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TITLE PAGE

Community pharmacists' experience and perceptions of the New Medicines Service (NMS)

Beverley Lucas (Corresponding author) and Alison Blenkinsopp

Bradford School of Pharmacy, School of Life Sciences, University of Bradford, West Yorkshire, BD7 1DP, United Kingdom

b.j.whitemoss@bradford.ac.uk

01274 233495

Both authors contributed to the design, implementation and article preparation for submission.

ABSTRACT:

Background: The New Medicines Service (NMS) is provided by community pharmacists in England to support patient adherence after the initiation of a new treatment. It is provided as part of the National Health Service (NHS) pharmacy contractual framework and involves a three stage process: patient engagement, intervention and follow up.

Objectives: To explore community pharmacists' experiences and perceptions of (NMS) within one area of the United Kingdom.

Methods: In-depth semi-structured telephone interviews were conducted with 14 community pharmacists. Interviews were audio-recorded, independently transcribed and thematically analysed.

Results: Pharmacists gave a mixed response to the operationalisation, ranging from positive opportunities for improving adherence and enhancement of practice to difficulties in terms of its administration. Pharmacists generally welcomed opportunities to utilise their professional expertise to achieve better patient engagement and for pharmacy practice to develop as a patient resource. There was a perceived need for better publicity about the service.

Different levels of collaborative working were reported. Some pharmacists were working closely with local general practices most were not. Collaboration with nurses in the management of long term conditions was rarely reported but desired by pharmacists. Where relationships with GPs and nurses were established, NMS was an opportunity for further collaboration, however, others reported a lack of feedback and recognition of their role.

Conclusion: Community pharmacists perceived the NMS service as beneficial to patients by providing additional advice and reassurance but perceptions of its operationalisation were mixed.

Overall our findings indicate that NMS provides an opportunity for patient benefit and the development of contemporary pharmacy practice, but better collaboration with GPs and practice nurses could enhance the service.

Keywords: Pharmacists, professional pharmacy services, interprofessional collaboration, General Practitioners, teamwork.

INTRODUCTION

Background

Adherence to treatments for long term conditions is a global issue and in a number of countries the role of community pharmacies in supporting patients has been extended through the introduction of cognitive services (1).

Community pharmacists in many countries conduct reviews of patients' medication to support adherence(2, 3) and Medicines Use Reviews (MUR, a single consultation) have been provided in England for almost a decade.(4) The default delivery method for MUR is face to face in the pharmacy and although telephone provision is possible the pharmacist has to seek specific permission from NHS service commissioners on each occasion(5).

The introduction of a New Medicine Service (NMS) in England in October 2011 was designed to help improve medicines adherence based on proof of concept and randomised controlled trials of pharmacist-conducted telephone consultations (6). The first of its kind, the state-funded service is provided by community pharmacists as part of their National Health Service (NHS) Community Pharmacy Contractual Framework (CPCF). The NMS primary objectives are to improve patient adherence and increase patient engagement with their condition(7). Other anticipated benefits included supplementation and reinforcement of information provided by the patient's GP and practice staff to help patients make informed choices about their care. By implication, the service is intended to promote multidisciplinary working with the patient's primary care medical practice.

The NMS consists of three stages; patient engagement, intervention and follow up(7) and involves multiple contacts with the patient. Patients are recruited to the service by prescriber referral or opportunistically by the community pharmacy team. Initial advice is given to the patient about medicine usage and may include advice on healthy lifestyles. The second stage, is an "intervention" consultation, with a semi-structured interview to assess adherence, identify problems and any need for information and support. The final stage involves a follow up consultation. The patient can choose to have the intervention and follow up by returning to the pharmacy or by telephone. The initial remuneration model for NMS included targets based on the pharmacy's volume of dispensing and national estimates of the percentage of medicines newly-prescribed, and a payment mechanism dependent on

completion of all three stages for each patient (5). A revised and more flexible remuneration structure was introduced in May 2012, eight months after the service began.

Previous research in the UK and elsewhere has shown that implementation of new patient-centred services in community pharmacy has resulted in variable outcomes (4, 8).

Expectations that such services would lead to greater collaboration with general practice have not necessarily been met (9-11). Pharmacists themselves have had to develop and adopt new ways of working and there have been issues around professional autonomy, motivation, feasibility and quality (12-14). It was therefore timely and important to learn from pharmacists' experiences of this new service.

OBJECTIVES

The aim of the study was to explore community pharmacists' experiences and perceptions of the NMS.

The study addressed the following research questions; (1) How has service implementation NMS progressed in individual pharmacies? (2) What challenges have been encountered, how have these been addressed and with what results? (3) What are community pharmacists' perceptions of the outcomes of their NMS to patients and to the NHS? (4) What have been the effects of the service on inter-professional working with general practitioners and nurses in primary care? (5) How might implementation and delivery of the service be improved?

METHODS

The study utilised a process orientated approach (15) that sought to understand internal processes of service provision as a means of formative evaluation and was therefore ideally suited to the early developmental stages of a new service (16). It employs the use of qualitative methods to foster depth and richness of data in reaching an understanding of the process of how a new service affects individuals albeit practitioners, service users or other stakeholders.

Data collection

Different approaches to interviews (individual face-to-face, telephone and group interviews) have different strengths and limitations (17). Individual interviews were

selected to enable a focus on the experiences of individual practitioners. Telephone interviews were chosen for several reasons: maximum and flexible access to community pharmacists both within and outside of work environments and across a large geographical area, as well as the most effective use of research resources. Recent research comparing the decision to use telephone interviews also took into consideration the findings of recent research including the nature of the topic and the type of participants involved on selection of interview method (18).

Interviews were conducted in summer 2012, 10-11 months after the introduction of NMS and also after the change to the service remuneration structure.

Sampling

A purposive sample (19) of community pharmacists from one area (formerly three NHS Primary Care Trusts and covering 123 community pharmacies) of West Yorkshire was recruited with the assistance of the local pharmaceutical committee (Community Pharmacy West Yorkshire, CPWY which represents all community pharmacies). CPWY circulated information about the study to 20 pharmacists who had provided at least one NMS. We asked the LPC to include a range of deprivation categories and pharmacy types to reflect the local profile of pharmacy ownership and demography. Following this initial contact all 20 expressed an interest in taking part, were contacted and provided with an information pack and consent form by the researchers. Pharmacists were also asked to complete a short questionnaire on pharmacist and pharmacy demography.

The study was subject to ethical review and approval obtained from the University of Bradford Ethics Committee. NHS Research Management and Governance Support Team approval was also obtained (NHS Bradford and Airedale). The interviewer was independent of the pharmacy practice and adhered to ethical principles of anonymity and confidentiality. All interviews were conducted by (BL), an experienced qualitative researcher, with the aid of a semi-structured interview guide which drew on published literature and was reviewed by senior academic pharmacists and piloted by practitioner lecturers(see Table 1).

Data analysis

All interviews were digitally audio-recorded, independently transcribed and transcripts were checked by BL. The data was subject to thematic analysis using principles outlined by Braun and Clarke (20). This involved two evaluators independently generating initial codes, searching and reviewing themes and subsequent refinement.

RESULTS

Of the 20 pharmacists 16 responded to researcher contacts. Fourteen subsequently completed and returned a consent form and were contacted to arrange convenient dates and times for interviews. One agreed to participate but did not provide written consent and was not interviewed. (5 Independent, 8 large chain and 1 small chain; length of time qualified 3-34 years; monthly dispensed items ranged from 1,900 to 13,000).

Three key themes emerged from the analysis:

- Organisational aspects of the NMS – providing reassurance and improving adherence, service targets and remuneration and the contribution of others.
- Pharmacists' perceptions of patient response – appreciation and optimism, age related issues and medicines management.
- Interprofessional collaboration – lack of engagement with GPs and nurses, lack of referrals and suggestions for service improvement.

ORGANISATIONAL ASPECTS OF THE NMS

Pharmacists reported a mixed response to operationalising the NMS, ranging from being positive about opportunities for enhancement of the practice of pharmacy to difficulties in terms of its administration.

The positive aspect of the service in terms of reassurance for patients and improving adherence was typified in the following example:

I think it is going really well...it's quite a quiet pharmacy so we literally get every patient that has been registered onto the scheme...the point is that Pharmacists can help them, the reassurance side of things...and help them to take their medicines a bit better... (#1)

In other cases, the administration of the process suggested difficulties in terms of the numbers of patients required and target setting:

So far it's going fine, people have agreed to go through the process, but it's just the original numbers they (DoH) estimated...we found it quite hard to hit that minimum target. Some join the service but they don't follow it through to the end..., I wouldn't have been able to get that number...they were a bit on the top side. (#9)

The revised payment structure is welcomed, the original targets were too ambitious and linked to funding (#4)

The nature and timing of other healthcare professional contributions and public awareness of the different roles were also described as problematic. In particular when the patient had been asked to return to the GP practice for an early follow-up appointment:

I'd say it's going OK. It is difficult really because sometimes when people come in and you say we are doing this new service, they say well I'm going back to the doctor. So I think one thing that is important is trying to get across the difference between what we are going to be doing and what the doctor's going to be doing (#2)

In my Pharmacy, it's not going fantastic for a variety of reasons.....when we did find people I think the issue was they said, well I'm seeing my doctor anyway so there's no point. (#8)

There were also specific organisational difficulties in terms of the 'follow-up' stage:

Not particularly wellsome people are busy and don't have the time to make the follow-up event, if that's a phone call. I am having to stay until 7 O'clock at night to ring people. It's just ridiculous (#5)

The dates are very inflexible. I mean there's absolutely no point in recruiting people if you're gonna go on holiday. I actually came back early from my holiday so that I could do the interventions (#4).

Pharmacists also reported that patients were not expecting the third and final contact point required by the NMS service specification:

The final follow-up, the third conversation really comes as a bit of a surprise to the patients and they aren't really anticipating that...the intervention, they are quite grateful for, they are pleased that somebody is interested.(#3)

'Not very easy to do..from the point of view of the follow-up. I feel it's not really providing much help to patients. They are sometimes quite surprised when I phone them. They have forgotten that I recruited them. (#4)

The unfamiliarity of the multiple stages in the NMS in terms of engaging the patient was also problematic:

Maybe it just seems difficult because there are so many steps to it, whereas with a MUR you just take the patient in and complete it there and then in five or ten minutes. Whereas a NMS is an initial recruitment, then a follow-up...so I don't know whether they feel a bit daunted by that. (#12)

In summary, there were some organisational aspects of the administration of the process that had been problematic namely; patient recruitment, remuneration, nature and timing of other healthcare contributions and final stage follow up.

PHARMACISTS PERCEPTIONS OF PATIENT REPOSE TO NMS

The pharmacists generally welcomed opportunities to utilise their professional expertise in terms of patient engagement. Some saw it as legitimising greater pharmacist involvement:

Get people a bit more used to the fact that we're going to get a bit more involved in the medication rather than just handing the drugs out (#9).

Some reported positive outcomes in terms of appreciation and optimism:

I think they appreciate it, they are grateful that someone has taken the time first of all to explain the new medicine (#3)

Patients are always optimistic about it, you know that they'll learn more about their medication.....every single patient I've had has thanked me for more of an interest you know with the two follow up interviews. (#7)

You can put their mind at rest especially the initial consultation if they're a few side effects you might just find, you know I just had a bit of an upset stomach, whether you might think just by taking it after you've had something to eat. You know see if that makes any difference ..then they feel quite reassured then. (#9)

In the following example, there were differences highlighted in terms of factors associated with the patient's age:

In the main they're usually happy with it especially the older people seem to be quite pleased that someone's taking an interest whereas some of the younger people, they don't seem to be quite as interested. (#9)

The need to raise patients' awareness of the specific contribution of pharmacist expertise in terms of medicines management was also provided in the following example:

Pharmacists do actually know what they are talking about, they are the drug experts. I think it's probably more a public awareness issue rather than anything else. (#2).

When asked if the NMS was important for community pharmacy, the pharmacists highlighted a number of key areas of benefit including patient interaction and medicines management:

It is important but I think the benefit of it is more for the patient rather than for the Pharmacy... more interaction with my patient gives me confidence in my own ability . (#11)

It's making people try and use the Pharmacy a bit more for advice I would say especially MURs and NMS. (#9)

Well the advice that we give the patients..NMS has just reiterated that. You know obviously someone starting a new medicine may not know why they're taking it or why, so this is where they're being educated about their medicines as well. (#7)

Recognition in terms of clinical aspects related to medicines management was also viewed as an opportunity:

It's certainly a way of in a sense getting Pharmacies out from the back [dispensary] and certainly gives you a bit more opportunity to talk one on one with a patient. Certainly it puts us more forward in a professional aspect. (#2)

INTERPROFESSIONAL COLLABORATION

In terms of how the NMS affected interprofessional working with GPs and nurses in primary care, the pharmacists reported differing levels of engagement. Where existing positive relationships were already established, there were examples of working together:

I think it's very good but I have a really good relationship with GPs; we're next door and they're quite happy to engage with me but I don't know about colleagues. I found it you know, they've been really good, really positive and know we are meant to be working together. (#1).

In the context of the NMS, some pharmacists, however, reported a general lack of feedback from GPs and nurses:

Basically..at the end of the day you usually find doctors they are not really forthcoming...no feedback (#14).

Yes before the service came out...I contacted the local surgeries. I know the Practice Managers, I know the GPs really well and told them that this new service was fine and I got positive feedback so that's fine, that's good you know we can use that, but unfortunately over the months that's completely disappeared now. (#7)

Another example of having proactively targeted general practice, the opportunity for enhanced communication in terms of collaborative working practice and enhanced engagement was lost:

We've had some issues where we've sent the patients back to the surgery. We've had some instances where we've completed the documentation saying there is some issue around this new medicine for this patient and the patient has then been transferred onto a different medication but I would say very little communication from the surgery to us about either why we've referred or asking us to monitor or engage with this patient (#3).

The perceived lack of engagement was also reflected in terms of number of referrals to the NMS:

We've had little engagement from the GP surgeries. [Primary Care Trust] have communicated to all the surgeries about the new service and distributed referral forms from the surgery to the Pharmacy saying this is the new medicine form for this patient, please talk to them and please engage with them with the new medicines service. I've yet to see any of those referral documents from any of the surgeries so I don't think the GPs have engaged with this. (#3)

I've had no referrals at all. From nurses or doctors or hospital or no-one. (#6)

The lack of opportunities to work with nurses in terms of the NMS was also generally reported:

GPs, the Practice Managers, the nurses don't really perceive that there is any tangible benefit for the practice from the new service. (#5).

Suggestions were made for development of the service in terms of working collaboratively with other healthcare professionals, with particular reference to key interactions with GPs:

The only way I think everything could improve would be to have some way of getting the GPs back into the loop and stressing to them how important it is that patients know about any new medications they've been put on...For any service to work you need to have everybody engaged with the actual service and it's just this problem that the lack of responses from GPs. (#7)

DISCUSSION

This study explored community pharmacists' early experiences of providing the NMS towards the end of its first year of operation. Community pharmacists were generally supportive of the service, believing it to be of benefit to patients. There was also some recognition of the strategic importance of NMS in reinforcing the sector's capability to provide services beyond the supply of medicines. Nevertheless perceptions of service operationalization were mixed and many issues described in the literature from earlier service implementations in the UK and elsewhere still remain.

Strengths and limitations

Strengths of the research include the high participation rate (70% of pharmacists expressing interest in taking part) and the richness of the data generated about pharmacists' interactions with patients and the successes and challenges in implementing NMS. Qualitative studies are not intended to produce generalisability and these findings may not reflect the wider population of community pharmacists providing NMS. The wide spread of length of time qualified (3-34 years) brought views from pharmacists ranging from recently-qualified to those approaching retirement and participants' accounts demonstrated diversity in the extent to which the NMS had been successfully implemented. Independents and large multiple chains were well-represented but small/medium-size chains were under-represented. The study focused on pharmacists who had implemented NMS so did not collect data from those who had not become involved with the service. Whilst telephone interviews were conducted, face to face data collection may have provided additional opportunity to develop rapport researcher – participant rapport.

Practicalities of implementing the New Medicines Service

A key difference between NMS and the previously provided MUR service is that patient choice drives the delivery method. Prior to NMS implementation pharmacists' preferred method of provision was face to face but they expected that patients would prefer telephone contact.(21) This predicted pattern was borne out by the experience of pharmacists in the current study and pharmacists reported difficulties in planning and conducting telephone follow up. If these attempts were unsuccessful there were

implications in that payment for work done could not then be obtained. Some pharmacists in the current study perceived that service targets were unrealistically high, also reported as a concern more widely among pharmacists and addressed in part by the revised payment structure introduced before the current study. (6)

Pharmacist-patient relationships

There was some evidence that NMS had strengthened pharmacists' relationships with patients. Patients were said to appreciate the time spent by pharmacists, the advice they received about ameliorating minor side effects and information which provided reassurance and addressed worries and concerns. This positive response around adherence was anticipated by pharmacists prior to the introduction of NMS.(21)

Pharmacists in the current study perceived that patients lacked awareness and understanding of NMS, also a finding following introduction of MURs (22). Beyond this may lie more fundamental questions about whether patients accept the community pharmacist as a legitimate actor in the management of their medicines.(10, 23,24,25) Pharmacists in the current study who had struggled to establish the NMS reported that if the patient was due to return to the surgery for a follow up appointment they did not see how the NMS could help them. Previous research indicates that patients may also share this uncertainty about the respective roles of the pharmacist and doctor in relation to their medicines but perceive that it is the GP's authority which predominates. (24, 25,26)

Inter-professional relationships

Where a pharmacist reported existing positive relationships with general practice locally the NMS appeared to have built upon these foundations. Where relationships were not previously well-established the NMS had little or no effect. These findings are similar to those in previous studies in the UK and elsewhere which also point to a lack of recognition by general practitioners of the saliency and legitimacy of the community pharmacist's role in medicines management(27, 28, 29) and the criticality of the community pharmacist's own professional self-belief in their capability (30). Relationships appear to be dependent upon pharmacists' efforts to initiate them (proactivity), and high quality pharmacist contributions are then essential in

establishing mutual credibility and respect. (25, 28, 31) Some of the pharmacists in the current study had demonstrated proactivity in contacting local GPs to inform them about the service and where they had expected reciprocal communication as a result they were generally disappointed. Most received little or no feedback from GPs even though some reported observing changes in patients' treatment following an NMS interaction. Collaboration with practice nurses whose role is in the management of long term conditions, was rarely reported but desired by pharmacists.

Implications for practice

This study has identified a range of factors affecting implementation of the NMS in community pharmacy in one area of the UK. Many of the findings echo those relating to other medicines optimisation services internationally. Novel findings relating to telephone consultations are important because this delivery mode is becoming more common in health care provision and many patients chose it for NMS. It is noteworthy that pharmacists did not report problems in conducting the content of telephone consultations, nor did they compare them unfavourably with face to face consultations. They did, however, find difficulties in scheduling and making contact with patients. These issues may prove to be teething problems associated with the early months of what, for most pharmacists, were new ways of working.

Pharmacists' experience of local practices' arrangements for follow up of patients with newly-diagnosed long term conditions varied. Early follow-up appointments appeared to create a perception in some pharmacists that there was no point in offering the NMS either because the patient would not wish to participate or it would be a duplication. However these views did not seem to be based on knowledge of the content or procedures involved in practice follow-ups. Pharmacists may benefit from greater knowledge of primary care provision by general practices in order to better understand the complimentary nature of the relative contribution of NMS.

Furthermore although practice nurses play a central role in the management of long-term conditions most pharmacists reported little or no contact. Establishing contact with nurses and developing a shared understanding of practice with signposting and cross-referral may support improved patient care through greater inter-professional collaboration.

The recently-reported evaluation of the NMS recommended that the NMS should become a permanent service, moving from its current pilot status.(32) The findings of the current study add to emerging knowledge and can be used to inform future service implementation.

CONCLUSION

Community pharmacists perceived the NMS service as being of benefit to patients by providing advice and reassurance. Implementation of NMS was variable and pharmacists' perceptions of its feasibility and operationalisation were mixed. Some found the logistics of arranging and conducting the necessary follow ups challenging, as were service targets. Patient awareness and understanding of NMS was reported to be low and there was a perceived need for publicity about the service. NMS appeared to have strengthened existing good relationships between pharmacists and general practitioners. Some pharmacists' concerns about possible overlap of NMS with GP and nurse input may have impacted on their motivation. Overall our findings indicate that NMS provides an opportunity for patient benefit (patient interaction and medicines management) and the development of contemporary pharmacy practice.

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TABLE 1. Interview guide: primary questions

- How would you say the New Medicine Service (NMS) is going so far in your pharmacy? Prompts: Would you say it is successful? What would “success” look like?
- How have your patients responded to NMS?
Prompts: has anyone refused to take part? Any feedback received from patients? Do you think that your patients need a service like NMS? Have there been opportunities to offer patients healthy lifestyle advice?
- What helped you to prepare for NMS?
Prompts: Can you tell me what you did to prepare for NMS; How did you find out what was available to help? What are your thoughts about the guidance documentation?
- Have you experienced any difficulties with the new service?
Prompts: what ways have you found to overcome difficulties?
- Have you used any pharmacy networks to help you with NMS?
Prompts: participation in/contact with Local Pharmacy Forum (LPF) / Centre for Pharmacy Postgraduate Education (CPPE) / Local Pharmaceutical Committee (LPC) / Other professional/social contacts
- In your view, who is providing leadership for NMS?
Prompts: Locally / nationally. LPC / PCT / Royal Pharmaceutical Society / PSNC etc
- How has NMS affected your inter-professional working with general practitioners and nurses in primary care?
Prompts: More / Same / Less contact; Better / Same / Worse relationships. Any feedback from GPs and nurses?
- From your experience so far what tips would you give to a pharmacist who was going to start providing NMS?
- Is NMS important for community pharmacy? Why?
- Do you have any suggestions that you think would be useful to consider in the New Medicines Service?
- General opportunity to add/elaborate on questions covered – anything missed out that evaluators should be asking?

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