

## The Overlooked Role of Fathers' Mental Health: An Exploratory Feature Selection Analysis Using National Data

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### INTRODUCTION & AIM

**Background:** Although research on parental health and child well-being has grown, fathers' mental health remains understudied, with most literature focusing on maternal health. This gap is important because fathers

**Aim:** This exploratory study examines the association between fathers' perceived mental health and children's perceived mental health using USA nationally representative survey data.

### DATA & METHOD

**Data:** Data were drawn from the Medical Expenditure Panel Survey (MEPS), a large-scale national survey of U.S. families and individuals.

**Sample:** The sample included 7,685 children aged 2–7 years and their fathers.

**Outcome:** The outcome variable, children's perceived mental health status, was recoded into a binary variable representing optimal versus suboptimal mental health. This outcome was based on the household members' reports.

**Covariates:** Children's demographic characteristics, health conditions, and family socioeconomic factors, as well as fathers' health status, education level, employment status, and other family characteristics.

**Key Predictor:** Father's perceived mental health status

**Data analysis:** In this exploratory analysis, the Boruta algorithm was used to identify variables potentially relevant to children's mental health status. Weighted logistic regression models were then conducted to examine the associations between the selected variables and children's suboptimal mental health.

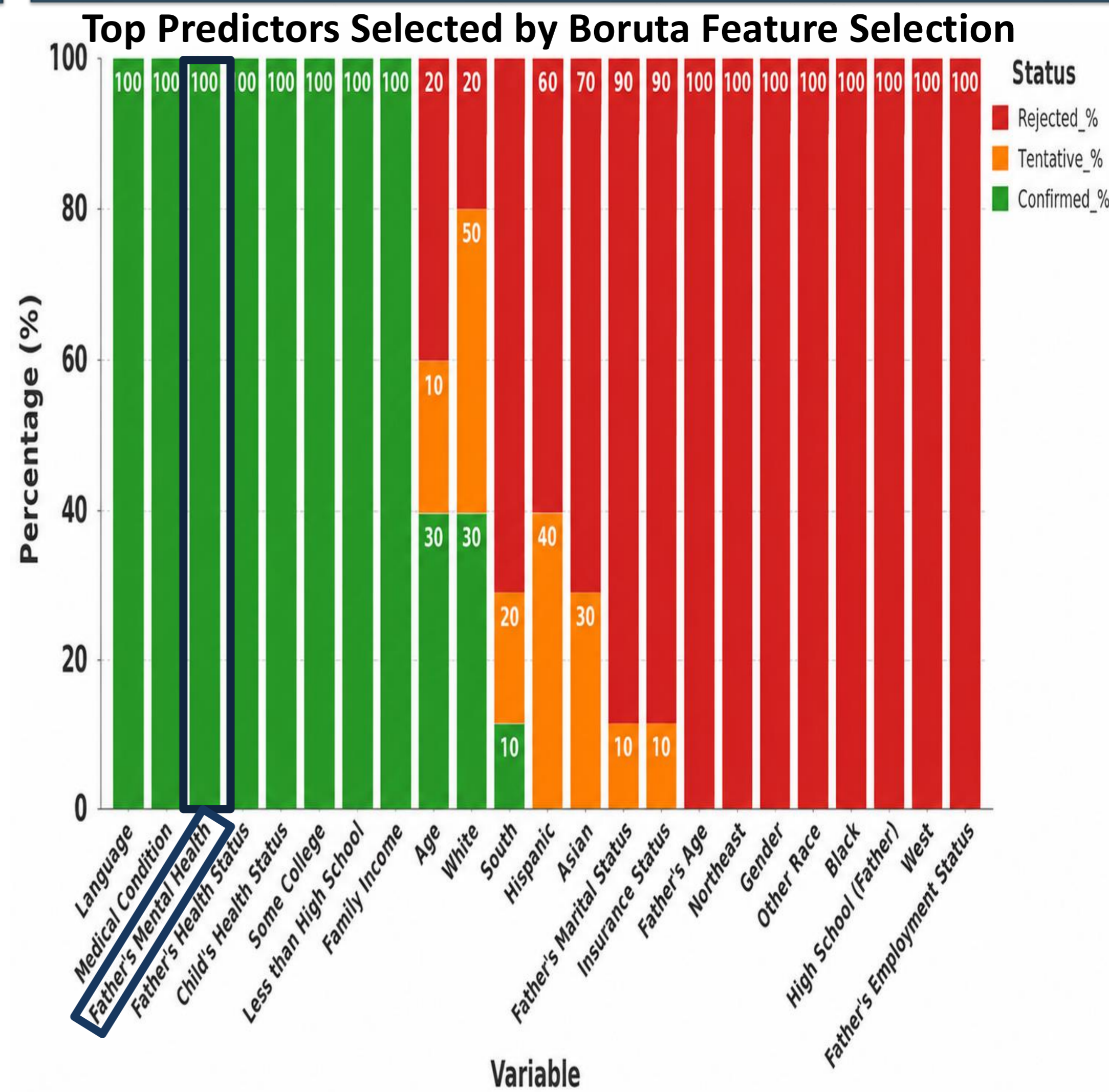
### MAIN FINDINGS

Children whose fathers had suboptimal mental health had higher odds of suboptimal perceived mental health, even after accounting for child health, income, age, insurance, father's health, education, and marital status.

### CONCLUSION & FUTURE WORKS

These findings highlight the importance of paternal well-being in family-centered approaches to children's mental health and call for future studies using independent samples to examine mechanisms across cultural and policy contexts.

### RESULTS



### Forest plot of adjusted odds ratios

