Health literacy is not just reading and writing

It is suggested that one in 10 patients who walk into a pharmacy or on to a ward will not fully understand the instructions or advice they receive from staff. Nicola Gray explains concepts in health literacy and how pharmacy staff can help ensure good medicines use.

What does the term “health literacy” conjure up in your mind? Literacy, no doubt, suggests the ability to read and write. Add health, and it seems straightforward: the ability to read and write in a health context. The concept of health literacy certainly includes an individual’s capacity to access, understand and use written health information but, over the past 20 years, it has widened into something much more interesting and relevant to pharmacy practice. The academic discussion seems to have produced two watersheds, depicted in Panel 1 (p334). Before 2000, the research into health literacy concentrated on functional aspects — the reading and writing skills of people who had long-term health problems (and who were usually in hospital). In the US, there was a burst of development of tools for testing health literacy, the two most well-known being Rapid estimate of adult literacy in medicine (REALM)\textsuperscript{3} and Test of functional health literacy in adults (TOFHLA);\textsuperscript{4} see Panel 2, p334.

Donald Nutbeam, former head of public health at the Department of Health, England, extended a narrow, functional view of health literacy into a concept that also has critical and interactive components.\textsuperscript{1} Critical health literacy reflects a capacity to question information before assimilating or rejecting it, and interactive health literacy reflects a capacity to extract information from a range of sources, including social encounters, and to derive meaning that can applied in new situations.

The second watershed is, perhaps, best illustrated by the work of Zarcadoolas et al.\textsuperscript{2} This involved the acceptance of multiple literacies: fundamental, scientific, cultural and civic.\textsuperscript{2} They argue that any health-related decision will draw on combinations of these. Examples of a possible pharmacy health literacy dilemma related to each of these interpretations of health literacy are described in Panel 3 (p335). More recently, Nutbeam has reflected on health literacy as either a risk or an asset,\textsuperscript{7} resulting from parallel evolution of the term in clinical care and public health. Both concepts are important in pharmacy practice.

Health literacy policies “Choosing health through pharmacy”, a programme for pharmaceutical public literacy in community pharmacies and is quite sophisticated regarding the different ways in which health literacy promotion can take place (see Panel 4, p335). In England, health literacy is a key component of the DoH health inequalities strategy, “Health inequalities: progress and next steps”. This outlines the Government’s approach to hit the 2010 health inequalities public service agreement targets, assessing what has and has not worked, and sets the direction of travel beyond 2010. One of the successes has been the Skilled for Health programme. This is a partnership programme between the DoH, the Department for Innovation, Universities and Skills (DIUS), and the learning charity, ContinYou. It combines learning objectives with health content to help adult learners gain a better understanding of their own health and how to make better use of the NHS, while improving their basic skills (see Panel 5, p335). In Scotland and Wales, mental health is the focus of health literacy policy. A programme of mental health literacy has been developed by NHS Health Scotland, in collaboration with others. The Mental Health Promotion Action Plan in Wales includes mental health literacy initiatives for adults.

Effect on health outcomes Estimates of the level of low health literacy in the UK have ranged from 11 to 19 per cent, depending on the tool used, geographical region and study setting. It is argued that patients in a hospital setting have a lower ability to understand healthcare messages. Most health literacy research has taken place outside the UK, but a fairly recent study suggests that over half of England’s adult population have lit-
Panel 1: Developing the concept of health literacy

**2000 Nutbeam** Health literacy represents the cognitive and social skills that determine the motivation and ability of individuals to gain access to, understand and use information in ways that promote and maintain good health. This can be split into three domains:

- **Functional health literacy** Basic skills in reading and writing, to be able to function effectively in a health context.
- **Interactive health literacy** More advanced cognitive, literacy and social skills, to participate in health care.
- **Critical health literacy** The ability to analyse critically and to use information to participate in action to overcome structural barriers to health.

**2006 Zarcadoolas, Pleasant and Greer** A health literate person is able to use health concepts and information generatively — applying information to novel situations. He or she is able to participate in the ongoing public and private dialogues about health, medicine, scientific knowledge and cultural beliefs. This definition has four domains:

- **Fundamental** Reading, writing, speaking and numeracy
- **Scientific** Fundamental scientific concepts, scientific process, technology and technical complexity, scientific uncertainty, and understanding that rapid change in the accepted science is possible
- **Civic** Awareness of public issues in order to participate in critical dialogue about them, and to become involved in decision-making processes.
- **Cultural** Ability to recognise, understand and use the collective beliefs, customs, worldview and social identity of diverse individuals to interpret and act on information.

Panel 2: Tools for testing health literacy

**REALM** Patients read aloud a list of medical terms, increasing in complexity (ie, number of syllables) as the list continues. The point at which they stumbled provides an indication of their health literacy level.

**TOFHLA** Patients perform a number of tasks, including answering questions related to a prescription medicine label (eg, when the next dose should be taken).

**Newest vital sign (NVS)** The patient looks at an ice cream nutrition label and answers six questions. The questions allow the patient to demonstrate skills that are often necessary to self-manage chronic diseases.

**eHealth literacy scale (eHEALS)** This eight-item measure of e-health literacy measures the consumer’s combined knowledge, comfort and perceived skills at finding, evaluating and applying electronic health information to health problems.

Health literacy skills below the level needed to discuss a condition interactively with a doctor or specialist. In addition, only one quarter were able to calculate body mass index with a formula or identify food addictions could be important during events such as first prescriptions, medicines use review and discharge counselling.

An important area of health literacy research for practice is the stigma associated with poor health literacy. Health professionals are trained to minimise embarrassment in their patients about a number of sensitive issues so why are so many reluctant to broach the subject of literacy? The health literacy differential in the health professional-patient relationship seems absolute and inescapable: to become a pharmacist or doctor in our traditional educational system, a student must have the capacity to read, write and assimilate information to a high level. Patients are well aware of this.

The health literacy tests previously cited are useful for population research and policy, to give context and to track how health literacy changes in populations over time. It is less clear whether they are really useful for determining whether an individual patient has adequate health literacy levels to NHS targets (ie, not giving up smoking) and no doubt frustrated the pharmacist running the smoking cessation clinic. Her health literacy skills, however, were demonstrated in conversation with the pharmacist through her recognition and acknowledgment of the multiple literacies that she drew on to make her decision. This highlights a difficult truth relevant to pharmacy practice: high health literacy is not necessarily related to action that is consistent with health policy and biomedical evidence. By increasing the critical health literacy of individuals we might promote greater independence of thought that brings all the different influences on their health into play. This should be borne in mind when reading policies about health literacy. Pharmacists will be well aware that it is better to respect the individual’s decision, whether it matches their own aspirations for him or her, or not, in order to maintain a trusting relationship that will be vital for important future decisions.

**Medicines use and reasonable adjustments** The recent National Institute for Health and Clinical Excellence guidance on medicines adherence does not contain any references to health literacy, but the safe and effective use of medicines is, undoubtedly, dependent on the capacity to access, understand and use medicines information. The use of oral contraception is a good example of health literacy demands placed on users. The instructions for oral contraception are complex and the information shared at the first prescribing and dispensing can be crucial to a woman’s future risk of pregnancy. A combination of spoken information and a written patient information leaflet are the usual tools: functional and interactive health literacy come into play. Add to this the scientific literacy needed at intervals to sift through the latest media scare about the products, and the cultural literacy to understand the impact that a prescription for the contraceptive pill might have on others’ perceptions of one’s sexual activity, and the demands multiply. The opportunity for giving information and encouraging questions that address some of these literacies could be important during events such as first prescriptions, medicines use review and discharge counselling.

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Panel 3: Applying health literacy concepts to interactions in the pharmacy

Tripartite health literacy (Nutbeam) Mr A has seen an advertisement on television for a cold and flu remedy. His functional health literacy enables him to recognise and remember the name of the product. He does not need to be able to read to do this. His interactive health literacy reminds him to visit a pharmacy to buy the product. In the pharmacy, however, he is questioned by the medicines counter assistant and it becomes apparent that his hypertension might make this product unsuitable. He asks to see the pharmacist. He applies his critical health literacy to the spoken information that the assistant and pharmacist both supply. He decides to opt for simple painkillers, rest and fluids.

Multiple literacies Mrs B, considering giving up smoking, has read and heard the messages relating to the risks of smoking, and her scientific literacy recognises the potential poor health outcomes. She acknowledges the ban on smoking in public places through her civic literacy. The overriding factor in her eventual decision not to give up is determined by the habits of her family and friends, who are all smokers. Her cultural literacy reminds her that the consequence of giving up would put her in difficult social situations.

Panel 4: Health literacy promotion in pharmacy

Pharmacists and their staff can play an active part in the promotion of health literacy by:

- Working with individual patients and encouraging them to become advocates for service improvements
- Working with other professionals to help them to explain to patients how to use their medicines effectively
- Participating in the Skilled for Health and Medicines Partnership programmes
- Acting as exemplars, ensuring all staff are health literate

Panel 5: Health literacy teaching resources

Ask About Medicines Week Resources at www.askaboutmedicines.org include:

- Medicine reminder charts with prompts for discussion points about medicines
- "My medicines" sheets, aimed at children and parents, and available to download in 10 languages
- "Does the medicine go down?" concordance video from Trent Workforce Development Confederation

Ask Me 3 An evaluated strategy to improve health communication, advocated by the US National Patient Safety Foundation. Pharmacists and other healthcare providers should make their patients aware of three key questions to ask:

1. What is my problem?
2. What do I need to do?
3. Why is it important for me to do this?

Skilled for Health Teaching resources include:

- Learning materials for use in the workplace — useful for medicines use reviews and other consultations, including a self-care topic that has several worksheets on medicines and pharmacists (www.rwp.qia.oxi.net)
- Learning and assessment materials for healthcare assistants (www.excellencegateway.org.uk)

Mental Health First Aid Information about current courses in Scotland and Wales incorporating mental health literacy is available at www.healthscotland.org.uk and www.mhfa-wales.org.uk

Health literacy in the pharmacy

There are two approaches, not mutually exclusive, that recognise variation in the public’s health literacy: to accommodate poor health literacy and to seek to improve it (see Panel 6, p336). These reflect Nutbeam’s understanding of health literacy as a risk or an asset. The differences in these strategies might seem subtle, but they are profound. Where there is an opportunity to share a skill that the patient can transfer to a future health information query, it should be taken. So many professional resources, such as the British National Formulary and research journals, are now open to patients that there are excellent opportunities to share health literacy skills to promote self-care. Tools that could be used in pharmacies to improve health literacy skills are listed in Panel 5. Some, such as Ask About Medicines Week materials, may already form part of a pharmacist’s toolkit for advising and informing as they discuss medicines with patients. Others, such as the Skilled for Health resources for self-care, may be less familiar but can develop the pharmacist as a teacher.

The evolving concept of health literacy means it is wider than an individual’s capacity. It now includes encounters with health professionals and roles in communities. Pharmacists and staff could reflect, together, on their own perception of what health literacy means and the different ways in which they gather their own health information — we are all subject to the same influences. The Skilled for Health initiative has a set of learning tools and assessments devised for healthcare assistants working in a variety of health contexts. Why not set pharmacy staff a challenge (how health literate are we?) and encourage them to use their skills with patients and customers.

Another part of Nutbeam’s critical health literacy component is a call to action in communities to improve health. Pharmacists could play a health advocacy role in their locality. Is there a need to promote more breastfeeding-friendly places in the local community? Has a recent local DUMP campaign shown medicines wastage that needs to be brought to the attention of local prescribers, care home managers or, more widely, among local people? Does the trust miss opportunities to promote...
CONTINUING PROFESSIONAL DEVELOPMENT

Panel 6: Strategies to accommodate or improve poor health literacy skills

<table>
<thead>
<tr>
<th>Health literacy challenge</th>
<th>Accommodation (health literacy as a risk)</th>
<th>Improvement (health literacy as an asset)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty in reading printed information (functional health literacy)</td>
<td>Use varied formats of medicines information (eg, spoken consultation, diagrams)</td>
<td>Keep a library of information in different formats that patients can borrow (eg, booklets to keep and an associated DVD or CD-ROM to borrow and return)</td>
</tr>
<tr>
<td>Difficulty in understanding medical terms (functional health literacy)</td>
<td>Avoid medical jargon</td>
<td>Explain medical terms, so that the patient will recognise and understand them when they next read a patient information leaflet or have a consultation with another professional</td>
</tr>
<tr>
<td>Lack of critical awareness of strategies used to promote OTC medicines (critical health literacy, cultural health literacy)</td>
<td>Offering the customer a range of options, including home remedies</td>
<td>Talk to local groups (eg, mother and toddler, day centres) about over-the-counter medicines use</td>
</tr>
<tr>
<td>Difficulty acting on information to adopt healthy behaviours, eg, help to tackle alcohol addiction (interactive health literacy)</td>
<td>Give a pharmacy customer the contact details of a local support group</td>
<td>Assist the customer to find resources and support group information from the public internet terminal in the pharmacy</td>
</tr>
</tbody>
</table>

healthy lifestyles among inpatients? Issues such as these are valuable opportunities for promotion and taking co-ordinated action, and pharmacies are often central in communities, making pharmacists well placed to influence and inform.

**Health competency**

Later health literacy assessment tools are the Newest vital sign7 and the eHealth literacy scale.8 However, Swiss researchers are moving towards developing an instrument that specifically measures competencies for health literacy. The Swiss Health Literacy Survey identified 30 core competencies for health relevant to all citizens, which are measurable. This will now be applied and developed across other European countries through an EU-funded survey. The move towards the term “health competency” reflects the title of this article — that health literacy conjures up a narrow picture of health literacy needed in our complicated system.

Although the concept of health literacy will, no doubt, continue to evolve, its value is in sharing skills, not just information. Pharmacists and staff can be frontline health literacy activists, simply by being aware that the communication tools and information at their disposal can serve a dual purpose.

The value of a pharmacy health literacy intervention is to use opportunities in consultations to create and hone skills in patients and customers that can be used repeatedly in a variety of new health-related situations. Many of the developments in health literacy have been academic but it is now time to apply the concept to practice.

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**References**