Prevalence and Associated Factors of Obesity in Adults with Intellectual Disabilities Living in the Community

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BACKGROUND

Obesity has become an epidemic and an important public health concern. Over the past few decades, adult obesity (BMI ≥ 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.

RESULTS

Table 1 presents the demographics of the participants.

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

![Fig. 1 Prevalence of Obesity by Sex in LHIDS vs. NHIS](http://www.cdc.gov/nchs/data/series/sr_10/sr10_249.pdf)

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

![Fig. 2 BMI for Persons with ID by Diagnostic Group](http://www.rrtcadd.org)

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

<table>
<thead>
<tr>
<th>Variables Adjusted OR(95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Factors Characteristics</td>
</tr>
<tr>
<td>Down syndrome</td>
</tr>
<tr>
<td>Cerebral Palsy</td>
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<tr>
<td>Medication-related weight gain</td>
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<tr>
<td>Life events</td>
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<td>Social participation</td>
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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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WEBSITE AND CONTACT INFORMATION

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