

Obstetric anal sphincter injury by maternal origin and length of residence: a nation-wide cohort study

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Abstract

Objective: To estimate the association between maternal origin and obstetric anal sphincter injury (OASI), and assess if associations differed by length of residence. **Design:** Population-based cohort study. **Setting:** The Medical Birth Registry of Norway. **Population:** Primiparous women with vaginal livebirth of a singleton cephalic fetus between 2008 and 2017 (n=188 658). **Methods:** Multivariable logistic regression models estimated aORs for OASI with 95% CI by maternal region of origin and birthplace. We stratified models on length of residence and paternal birthplace. **Main outcome measures:** OASI. **Results:** Overall 6 373 cases of OASI were identified (3.4% of total cohort). Women from South Asia were most likely to experience OASI (6.2%; aOR 2.24, 95% CI 1.93–2.60), followed by those from Southeast/East Asian/Pacific (5.7%; 1.83, 1.64–2.04), and Sub-Saharan Africa (5.2%; 1.97, 1.72–2.26), compared to women originating from Norway. Among women born in the same region, those with short length of residence in Norway (0–4 years), showed higher odds of OASI. Migrant women across most regions of origin had reduced risk of OASI if they had a Norwegian compared to foreign-born partner. **Conclusions:** Primiparous women from Asian regions and Sub-Saharan Africa had up to two-fold risk of OASI, compared to women originating from Norway. Migrants with short residence and those with a foreign-born partner had higher risk of OASI, implying that some of the risk differential is due to sociocultural factors. Some migrants, especially new arrivals, may benefit from special attention during labour to reduce morbidity and achieve equitable outcomes.

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