What are the benefits for pharmacists of engaging in practice research?

In the second in a series of three articles on research, Rachel Roberts and Erika Kennington, research strategy co-ordinators for the Royal Pharmaceutical Society, provide examples of pharmacy practitioners who are currently conducting research, or piloting new services.

A visible improvement in patient outcomes is the benefit most frequently cited by pharmacists engaging in research. Indeed, this drive to improve patient outcomes is the reason most pharmacists give to explain why they became involved in research in the first place. As a patient-centred profession, it is natural that striving to improve patient outcomes is at the heart of pharmacy practice research. However, there are many other advantages to be gained through engaging in research and these include increasing multidisciplinary working, raising the role and visibility of pharmacy practice, and being able to see the wider picture and important role of pharmacy practice within that.

In this article we use personal testimony to highlight the importance of engaging in research from the viewpoint of individual pharmacy practitioners in a variety of settings. We hope that this will encourage pharmacists to begin thinking about potential research topics they might become involved in.

In the previous article (PJ, 13 March, p267), we stated that there is often debate around, for example, whether a particular project constitutes audit, service evaluation or research. Rather than engage further with this debate, we put forward a broad definition of pharmacy research that encompasses any systematic, objective investigation that seeks to explore the ways in which pharmacy is practised. In contrast to this, audit and service evaluation have a narrower purpose. Put simply, audit is about seeing what is happening now and comparing it to a standard. Service evaluation is looking to see whether a service delivers according to its objectives. The key point though is that audit, service evaluation and research all employ the same methods and all should be equally rigorous in their design and execution. In addition, there are links between audit, service evaluation and research and all have a role to play in improving patient outcomes and meeting health needs. In the examples that follow we wish to highlight some of these links.

Building on audit and service evaluation

Medication errors and medicines misuse impact not only on an individual’s health but also on the already strained budget of the NHS. As the experts on medicines, pharmacists are uniquely placed to tackle these problems head on and many initiatives and services have been developed in order to do this. However, without determining exactly what intervention the pharmacist has made, what the intended outcomes are and how successfully these have been achieved, we lack the evidence needed to state definitively whether these services are effective or not.

Medicines use reviews

One example of a service designed to ensure that the right person is receiving the right medicine at the right time is the medicines use review (MUR). MURs are not without criticism and it has been suggested that they should be targeted and have specified intended outcomes in order to be more effective. Newport Local Health Board ran a pilot project evaluating targeted MURs in which community pharmacists conducted MURs on 304 patients in 12 care homes. The average age of each patient was 81 years, with each taking an average of seven medicines.1

Two of the people involved in this project were community pharmacist Dave Wilcox and pharmacy technician Caroline Baintin. Both were positive about their participation and spoke enthusiastically about the resulting improvements in patient outcomes. To illustrate the need for and the effectiveness of this pilot project Mr Wilcox drew attention to one care home in which 23 of its 24 residents were identified as having a medicines issue. He said: “When an issue comes up, we are able to put an effective intervention in place. This helps the patient and saves the NHS money and I see those results and feel I am doing something worthwhile.”

Not only did this project provide direct benefits to patients, it also helped to improve multidisciplinary working and communication between pharmacy practitioners, GPs and care home staff. As Ms Baintin said: “Nursing staff don’t focus on what medicines are for, so the patients don’t get that [pharmacy] interaction. On a personal level I have learnt the nursing side of the equation and have a greater understanding of why they do things the way they do.”

At a seminar hosted by Pharmacy Management on 17 February 2010, Val Shaw, assistant chief pharmacist at NHS Cambridgeshire, spoke of a similar project that also explored the use of MURs in care homes. The results of this project showed that multidisciplinary MURs resulted in an annual saving of £300–500 per patient reviewed. In one GP practice alone a saving of £22,000 was made. This project is now likely to be further developed as a three year randomised control trial in a collaborative study between the University of East Anglia and NHS Cambridgeshire.

The examples above show that small scale, local service evaluations can be used to inform larger research studies with the future potential of influencing wider service development and the development of the pharmacy profession. Building the evidence base so we more fully understand the role and value of pharmacy intervention in particular care pathways is something all pharmacy practitioners can do.

Post-operative analgesia

Pharmacist Titilayo Akingbade conducted an audit investigating the range of analgesia prescribed post-operatively at the point of discharge from Lewisham Hospital in London. She explained: “Postoperative analgesia is a key aspect of pharmaceutical care for surgical patients. It has an extensive impact on patient satisfaction and confidence, postoperative complications and comorbidities and duration of hospital stay. As there were no explicit

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guidelines being used in the hospital it was assumed that there would be variance in the prescribing of postoperative analgesia. It was necessary therefore to identify current trends in practice and see these to develop guidelines to promote an efficient and consistent level of care for the hospital’s adult surgical patients. The trends Miss Akingbade identified are now being used to support the development of general guidance for postoperative analgesia. Doing a patient-oriented study was particularly important to Miss Akingbade because she believes that “the results of research should be of real benefit to patient care”.

The results of this audit showed that current practice was working well. “The highlight of doing the project was the final result, which showed that, contrary to the expectation of the staff, there was a general unspoken desire for the prescribing and use of these drugs. It also showed that there was no need to make any dramatic changes to current practices. As we keep hearing, a simple change can make a difference.”

She added: “Conducting research made me understand that there is always research that can be done. I believe that it is through research that we can really know what we are doing, identify any weaknesses and develop strategies to turn them into strengths. I definitely plan to be involved in more research in the future. It is essential for the advancement of our profession”.

Current practice can be best practice

It is important to point out that research is needed not just to illustrate that new services are effective but also sometimes to illustrate that current practice is best practice and should be maintained, or even to show that services are not efficient and should be stopped so that NHS money can be diverted to services where positive outcomes have been proven. In the current financial climate it is important that pharmacy has the evidence base available to influence and support commissioning decisions.

Factors influencing the use of oral nutritional supplements

Another example to illustrate some of the links between audit and research is that provided by Claire James, who is currently working in formulary development in the Tayside area. She has been funded by the Pharmacy Practice Research Trust to carry out research into factors influencing the prescribing and use of these nutritional supplements. Like many others, Mrs James’s project arose from regular audit. “I was working in a rotation in general practice and came into contact with the local protocol for the prescribing of oral nutritional supplements. I did an audit on adherence to this protocol and found that people weren’t following it very well. However, this audit couldn’t fully investigate why this was happening and so this is what my current project is looking at.”

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Key points

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