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Title

Intellectual Disability (ID) and Chronic Conditions Burden among Adults : Insights from Harmonized Electronic Health Records

Priority 1 (Research Category)

Health Care Disparities

Presenters

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Abstract

Context: Adults with intellectual disabilities (ID) are susceptible to chronic conditions, disproportionately experience health disparities, and are less likely to receive optimal primary care management. Studies on adults with ID are scarce, and understanding chronic disease burden is important. Objective: Compare burden of chronic diseases for adults with and without ID using electronic health records (EHRs)from 3 learning health systems serving underrepresented groups. Study Design and Analysis: Using a cross-sectional design, we compared adults with and without ID. We used chi-square and multivariable logistic regressions to assess the association between ID and chronic conditions, adjusting for age, sex, race/ethnicity, and site of learning health systems. Due to small sample size of adults with ID, a comparison was made with a 10% random sample of adults without ID. Dataset: EHR data from 2017-2021, with adults (age≥18 years; N=205,046) from 3 learning health systems. Population Studied: Adults with and without ID. Adults with ID(N = 1,016, 0.5%) were identified via ICD10 codes, including Down syndrome, autism, and other conditions. The study included 60% females, 29% Non-Hispanic Whites (NHW), 28% Non-Hispanic Blacks (NHB), and 29% Hispanics. Outcome Measures: Multimorbidity was defined as ≥2 chronic conditions, such as asthma, arthritis, cancer, high cholesterol, chronic kidney disease, COPD, diabetes, heart conditions, HIV, osteoporosis, stroke, and thyroid disorders, derived from ICD10 codes using AHRQ's CCS-R (Chronic Conditions Software-Refined). Mental health conditions included bipolar disorder, depression, and anxiety. Results: Less than 1% (N=1,016) had ID. The mean age with ID (mean=30.4, SD=13.0) was lower than those without ID (mean=45.29, SD=16.0). A higher percentage with ID were either NHB, Hispanic, or other racial/ethnic group. In adjusted analysis, adults with ID were more likely to have multimorbidity (aOR=1.92, 95%CI=1.65, 2.24), diabetes (aOR=1.38,

95%CI=1.15, 1.66), high cholesterol (aOR=3.02, 95%CI=2.63, 3.48), thyroid disorders (aOR=4.10, 95%CI=3.47, 4.85), and bipolar disorder (aOR=2.09, 95%CI=1.64, 2.66). Adults with ID were less likely to have depression (aOR=0.75, 95%CI=0.61, 0.94). Conclusion: About 5 in 1000 adults from the 3 systems had ID. Adults with ID exhibited a high burden of chronic conditions after accounting for age, sex, and race/ethnicity. Depressive disorders might be underdiagnosed among adults with ID.