### ABSTRACT SUBMISSION FORM

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Exploring the role of sex and gender on health research





# **CHRD 2020: Abstract Submission Form**

### **Submitter Name**

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#### Title

Ethnicity, Immigration and Autism Risk: A Systematic Review of the Literature

### **Background**

Autism is a developmental disorder that is thought to be due to multifactorial processes. Emerging research has identified "hot spots" of increased autism prevalence within countries such as the Unites States and Sweden, particularly in specific ethnic populations and immigrant communities.

### **Objective**

This study aims to systematically review the association between autism, ethnicity, and immigration.

#### **Methods**

An electronic search of the literature was conducted searching the following databases: Ovid Medline, Embase, and PsychINFO. Key terms operationalizing autism, ethnicity, immigration and pediatrics were translated into terms specific to each database. Articles were independently screened based on abstract and title by two reviewers, with discrepancies resolved by a third. Studies were included if they were published 1994-present, included children aged 0-17 with a verified diagnosis of autism, studied ethnicity or immigration as a primary variable, and included a control group. Descriptive data regarding ethnicity and autism was abstracted by the primary reviewer. Due to significant heterogeneity between studies, meta-analytic techniques were not performed.

#### Results

Of the 4532 citations, 36 met inclusion criteria. Sixteen (44%) publications explored both immigration and ethnicity together as variables related to autism, while six studies only examined immigration and 14 studies only examined ethnicity.

A total of 44 ethnic groups were identified, with 5 ethnic groups explored in more than 2 papers (Black, Hispanic, Asian, Somali, and North African/Middle Eastern). No ethnic group was consistently identified as having an increased or decreased risk of autism.

Of the studies that looked at immigration, nine papers studied immigration as a dichotomous variable. Of these papers, six found a positive association between immigration and autism. Thirteen papers grouped immigrant populations by region or country of immigration. Of these, the majority failed to find a consistent risk with immigration.

A consistent theme emerged in papers regarding severity of autism and both ethnicity and immigration. Sixteen papers explored risk of a severe subtype of autism and non-white ethnicity; 15 (94%) found an association between ethnicity and more-severe autism. Similarly, 13 papers explored risk of severe subtype of autism and immigration with 11 (85%) of these finding an association between immigration and risk of severe subtype of autism.

### Conclusion

Based on the results of this systematic review, there is no evidence that ethnicity or immigration independently increases the risk of autism. Children of non-white ethnicity and immigrant children were found to have an increased risk of a more severe subtype of autism when compared to white, non-immigrant children. This has implications for screening, diagnosis and support of children with autism in these populations.

### Theme:

Clinical

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

No

## Are you willing to participate in Goodbear's Den?

Yes

### **Presenter Status:**

Residents

### What was your role in the project?

Design, analyze and write

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