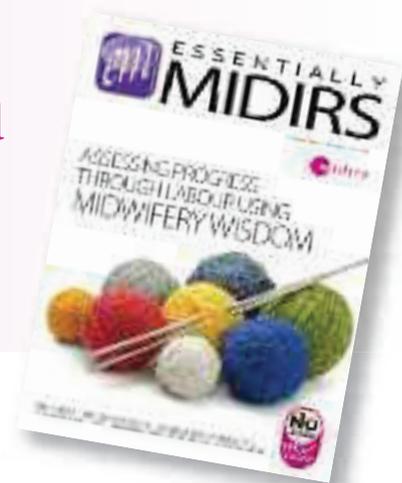




Editorial comment on issues addressed in this month's Essentially MIDIRS...

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Comment by
Sara Wickham Editor

Interpreting evidence

Writing this month's ReView feature (pp27-30) has caused me to spend a lot of time thinking about the interpretation of evidence. It is generally understood that even the hardest science is rarely about fixed, black-and-white answers that stand forever, and that scientific pursuits involving people (as a result of the multiple points at which subjectivity and human values can enter the frame) are even less objective. Yet I still find myself frequently encountering the notion — often implicitly rather than explicitly — that it is possible to consider the evidence in a particular area and come up with a single answer that applies to everyone, in every situation, and that becomes 'the answer' to a given problem.

The Cochrane review that I discussed as part of the ReView feature (Peña-Rosas *et al* 2012)

is almost the perfect illustration of why fixed answers are not realistically attainable. Peña-Rosas *et al* (2012) themselves discuss some of the complexities and uncertainties that exist around the question of iron supplementation, which include limitations in testing, measuring, and in knowing what normal even looks like. Then we have the standard dilemmas that systematic reviewers face: the balance between 'lumping and splitting' (Wickham 2013); the decisions about whether to prioritise seemingly significant findings from highly biased studies over less significant findings from studies at low risk of bias; which conclusions to emphasise; and the assessment of what to write, and where, knowing that some people will read no further than the summary and others will analyse every word as they précis the review for others.

All of this debate and deliberation often takes place even before the evidence reaches the

consumer, which in the case of this Cochrane review might be an individual woman deciding whether or not to take iron supplements, or (probably more likely) a midwife, doctor or birth worker attempting to determine whether or not to alter their position, practice and/or information-giving on the basis of the work carried out by Peña-Rosas *et al* (2012). This is where it gets particularly fascinating. Consider the following three summaries, which could form the basis of the information given to pregnant women, perhaps in an antenatal group. Which would you say is the most accurate summary of the Peña-Rosas *et al* (2012) review?

- 1) Iron deficiency anaemia is a significant problem, affecting more than 40% of pregnant women and having potentially serious consequences. A recent Cochrane review showed that routine daily iron supplementation can be beneficial, as it significantly reduces the likelihood of

anaemia and other poor outcomes without having serious side effects. All pregnant women should be advised to take routine daily iron supplements on the basis of these findings.

- 2) The latest Cochrane review shows that daily iron supplementation is beneficial in reducing anaemia on a population basis, but one in four women who take supplements experience side effects. Furthermore, the global nature of the evidence means that women who live in a country where there is no malaria, who have a good diet, and are generally healthy, may be better off considering supplementation on the basis of individual need (ie only if their haemoglobin is found to be low) rather than accepting universal prophylaxis.
- 3) Although we know that iron deficiency anaemia is a problem globally, many uncertainties currently exist in relation to the question of whether iron supplementation is beneficial. Much of the relevant evidence is at high or unknown risk of bias and the latest Cochrane review has included so many studies of differing quality and content that it is difficult to draw useful conclusions with any degree of certainty.

There isn't really a right or wrong answer to the question I posed before outlining the above three positions. While I may have taken the odd liberty in trying to polarise them slightly for the purpose of making my point, each position is defensible and I could — if someone asked really nicely — produce people who would each choose a different position and argue that their choice was the most reasonable. It is the emphasis that makes the difference. Anaemia **is** a serious problem, but more so in certain areas of the world and situations where antenatal testing isn't readily available or accurate. Iron supplementation **does** carry side effects, which are not serious in most cases, but they do have implications and these need to be balanced against the potential benefits of supplementation. Many uncertainties **do** exist, but if we only ever dealt in uncertainties, we would never actually do anything, and sometimes we do need to act. Where we place our emphasis is likely to depend very much on our viewpoint, or perhaps on our own experiences as consumers or recommenders or prescribers of iron (maybe even all three). The standpoint of the midwife who dealt with the haemorrhage in the severely anaemic woman last month might differ significantly from that of the antenatal teacher who felt like a million dollars after she began taking iron tablets in her third pregnancy, and may contrast again with the GP who sees far too many healthy and well-nourished women



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“From whence comes the perception that evidence-based practice is about seeking the one, certain, binding and universal doorway through which we will find the answer that will stand for all time?”

suffering from what he perceives as iron-supplement-induced constipation.

One of the big debates raised by the Peña-Rosas *et al* review relates to the notion of universal prophylaxis; the suggestion that a form of prevention (in this case iron supplements, but other examples include seatbelts in cars) is so valuable that everybody should be strongly urged to take or use it. Of course, some kinds of universal prophylaxis, such as car or commercial airplane seatbelts, are seen to be so vital as to be a legal requirement (and there are worrying related trends in maternity care but not enough room here for that tangent). Some people think that universal prophylaxis is OK, while others veer towards a more individualised perspective. Some take the position that dietary supplements are an inevitable and useful solution to the problems of modern life, while others think we should be getting what we need from real food. Others used to think that we should get what we need from real food but have more recently decided that our food is too polluted and that we need to embrace supplements. There are a million ways of making the point that it all boils down to what you believe as an individual. And yet, if that is so obvious then to return full circle to the point at which I began this editorial, from whence comes the perception that evidence-based practice is about seeking

the one, certain, binding and universal doorway through which we will find the answer that will stand for all time?

Far too often these days, I see the word 'reasonable' appearing towards the end of research papers, as in '*it is reasonable to conclude from these findings that...*' It would be so refreshing if we could stop pretending that reason is the be all and end all, or even that reason exists as an independent, objectively attainable notion. Really, how hard would it be to acknowledge that we are individuals, with individual experiences that shape our perceptions and beliefs and stances? Would it be the end of the world to own the fact that these individual viewpoints mean that we are likely at times to interpret evidence differently from our colleagues? Surely such openness, and the thought and discussion that would stem from it, could be a positive way of opening conversations with women and families about how they, too, might place a different value on different things, make individual choices and interpret the evidence from their own standpoint rather than from anyone else's.

References

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