The Journal of Obstetrics and Gynaecology

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Journal of Obstetrics and Gynaecology

ISSN: (Print) (Online) Journal homepage: informahealthcare.com/journals/ijog20

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To cite this article: Oguljemal Redjepova & Ashwini Bilagi (2024) At any cost: a paradigm shift in the culture of caesarean section rate monitoring in the United Kingdom, Journal of Obstetrics and Gynaecology, 44:1, 2320840, DOI: 10.1080/01443615.2024.2320840

To link to this article: https://doi.org/10.1080/01443615.2024.2320840

Published online: 09 Apr 2024.

JOURNAL OF OBSTETRICS AND GYNAECOLOGY
2024, VOL. 44, NO. 1, 2320840
https://doi.org/10.1080/01443615.2024.2320840

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DISCUSSION

At any cost: a paradigm shift in the culture of caesarean section rate monitoring in the United Kingdom

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ABSTRACT

Recent reviews into maternity safety in the United Kingdom (UK) have led to a paradigm shift in culture and policy around caesarean section (CS) rate monitoring. CS rates in the UK have risen considerably over the last few decades and, in this time, there has been national effort at the level of government to kerb such rises due to concerns about the associated morbidity, and the medicalisation of birth. However, recent findings from two landmark reviews raise concerns that the pursuit of low CS rates may have caused harm to patients in some instances, and this has led the UK government to recommend cessation of the use of total CS rates as performance metric for maternity services. Instead, it is proposed that such data be collected with use of the Robson classification. Ongoing appraisal of maternity safety will be required to evaluate the effect of these changes in future.

KEYWORDS

Caesarean section; rate; Ockenden; maternity safety; Robson classification

Introduction

In March 2022, a landmark review into maternity services at a United Kingdom (UK) National Health Service (NHS) Trust was published (Department of Health & Social Care, 2022). Led by midwife Donna Ockenden, it identified inadequacies in clinical care, and failures in acting on adverse incidents. Unparalleled in scale and impact, involving almost 1500 families, it recommended national implementation of actions in areas such as clinical governance, escalation of concerns, training, staffing, and clinical care.

One finding was a low proportion of births by caesarean section (CS) compared to national averages, for which the trust was applauded. It suggested, however, that some women and babies may have been harmed by a desire for low CS rates (Department of Health & Social Care, 2022). Similar themes were reported in another large review at a different Trust in 2015, describing pursuit of 'normal childbirth at any cost' (Kirkup, 2015). The Ockenden review noted Trusts are penalised for high CS rates, and recommended that CS rate should no longer be used as a performance measure (Department of Health & Social Care, 2022). In response, a report by the House of Commons Health and Social Care Committee (HSCC) (2021) on the Safety of Maternity Services in England, recommended 'immediate end to the use of total caesarean section percentages as a metric for maternity services'. Being accepted by the Secretary of State for Health and Social Care (2021), Trusts were instructed to stop using CS rates as a performance measure (Wilkinson, 2022).

But why were hospitals monitoring CS rates, and why have rising rates been seen as an issue? This article explores the background to CS rate monitoring, and the impact that culture and policy changes may have in future.

Discussion

Background to caesarean section rate monitoring

CS can be a lifesaving procedure, with numerous indications. However, concerns about rising CS rates arise from the associated morbidity, including infection, thrombosis, haemorrhage, abnormal placentation and uterine rupture in future pregnancy, and neonatal respiratory distress (Baldwin *et al.* 2010).

In 1985, the World Health Organisation (WHO) asserted that CS rates above 10–15% are not associated with additional benefits in maternal or neonatal outcomes (Marshall *et al.* 2015). A 2016 study involving 159 countries demonstrated that with CS rates below 10%, there are reductions in maternal and neonatal mortality associated with increases in CS rate, but no further reductions above rates of 10% (Ye *et al.* 2016). Another 2021 study showed substantial differences in access to CS across the world (Betran *et al.* 2021), with rates of 8% in the least developed countries, but over 50% elsewhere, showing there is unmet need for access to CS in some countries, but possible overuse in others.

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In England, only 3% of births were by CS in the 1950s, rising to 9% by 1980, and over 20% by 2000 (House of Commons Health Committee, 2003). Statistics from the England Maternity Services Data Set (NHS Digital, 2023), offer insights into the CS rate before and after the 2021 HSCC report. Between December 2018 and May 2019, average CS rates were 29.3%, and the instrumental delivery rate 10.7%. Whereas between December 2022 and May 2023, average CS rates were 38.7%, with the instrumental delivery rate unchanged at 10.2%.

Attitudes in the United Kingdom

In 2000, the UK National Sentinel Caesarean Section Audit was commissioned to examine CS rates across the country (House of Commons Health Committee, 2003). Increased CS rates were postulated to be due to electronic foetal monitoring use and earlier identification of complications, increased safety of CS, changes in age of obstetric populations, and maternal choice. In 2007, the NHS 'Focus on Normal Birth and Reducing Caesarean section Rates Rapid Improvement Programme' was introduced (Baldwin *et al.* 2010). The project examined maternity services at nine units identified as having CS rates in the upper and lower quartiles of national averages, with satisfactory perinatal outcomes. The programme developed was a framework of institutional characteristics of units with low CS rates, and a toolkit for managing first pregnancy and labour, achieving vaginal birth after CS, and managing elective CS. Subsequent evaluation of the programme demonstrated average CS rates reduced by only 0.5% (Marshall *et al.* 2015).

Additionally, there was scrutiny of the financing of healthcare services. A memorandum in the Health Committee Written Evidence 2010 by the National Childbirth Trust, a prominent UK charity, described the system for higher payments to Trusts undertaking more interventions as a perverse incentive towards intervention. They recommended a system with a single price for birth, to incentivise less intervention, and promote increased normal birth rates (House of Commons Health Committee, 2010). Considering how this is now regarded, an account in the HSCC report describes an Obstetrician feeling a conflict between her desire to allow women to choose CS, and knowing that her directorate would be penalised for doing this. She suggested a more informative way examine CS rates would be use of the Robson classification (House of Commons Health and Social Care Committee, 2021). This idea was supported by the Secretary of State for Health and Social Care (2021), to 'measure caesarean section rates more intelligently'.

Response to the recommendations and use of the Robson classification

The move away from CS rate as a performance measure was welcomed by the Royal College of Midwives and the Royal College of Obstetricians and Gynaecologists (Wilkinson, 2022). However, a 2022 paper considered this was mistranslated in the media to convey that lower maternal and perinatal deaths will be achieved with higher CS rates, citing a lack of evidence for this assertion (de Jonge *et al.* 2022).

The aforementioned proposition supported by the UK Secretary of State for Health and Social Care (2021), however, is to use the Robson classification in collecting data on CS rates for quality improvement purposes. This classification categorises deliveries into one of ten mutually exclusive but totally inclusive groups based on five obstetric parameters: parity, gestational age, singleton or multiple pregnancy, foetal presentation, and onset of labour. It was proposed in 2015 by the WHO to examine how these groups contribute to CS rates, and evaluate quality improvement strategies to optimise use of CS (Vogel *et al.* 2015).

There is, however, a paucity of evidence regarding the use of the Robson classification in the UK, and no robust evidence upon which to assert that using the Robson classification will improve maternity safety, and it may be argued that continued collection and reporting of CS rate data albeit with categorisation according to the Robson classification may risk the same harms described in the reports by Okenden and Kirkup. This concern is echoed in a letter to editor commenting on an article reporting the application of the Robson classification in a large European study, where the authors describe the detriment of using such data out of context, making reference to the findings of the Okenden report (Emms *et al.* 2021).

Conclusion

CS rates are rising around the world, but the contributory factors, and the impacts on maternal and neonatal health, are complex and vary widely. In the UK, national action to kerb rising rates is now replaced with a culture of maternity safety which discourages the simple pursuit of low CS rates due to concerns that this paradigm has caused harm in some cases. The proposed use of the Robson classification is hoped to provide a more informative dataset both nationally and at hospital level. Ongoing appraisal of maternity safety will be required to evaluate the effect of these changes on outcomes for women and babies in the years to come.

Ethics approval

Ethics approval was not required for this discursive article which includes no patient data

Authors' contributions

OR and AB conceived the idea for the article. OR wrote the manuscript, with revisions provided by AB. Both authors approved the final version of the manuscript to be published.

Funding

No funding was received in undertaking this study

Data availability statement

Data sharing is not applicable to this article as no new data were created or analysed in this study.

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