

Preschool developmental outcomes of children exposed to opioids in pregnancy: using Scottish health records to enhance children's lives

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Objective

Increasing numbers of children are exposed to opioids in pregnancy, either through illicit drugs or prescription opioids. This population has been largely neglected in research, however, primarily due to the challenges of traditional longitudinal follow-up. This research aims to explore the developmental outcomes of children with prenatal opioid exposure.

Methods

This study uses linked administrative health data to identify 4,865 Scottish children exposed to opioids in pregnancy (through illicit substance use or prescription methadone/buprenorphine) in 2009-2019, and a further 4,793 children exposed to opioids through chronic pain relief medication. A control group who are demographically similar but with no opioid exposure was matched on age of mother, health board and deprivation level. Health data, including health visitor records and pre-school vision screening, were linked to the cohort. Preschool developmental outcomes were examined using descriptive statistics and regression modelling.

Results

Children exposed to illicit opioids/methadone/buprenorphine had levels of preschool developmental outcomes, including behavioural difficulties, social and emotional problems, and cognitive difficulties, 3-4 times higher than demographically similar children with no exposure (full results will be available for presentation post-disclosure control checking). In addition, children who participated in a universal preschool vision screening program at age 4-5 were around 5 times more likely to have a visual problem identified than demographic controls. Children exposed to opioids through chronic pain medication had higher levels of developmental difficulties, compared with demographic controls, however the levels remained much lower than children in the illicit/prescription methadone/buprenorphine group. Results remained after controlling for confounding factors including smoking and alcohol

use in pregnancy, and birthweight.

Conclusion

Results highlight differences in development for children with prenatal opioid exposure, even after controlling for confounding factors. Using multi-sector administrative records to follow-up these children over the lifecourse will allow us to understand their outcomes across health, education, social care and justice, leading to robust evidence to enhance children's lives.

