Practice and progress in obstetrics

Anjali J Kaimal

Department of Obstetrics and Gynecology, Massachusetts General Hospital, Boston, Massachusetts, USA

Correspondence to: Dr Anjali J Kaimal, Maternal–Fetal Medicine Division, Department of Obstetrics and Gynecology, Massachusetts General Hospital, 55 Fruit Street, Boston, MA 02118, USA; akaimal@partners.org


Context

The expectation that one will become ‘older and wiser’ in parallel is intuitive and comforting. In the world of medicine, this adage fits well with our experiences: we are taught by those who have come before us. Over time, we become the teachers in a tradition of apprenticeship that assumes that more time as a physician makes you better in a process that occurs incrementally, day by day and patient by patient, but is much more easily recognised in aggregate, year by year.

While the learning curve is easier to quantify in the early portion of medical training, when the focus is on the acquisition of technical skills as well as clinical judgement, the nuances of how and when expertise continues to accumulate in the years that follow is less defined. The relationship between experience and quality of care is even less clear, but this study adds important insight.

Methods

Epstein and colleagues use discharge data from Florida and New York, as well as residency information from the American Medical Association, to perform a retrospective cohort analysis examining the relationship between years of postresidency experience and maternal obstetric complications. Within the limitations of administrative data, the authors account for many of the challenging aspects of examining obstetric complications over time: delivery volume, patient mix, provider attrition, caesarean rate and secular trends.

Findings

On the basis of their definition of maternal complications, which included: haemorrhage, laceration, infection, and thrombotic complications, the authors found an adjusted complication rate of 15% in the first year following residency, which is within the range of what has been observed in previous large-scale studies using discharge data and a consistent downward trend in complications that was steepest in the first decade, but continued throughout the first three decades of practice. The trend was robust to a variety of different analytic techniques and subgroup analyses. The authors propose that with more time in practice, clinical decision-making improves, such that the ability to determine who is likely to achieve vaginal delivery and who would be best served by caesarean increases, thereby reducing the complications associated with both procedures.

Commentary

Translating the finding that ‘experience matters’ into practice is challenging in this era of residency work hour restrictions, increasing interest in reduced work hours for attending physicians, the rise of the labourist model and simultaneously, the increasing emphasis on publicly available quality measures and on-going professional practice evaluation. The authors are careful to warn against the conclusion that all patients should be delivered by the most experienced providers, as this is unsustainable. A more meaningful, yet perplexing task the authors identify is to understand how experience promotes quality, with the hope of accelerating it. Simulation has been shown to improve resident response to specific situations, such as rare obstetric emergencies; could the more amorphous and incremental process of clinical assessment and decision-making during labour be improved through simulation? Acknowledging the factors that compel practitioners to limit their scope and volume of practice, is there a way to more effectively transfer the clinical acumen of experienced obstetricians, so that those in the first 10 years of practice, who performed 43% of the deliveries in this study, can emulate the care of those in practice for more than 20 years, who accounted for 19.6% of deliveries? Finally, in an era in which obstetric care is primarily team-oriented and quality assessment focuses on team models, are there ways that care teams should be structured to capitalise on the skills, experience and career goals of all members, both junior and senior?

Data available to the investigators in this study had some limitations. For example, an issue that is not addressed is the conceptual difficulty of assigning responsibility for a complication to a single physician; in this case, the delivering obstetrician. It is increasingly rare that one obstetrician solely cares for a patient prenatally, throughout her labour course and for her delivery. While the study focuses on complications related to delivery events, many of these may at least, in part, result from the decisions leading up to delivery—decisions which the delivering physician may or may not have made.

The obstetric workforce has changed significantly in the past 30 years and the next 30 years is certain to bring additional innovations. Faced with evidence that reinforces our expectation that practice makes progress, the next step is to determine the best ways for us to ‘practice’ as we strive to reduce complications, improve quality and patient experience, maximise professional longevity and enhance both patient and provider satisfaction in obstetrics.

Competing interests None.

References