

# Editorial

## Health literacy: the need to consider images as well as words

Health literacy can be an important facilitator of effective participation in health care, but there is significant scope to improve our collective understanding of how it can be enhanced and how it can influence health-care outcomes.<sup>1</sup> When the two papers about health literacy that feature in this issue of *Health Expectations*<sup>2,3</sup> are taken in conjunction with another paper in this issue – about the acceptability of larval (maggot) therapy as a possible treatment for venous leg ulcers<sup>4</sup> – they suggest that visual images may be more important than has been recognized to date for efforts to both promote and investigate health literacy. This may sound odd, because the concept of literacy is usually associated with words. Current definitions of health literacy, however, readily encompass issues relating to the use of visual information.

For the World Health Organisation, ‘health literacy’ refers to ‘the cognitive and social skills that influence people’s motivation and ability to gain access to, understand and use information in ways which promote and maintain good health’, and health literacy skills are critical for empowerment for health improvement at both personal and community levels.<sup>5</sup> As Hirono Ishikawa and Eiji Yano point out, most attempts to assess health literacy and examine its implications for participation have focused much more narrowly on people’s ability to read written materials and how this affects their basic functioning in everyday health-related situations.<sup>2</sup> Their paper should encourage those working on health literacy issues to attend to a

broader range of skills and to the higher-level aspects of participation in health-related activities that might be enabled with abilities to consider information critically and use it to exert greater control over life events and situations.<sup>6</sup>

Ishikawa and Yano suggest a need to consider not just reading and writing skills but also numeracy, listening and speaking skills, and conceptual and cultural knowledge. Possession of these is likely to enhance both understanding and expression, and thus to facilitate meaningful participation. However, our reflections on two other papers in this issue lead us to consider whether ‘understanding’ of, for example, disease processes and treatment options may have an important visual dimension that is currently often overlooked. We think it is worth considering whether visual interpretation skills should be added to Ishikawa and Yano’s list, and we would encourage an explicit recognition that imagery and symbolism may feature strongly in cultural knowledge.

Many health information resources incorporate illustrations or moving visual images. These take diverse forms that vary in the extent to which they allow people with different forms of ability to access, understand and use information to promote their health. Visual images may be more important for people with limited reading skills, and the inclusion of illustrations was one of the strategies that Sian Smith and colleagues used when they redesigned a decision aid about colorectal cancer screening for use among populations with lower literacy levels.<sup>3</sup> When they asked people attending basic literacy

classes for adults and people attending continuing education courses that demanded high literacy to review and discuss the revised decision aid, they found that both groups thought the information conveyed by anatomical drawings was important and useful. Opinions were divided, however, about the value of other illustrations. People with lower literacy were more positive about them, suggesting they could help to secure attention and to 'fill in' bits of information that they might otherwise have missed if they had difficulties with text. People with higher literacy were less enthusiastic, and some described the illustrations as 'irrelevant', 'meaningless' or 'patronizing'.

Judgments about whether illustrations are patronizing may depend in part on whether patients believe the use of visual formats reflects perceived inadequacies in their literacy skills or the selection of an appropriate means of communication about particular topics or issues. The use of images to convey information about anatomy or pathology, or the potential effects of mastectomy or cosmetic surgery on bodily characteristics is perhaps unlikely to be perceived as patronizing because it is widely regarded as facilitative of understanding.

However, Smith *et al.*'s study also highlights the importance of the different understandings that people may take from visual information. One version of their decision aid included an image of a two pan weigh scale, which is often used in decision support for patients. Decision aid developers have assumed that the image is relevant because it represents the notion that if the reasons that a person might have for favouring each of two health-care options are metaphorically put into the respective pans of a weigh scale, the scale will tip in the direction of the most favoured option. The image is intended to encourage patients to consider (and to represent *how* they might consider) which option is the most appropriate for them. However, as one of the people who reviewed the decision aid pointed out, the weigh scale image can also be associated with efforts to ensure *balance* between the contents of the two pans. This association

renders the image less appropriate as a representation of choice.

Variations in the interpretation of standard images are important. They may reflect differences in the symbolism that prevails in different cultures and variations in individuals' abilities to engage with and interpret visual media. The concept of 'visual literacy' has attracted some interest,<sup>7</sup> although there is little consensus about its definition and it has not yet received much attention in the health field.

The significance of visual imagery and associations of meaning is further highlighted in Karen Spilsbury and colleagues' investigation of the acceptability of larval therapy to people with venous leg ulcers. Off-putting mental imagery was a notable feature in the explanations offered by people who said they would not consider larval therapy. This imagery was prompted by memories of seeing maggots on rotten meat or dead animals, by health professionals' descriptions of maggots 'eating' tissue, and by thoughts about what it might feel like if the maggots escaped from the dressing. Spilsbury *et al.*'s study adds to a small but growing literature that highlights the power that images may have to influence beliefs and emotions, and health-related behaviour and outcomes.<sup>8,9</sup> Recognition of this power should remind us of the need to consider carefully the appropriateness and morality of the various ways in which images can be used to attempt to influence behaviour.

Taken together, the insights reported in this issue of *Health Expectations* remind us of the importance of attending to the acceptability, perceived utility and possible interpretations and implications of the visual as well as the verbal components of information resources. (Cognitive testing processes and evaluations of effect are needed for pictures as well as words). They suggest that efforts to promote and assess health literacy need to attend to resources and skills for accessing, understanding and using *visual* as well as verbal and numeric information.

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