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Working with Members of the Public to Co-Create Directed Acyclic Graphs (DAGs) in ECHILD (Education and Child Health Insights from Linked Data): Harnessing the Power of Co-Production in Population Data Science

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Objectives

Public involvement in the design of population data research offers novel ways of analysing and contextualising data and may improve public trust in administrative data research. This project aims to co-create directed acyclic graphs (DAGs) and explore causation as part of a study using ECHILD (Education and Child Health Insights from Linked Data) to explore health outcomes amongst migrant women and their infants in England.

real-world experiences, which should enhance the validity of the findings.

Conclusion

Our aim is that co-production in DAG creation will allow novel ways of exploring causation, help to promote trust in population data research, and strengthen the validity of our research outcomes.

Methods

Eighteen migrant women from across England, each with lived experience of the English maternity system, have been purposively recruited to create a group representative of recently arrived migrant women in the English maternity system. The women will join a 90-minute online workshop. This will be co-chaired by the research lead and a lead service user (a migrant woman with firsthand experience of maternity care in England), to encourage engagement from attendees and tackle power imbalances. The session will be split into three: (1) Developing a 'causation timeline' through collaborative storytelling of personal experiences and working together to define these as causal factors; (2) Explaining causal relationships through diagrams; (3) Constructing DAGs by exploring the interconnections between factors on the timeline. The research lead and service user have created a protocol to offer specialist support to women who may find the discussion traumatising. We will reimburse women's time and childcare costs. We will run two sessions, one for English speaking women, and another for non-English speaking women.

Proposed Results

We hope that this innovative approach to DAG creation will offer valuable insights from lived experience into causal factors. We expect this will ensure data analysis contextualises

