

The assessment of progress in labour is a complex and multi-faceted issue which raises questions in many different areas. In recent years, midwives and researchers have challenged some of the key assumptions that have been made about the cervix; not least of which the perception that it opens in a unidirectional manner (e.g. Daviss and Johnson 1998, Gaskin 2003, Bowman 2006). I recently summarised a few of these challenges and concluded that, “[a] simple focus on quantification of the cervix is clearly, for so many reasons, neither useful nor appropriate” (Wickham 2009: 41).

Despite these challenges, however, both the assessment of cervical dilation in labour and the documentation or charting of this are deemed key elements of maternity care within the obstetric paradigm. Even in areas where work such as that undertaken by Leah Albers (1999) has led to changes in our expectations of how fast cervixes dilate, the measurement of this still forms an important part of the midwife’s role. This measurement, in turn, is based on a further assumption that some midwives have long understood to be fallacious and yet which has barely been challenged in the literature. The assumption to which I refer is that which equates the concept of full dilatation with the measurement of ten centimetres.

Measuring to Ten

I have often wondered how this assumption originated. Mathematically, the number ten is the base of the decimal numbering system, and it is generally assumed that our preference for this system (and thus our view of the number ten as a nice neat ‘round’ number) arose because humans have ten fingers. Indeed, it was only a couple of decades ago that midwives would measure dilation in fingers rather than centimetres, although it was more common in many areas to perform rectal rather than vaginal examination and so it is difficult to directly compare these different approaches.

Other numbering systems also exist; the duodecimal (base 12) system was one of those used by the Romans, and its influence can still be seen in some forms of imperial measurement (there are, for instance, twelve inches in a foot) and in the Western calendar where there are twelve months in a year. The roots of this kind of measurement might also have played a part in fuelling our modern assumptions. Roman scholars, including Vitruvius (whose name was immortalised in Leonardo da Vinci’s *Vitruvian Man*) were fascinated by the relationships between different proportions of the human body, and a number of older forms of measurement - including the cubit, foot and fathom - derive from body measurements, albeit generally of the male form. Somewhat ironically, da Vinci’s drawing - which depicts an ideal rather than acknowledging the inevitable variations which exist between people of different shapes and sizes - is often used to symbolise Western medicine.

I cannot claim to know for sure whether the assumption that a woman’s cervix is fully dilated at ten centimetres is related to our cultural use of the decimal system, whether this ideal partly derived from the notion of an “ideal” body or whether the truth lies somewhere else. What I do know is that, as you are reading this, midwives all over the world are busily comparing women’s current cervical dilation to the magical number ten.

Acknowledging Variation

I wonder how many of them also think that this is a crazy thing to do?! We know that both women and babies come in different shapes and sizes, and it seems illogical to me to base a whole area of practice on the notion that every woman’s cervix will need to dilate to exactly ten centimetres before her baby can be born. Babies’ head circumferences, the degree of moulding and the shape and diameters of women’s pelvises all vary between individuals. I have looked after women who gave birth to very premature babies who probably only needed their mother’s cervix to be about eight centimetres dilated before they could be born, and I have looked after plenty of women who needed to dilate to eleven, twelve or perhaps more centimetres before their cervix was truly fully dilated. I know I am not the only one; I have been asking other midwives about this over the past few months and many of them have similar experiences.

Even the centile charts that help us assess babies’ head circumferences accept that these fall within a range, so why do we not extend this thinking to accept the fact that “fully” encompasses a range of centimetres rather than assuming that every woman’s cervix is conversant with the history of Western mathematics as well as with the textbooks which dictate ten centimetres as the goal of the labouring cervix? As I will discuss further next month, this issue has significant implications for women’s experiences and midwifery practice...

References

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