Policy to Practice: Falls in Adults with Intellectual Disabilities

Kelly Hsieh[1], James H. Rimmer[2], Tamar Heller[1], Jessica Minor[3], and Christine Grosso[3]

Key Findings

- One in five young adults (18-44) with ID reported having one or more falls in the past 12 months.
- One in three middle-aged adults (45-64) with ID reported having one or more falls in the past 12 months.
- Nearly 25% of fall-related injuries needed medical attention.
- Females had a higher prevalence of falls than males.
- The prevalence of falls increased with advancing age.
- Falls for adults with ID were associated with having arthritis, seizure disorder, polypharmacy, using walking aids, and low upper extremity strength.

One out of every three adults aged 65 years or older in the general population falls at least once each year. For adults with intellectual disability (ID), the prevalence of falls is even higher with studies estimating a fall rate ranging from between 29% to 70%. Falls are a major cause of serious injury and hospitalization, and an important public health concern. Using baseline data from the Longitudinal Health and Intellectual Disability Study, we examined the *prevalence* of falls and *potential risk factors* for falls in adults with ID.

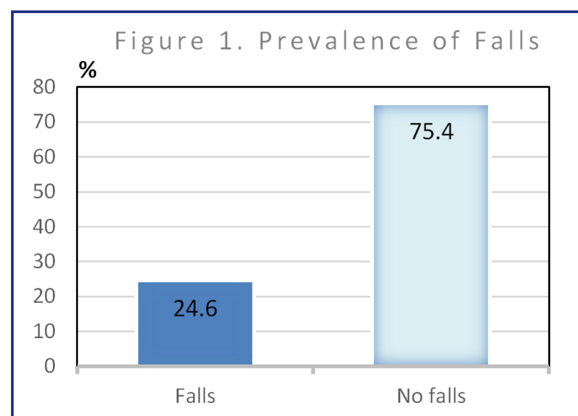
Participants

The study sample includes 680 females and 835 males with ID ranging in age from 18-86 years. The majority were Caucasian (89%), followed by African American (6%) and Hispanic (3%). Twenty-five percent of participants had Down syndrome; 12% had cerebral palsy and 13% had autism or pervasive developmental disorder.

1 Department of Disability and Human Development, University of Illinois at Chicago
2 Civitan International Research Center and Sparks Clinics, University of Alabama at Birmingham
3 Association of University Centers on Disabilities, Silver Spring, MD

Prevalence of Falls

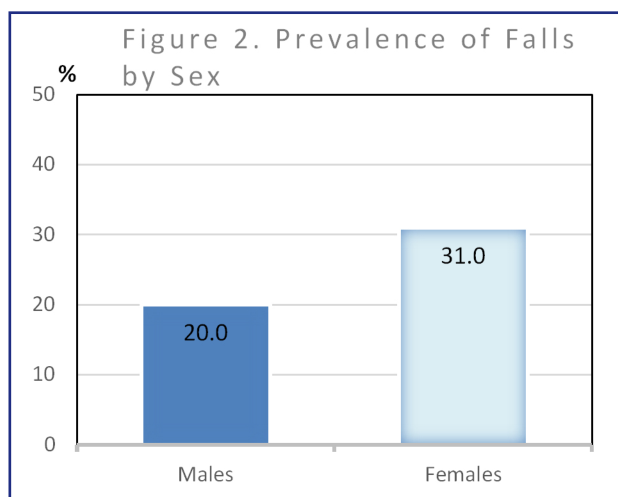
Overall Prevalence

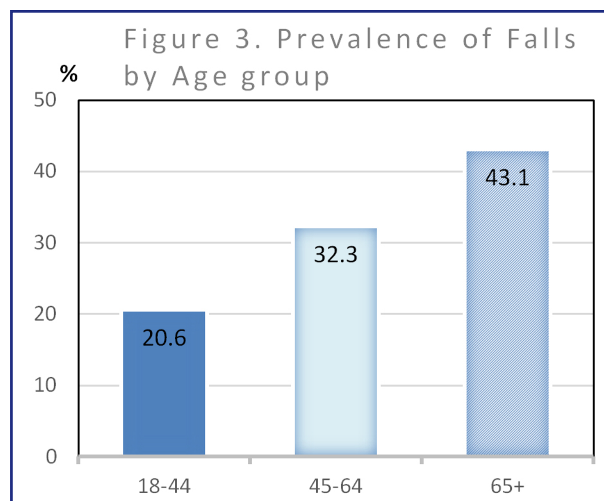


Of the 1,515 participants, 372 (24.6%) were reported to have experienced falls in the past 12 months (see Figure 1). Within the fallers, 41.7% experienced one fall; 25.0% had 4 falls or more 20.2% had 2 falls; and 13.2% had 3 falls. Over half (58%) of the fallers experienced recurrent falls the past 12 months. Of these fallers, 24.0% required medical care.

Fall Prevalence by Sex and Age Group

Prevalence of falls differed by sex and increased with advancing age. The overall prevalence of falls for males was 20.0% and 30.1% for females (Figure 2). The prevalence of falls by age group was 20.6% between 18-44 years, 32.3% between 4-64 years, and 43.1% for 65 years and older (Figure 3).





Potential Risk Factors for Falls

When examining the full sample, the potential risk factors for falls in adults with ID were being female; having arthritis; having a seizure disorder; taking more than 4 medications (polypharmacy); using walking aids; and having difficulty lifting/carrying greater than 10 lbs. (low upper extremity muscle strength). For those who do not have a seizure disorder, the potential risk factors included severity of intellectual disability, arthritis, heart condition, back pain, urinary incontinence, use of walking aids, and difficulty walking three block. Having osteoporosis, back pain and urinary incontinence were the risk factors for falls that required medical care.

Practice and Policy Implications

Key findings in research point to many factors affecting fall prevalence within the intellectual disabilities (ID) population. With increasing risk of falls positively correlated with age, it is important to understand what other medical factors affect this prevalence. While one in three middle-aged adults report falling at least once in the past 12 months, risk factors for these falls include: varying seizure disorders, polypharmacy, use of walking aids, and other disabilities that affect health (i.e.,

AUCD
ASSOCIATION OF UNIVERSITY CENTERS ON DISABILITIES
RESEARCH, EDUCATION, SERVICE
UIC UNIVERSITY OF ILLINOIS AT CHICAGO Department of Disability and Human Development
COLLEGE OF APPLIED HEALTH SCIENCES
RRTCDD Rehabilitation Research and Training Center on Developmental Disabilities and Health

arthritis, back pain, and osteoporosis). These factors affecting fall prevalence, among others, identified in this research[4] show the importance of addressing falls prevention through policy changes.

Strategies

Along with policy recommendations, guidelines should also be used to set the stage for proper implementation of falls prevention policies and practices. In addition to the policy recommendations outlined below, following strategies suggest ways in which falls prevention may be addressed:

- Partnership is vital to eliminating falls within the ID community. State-based falls prevention coalitions should be linked with the ID community. By doing this, it builds a bridge with other organizations who are working on falls prevention, but may not be thinking about other populations affected by falls, such as the ID community.
- Provide education to caregivers on ways to prevent falls with special attention to high-risk populations and provide caregiver support. Through education of falls, those working with the ID population will have the knowledge and understanding of the risks and how to better prevent them.
- Reduce environmental factors (e.g. loose carpets) that can result in higher rates of falls.
- Provide falls prevention interventions that improve balance and strength.
- Identify more research for age specific and disability specific falls prevalence to allow for an in-depth understanding of where falls lies within narrower populations.
- Create and provide culturally and linguistic competent care.

Policy Recommendations

In order to address the issue of falls prevalence, we have identified four main policy recommendations to address this problem. ***First, language may be added into Medicare Part D that ensures limited use of polypharmacy for people on Medicare.*** Research uncovered polypharmacy, or over medication, as a risk factor for falls. While Part D covers the use of prescription medications and subsidizes the costs of prescription drugs to those receiving Medicare benefits, physicians and other health providers need to understand the affects of over-prescribing patients and work together to ensure this is not happening for patients, especially those with ID. This identification encourages us to look at the implications of Medicare Part D and write language that discusses the affects of polypharmacy and falls prevalence within the Medicare population.

Second, falls prevention programming needs to be addressed within the Medicaid Home and Community Based Services (HCBS) and Medicaid Managed Long-Term Services and Supports (MLTSS) programs. Patient-centered medical home self-management quality training incorporates self-care and quality metrics for those coping with chronic illnesses. By implementing this self-management training, along with quality metrics for falls prevention, it provides standards within Medicare to ensure individuals are able to care for themselves[5].

Language regarding falls prevention for people with ID should be added into the Older Americans Act. By adding language into this act, the specific needs of this population is considered, specifically as it relates to the increasing falls prevalence with age. Although falls prevention is mentioned within

4 Hsieh K., Rimmer J. H., & Heller T. (2014) Prevalence of falls and risk factors in adults with intellectual disability. *American Journal on Intellectual and Developmental Disabilities*, 117, 442-454.

5 National Council on Aging. (2015) Healthy aging recommendations 2015 white house conference on aging. *National Council on Aging*.

Section 4 of the Older Americans Act, "The Administration shall make grants to states for supportive services that include chronic condition self-care management and falls prevention services. Health screening services shall include: (1) behavioral health screening and falls prevention screening; as well as (2) screening for elder abuse, neglect, and exploitation...;" the ID population is not specifically stated. Because of the differing needs and factors of falls prevention within this population, this community must be specifically included, so it is not left out.

The last policy recommendation to address the needs of falls within the ID population is to request additional funding from the Prevention and Public Health Trust Fund to build on the work of National Falls Prevention Resource Center. While there is limited funding available for all requests, building on falls prevention has a positive long-term effect for the ID community, and saves money in emergency room visits and Medicare and Medicaid costs overall.

Conclusion

While these policy recommendations and strategies will greatly affect the needs within the ID community, additional research on falls is needed to create specific guidelines for appropriate implementation of policies that include the ID population. Though current research provides the rationale for the needs of these policies and guidelines, conducting a fall risks assessment for this population would identify additional risks for falls that will serve to further guide the needs of the targeted populations. Furthermore, The National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) should invest research to adapt, test, and translate existing evidence-based falls prevention programs specifically for people with intellectual disabilities. As an example, through the Affordable Care Act, the Medicaid Incentives for Prevention of Chronic Diseases program was created to implement evidence-based prevention programs. NIDILLR should use this approach to create falls prevention programs for the ID population. In turn, more thorough research, and the development of model programs, will help pave the way for universal and successful implementation of guidelines and policy practices for falls prevention within the ID community.

This research brief was funded by the United States Department of Health and Human Services, Administration for Community Living (ACL), National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) Grant # 90RT5020-01-00. However, the content does not necessarily represent the policy of the Department of Health and Human Services and you should not assume endorsement by the Federal Government.