

BACKGROUND

Obesity has become an epidemic and an important public health concern. Over the past few decades, adult obesity (BMI \geq 30) prevalence in the United States has increased from 13%-15% (1960s-70s) to 35.8% (2009-10). The same trend was detected in the intellectual disability (ID) population, while obesity was more prevalent among adults with ID than the general population. Obesity is related to not only adverse health consequences, such as type-2 diabetes, hypertension, cardiovascular disease, and early mortality but also psychosocial disturbance, quality of life decline, and socio-economic burden. Prevalence of obesity among adults with ID ranges from 29%-38%. To better develop an efficient health promotion program and strategies to prevent or reduce obesity, it is crucial to identify modifiable risk factors.

RESEARCH QUESTIONS

1. What is the prevalence of obesity?
2. Does the prevalence of obesity differ by sex, age group, and ID related diagnosis?
3. What are the risk factors related to obesity after controlling for age, sex, ID-related diagnosis, and mobility limitation?

METHODS

Study Design. Cross-sectional data from baseline data (N=1,620) of an ongoing 4-year Longitudinal Health and Intellectual Disabilities Study were analyzed.

Survey Instrument. The Health and Intellectual Disabilities Survey (LHIDS) is divided into three sections: 1) Health & Function (e.g., health status, chronic health conditions and use of medication, and Physical function), 2) Health Behaviors (e.g., physical Activity, weight control and dietary habits, smoking and alcohol, oral hygiene, and social participation), and 3) Sociodemographics (e.g., age, gender, race, residential setting, etiology, level of ID, and employment/day services).

Data Collection. Paper or online modes were used to collect data based on informants' choice.

Data Analysis. Descriptive statistics, univariate, and multiple regressions.

MEASURES

Outcome: Obesity

Independent Variables

<u>Individual Factors</u>	<u>Environmental Factors</u>	<u>Social Factors</u>
Characteristics age, sex, Down syndrome, cerebral palsy, medication, mobility limitation	Living arrangement foster/group home, living with family/relative, on their own/supportive living	Life events change of residence, job, primary caregiver, service provider
Health behaviors physical activity, dietary habits, smoking, alcohol	Residential area urban vs. rural	Social participation intensity of engaging in community activities within the last month

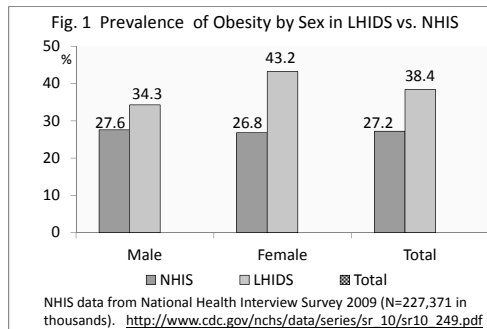
RESULTS

Table 1 presents the demographics of the participants

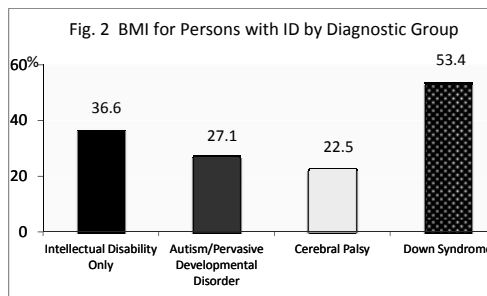
Table 1. Participant Characteristics (N=1,603)

Variables	Total %
Average Age (years)	37.07 \pm 14.14 (Range=18-86)
Age Group (years)	
18-44	69.8
45-64	26.5
\geq 65	3.7
Race	
White	88.5
Black	6.4
Hispanic	2.9
Other	2.2
Conditions related to ID	
Intellectual Disability only	45.7
Down Syndrome	24.9
Cerebral Palsy	12.6
Autism or PDD	12.0
Other	4.8
Level of intellectual disability	
Borderline	13.3
Mild	31.6
Moderate	23.7
Severe or Profound	8.6
Don't know	22.8
Living arrangement	
Own home or supportive living	28.3
With family member or relative	57.4
Foster or group home	14.3
Special Olympics participation	
Yes	45.7
No	54.3

Overall, 38.4% of adults (\geq 18 years) with ID were obese (BMI \geq 30 kg/m²); women were more obese than men (43.2% vs. 34.3%, p=0.001).



Participants diagnosed with Down syndrome have a higher prevalence of obesity as compared to other diagnostic groups (see Fig. 2).



The results of multiple logistic regression indicate that adults with ID being female, having Down syndrome, taking medication causing weight gain,

RESULTS

watching more hours of TV, consuming alcohol, living in urban area, and having life events within the past 12 months are more likely to be obese presented in Table 2.

Table 2. Summary of Significant Multiple Logistic Regression

Variables	Adjusted OR(95% CI)
Individual Factors	
Characteristics	
Female	1.41(1.09-1.82)**
Down syndrome	2.64(1.92-3.63)***
Cerebral Palsy	0.49(0.31-0.75)***
Medication-related weight gain	1.81(1.37-2.38)***
Health Risk Behaviors	
Hours of TV watching	1.06(1.00-1.13)*
Alcohol	1.44(1.00-2.07)*
Environmental Factors	
Urban	1.47(1.02-2.13)*
Social Factors	
Life events	1.33(1.02-1.73)*

Note. * p<0.05, ** p<0.01, *** p<0.001

CONCLUSIONS

- Obesity is a much greater health problem among adults with ID compared to the general population.
- Obesity is a greater problem in women and individuals with Down syndrome.
- Health promotion programs for adults with ID should include medication management (especially for medications causing weight gain), promote active life style, control for alcohol consumption, and provide psychosocial support for life events.

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