

Changing attitudes to 'the change'



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BACKGROUND In order to practise efficiently, experienced doctors use heuristics (decision making shortcuts). In most cases decision making shortcuts improve the service we offer, allowing us to make appropriate decisions more quickly. However, occasionally shortcuts can mislead. It is important to reflect on the shortcuts we use so as to reduce the risk of mistakes.

OBJECTIVE This article examines the potential pitfalls of decision making shortcuts using hormone therapy (HT) in menopause as an example.

DISCUSSION Recent randomised controlled trials have changed the thinking on the risk-benefit ratio for HT. The previously assumed long term health benefits of HT for women during and beyond menopause resulted from shortcuts in decision making including 'association means causation' (observational data), 'experts know best' (the experience of gynaecologists seeing women with severe menopausal symptoms is applied to all women) and 'a biological theory to explain a phenomenon makes it likely to be true' (oestrogen has a positive effect on lipid profiles and so was assumed to be cardioprotective).

The Women's Health Initiative investigators justifiably concluded that the risk benefit profile of hormone therapy (HT) is 'not consistent with the requirements for a viable intervention for primary prevention of chronic diseases'.¹ This contradicts the previously widely held belief that HT was good for older women.²

For many of us this has been quite an abrupt change in practice, performed often in front of the patient. This change has required a shakedown of our health beliefs and the 'explanatory models'³ we work from. Examining the reasons behind our attitudes to HT can help us understand how we can reach incorrect conclusions.

Decision making shortcuts

In 1994, the partners in our practice debated

whether to set our computers to prompt us to consider HT for all women over 50 years of age who were taking heart disease medication. We couldn't agree, and so didn't implement the idea, but at the time thought the evidence was compelling enough to consider doing it.

How do we assess competing claims?

The answer is that we use 'heuristics' (decision making shortcuts).^{4,5} As experts in the field of general practice we perform much of our work using shortcuts such as 'newer is better' and 'experts know best'.⁶ In most cases, these shortcuts make it easier for us to get to the right answer more quickly – but they can mislead. Newer drugs are not always better.⁷ The expertise we rely on may come from specialist practice and be based mainly

on severe cases that are rare in general practice. Consequently we need to treat the shortcuts we use with healthy scepticism and guard ourselves against being misled.⁸

How did we come to believe long term HT was beneficial?

The evidence indicating that HT was cardioprotective was only ever observational.⁹ Observational evidence is more vulnerable to biases than randomised controlled trial (RCT) evidence. However, many of us are influenced by the shortcut that if a therapy is associated with benefits in an observational study, the therapy must be the cause of that benefit. We need to remember the 'healthy user' bias in which the positive outcomes in users of a medication are not due to the medication but due to the intrinsic health of the people who seek out and continue taking the medication.^{10,11}

One of the trickier aspects of our training is the strong belief in biological causation. This can lead us to using the shortcut that if there is a biological theory explaining a phenomenon, it is likely to be true. Consequently, the positive effects of oestrogen on lipids reinforced the belief that HT was cardioprotective.¹² This was seen as convincing evidence despite the well known prothrombotic effect of oestrogen.

Another aspect of medical beliefs that can lead us astray is that much of our most concrete knowledge is based on pathology. Health promotion is increasingly being absorbed as part of medicine now that many of the earlier diseases have faded in importance in the western world; but most of us

have trained in a disease based curriculum. Consequently, we find it much easier to understand the goals of treatment if we define a condition as a disease. This makes it very appealing to use the shortcut that if it is a variation it must be a disease. Examples of this include: 'osteoporosis', which is an arbitrary cut-off point in bone mineral density rather than a clinical entity, and recently the 'disease' of 'female sexual dysfunction', a polyglot collection of intermittent variations of normal sexual experience now defined as a disease.¹³

The shortcut that leads us to often define variation as disease sets us up for another shortcut: if it is a disease then we should treat it. In general practice this usually means with medication. The whole logic of menopause being defined as the beginning of the diseased state of oestrogen deficiency is exemplified by the popular name of the treatment 'hormone replacement therapy' rather than simply 'hormone therapy'. Even the term 'therapy' has the implication of benefit from treating a disease.

As mentioned above, one of the shortcuts that many of us rely on is to trust experts to synthesise and report on emerging evidence. In the 1990s many experts promoted long term postmenopausal HT as cardioprotective. We need to think about how these 'key opinion leaders' emerged. The potential market for the drug companies was huge if doctors could be convinced that all women over 50 years of age should take HT for the rest of their lives. Educators who believed in the preventive role of HT were well supported by the pharmaceutical companies and their talks were therefore more likely to reach a wide audience. Educators who were more cautious about HT were less well funded and thus had less impact. We will no doubt continue to rely on expert opinion to assist us translate emerging evidence into clinical practice. Expert opinion is valuable when the experts are unbiased and their expertise is relevant to our practice.

What is menopause?

Physiologically, menopause is the cessation

of the monthly cycle of ovulation and menstruation in a healthy woman. There is a wide range of understandings of what menopause is, including: entering the 'third age' for women,¹⁴ a physiological change equivalent to puberty, an oestrogen deficiency state, and an oestrogen deficiency disease.

The evidence from RCT moves us away from considering menopause as an oestrogen deficiency disease. If we consider menopause as a normal life stage change similar to puberty, how does that alter our approach in general practice?

Socially there is no template for menopause to be accepted in the way puberty is accepted. The way we treat teenagers is worth considering as a model: we accept them as moody, intolerant, spotty individuals who blush every time we speak to them, never tidy their rooms, and go to sleep at 2 am to rise at 2 pm, hungry. This comparison can often help women understand the demands of their body, their tiredness, their sadness and their sagginess. Such understanding can help them plan constructive responses.

It is helpful to reassure women that they will recover function once their menopausal symptoms have resolved. Explaining that there is no correlation between life satisfaction and menopausal status¹⁵ can help them focus on the issues that really influence their satisfaction.

Conclusion

Clearly we cannot put every shortcut under the microscope; however, where there has been a major revision of practice such as in the change of medical attitudes to menopause, understanding how our practice was shaped can help us to respond better and identify the goals of treatment more clearly. Although shortcuts are necessary for efficient practice and usually help us, we need to remain alert to the biases such as our own health beliefs (pathology based) and marketing biases (pharmaceutical company sponsorship). Reflective practice when assessing new evidence or new tools (eg. drugs, equipment) can help us to understand and critique the influences on our day-to-day

practice. Being conscious of the shortcuts we use will enable better general practice.

Conflict of interest: Dr Allen has attended and spoken at CPD and other events funded by pharmaceutical companies including those which market hormone therapy.

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