

In *The Structure of Scientific Revolutions*, Thomas Kuhn describes how scientific revolutions occur. Kuhn argues that the history of science is not a straightforward accumulation of facts. Rather, science is a road with many twists and turns.

Scientific revolutions happen when there is a change in the dominant paradigm—a phenomenon he called “the paradigm shift.” The work of normal science is to seek and create a model that will account for as many observations as possible within a coherent framework. Change starts when scientists observe anomalies—things that do not fit within the prevailing paradigm. As these anomalies accumulate, some will be labeled as errors, some will make small changes to the existing paradigm, and some will lead to revolution.

Revolution often begins with bold individuals who challenge long-held assumptions. These bold ones may develop a rival framework that the establishment initially rejects because, being a new theory, it will have many conceptual holes. But others may be intrigued by the new theory and work to develop it. For awhile, the two paradigms may exist side-by-side. As the new paradigm matures and becomes more unified, it may eventually replace the old paradigm. In short, shift happens.

A paradigm shift is actually a change in world view. The new paradigm does not just extend the old. Rather, it changes the way terminology is defined, how scientists view the subject, and what questions are regarded as valid. All of the textbooks have to be rewritten after a paradigm shift. Scientists will seek to encompass and explain all unexplained phenomenon within the new framework.

Kuhn’s theory is quite relevant to our work as lactation consultants. This theory is especially relevant for clinicians because paradigm shifts often start in the field—not the lab. This happens when astute clinicians notice something that cannot be accounted for by the prevailing paradigm. It may be several years until this initial observation develops into a coherent alternative theory. But we should never discount the importance of those “ah-ha” moments in the development of a

scientific paradigm—which is why clinical work is so important to this process.

The above discussion also provides context for understanding the term “evidence based.” Some people I’ve spoken with think that evidence-based means, basically, tacking references on the back of an article. Does doing that make an article evidence-based? References are certainly good, but what if it’s an idea that is outside the prevailing paradigm? There may not be any references. Does this mean we uncritically accept all new ideas? No. But should we shut ourselves off from all new ideas? Also no. For if we fail to consider new ways of doing things, we will cease to grow as a field. We need to recognize that an interesting idea or conjecture, even with no references, can lead to a whole new line of evidence and is an important part of the overall process of developing an evidence base.

So with that in mind, I present four new articles (all with references) in our first issue of *Clinical Lactation*. I hope these articles will start some interesting discussions and help us think through some of our assumptions. I believe we are on the precipice of a major paradigm shift in the lactation field. Will this shifting paradigm follow some neat linear path? Probably not. But it will be exciting to be a part of it. In the meantime, I hope these articles will give you some tools to help you in your work.

Thanks for all you do for mothers and babies. And please let me know what you think. You can reach me via our *Clinical Lactation* Facebook page, or you can email me directly.

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