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APOLLO-MM

Addressing the Polypharmacy Challenge

A study about living with many health conditions and medicines

People living with different health conditions (such as diabetes, high blood pressure and asthma) are commonly prescribed many medicines (known as 'polypharmacy').

The benefits of preventing and treating ill health are hard to question. But sometimes there can be a negative side to taking lots of medicines. Medicines can be a burden for patients and their families and can sometimes be harmful. Patients taking lots of medicines are at risk of falls and being admitted to hospital due to side effects or drug-drug interactions. These risks may escalate as the number of medicines and interactions increases.

In this research project, we wanted to understand what is important for people who have many health problems and who are on many medicines:

- what is it like living with many medical conditions and medicines?
- how do people manage in this situation?
- what are patients' main priorities for their health care?

One aim of our research is to develop educational materials for health professionals, patients and carers to encourage prescribing that is safe and effective and takes account of patients' wishes.

We are very grateful to everyone who took part in this project. This is the first of several newsletters to share some of the results of our research. Over the next year, we will let you know how we are using the information and insights to change how medicines are managed in general practice. In this final year of our project, we are: writing up the results of the research for publication, presenting our work at conferences, designing training courses for GPs, and producing resources for patients about polypharmacy.

Polypharmacy

Polypharmacy means 'many medicines' and usually refers to situations where someone has five or more prescription medicines. In our research project we focussed on people prescribed 10 or more medicines.



Who took part in the research?

The research took place in GP practices, community pharmacies, and patient's homes and involved the following people:

- 4 community pharmacies (10 pharmacists, 20 pharmacy technicians/dispensers, 7 counter staff, 3 delivery drivers)
- 3 GP practices (27 GPs, 3 practice managers, 7 nurses, 4 clinical pharmacists, 16 receptionists)
- 24 people living with many health conditions (11 men, 13 women), taking between 10 and 30 different medicines. Medicines included tablets, creams, eye drops, injectables, inhalers, and inhaled oxygen.



Did you know?

- In England, half of all adults over 65 have been prescribed at least five medicines.
- 1 in 4 people over the age of 60 have two or more long-term conditions.
- 30-50% of medicines prescribed for long-term conditions are not taken as intended.

How pharmacy staff work safely

Everyone in the study spoke very highly of their local pharmacist.
But have you ever wondered what exactly pharmacy staff do to dispense medicines?

The number of prescription medicines is on the rise. This makes prescribing, dispensing, and taking medicines more and more complicated.

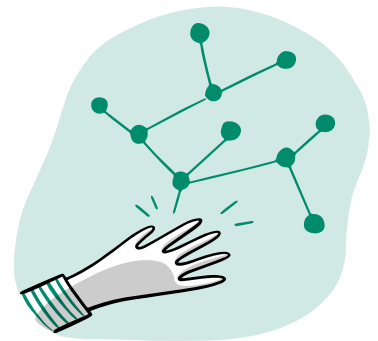
We spent 140 hours in four community pharmacies watching pharmacy staff at work. We wanted to find out how pharmacy staff make up the medicines in the prescription. We watched pharmacy staff doing their everyday routines and tasks. These included: receiving prescriptions, organising medicines, making up dosette boxes (pharmacy pill organisers), and communicating with healthcare staff in GP surgeries and hospitals. We also interviewed pharmacists, pharmacy technicians, and counter staff about their jobs.

'Safety' was an important word in the pharmacies. Staff used the term 'safety' when they told us how and why they did certain things: picking medicines from shelves in a particular order; asking customers for their name and address before giving out medicines and switching tasks.

We found three things that helped staff make sure they got the right drug to the right patient at the right time:

Caring for the technology

As you can imagine, pharmacies use a lot of technology to help them do their jobs: electronic prescriptions, dosette boxes, and even robots to help make up the prescriptions! We saw how staff devised new working routines to get the best out of these technologies. The robot, whilst speeding up dosette box production, could not function without humans keeping a close watch at all times. If anything, the robot needed a lot of care and attention. In fact it required staff to re-think and re-organise tasks and create new ways of working so that the robot's operations ran smoothly.



Caring for each other

We saw how important it was for pharmacy staff to work as a team. Members of staff were always alert, always listening, and ready to take initiative to help their colleagues to get the work done well. Staff were able to report errors (which do happen sometimes!) without worrying about getting into trouble. A culture where staff feel they can be honest and open is important to ensure health care is safe.



Caring for patients

Even though staff may work behind the scenes, they talked of 'knowing' their patients. Technologies such as robots for dispensing medicines and electronic prescriptions did not diminish the human relationships between pharmacy staff and patients. Staff often used imaginary scenarios ("What ifs?") to show their performance of safety and to share with each other their constant awareness of the high risk environment in which they worked.



What's the link to polypharmacy?

Our study revealed an important paradox. Polypharmacy was plain to see from the vast quantities of medicines that came into the pharmacy and the many hours pharmacy staff spent making up dosette boxes and organising patients' pills. Yet, polypharmacy itself was rarely discussed either between pharmacy staff or between pharmacists and GPs. This surprised us particularly as we quickly became known as the 'polypharmacy researchers'. When we tentatively asked about the pharmacists' role in addressing polypharmacy, they regarded this as the responsibility of those who had prescribed the medicine: GPs and hospital doctors.

Polypharmacy

and the hidden work of managing medicines

Spending time in GP practices, pharmacies, and patients' homes made us aware of how much work polypharmacy creates. We saw how much work pharmacy staff do to dispense drugs. We saw how much time reception staff and GPs spent processing repeat prescriptions. But polypharmacy creates work for patients too. We were grateful that patients in this study allowed us into their homes where we could see how they organised their many medicines. This was time-consuming and responsible work.

The patients in this study took between 10 and 30 different items of prescribed medication every day. This included: tablets, creams, eye drops, injectables, inhalers, and inhaled oxygen. Patients' medicine regimens were complex and needed careful organising. Patients strived to take their medicines as prescribed by their doctor. At the same time, they tried to find ways of fitting medicines into their daily lives so they could do the things that were important to them.

Patients often used 'do-it-yourself' dosette boxes, tins and bags to organise daily medicine taking. They set up larger boxes, baskets and storage systems in cupboards to ensure they had surplus medicines and didn't run out. These systems also helped with checking supplies and ordering more medication. Managing medicines involved considerable resourcefulness, creativity, and collaboration with family and friends.

Our research shows that polypharmacy creates work. Healthcare professionals need to take this into account when making decisions with patients about starting new medicines or continuing current medicines. There has been advice from the Royal Pharmaceutical Society that patients should be given medicines in the original packaging as this is the safest way for medicines to be stored. However, our research has shown that when patients are taking lots of medicines - these medicines need to be organised to help people take them. It may be pharmacy staff doing this job as they make up pharmacy dosette boxes or it may be patients at home with their DIY boxes, bags and trays. Either way, someone has to do this work. Greater appreciation amongst prescribers of the nature and complexity of this work may be a useful starting point for tackling polypharmacy.

If you would like to get in touch with the study team, please email Deborah d.swinglehurst@qmul.ac.uk or Nina n.fudge@qmul.ac.uk or write to us: Nina Fudge, Wolfson Institute of Population Health, 58 Turner Street, London E1 2AB. You can also get updates about the project on our website: www.polypharmacy.org.uk

