

Rethinking Ethnicity-Based Growth Scans: Do They Address Disparities in Perinatal Outcomes?

A Mixed Methods Study

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Introduction

Ethnic inequalities in maternal and perinatal outcomes, such as stillbirth, are well established, with Black babies facing over double the stillbirth rates of White babies (1).

Despite a 20% reduction in overall stillbirth rates from initiatives like NHS England’s Saving Babies Lives care bundle, disparities persist (2).

This study examines whether additional third-trimester growth scans for low-risk Black and Asian (BA) women:

- 1. Improves perinatal outcomes e.g. stillbirth, low birth weight
- 2. Assesses the acceptability of ethnicity-based interventions

Methods

This 12-month retrospective cohort study at a single UK tertiary maternity centre evaluated outcomes of additional third-trimester growth scans for low-risk BA women from April 2022 to April 2023.

Quantitative component:

Data on birth outcomes were collected from BA women (n=1,582) during the intervention year, with 260 classified as low-risk and receiving additional scans. Women with comorbidities were excluded. Outcomes were compared to a matched historical control group (n=1,791) from the previous year. Statistical analysis was performed using IBM SPSS Statistics v26.

Qualitative component:

A survey distributed postnatally assessed acceptability of the intervention (n=47). Responses were analysed using thematic analysis.

Results

Quantitative results:

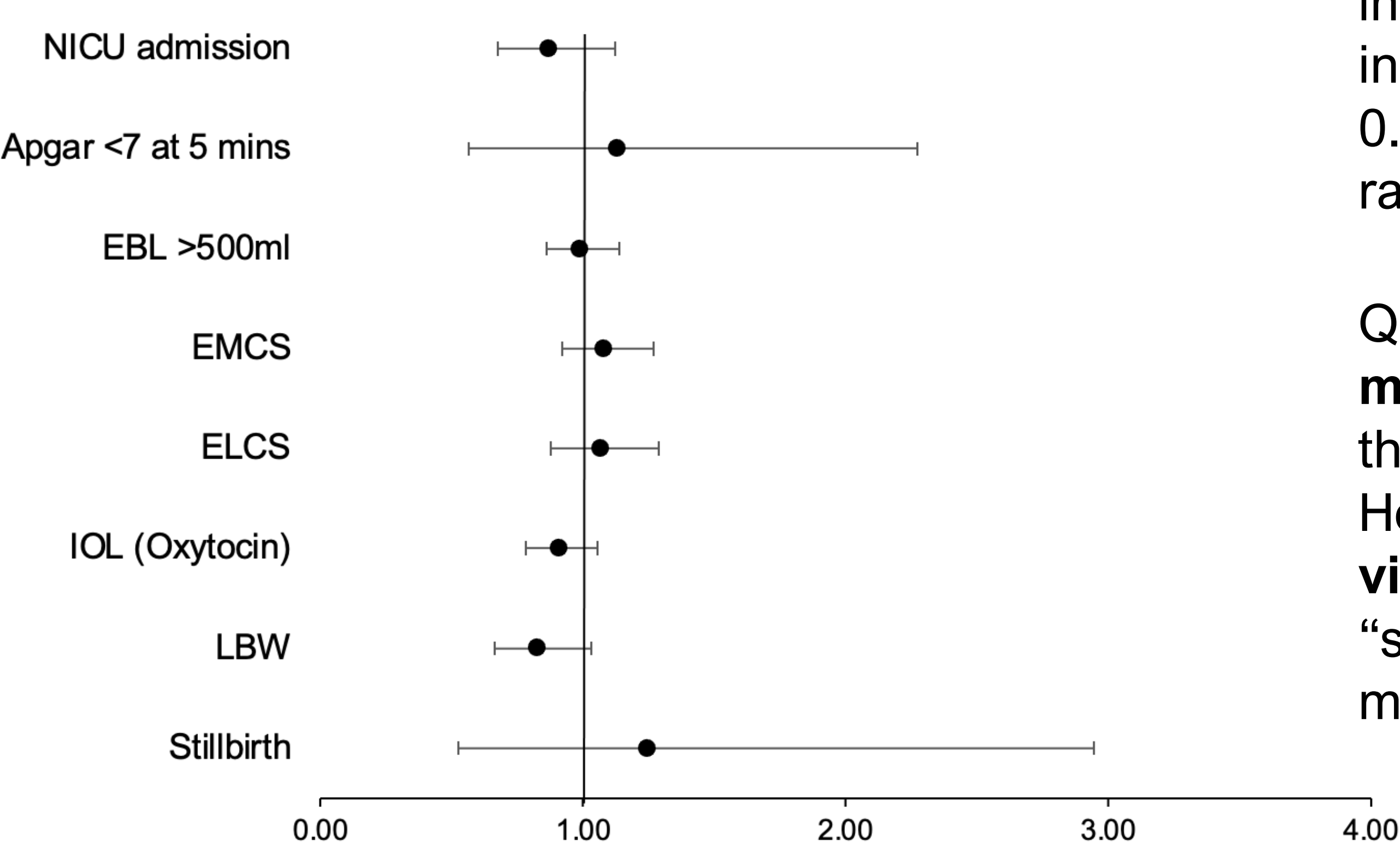


Figure 1. Odds ratios and 95% confidence intervals for perinatal outcomes BA women—low- and high-risk—receiving ethnicity-based third-trimester growth scans (intervention, n=1,582) with a matched historical cohort of low-risk BA women receiving standard care (control, n=1,791). LBW = low birth weight, IOL = induction of labour, ELCS = elective caesarean section, EMCS = emergency caesarean section, EBL = estimated blood loss, NICU = neonatal intensive care unit

Qualitative results:

Themes
Enhanced reassurance about the ongoing pregnancy
Feeling supported and cared for by the national health system
Ambivalence or uncertainty about the intervention's effectiveness
Perceptions of being singled out or targeted due to ethnicity
Heightened anxiety from perceived over-medicalisation of pregnancy

Figure 2. Themes identified from analysis of free-text survey responses about the intervention (n=47)

Quantitative analysis showed **no significant differences** in maternal and neonatal outcomes between intervention and control groups, including stillbirth (OR 1.25, 95% CI 0.53-2.94), likely due to low event rates.

Qualitative results revealed that a **majority of women felt positive** about the scans during and after pregnancy. However, **14% expressed negative views**, citing concerns about being “singled-out” and anxiety from over-medicalisation.

Overall, **72.3% found the scans useful, while 8.5% felt they were unhelpful.**

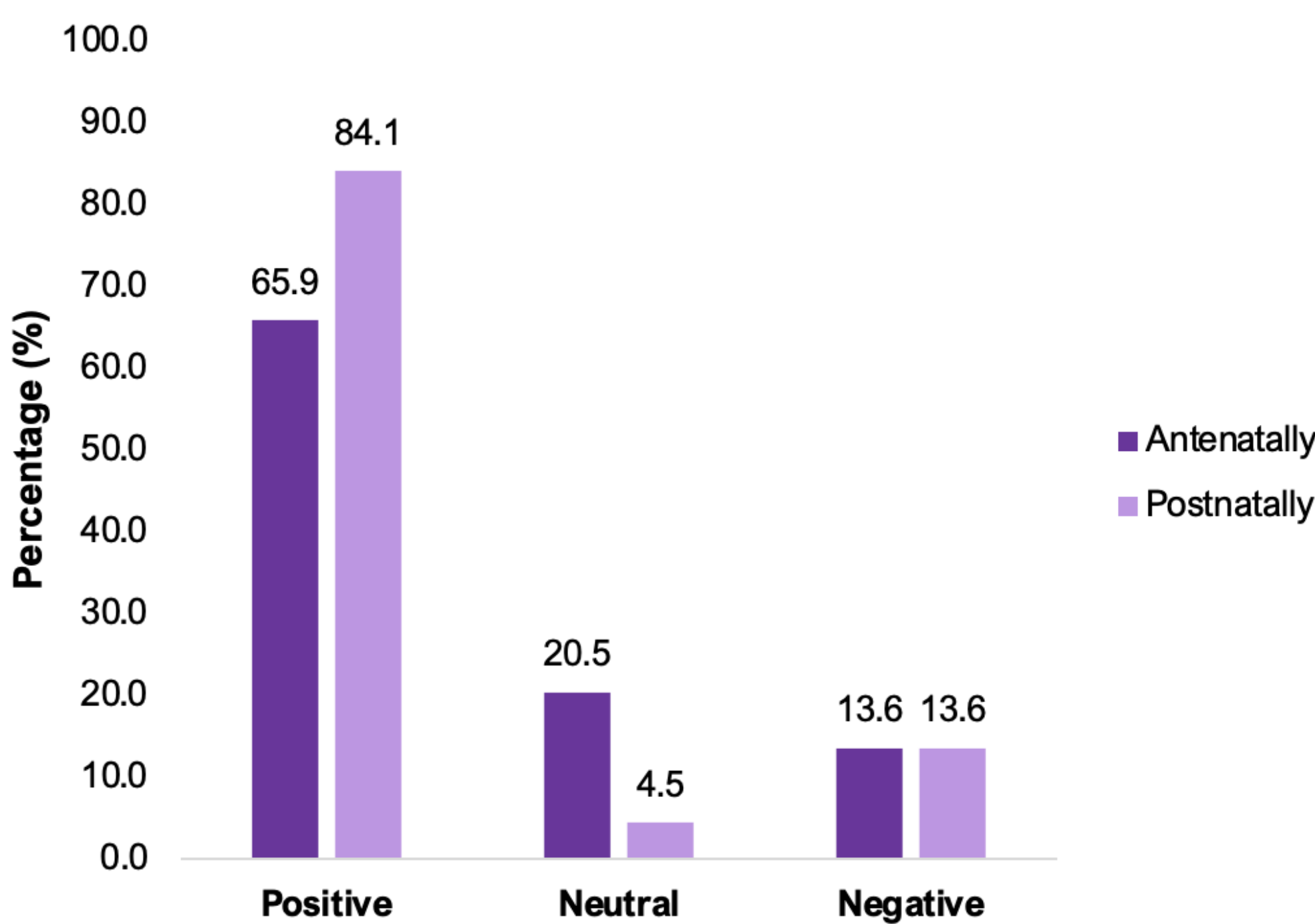


Figure 3. Women’s perspectives of ethnicity-based scans, antenatally and postnatally (n=47)

Discussion

Adverse perinatal outcomes persist despite extra scans. Undetected factors including systemic issues and environmental pollutants likely contribute to disparities.

Only 16.4% of all BA women qualified for ethnicity-based growth scans. Feedback also revealed that ethnicity-based screening was viewed as stigmatising for a minority of women. Universal scans may help to address these concerns, though comprehensive economic evaluation before implementation is needed.

Conclusion

Additional growth scans for BA women do not seem to address perinatal outcomes. Larger studies are needed to clarify true differences, and broader measures are needed to improve maternal and neonatal health outcomes.

References

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