

BC Healthy Connections Project

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Scientific Team Update Nicole Catherine and Charlotte Waddell | June 8, 2020

Background

The BC Healthy Connections Project (BCHCP) is a randomized controlled trial (RCT) evaluating how well the Nurse-Family Partnership (NFP) program works in BC (2011–2022). NFP is a primary prevention program involving intensive public health nursing home visits starting early in the first pregnancy and continuing until children reach age two years (2.5-years duration). It aims to improve child and maternal wellbeing, focussing on young, first-time parents experiencing socioeconomic disadvantage. While US NFP trials have shown many short- and long-term benefits for both children and mothers—including the program more than paying for itself—NFP has never been tested in Canada.¹

For the RCT, we are following 739 mothers and 744 children across BC. The BC Ministry of Health is sponsoring the trial, with support from the BC Ministries of Children and Family Development and Mental Health and Addictions—in collaboration with Fraser, Interior, Island and Vancouver Coastal Health Authorities. We ended trial enrollment late 2016; ended in-person/telephone data collection late 2019; and are still collecting child injury data from the BC Ministry of Health.

To assess our success in BC we are looking at five main outcome indicators:

- 1) Reduced prenatal substance use (alcohol, cigarettes/nicotine, cannabis, street drugs);
- 2) Reduced childhood injuries by age two years (as a marker of child maltreatment);
- 3) Improved child cognitive and language development by age two years;
- 4) Improved child mental health (behaviour) by age two years; and
- 5) Improved spacing for second pregnancies by 24 months postpartum (as a marker of economic self-sufficiency).²

Other outcome indicators include changes over time in: socioeconomic status, parenting abilities, maternal mental health including substance use, intimate partner violence (IPV), and receipt of child and family health and social services.²

The RCT is embedded within BC's public health system to ensure that findings inform policy and practice. NFP is now being delivered in more than 60 communities across the four regional BC Health Authorities as an enhanced public health program. Reports on all main outcome indicators will follow (2020–2022), but we already have data to share.



BC Healthy Connections Project

A study funded by the BC Ministry of Health with support from the BC Ministry of Children and Family Development and from Fraser Health, Interior Health, Island Health, Northern Health and Vancouver Coastal Health

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Preparing to parent while coping with significant adversities

When they first entered the trial in early pregnancy, the 739 girls and young women (aged 14–24 years) were experiencing multiple adversities. Beyond RCT inclusion criteria (young age, low income, limited social supports, limited education), these included: housing instability, mental and physical health problems, exposure to child maltreatment when younger, and recent exposure to IPV. They were also experiencing these adversities at much higher rates than other Canadians. These data suggest unacceptable levels of disadvantage for some young Canadians preparing to parent for the first time. Yet they show we have reached those NFP is intended to benefit.⁴

Reducing prenatal substance use

We have completed our data analyses and a manuscript is undergoing peer review. Our data suggest that nurse-visited participants reported lower prenatal substance use. Results will be available on our website soon.

Telling the story of Indigenous participants

More than a quarter of our 739 participants —200 or 27%—identified as Indigenous (including First Nations, Métis or Inuit). We are collaborating with the First Nations Health Authority to produce publications telling their stories.

Improving child and maternal wellbeing

Analyses are underway on child cognitive and language development and mental health (behaviour) at age two years, and on maternal second pregnancies by 24 months postpartum. Child injury analyses will follow (2021–2022).

Tracking children's lives longer-term

With seed funding from donors, we are now inviting participants to engage in long-term follow-up. We aim to follow the BCHCP cohort across childhood and into adolescence—to learn about potential NFP benefits such as improved child academics and mental health, in addition to informing cost-effectiveness analyses, as reported in US NFP trials.¹

Learning from our participants

We have also secured funding to analyze our participant tracking data to identify successful retention strategies.³ These data may help inform policymakers and practitioners in their efforts to reach underserved populations.

Long-term data sharing

We will establish a repository for sharing the RCT data with researchers and students in academic and related institutions—facilitating continued attention to meeting the needs of the BCHCP cohort and of similar populations.

References

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