personal Characteristics		
1. Inter viewer/facilitator	Which author/s conducted the inter view or focus group?	Joseph Cowley was the facilitator – he is not an author as he did not contribute to the paper.
2. Credentials	What were the researcher's credentials? E.g. PhD, MD	BSc, MSc
3. Occupation	What was their occupation at the time of the study?	Research associate/PhD student
4. Gender	Was the researcher male or female?	Male
5. Experience and training	What experience or training did the researcher have?	The researcher gathered data in a focus group study at Strathclyde University prior to this study in 2009. He had an MSc. He had also collected data on community based health research projects from 2001 to 2006 including the NHS Lanarkshire "Braveheart" Project"
Relationship with participants		
6. Relationship established	Was a relationship established prior to study commencement?	No
7. Participant knowledge of the interviewer	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	Participants knew that the researcher worked at the University of Strathclyde in the

		Pharmacy Department.
8. Interviewer characteristics	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	Participants know the researcher worked in a Pharmacy Department.
Domain 2: study design		
Theoretical framework		
9. Methodological orientation and Theory	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	Inductive thematic analysis.
Participant selection		
10. Sampling	How were participants selected? e.g. purposive, convenience, consecutive, snowball	Purposive/convenience – schools were selected purposively and individuals volunteered.
11. Method of approach	How were participants approached? e.g. face-to-face, telephone, mail, email	Schools were approached. Researchers gave a presentation in consenting schools about the project. At the end children were given an information sheet and asked to volunteer to participate in self-selected focus groups.
12. Sample size	How many participants were in the study?	39
13. Non-participation	How many people refused to participate or dropped out? Reasons?	Not applicable – participation was voluntary.
Setting		
14. Setting of data collection	Where was the data collected? e.g. home, clinic, workplace	School
15. Presence of non-participants	Was anyone else present besides the participants and researchers?	Yes, 2 final year pharmacy masters project student observers.
16. Description of sample	What are the important characteristics of the sample? e.g. demographic data, date	Age and school attended.
Data collection		
17. Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	A topic guide was devised by the research team and initial interviews acted

		as a pilot.
18. Repeat interviews	Were repeat inter views carried out? If yes, how many?	No.
19. Audio/visual recording	Did the research use audio or visual recording to collect the data?	Data were audio recorded using a digital recorder.
20. Field notes	Were field notes made during and/or after the inter view or focus group?	Yes.
21. Duration	What was the duration of the inter views or focus group?	One school lesson period (50 minutes).
22. Data saturation	Was data saturation discussed?	Yes
23. Transcripts returned	Were transcripts returned to participants for comment and/or correction?	No
Domain 3: analysis and findings		
Data analysis		
24. Number of data coders	How many data coders coded the data?	4 – Joseph Cowley, Wendy Gidman, Sinead Rhodes, Caroline Heary (as well as 2 final year students)
25. Description of the coding tree	Did authors provide a description of the coding tree?	Not explicitly.
26. Derivation of themes	Were themes identified in advance or derived from the data?	No – initial analysis following interview topics.
27. Software	What software, if applicable, was used to manage the data?	Data were transcribed verbatim into word documents by professional transcribers. Themes were groups by cutting and pasting between documents.
28. Participant checking	Did participants provide feedback on the findings?	No
Reporting		
29. Quotations presented	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	Yes
30. Data and findings consistent	Was there consistency between the data presented and the findings?	Yes
31. Clarity of major themes	Were major themes clearly presented in the findings?	Yes
32. Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	Yes – word count restrictions did not permit extensive theme discussion.

Once you have completed this checklist, please save a copy and upload it as part of your submission. When requested to do so as part of the upload process, please select the file type: *Checklist*. You will NOT be able to proceed with submission unless the checklist has been uploaded. Please DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.