

Inequalities in Access to Obstetric Analgesia in the United Kingdom: A Systematic Literature Review

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Introduction

Childbirth is often the most intense pain a woman may experience, yet access to pharmacological obstetric analgesia in the UK remains a challenge. Social factors, National Health Service (NHS) strain, and lack of patient awareness contribute to lower anaesthesia use compared to other high-income countries. Recent reports highlight inadequate pain relief and discrimination against women of deprived and ethnic minority backgrounds. Unequal access contributes to poor maternal and neonatal outcomes and reflects NHS-wide failures. Research from countries like the US is often not applicable to the UK due to differences in healthcare systems and population demographics. This review is the first to look at inequality in access to obstetric analgesia in the UK.

Objective

To systematically review the extent of inequality in access to obstetric analgesia, contributing factors, and maternal care experiences in the UK.

Specified Criteria	Inclusion Criteria
Population and Context	- Women giving birth or undergoing Caesarean section in the United Kingdom - Must include demographic data (e.g., deprivation, ethnicity, education)
Outcomes	Identify or discuss inequalities (or factors contributing to inequalities) in access/availability/use of obstetric analgesia during vaginal delivery or Caesarean for women of different social backgrounds
Study Types	Cross-sectional, case study, prospective and cohort studies
Publication Date	January 2000 – October 2024
Language	English

Table 1. Inclusion Criteria

References:

- Bamber, J. H., Goldacre, R., Lucas, D. N., Quasim, S. & Knight, M. A national cohort study to investigate the association between ethnicity and the provision of care in obstetric anaesthesia in England between 2011 and 2021. *Anaesthesia* 78, 820–829 (2023).
- Holliday, L. et al. Socio-economic disadvantage and utilisation of labour epidural analgesia in Scotland: a population-based study†. *Anaesthesia* 79, 473–485 (2024).
- Henderson, J., Gao, H. & Redshaw, M. Experiencing maternity care: The care received and perceptions of women from different ethnic groups. *BMC Pregnancy Childbirth* 13, (2013).

Methods

- Medline, Embase, and Cochrane Library were systematically searched on October 31, 2024. After screening 1,401 articles, three studies¹⁻³ met inclusion criteria (Figure 1, Table 1).
- Included studies used observational designs, with two from England and one from Scotland, covering 6.6 million childbirth episodes and 20,633 survey responses.
- Data were extracted using a proforma and synthesised via narrative analysis.

Results

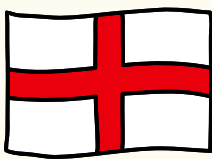
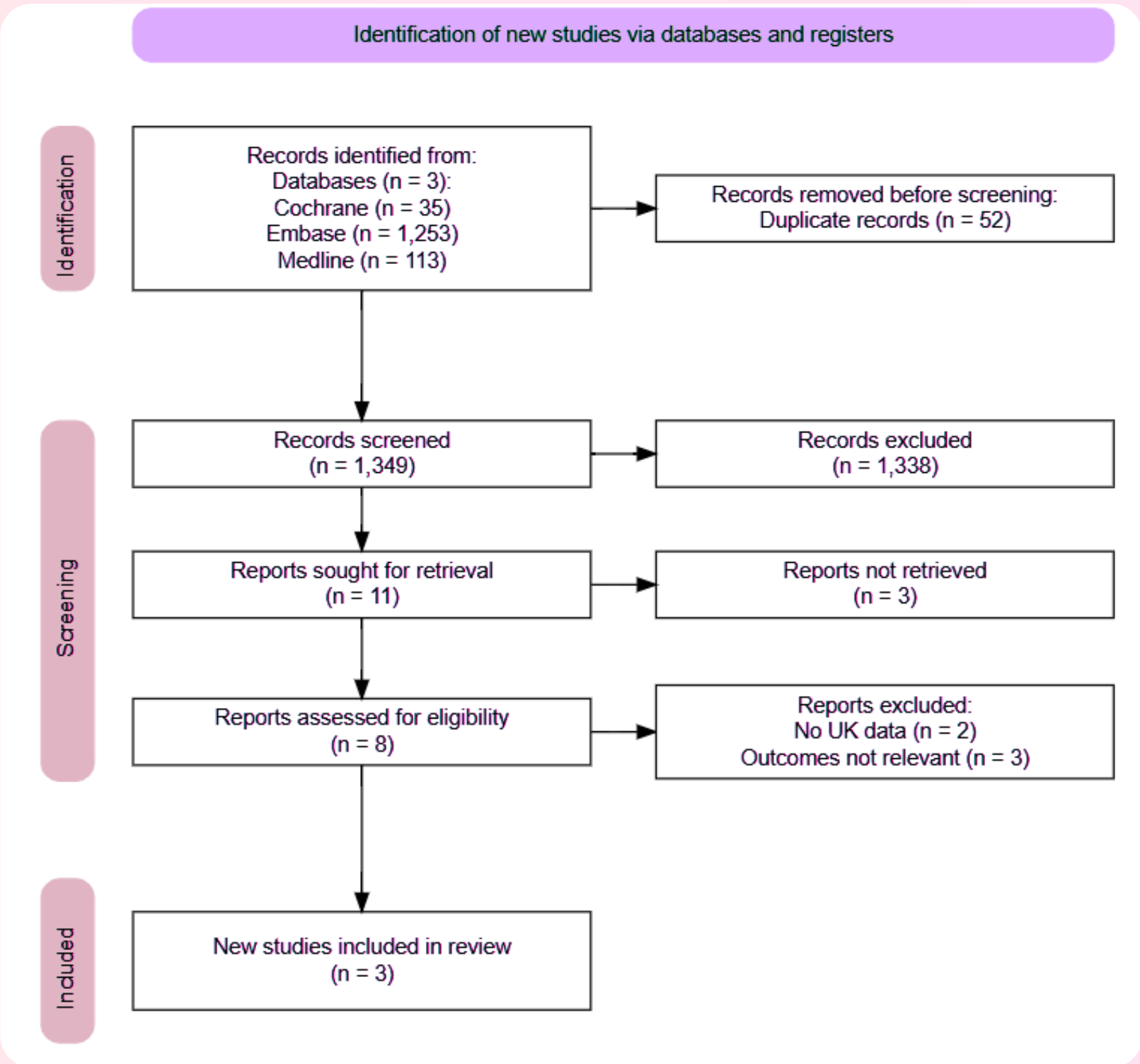
Theme & Country	 England	 Scotland
Patient Experience	Compared to White British women, ethnic minority women: - Engaged less and later with antenatal care - Were less likely to receive analgesia - Rated care and staff communication lower - Felt less involved, understood, and respected, and had less trust in staff	(No data - survey conducted in England only)
Socioeconomic Status (SES)	- Ethnic minority women were more likely to be deprived - SES was linked to lower epidural (non-assisted vaginal) and higher general anaesthetic use (caesarean) in Black women	- Black women were more likely to be deprived - Epidural use fell 2% for each increase in deprivation decile - Deprived women were least likely to receive an epidural, even when medically indicated vs least deprived women without medical need. - Women of deprived and non-white background were least likely to receive epidural, despite 24-hour analgesic access
Ethnicity	- Black and Asian women were less likely to receive neuraxial and general anaesthesia - Black British women had a 40% lower incidence for assisted vaginal birth compared to White British women	- Women of non-white and deprived background were more likely to receive epidural - However, ethnic minority women had a notably lower use of epidural compared to White Scottish women within the same deprivation decile

Figure 1. PRISMA Flowchart



Contributing Factors

Personal preferences and cultural factors alone cannot explain why women from minority ethnic and deprived backgrounds are less likely to receive obstetric analgesia, even when medically indicated and with 24-hour access to resources.

Disparities may reflect institutional biases towards women of deprived and minority ethnic background at 3 levels:

Patient:
information access,
misinformation,
education and
language barriers

Provider:
personal biases,
differential
assessment of pain,
negative attitude

Institutional:
birth location,
resources available
(e.g. interpreter, 24h
analgesia access)

Strategies to tackle disparities include:

- expanding interpretation & health literacy, patient education programmes
- early pain management discussions,
- non-engagement as a point of intervention - i.e. making every healthcare interaction count to support at-risk women.

Limitations

- No Northern Irish or Welsh data
- Coding errors in NHS data
- Recall and non-response bias in the survey study
- Survey did not include SES

Conclusion

Ethnicity and deprivation affect access to obstetric analgesia and maternal care experiences and the effect compoundst when women are from both demographics, even with a medical indication or 24-hour analgesic access. Future research should further explore underlying causes from all four UK nations.

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