

midirs

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Stretching the fabric:

from technocratic normal limits to holistic
midwives' negotiations of normalcy

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The concept of normality in birth is hotly debated, particularly amongst those who see childbirth as a normal life event which does not necessitate routine medical intervention (Davies 2000, Anderson 2003, Page 2003, Sandall 2004, Johnston & Harman 2007, Downe 2008). Many people have added to this debate over the years, for instance Davies (2000) argued that we should dispense with the term 'normal' in relation to birth until the definitions and terminology around this have been fully explored. In this article, I hope to further this discussion by looking at the roots of this concept and contrasting the technocratic approach which underpins modern maternity care practice with the findings of a grounded theory study I carried out exploring the views and knowledge of holistic midwives in relation to the obstetric construct of 'post-term' pregnancy.

Further detail about the methods used in this study can be found in Wickham (2009) but, as a brief introduction, the midwives whose voices (all pseudonyms) can be read herein are all autonomous practitioners attending women who choose to give birth at home; usually outside of the maternity care systems in their country. Many of the women these midwives attend have rejected standard medical norms and guidelines, particularly as they relate to the alleged need for routine intervention at various points. As a result, their midwives are not only more likely than their

colleagues who work in systems of maternity care to experience caring for women beyond the traditional boundary of 'post-term'; they may, because of this, have also experienced greater opportunities to develop their own sense of what constitutes normality. In fact, it became apparent to me early on in this research that these midwives understand normality to be a concept that can only really be defined – as Wagner (1994) suggested - within a specific and individual context. Concurrently, and perhaps partly because of this, the midwives I interviewed have a rather more fluid

concept of what the term 'normal' can mean than is perhaps reflected in current texts, guidance and mainstream practice:

I like to stretch the fabric of what is possible and what is normal. (Anna Andhra)

Anna Andhra's term *stretching the fabric* describes a number of ways in which these midwives' knowledge of post-term pregnancy is very different from the more mainstream view of this area, and the examples of their negotiations of normalcy which form part of this article is merely one example. In turn, the example of post-term pregnancy is simply one area of practice, and I have become aware, particularly since carrying out this study, that there are numerous elements of midwives' and other practitioners viewing of normality which differ from those encoded in what has become known as the technocratic paradigm. Before looking at the midwives' views, though, it is important to look at the ideas held within the technocratic approach and where these came from.

The historical roots of normal

Many of those who have looked at the history of midwifery and how this was relegated by the newer profession of obstetrics refer to the way in which the emerging obstetric profession gave only its own members the power to define normality (Arney 1982, Oakley 1984, Achterberg 1990, Oakley 1993, Murphy-Lawless 1998). This led to a complex chain of arguments and events that still affect the experiences of childbearing women today through the very definition of the concept of normality, because:

'...if 'normal' was the starting point from where deviation took off, and pathology was removed from normal only by degree, then normal was also the beginning of pathology, a potential always there to be activated. It is this set of meanings which came to determine the use of normality as a retrospective concept, one you can only be certain about after the last possibility for a pathological symptom has been eliminated.' (Murphy-Lawless 1998:168)

The way in which the technocratic paradigm defines normality (and I am using the term 'technocratic' where possible because the key issue is that I am referring to a set of ideas rather than to any specific professional group) derives from Enlightenment ideas. It developed in relation to statistical analyses of populations which were, in turn, also related to notions of risk (Hacking 1990, Bernstein 1996). As a consequence, within obstetrics,

'Normality itself became heavily constructed on a discourse of science and maths, and aspects of behaviour that could be seen and measured.' (Edwards 2001:58)

This is still the case today, and many women and midwives will have experienced the effects of this. One huge problem with it is that it leads to a focus (in research as well as in practice) on what can be measured over and above those aspects of life and experience that cannot be quantified. However, there are arguably greater problems, and looking at these entails understanding a little of the history of some of the mathematical and statistical ideas that also emerged from the Enlightenment period.



“ Normality itself became heavily constructed on a discourse of science and maths, and aspects of behaviour that could be seen and measured ”

Penguins, geese and the statistical definition of normal

The statistical definition of normal refers to the distribution of data in a given set or, in human terms, population. For example, we might decide to take a sample of 1000 midwifery students, measure everybody's height and chart the results on a graph. We would be likely to end up with a bell curve, which is the shape that results when an attribute (such as height) is distributed 'normally' throughout a population.

In this sense, normal distribution means that most people fall within the central range of average height, but there will also be some people who are very tall or very short (see figure 1). As an aside, if we drew a chart of gestational length, it would not be normally distributed. Instead, it would be skewed, because the number of women who go into labour several weeks before term is not matched by the number of women who go into labour several weeks after term (see figure 2). An important note is that the bell curve in figure 1 is not better than the more skewed curve in figure 2. In statistical terms, these both simply describe the way that the data naturally exists and there is no value judgement in maths about whether a normal or non-normal distribution is preferable. The value that is placed on the concept of normal, as I will discuss further below, does not originate in the maths. The statistical concept of distribution enables the definition of concepts such as the average (or central tendency). It can also show us the range of the data (for example, all of the students in a group might be between 4'10 and 6'2) and how close a given proportion of the rest of the data set are to the average (Bernstein 1996, Hazard Munro 2005). Within a bell curve, those people whose measurements fall near the middle may be seen as average, while those whose measurements place them near the outer edges (because they are very tall or very short) are sometimes described as outliers. An important note at this point is that, in any charting of an attribute such as height, someone is always going to be an outlier. This is simply because, like when geese fly or penguins huddle together in the snow for warmth, someone always has to be on the outside.

Mathematically, being an outlier means nothing more than that your height (or weight or length of pregnancy) puts you on or near the edge of the data set in relation to the wider population. Again, there is nothing in mathematical theory that judges this as good, bad, acceptable or problematic. As far as maths is concerned, you are just near the edge rather than in the middle. Society might judge outliers in a different way, though. For instance, people who are outliers on the bell curve of running speed tend to get gold medals as a reward, but this is something a culture has imposed upon the implications of being an outlier, and it doesn't have anything to do with being an outlier itself.

Figure 1

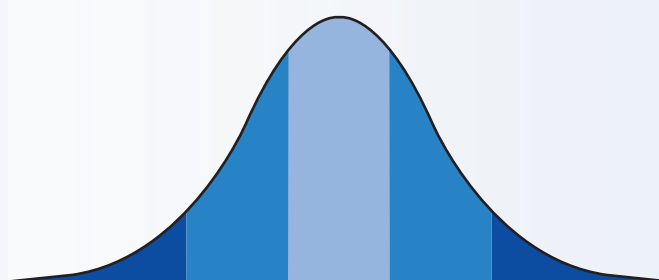
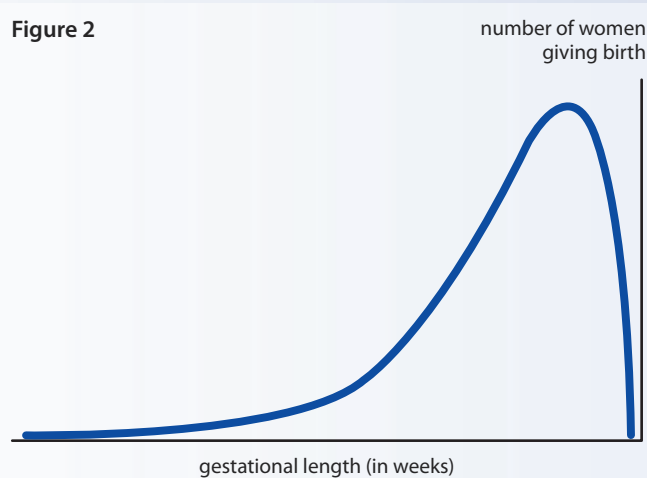


Figure 2



Equally, nothing mathematical can be said about how the relationship between the average and an outlier relates to the notion of risk. Yet Western medicine has taken these statistical concepts and created what we might describe as 'bounded spaces' within which aspects of the process of childbirth are deemed to be progressing adequately, and outside of which some form of manipulation of the process is deemed necessary (Murphy-Lawless 1998). These bounded spaces are sometimes referred to as 'normal limits', and Archie Cochrane offered an insight into the origins of this phrase during the time in which the concept of evidence-based medicine took shape, further highlighting the lack of mathematical basis for the use of this concept in health care.

'There was considerable pressure, conscious and unconscious, to provide the physicians with a simple rule to tell them what this [new statistical knowledge] all meant and someone (I have been unable to discover who it was) introduced the concept of 'normal limits' and defined them as lying within plus or minus two standard deviations from the mean. Theoretically there is nothing to support this idea. It is merely the statement of an assumption that five per cent of the population when described quantitatively by any test are abnormal.'

It also assumes that deviations from the mean in either direction are equally important and that doctors should take action if the results fall outside these limits, to say nothing of assuming that standard deviations are meaningful when calculated on very skew diagrams, and the very oddly selected populations on which the calculations are based.” (Cochrane 1972:41)

Labelling the boundaries of normality

Western medicine holds great power over the construction and labelling of diseases and conditions (Gouldner 1964, Freidson 1970, Aronowitz 2008). In combination with the concept of normal limits, this enables the creation of boundaries and spaces which allow women to be labelled and processed according to risk and pathology, and I have previously described this using the term ‘obstetric spacetime’ (Wickham 2009). Although the exact location of these boundaries and spaces can be fluid – for instance, they may be located differently in different eras, or areas, for different practitioners, or in relation to factors such as local guidelines - they form norms against which the results of the monitoring of women’s and babies’ matter are considered. So, if a woman’s blood pressure, or post-birth blood loss or length of labour goes above (or, in some cases, below) a certain point, intervention may be recommended, and much of what we do as midwives is related to the application of these limits.

In some cases, it is only one end of the spectrum that is seen as problematic. Most people wouldn’t worry about a woman who lost 50ml of blood during the birth of her placenta, while we might all agree that we would worry about a woman who lost 2000ml. In other areas, gestational length for example, women who are outliers on both ends of the spectrum are (rightly or wrongly) seen as concerning. Unlike in some fields, however, where at least one end of the spectrum is privileged and outliers are awarded Olympic medals, FA Cups and Nobel Prizes, being an outlier is rarely (if ever) seen as a positive thing within maternity care. The best that can be achieved in relation to technocratic definitions of normality is the label of low risk (note: not no-risk) or within normal limits.

Post-term pregnancy: midwives’ negotiations of normalcy

I also pay quite a good attention to whether their cycles tend to be long or short. When they tend to be long then I

“...like when geese fly or penguins huddle together in the snow for warmth, someone always has to be on the outside”



expect a longer pregnancy. If women say, ‘well I bleed every 35 days’ then, you know, I have a pretty, pretty good idea that she might go past the expected date of birth without problems at all. Also women who have shorter periods may have short pregnancies in general, I see that. (Anna Andhra)

In contrast to the approach described above, the midwives who I interviewed about the construct of post-term pregnancy are looking at normal in a far more holistic way. As I will discuss further below, they are not just unidirectionally deciding that all women who have longer-than-average pregnancies are normal because they dislike the technocratic approach; they are taking a more fluid approach in their practice generally. Rather than applying the fixed temporal boundary of normal limits on a population level and funnelling women towards induction of labour and/or obstetric monitoring at a particular gestational point, the midwives instead negotiate normalcy with the women they attend.

The use of the word negotiate here is intended to convey the emphasis that the midwives place on women’s agency and being in relationship with women (Wickham 2010). The midwives do not seek to impose definitions or labels upon the



women; instead, they prioritise working towards reaching mutual agreement about situations without either party feeling that they are being persuaded by the other. I am also using the term normalcy (as opposed to normality) in a very specific way here. In contrast to the technocratic approach which looks for pathology and/or risk, these midwives are clear that they are looking for normalcy. Again, this does not mean that they are ignoring the not-normal (in fact, not only is their assessment of normalcy more nuanced than that used elsewhere; their assessment of situations that are not-normal is equally detailed). It means that, instead of viewing birth as inherently risky, these midwives see birth as normal until they find evidence that this is not the case.

'Normal for her..'

The first (and most frequently discussed) example of negotiated normalcy could be described as *normal for her* and it exists where the midwives look at the idea of normalcy in relation to the woman's individual and social context rather than solely in relation to the notion of the population norm. This entails a focus on finding out (over time and through relationship) what is normal for each woman.

I ask the woman what the length of her cycle is, and whether it's normal or not 'cause I think what's normal for her, that's really, really important. (SilverBirch)

As far as negotiations around post-term are concerned, the knowledge that a woman's mother and grandmother had longer-than-average pregnancies, or that the woman herself gave birth at 42 or 43 weeks in previous pregnancies means that the midwives may view a longer-than-population-average pregnancy as entirely normal, expected and/or unsurprising within the woman's individual context. In fact, this notion appears to be so embedded in the ways that these midwives know and speak that they sometimes expressed surprise when a particular woman's experience came closer to the population norm than to their (and the woman's) pre-existing view of what was normal for her.

I can remember a woman that I worked with for all six of her babies and they were all several weeks past when her time was that she could have had the baby. Except for one who was only like three weeks [past the beginning of her due month, making him 41 weeks' gestation at birth], and we called him the preemie. (Xena)

'Normal under the circumstances..'

The second example of negotiated normalcy is *normal under the circumstances*. This notion involves the use of physical or emotional reference points which are generally not present at the beginning of pregnancy, making it different from *normal for her*, which tends to describe pre-existing individual factors. Examples include situations where a woman has experienced

something during pregnancy which the midwife feels is more likely to lead to her taking longer (than average) to go into labour but sees this as a variation on the norm rather than something that is risky and/or pathological.

I've certainly seen labour postponed by stress, rough jagged relationships, fear or a family tragedy, definitely by lack of sex! (Amy)

Other examples given of situations that might be deemed risky and/or pathological within obstetric spacetime, but which these midwives perceive as *normal under the circumstances*, included situations where a woman's partner or other relative had become ill or gone away and the woman did not go into labour until all was well again. Despite the fact that 42 weeks had passed, and while they kept a close eye on the woman and baby's well-being, the midwives saw this as *normal under the circumstances*. In another example, somebody who was perceived as not conducive to labour had arrived and the woman's labour had stopped for several hours, resuming again when the other party left. By arguing that social, environmental and other factors can affect the onset and progress of labour, these midwives are challenging some of the key tenets of Enlightenment science and technocratic knowledge, not least of which is the viewing of women's bodies as potentially faulty machines. Their emphasis is on connection and context and, within their approach, normalcy is assessed relative to the individual context rather than solely the population average.

The 'not-normal'..

This does not mean that the midwives do not allow for the defining of situations as 'not normal'. However, in contrast to the population-level use of the technocratic boundary of normal limits, they are developing more nuanced and tentative ways of speaking about the not-normal which acknowledge the partial, contested, fractured and relative aspects of this. These, for example, include *not normal for her*, which contrasts with *normal for her* and shows how this notion is used to enable the midwives to detect problems as well as determine normality in a woman-centred and relativistic manner. By contrast to the boundary of normal limits, this uses the woman's individual context as the primary reference point and relegates the population average to one of the many 'pieces of the jigsaw' (Kate).

[If a woman's pregnancy lasts for 44 weeks then] I wanna know why it's that long, that seems really long, unless her cycles are really long then that seems more normal. But if her cycles are 28 days and she's 44 weeks then I need to figure out what's the deal here... (Judy)

One element of the not-normal as defined by the midwives is *within normal limits according to obstetric spacetime but not OK by us*. As above, this illustrates that the midwives' stretching of

the fabric of obstetric spacetime is not merely unidirectional in favour of renaming some of the situations that are defined as pathological within the obstetric worldview as normal.

... so she wasn't actually that post termy pregnant, she would only have been about 41 weeks by then. The Thursday was well within the normal range, it was just I didn't think it was normal for her. (Sally)

The midwives also cited occasional but significant examples of situations where they and a woman decided that, even though the physiological aspects of the woman's experience were within normal obstetric limits, there was still a problem that warranted attention. Some of the midwives described having to fight for a woman who was defined as being *within normal limits* according to obstetric spacetime to have some kind of medical or surgical intervention because both they and the woman believed that the situation was potentially risky or pathological and *not normal for her*. In many of these stories, the midwife and woman turned out to be right and their actions were justified, although it is important to note that this is a complex area which needs more systematic exploration.

Challenging the norms

Overall, these midwives' stretching the fabric of obstetric spacetime in their efforts to help women have what they see as a more appropriate, individualised and caring experience of birth is complex, multi-layered and nuanced. Their approach is fundamentally different to the technocratic approach, which justifies its management of the birth process via the two-stage argument that (a) birthing bodies are physical, risk-laden machines (Oakley 1980, 1984, 1993, Murphy-Lawless 1998) and (b) its methods provide the most certain route to risk reduction (Arney 1982, Oakley 1984, Oakley 1993, Murphy-Lawless 1998).

As I argued above, we have somehow ended up in a situation wherein the women whose measurements render them the mathematical outliers in a given area are deemed to be at greater risk than the women who are more 'average'. The states of being an outlier and being at risk, however, are not synonymous in other fields and there is no mathematical support for the notion that being an outlier is automatically risky or pathological. Despite a lack of evidence supporting the use of a universal outlier/risk correlation within the context of childbirth (Murphy-Lawless 1998), however, this spurious association is firmly rooted in technocratic epistemological frameworks. It directly influences the practice of almost everybody who attends childbearing women, because the ongoing measurement of women is deemed a key task within systems of maternity care. A plethora of measurements are taken throughout the childbearing period in order to locate the outliers; to identify individuals whose measurements fall outside of normal limits and are therefore (within the logic of the technocratic paradigm) deemed to be at risk.

This impacts upon women in several ways. Not only are women told they are at risk by professionals, which can create anxiety and 'spoil' their experience (Rothman 2001:180); they may also find themselves exhorted to accept intervention by their family and friends on the basis that this is the safest option for the woman and/or baby (Wickham 2006). The definition of the boundary of normal limits that was offered by somebody whose name Archie Cochrane (1972) couldn't recall as one of a number of tools for use within the then emergent field of evidence-based practice has somehow become widely accepted as the boundary between safety and danger. So not only has the technocratic approach somehow conflated the concepts of risk and pathology within maternity care, it has also conflated the concepts of safety and central tendency; an issue that many of those writing on normality and mentioned at the beginning of this article have challenged.

It has also, as above, made a fallacious correlation between being an outlier and being at risk. While there are some scenarios where a rough correlation could be made between the two (eg volume of blood lost during birth), this is by no means a universal given and in many areas the relationship is either less clear-cut or arguably non-existent. Despite the fact that the existence of a few loose correlations within complex and multi-factorial scenarios does not constitute evidence for a general rule, the technocratic paradigm has quantified a significant number of aspects of childbirth, which it then seeks to monitor and measure in women before comparing each individual with the population norm. The adoption of the concept of normal limits into the wider framework of evidence-based practice also seems to have occurred in the absence of any discussion about the fact that there exist different types of measurement which need to be treated differently from each other.

The midwives in my study were not only concerned about the women who experience unnecessary intervention because they are mathematical outliers within the context of obstetric spacetime. They were also concerned about the women who are deemed adequate-for-now according to obstetric spacetime but who are experiencing problems when assessed in relation to their own individual context. Despite the fact that technocratic predictions of risk are consistently found to be unreliable (Reynolds *et al* 1988, Low *et al* 1995, Murphy-Lawless 1998, Fleming 2006), we face ever more complicated attempts at predictive tools which continue to consider women and their matter primarily in relation to the boundary of normal limits (Whapshott 2007, Than *et al* 2008). Should we be concerned that the technocratic paradigm's continued reliance on a crude, illogical, universally-applied boundary of normal limits is preventing the development of more contextually-focused knowledge?

While some texts acknowledge the '*medical retreat into time-limited technical competence and the delegation (or neglect) of*



caring' (Cox 2008: 812), writers often lament our current lack of understanding about how things could be different (Cox 2008, Kleinman 2008). The midwives cited here provide an example of some of the possibilities. They are stretching the fabric of obstetric spacetime, initially by viewing birth as an ongoing journey within the wider temporality of each woman's life (Wickham 2010). Having unpacked some of the problems with the obstetric approach's ways of measuring the length of pregnancy (Wickham 2009), they then go on to describe the way in which they look at each woman within her own context, which includes finding out about many elements that may help them determine what is normal for her as an individual. The midwives know that women's bodies do not necessarily birth according to Enlightenment time, atomic time or obstetric spacetime, but instead to their own rhythms. While we need to move away from fragmented and centralised care in order to make such approaches a reality for more women and midwives, I believe that these findings offer a positive message of hope, and that we can take heart in the fact that there are women and midwives out there who continue to challenge the norms and stretch the fabric in an effort to find ways of negotiating normalcy which better serve women and babies.

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