Health and Aging on the Autism Spectrum

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Dedicated to the advancement of knowledge about human development, developmental disabilities, and neurodegenerative diseases throughout the lifespan.



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Aging with Developmental Disabilities

- Deinstitutionalization
- Increased awareness and acceptance
- Access to care through Medicaid/Medicare
- Increased life expectancy



Population Approach

- Study people on the autism spectrum as a group
- Findings in a study may not be true to everyone
- Higher probability (risk) based on being in one group compared to another group
 - Autism vs. general population
 - Autism with intellectual disability vs. autism without intellectual disability



Autistic People Who Are Currently in Midlife and Old Age

- Donald Triplett: Kanner's Case 1:
 - 85 years old
 - Lives independently in Forest, Mississippi
- More health problems and earlier death compared to the general population
- Limited research on why and how these health problems develop limits prevention efforts





Health Disparities in Autism

Health differences that are avoidable, unnecessary, and unjust

- More health problems at all ages
- Sensory and communication differences
- Potential healthcare access challenges
- Potential discrimination from healthcare providers
- Overshadowing of health by autism/behavior problems





What I will discuss today:

- What are common health problems in midlife old age?
- Is intellectual disability driving health problems in autism?

For a later date: How do we help?



Study 1: Lifetime Health Problems, Evaluated at Death

RESEARCH ARTICLE

Using Machine Learning to Identify Patterns of Lifetime Health Problems in Decedents with Autism Spectrum Disorder

Lauren Bishop-Fitzpatrick , Arezoo Movaghar, Jan S. Greenberg, David Page, Leann S. DaWalt, Murray H. Brilliant, and Marsha R. Mailick



The Big Picture

- Why? No previous research on health problems in autism
- **Goals:** Identify health problems that distinguish people that have died with autism compared to a group of community members that have died:
 - Data-driven approach
 - Based on information in over the full lifetime electronic health records
- **Major Finding:** Autistic people have different patterns of health problems compared to matched community members



Data Source and Study

- Marshfield Clinic: a multi-specialty group practice
 - 97% of the population in northern, central, western WI
- Available electronic health records (EHRs) on people who have died: 91 with autism; 6,186 community members
- <u>Question:</u> Do patterns of diagnoses in EHRs distinguish those with autism from general community members?







Health Problems That Distinguish the Autism Group from the Community Group

In Autism: Higher prevalence of:	In Autism: Lower prevalence of:
Long-term medication use	Cancer diagnosis
Epilepsy	Cancer treatment
Developmental problems	
Skin conditions	
Ear problems	
Non-specific lab tests and encounters	
Urinary problems	
Respiratory problems	
Digestive problems	
Motor problems	
Cardiovascular problems	



Limitations

- Sample small sample but large for autism research; people who died between 1979-2016; single region; lacks racial/ethnic diversity
- Replication
- No information about impact of intellectual disability



Study 2: Health of Middle Aged and Older Wisconsin Medicaid Beneficiaries

Bishop-Fitzpatrick, L. & Rubenstein, E. (in press). The physical and mental health of middle aged and older adults with autism spectrum disorder and the impact of intellectual disability. *Research in Autism Spectrum Disorders*.



Why is intellectual disability important?

- Change in diagnostic criteria → cohort differences
- Well-established high prevalence of health problems in adults with intellectual disability
- Intellectual disability may be a marker of genetic subgroups
- Differences in level of support provided by parents and social service system for people with intellectual disability (historically and currently)







Medicaid Data for Autism Research

- **Medicaid** is a state-administered anti-poverty program that provides free or low-cost health and dental coverage to people with low income and/or disabilities
- Extremely important provider of health care for people with intellectual and developmental disabilities



The Big Picture

- Why? Test impact of intellectual disability on health in autistic adults who are lower income and/or racially diverse
 - Replication and specific test of intellectual disability
- Study Goals
 - 1. Describe the physical and mental health of middle aged and older Medicaid beneficiaries with autism spectrum disorder in Wisconsin
 - 2. Test differences in physical and mental health conditions between autistic adults with and without intellectual disability
- First step in describing the physical and mental health problems for which adults on the autism spectrum had Medicaid claims during the study period

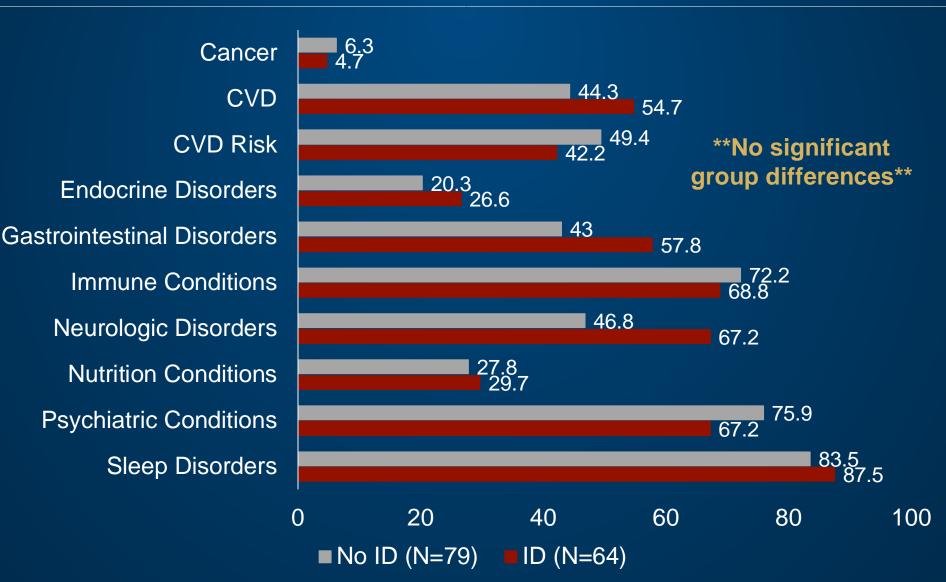


Characteristics of Sample

- All adults (N=143) with an autism spectrum disorder diagnostic code on two different days aged 40 and older who had Medicaid claims between 2012 and 2015
 - Mostly male (68.5%)
 - Mostly white (79.0%)
 - On average, in their mid-fifties (mean = 52.4; SD = 9.6)
 - Most enrolled in Medicaid for the entire four-year period
 - 44% (N=64) had a claim for intellectual disability



Diagnoses In Midlife And Old Age By Intellectual Disability (ID) Status



Health Research on Middle Aged and Older Adults on the Autism Spectrum

- More health problems that begin earlier autistic people compared to the general population
 - Could having autism be a health disparity in and of itself?
 - Poverty, discrimination, and structural bias may all affect autistic people
- Need to better understand WHY
 - Social and biological perspectives



(Preliminary) Implications for Autistic Adults and Family Members

Based on clinical experience and recommendations for people in the general population





Social: Inclusion in social, recreation, and leisure activities



Family: Supporting families in care transitions as parents age

Services & Supports Can Help Encourage Healthy Aging



Housing: Independent living, family living, and nursing home care



Health: Preventive and routine health care



Activity: Aging autistic adults need to be active like all adults

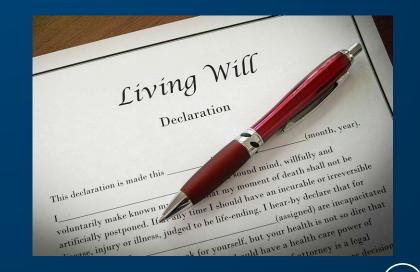


Special Care: Disability-specific risks and accelerated aging may necessitate early screening

Establish Correct Permissions/Legal Documents

- Medical power of attorney
- Mental health power of attorney (if applicable)
- Advanced directive/living will
- Permissions on file with doctor to allow trusted people to access medical records





Advocate...while we work on changing physician behavior

- Know what preventive care you should receive and ask for it
- Request sensory and communicative accommodations
- Be aware that autistic people may experience pain differently
- Insist that providers see more than the autism diagnosis
 - "Behavioritis" (Sara Luterman) inappropriately placing importance on a person's behavior and not their health or medical problems
 - Changes in behavior or mood may indicate a medical problem

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I only have to focus on fixing what's wrong with ME! Now which one of us do you think is the expert?"



What's Next?

- Using Medicaid and Medicare data to delineate patterns of health problems, as well as predictors of health outcomes, at the population level in autism
 - Expanded Medicaid sample includes all adults with autism; intellectual disability/Down syndrome comparison groups
 - Using national Medicare data (51,132 autistic people)
- Beginning mixed methods data collection on health and health service utilization in middle aged adults on the autism spectrum this spring
- Patient navigation intervention
- Training healthcare providers to work with autistic adults



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Questions?

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