The relationship between autism spectrum disorder and prodromal psychosis in the Adolescent Brain Cognitive Development cohort

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Schizophrenia (**SCZ**) is 3-4x more common in autism spectrum disorder (**ASD**) than the general population.

Does this hold true for **prodromal psychosis**?

How can we best **identify ASD youth at risk**?

We explored the relationship between parent-reported ASD diagnosis and emerging psychotic-like symptoms in the **Adolescent Brain Cognitive Development (ABCD) cohort**.

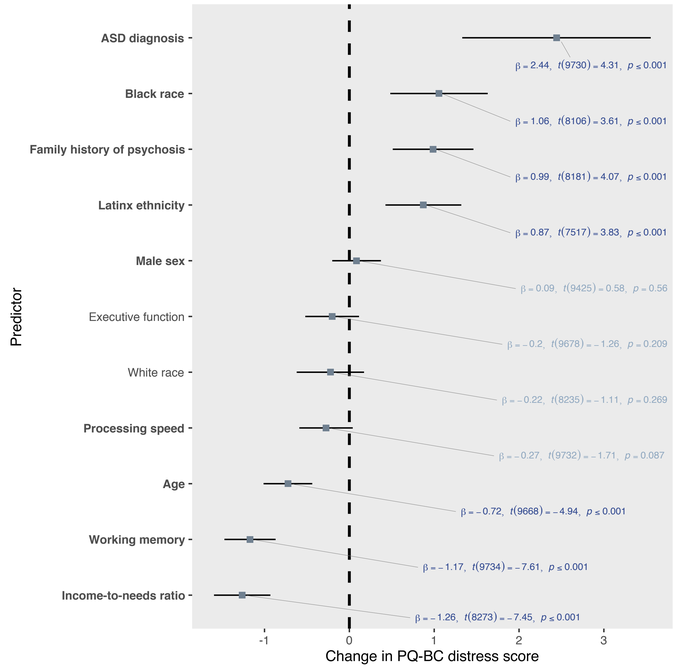
ABCD cohort n = **11,875** → Study sample n = **9,670**

- **2,115** with missing data

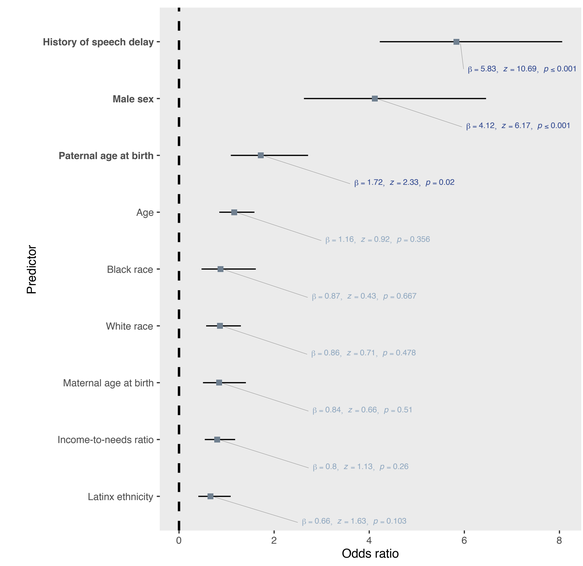
Income-to-needs (1211)
Parents' ages at birth (704)
Cognitive measures (198)
Family history (138)
ASD screen (39)
PQ-BC score (16)
Ethnicity (13)
Developmental history (6)
Sex (3)

Study sample characteristics	
Age in years	9.91 ± 0.62
Male sex	5,111 (52.37%)
White race	6,633 (67.96%)
Black race	1,274 (13.05%)
"Other" race	1,853 (18.99%)
Latinx ethnicity	1,819 (18.64%)
Income-to-needs	4.48 ± 2.88
FH psychosis	1,014 (10.49%)
NIH TB card sort	97.35 ± 15.25
NIH TB processing speed	94.17 ± 22.04
NIH TB working memory	101.47 ± 14.73
ASD screen +	**161 (1.65%)**
PQ-BC distress	**3.53 ± 7.35**

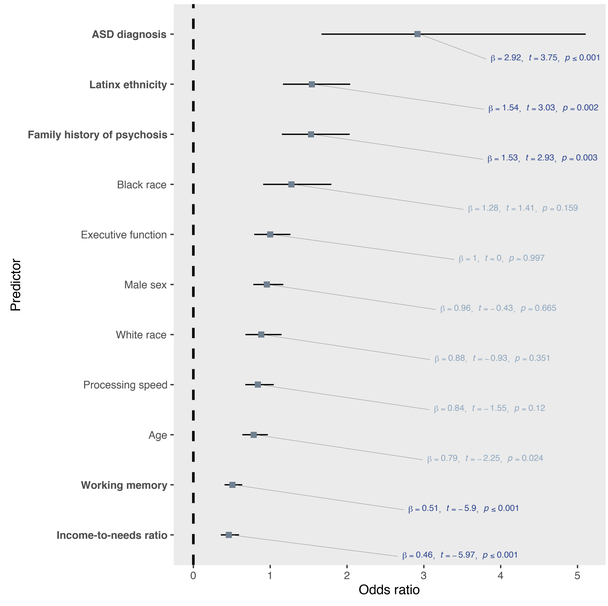
Predictors of PQ-BC distress score



Predictors of reported ASD diagnosis



Predictors of PQ-BC distress in top 5%



PQ-BC distress items with higher mean scores in ASD participants

Did you lose concentration because you noticed sounds in the distance that you usually don't hear? (#10)

F(1, 9758) = 9.37, corrected p = 0.046

Did you honestly believe in things that other people would say are unusual or weird? (#15)

F(1, 9758) = 10.89, corrected p = 0.020

Did you suddenly start to notice that people sometimes had a hard time understanding what you were saying, even though they used to understand you well? (#21)

F(1, 9758) = 11.06, corrected p = 0.019

ASD seems to be **a strong predictor** of psychotic-like symptoms in middle childhood, even relative to long-established risk factors.

Future work will need to establish what this means **longitudinally**.