



**Healthy
Mind**

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ABSTRACT SUBMISSION FORM

CHRD 2022: Abstract & Poster Submission Form

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Presenter Status

- Undergraduate Students
- Masters Student
- PhD Student
- Post-Doctoral Fellows
- Residents
- Non-Trainee

Research Category

- Basic Science
- Clinical
- Community Health / Policy

Role in the project

- Design
- Perform Experiments
- Analyze Data
- Write Abstract

Title

The Power of Linked Data: Investigating Social Determinants of Child Health and their Implications in Reducing Pediatric Traumatic Injury

Background

Every year over 16,000 children in Canada are hospitalized due to traumatic physical injury, resulting in costs to our health care system that exceed \$5 billion. The Canadian Pediatric Society (CPS) has advocated for a child injury prevention plan that utilizes social determinants of child health (SDoCH) associated with injury risk to identify high risk groups for child injury; however, the CPS also states that not enough research on this topic exists to support this approach.

Objective

In this project, we conducted a population-based, retrospective case-control study to identify SDoCH that increase risk of traumatic physical injury in children.

Methods

Children ≤ 17 years of age admitted to the Children's Hospital in Winnipeg, Manitoba with physical injuries between 2002 and 2019 ($n = 10000$) were matched based on age, sex, and geographic location 1:5 with an uninjured cohort from the general population ($n = 50000$). Population level administrative data describing the SDoCH at the Manitoba Centre for Health Policy (MCHP) were compared between the cohorts. Specific SDoCH were chosen based on previous work by our research team and included those determinants that are measurable with administrative data available at the MCHP.

Results

In the final multivariable model children living in a rural area AOR (95% CI) 6.63 (4.63, 9.49); children in care 1.42 (1.31, 1.54); child having a parent(s) who has received income assistance 1.13 (1.06, 1.21); child having a parent(s) involved in the criminal justice system 1.27 (1.21, 1.33); and child born to a teen mother 1.33 (1.27, 1.41) were significantly associated with an increased risk of pediatric traumatic injury.

Conclusion

This study identified SDoCH associated with an increased risk of pediatric traumatic injury in Manitoba, Canada. The identification of children at increased risk for injury allows for the targeting of injury risk reduction programs, and, hopefully, fewer cases of pediatric injury and death.

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Authors

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