Stimulating conversation: does cold water wake babies in utero

Part 2

The Royal College of Obstetricians and Gynaecologists (RCOG) library recently responded to a question about whether there was any evidence about the practice of offering a cold drink to a pregnant woman in order to encourage fetal movement or improve the reactivity of a cardiotocograph (CTG) trace. Their search highlighted a dearth of research into this common practice, which led me to have a number of conversations with midwives and other practitioners about their experience of such. In this second article, I describe how participants hold a range of views about which element of the practice makes a difference, look at some of the theories they put forward to explain this and consider where such exercises might lead us.

Fluid, coldness or sugar?

Soon after the first discussion of this question began on social media, respondents started to offer and debate a range of theories about the different elements of exactly what substance(s) were being offered to women. Although the initial question referred to cold water – and, indeed, many midwives reported cold or iced water being used in practice – there was some debate about whether the water temperature mattered. Several practitioners suggested that any positive benefit came from the fluid alone or from the addition of sugar, and in some areas cordial or fruit juice is offered instead of water. Some also offered sugar in the form of food, as I will discuss below.

There was very little consensus on which element(s) of this made a difference. Some people seemed convinced that coldness was paramount, while others expressed the view that the temperature of the drink doesn’t matter at all. In what one midwife described as ‘the wilted pot plant theory’, the coldness and sugariness of the fluid are deemed irrelevant. Yet others viewed the water principally as a vehicle for sugar, which caused a few people to share their concern that sugar was something to be actively avoided.

Food, noise and physiological speculation

These debates extended beyond water, with some of the proponents of the sugar-based theories recommending biscuits, nuts or chocolate instead of or as well as a drink. Another couple of people speculated that the ‘gulp..."
swallowing, churning and digestion’ noise of the water being drunk by the woman may stimulate or wake the baby, while someone else shared a story of seeing a baby’s heart rate respond to a change in the music playing in the background. This was followed by the suggestion of placing the speaker in a TV handset on the woman’s abdomen as a modified version of vibratory acoustic stimulation (VAS), which has been shown to be useful in altering periods of low reactivity observed when normal fetuses are being monitored (Ohel et al 1986). VAS was recommended as being particularly useful if the woman was fasting in preparation for possible caesarean section. This observation again demonstrates the centrality of context in the responses, with practitioners explicitly noting that this kind of practice was useful in situations where women needed reassurance or wanted routine monitoring to end, but not something they would suggest if they or the woman were concerned about the baby’s wellbeing.

I have long noted that birth practitioners often engage in physiological speculation and many of these respondents did just that. However, there was little consensus in this area: for almost every speculation put forward to explain why one element was relevant, there was a counter-speculation which in turn generated a different or amended theory. Some practitioners feel that the water needs to be cold, while others said they couldn’t see how this would make a difference because coldness wouldn’t be felt by the baby. Other theories included the possibility that cold water may be absorbed more quickly than hot, that it may raise fluid levels and/or blood pressure, trigger an adrenalin surge, influence the release of hormones and/or neurotransmitters that may wake the baby, or that the placebo effect is in play. There is, of course, no law that says it can only be one of these things, but we also, of course, cannot be certain that it is any of them!

If nothing else, the range of arguments that emerged supports the notion that biological plausibility can be claimed for almost any element of a theory; a topic often discussed by those promoting evidence-based practice. This is one reason why it is deemed vital that we carry out studies to determine which factor is the key in such situations, but I think it is important to remember that the studies can’t always tell us why something works and that there is still value in debating theories.

Now what?
There exist a number of different possibilities as to where this kind of exercise can lead us. For some, the exploration of other ideas is the inductive yin to the deductive yang of quantitative research. In other words, exploratory conversations such as the one I’ve described in this article are seen principally as ways of generating knowledge about possibilities which can then be tested more formally in quantitative research. I don’t have a problem with the notion of testing hypotheses in this way, but I would have to say that I am more open to valuing other ways of knowing and alternative forms of knowledge and of themselves and seeing the conversations as having their own potential value, with the caveat that I think discernment, reflection and open-mindedness are vital components of such an approach.

I would claim that this exercise has raised some interesting issues and avenues for reflection and further investigation, which would probably never emerge from a quantitative research study evaluating this single intervention. The concept that arose again and again was the importance of the woman’s individual context: the one thing that gets lost when we rely solely on the results of randomised controlled trials for knowledge about interventions and practices. For this reason alone I am going to conclude by arguing that we need to keep talking about our thoughts and experiences just as much as we need to consider the findings of good quality research.

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References