

Sleep Disorders

SESSION TITLE: Sleep Disorders Scientific Abstract Posters (A)

SESSION TYPE: Original Investigation Posters

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THE SILENT EPIDEMIC: SLEEP DISORDERS AND OBESITY-RELATED MORTALITY TRENDS IN THE US (1999-2023)

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PURPOSE: Obesity is one of the largest epidemics in the United States, which significantly increases the likelihood of developing sleep disorder(1). The purpose of this study was to analyze the trends and regional differences in sleep disorders and obesity-related mortality among 25 years and above adults.

METHODS: Sleep disorders and Obesity related mortality across the United States was assessed by exploring death certificates present in the CDC WONDER database focusing on cases classified under ICD-10 codes: E66.0, E66.1, E66.2, E66.8, E66.9, F51.0, F51.1, F51.2, F51.3, F51.4, F51.5, F51.8, F51.9, G47.0, G47.1, G47.2, G47.3, G47.4, G47.8. Age adjusted mortality rate (AAMR) per 100,000 people and Crude mortality rate (CMR) per 100,000 people were used to observe the trends over the years. Joinpoint regression analysis was conducted to calculate Average Annual Percent Change (AAPC) and assess statistical significance through p-values mortality trends were further deciphered by stratifying the data across different variables such as gender, age, race and location.

RESULTS: From 1999-2023, sleep disorders and obesity accounted for 91484 deaths among US adults aged 25 and above, of which 37498 deaths were of women and 53986 deaths were of men. The AAMR increased from 0.44 in 1999 to 1.048 in 2005 (APC:14.61; 95% CI: 5.13 to 34.12), it continued to increase to 1.73 in 2014 (APC: 6.30; 95% CI: 5.24 to 22.13), further increase took place till 2.01 in 2018 (APC: 1.88; 95% CI: -3.36 to 4.97), after this a steep increase as observed till 3.40 in 2021 (APC:19.9; 95% CI: 15.11 to 24.21), lastly it decreased to 2.52 in 2023 (APC: -12.82; 95% CI: -18.17 to -7.84).Men consistently had higher AAMR than women in 1999 (AAMR men: 0.59 vs women: 0.29) to 2023 (AAMR men: 3.20 vs women: 1.84). Significant disparities were observed among different races, highest AAMR was found in NH American Indians/Alaska Natives (2.13), followed by NH Black/African American (2.08), NH White (1.43), Hispanic (0.92 and NH Asian/Pacific Islanders (0.29).Rural areas had a higher overall AAMR than Urban areas. Highest AAMR was seen in Midwest, followed by West, South and Northeast. States in top 90th percentile are Oregon, Vermont, Washington, Iowa and Wyoming. Highest CMR was observed in 75-85 years.

CONCLUSIONS: This study uncovers significant disparities in sleep disorders and obesity related mortality among US adults. The highest AAMR was observed in NH American Indian men aged 75-85 years, mainly residing in rural areas, Midwest region and in states such as Oregon and Vermont. The ever-increasing AAMRs over the last two decades underscore the need for targeted interventions tailored toward high-risk populations.

CLINICAL IMPLICATIONS: none

DISCLOSURES:

No relevant relationships by Abdullah Afridi

No relevant relationships by Umama Alam

No relevant relationships by Muhammad Abdullah Ali

No relevant relationships by Aizaz Ali

No relevant relationships by Muhammad Zahid Anwar

No relevant relationships by Muhammad Zahid Anwar