

Addressing medication literacy: a pharmacy practice priority

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Most medicines depend on a good understanding by the patient of how to take or use the medicine safely and effectively. Such actions relate strongly to people's health literacy, defined by Kickbusch and Maag^[1] as 'The ability to make sound health decisions in the context of everyday life – at home, in the community, at the workplace, the health care system, the market place and the political arena'. They go on to say that it is 'a critical empowerment strategy to increase people's control over their health and ability to seek out information and their ability to take responsibility'. The landmark US Institute of Medicine report, *Health Literacy: a Prescription to End Confusion*,^[2] reported that low health literacy negatively affects the treatment outcome and safety of care delivery. The people concerned are more likely to be admitted to hospital, and they may stay longer and be less likely to take their medicines and/or make errors with those medicines.^[2]

So, health literacy covers a very wide range of activities, and people's ability to make good decisions about medicines, and use them safely and effectively, form an important part. Such 'medication literacy' has yet to be defined, but it could be argued that it is a person's ability to make decisions about medicines that are right for them, allowing the medicines' safe and effective use. Low health literacy is a factor that underpins the wider issue of health inequality, as getting the best out of a health system is complex and arguably requires high levels of health literacy. According to the UK Department of Health, over half of England's adult population have literacy skills below Level 2. It is sobering to note that this is the level needed to discuss a condition interactively with a doctor or specialist.^[3]

Why is medication literacy so important?

Medicines are the most frequent intervention in the majority of health systems, and without effective medicines use most health systems would be largely impotent. Medicines are, of course, also the most common cause of harm in health care. In addition, we also know that adherence with long-term medicines is estimated to be around 50%.^[4] One suggested approach to reduce this non-adherence is to encourage patients to take part in decision-making so that they can come to an agreement with their prescriber and health professionals. This has been described as 'partnership in medicine taking' or, previously, 'concordance'.^[5] Health literacy is critical to such empowerment.^[6]

Two recent US studies provide useful pointers in terms of medication literacy. Kripalani *et al.*^[7] followed-up hospital inpatients at home after treatment for acute coronary syndrome. Twenty-two per cent had not filled their prescriptions and 21% had some difficulty understanding the purpose of their medicines. Maniaci *et al.*^[8] studied relatively well-educated patients after being given at least one new medicine while in hospital. When telephoned at home 1–2 weeks later, 14% did not know they had been given a new medicine and 36% did not know the name of that medicine or its purpose.

What can pharmacists do to promote health literacy?

Pharmacists have a key role in providing patients with spoken and written information, and directing them to other sources of information.^[9] A recent systematic review of medicines information for patients found that people want information about medicines for two main purposes: they want information supporting decisions about which medicines to take, and they want information about how to safely and effectively take medicines they decide to take.^[10] Previously these two aspects have tended not to be separated, particularly for

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written information, where one piece of information (the leaflet provided with the medicine) has had to serve both purposes.

Addressing health literacy requires a two-pronged approach

In the past, the implications of health literacy have focused on the deficiencies of the patients. For example Maniaci *et al.*, in the study mentioned above, stated that after discharge people had ‘limited comprehension and understanding of medications; thus, functional health literacy of the study population was poor’.^[8] This makes an assumption that the information available to these patients was understandable; health literacy and health knowledge are not the same.^[11] A further definition states that health literacy is ‘the relationship between a person’s health literacy, language and numeracy levels and their ability to receive, understand and process health information’.^[12] This helps to clarify the two-way nature of approaching health literacy. We need to help people to improve their skills to understand information about medicines and take part in decisions about their health, and make sure that the spoken and written information we give is simple and easy to understand in order to meet patients halfway.^[13]

In 2008 a UK Government White Paper envisaged pharmacies as centres promoting and supporting healthy living and health literacy.^[14] Pharmacies would be wider ‘information retailers’, helping people to interpret and decide about the many sources of information now available about medicines. It also talks about building stronger local bonds with customers by promoting a culture of ‘better health literacy for all’, particularly those in the areas of greater social deprivation and where significant health inequalities exist.

Increasing accessibility and understandability of spoken and written information

A systematic review of the research related to written medicines information for patients produced a strong finding that patients regard spoken information as the priority, with written information as a valuable back-up.^[10] This means it is incumbent on pharmacists to make spoken information available, in the right setting, and that they have the appropriate training in communication skills to deliver this effectively. Unfortunately, the research evidence suggests that doctors and pharmacists do not seem to be giving instructions to many people in the general practice and pharmacy setting about how to use their medicines.^[15–17]

The value placed on written information as a back up means that pharmacists need to be able to effectively critique written information in order to correctly point patients to appropriate materials, as the above review also concluded that written information currently provided does not meet patients’ needs. Pharmacists and other health professionals in the European Union need to be aware that the package leaflets required to be supplied with all medicines have, since

2005, had to be tested for readability, using the so-called User Testing process.^[18] Such testing should mean that in the future medicine leaflets will better meet patients’ needs. Readability formulae should not be used to assess readability, as they only measure word and sentence length; many other factors impact on readability and it is easy to write short sentences of short words which are difficult to read.

Evidence-based guidance on how to write good medicines information for patients is now available.^[19] Remember also that there is a group of people, those who can read little or not at all, for whom any written information is likely to be of no use. Here, spoken information becomes even more important, with well-designed and tested pictorial information (so-called pictograms) having the potential to provide limited support.^[20]

Research and practice priorities

Ratzan suggested that research into the ‘patient end’ of the drug development process remains the Cinderella, with biomedical research still receiving the greatest share.^[11] However, policy documents in the USA, UK and elsewhere now promote such research, including a focus on health literacy in general,^[2] people’s understanding of their medicines^[14] and developing informed choice and shared decision-making,^[21] and pharmacy practice researchers need to seize this initiative.

Effective interventions to support health literacy are unlikely to succeed if solely focused on improving the usability of spoken and written information alone: we need to communicate in a way that invites interaction and participation.^[6] For example, the written information people get with their medicines could be used as part of an interaction with the patient, with the pharmacist using it as an aide memoire, to help them remember the key issues and also to show to the patient that the leaflet is a document which could be useful to them. We also need to develop materials which are more specific to the two needs people say they have for information about medicines: (1) deciding which medicine is right for them and (2) helping them take a medicine safely and effectively once they have started to take it.

Health literacy has risen to the top of the health agenda; pharmacists and pharmacy practice researchers should ensure that medication literacy is appropriately addressed to maximise the benefit people get from their medicines.

Declarations

Conflict of interest

Theo Raynor is Professor of Pharmacy Practice at the University of Leeds and is a Non-Executive Director of Luto Research Ltd, which provides written patient information testing services.

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