Association Between Disability and Obesity Status Among US Adults: Findings From 2019-2021 National Health Interview Survey (NHIS)

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Abstract : Introduction: Obesity is a major risk factor for many chronic diseases, with higher rates occurring among certain populations. Even though disparities in obesity rates exist for those with disabilities, few studies have assessed the association between disability and obesity status. This study aims to examine the association between type of disability and obesity status among US adults during the Covid-19 pandemic (2019-2021). Methods: Data for this cross-sectional study was obtained from the 2019, 2020 and 2021 NHIS. Multinomial logistic regressions were used to assess the relationship between each type of disability and obesity status (reference= normal/underweight). Each model adjusted for demographic, health status and health-related quality of life variables. Statistical analyses were conducted using SAS version 9.4. Results: Of the 82,632 US adults who completed the NHIS in 2019, 2020, and 2021. 8.9% (n= 7,354) reported at least 1 disability-related condition. Respondents reported having a disability across vision (1.5%), hearing (1.5%), mobility (5.3%), communication (0.8%), cognition (2.4%) and self-care (1.1%) domains. After adjusting for covariates, adults with at least 1 disability-related condition were about 30% more likely to have moderate-severe obesity (AOR=1.3; 95% CI=1.11, 1.53). Mobility was the only disability category positively associated with mild obesity (AOR=1.16; 95% CI=1.01, 1.35) and moderate/severe obesity (AOR=1.6; 95% CI=1.35, 1.89). Individuals with vision disability were about 35% less likely to have mild obesity (AOR=0.66; 95% CI=0.51, 0.86) and moderate-severe obesity (AOR=0.66; 95% CI= 0.48, 0.9). Individuals with hearing disability were 28% less likely to have mild obesity (AOR=0.72; 95% CI= 0.56, 0.94). Individuals with communication disability were about 30% less likely to be overweight (AOR=0.66; 95% CI=0.47, 0.93) and 50% less likely to have mild obesity (AOR=0.45; 95% CI= 0.29, 0.71). Individuals with cognitive disability were about 25% less likely to have mild obesity and about 35% less likely to have moderate-severe obesity. Individuals with self-care disability were about 30% less likely to be overweight. Conclusion: Mobility-related disabilities are significantly associated with obesity status among adults residing in the United States. Researchers and policy makers should implement obesity intervention methods that can address the gap in obesity prevalence rates among those with and without disabilities.

Keywords : cognition, disability, mobility, obesity

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