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18th Annual Child Health Research Days

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**ABSTRACT SUBMISSION FORM**

## CHR D 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**

Association between Autism spectrum disorder and parental immigration among a cohort of preschool children in Manitoba.

## Background

Several countries reported an increased prevalence of autism spectrum disorder (ASD) among children of immigrant families<sup>1-4</sup>. Despite Canada's high rates of immigration, studies examining such association have not been done.

## Objective

The objective of this study is to compare the relative proportion of children diagnosed with ASD with immigrant parents to the known proportion of immigrants within Manitoba.

## Methods

Retrospective chart review of >2000 electronic records that identified all children aged <6 years diagnosed with ASD at Manitoba's primary autism referral site (RCC) between May 2016-September 2021. Data on parental immigration, demographics, diagnostic evaluation, medical history was collected. X2 test compared relative proportion of children with ASD from immigrant parents to proportion of immigrants in Manitoba based on Census data.

## Results

A total of 1865 children were diagnosed with ASD at RCC during the study period. Mean age at referral and diagnosis was 2.81 years (SD = 1.26) and 3.88 years (SD = 2.90) years respectively; 78% male, 13.5% preterm. Proportion of children with ASD from immigrant parents (36%) was greater than the expected proportion (18.3%) of immigrants based on Manitoba 2016 census data ( $p < 0.001$ ). Most common countries of origin of immigrant parents were the Philippines (30.7%), India (11.6%), Nigeria (8.6%), Ethiopia (6.4%). Children of immigrants were younger at referral (2.71 years, SD = .98 versus 2.91 years, SD = 1.43;  $p < 0.001$ ), less likely to have a family history of ASD (17.1% versus 35.6%;  $p = < 0.001$ ), and less likely to have comorbidities (46.8% versus 53.9%;  $p < 0.001$ ) including global developmental delay (18% versus 27.6%;  $p < 0.001$ ).

## Conclusion

There is a greater proportion of children with immigrant parents seen at RCC and diagnosed with ASD than expected in the Manitoba population. These results will be used to generate hypotheses for a future prospective study.

## Do you have a table/figure to upload?

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## Authors

- For each author, please click "[+] Add Item" and provide the author's information

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