

The impact of ethnicity and migration on pregnancy and birth outcomes: A secondary analysis of the Born in Bradford cohort

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Abstract

Objective: To investigate the relationship between maternal ethnicity and migration status on perinatal outcomes. **Design:** Population-based cohort **Setting:** Maternity department of a large hospital in Northern England **Population:** Women delivering at Bradford Royal Infirmary between March 2007 and December 2010 **Methods:** Impact of maternal migration status and ethnicity were assessed using multiple logistic regression for categorical outcomes and multiple linear regression for continuous outcomes. **Main outcome measures:** Maternal and neonatal outcomes **Results:** First-and-second-generation Pakistani migrants had higher odds of low birthweight (aOR 1.63, CI 1.35-1.97 and aOR 2.01, CI 1.66-2.42 respectively) and gestational diabetes (aOR 2.68, CI 2.20-3.27 and aOR 1.79, CI 1.43-2.23) and lower odds of macrosomia (aOR 0.30, CI 0.24-0.37 and aOR 0.30, CI 0.24-0.39) compared to white British natives. First-generation Pakistani migrants also had higher odds of stillbirth (aOR 2.01, CI 1.00-4.01) and lower odds of preterm birth (aOR 0.80, CI 0.64-0.98) and APGAR score<7 at 1 minute (aOR 0.80, CI 0.68-0.94), which was not the case for other groups with either shared ethnicity or migration status. **Conclusion:** This study highlights higher odds of both low birthweight and lower odds of macrosomia among migrant Pakistani mothers compared to native women, despite having higher rates of gestational diabetes. Lower odds of preterm birth in first-generation migrants compared to native and second-generation women is of interest, however other poorer neonatal outcomes are concerning. The observed intergenerational differences in particular merit further explorations. **Funding:** The Burdett Trust for Nursing, grant number 472356. **Key words:** Perinatal; Pregnancy; Ethnicity; Migration; Born in Bradford.

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