“Obesity of the Youth: Health Disparity and Income Inequality”

“Analyzing The Obesity of Children and Adolescents and The Effect of The Pandemic”

Abstract

Obesity among adolescents is a critical public health issue, disproportionately affecting marginalized communities due to systemic disparities in income, healthcare access, and education. This study investigates the intersection of socioeconomic status (SES), healthcare availability, racial and ethnic disparities, and lifestyle factors in shaping adolescent obesity trends. Utilizing data from the 2019 National Survey of Children’s Health (NSCH), we employ the PRECEDE-PROCEED framework and mixed-effects modeling to examine how structural inequities contribute to BMI classifications and overall well-being.

Drawing on existing literature, we explore several key research questions: How do socioeconomic factors influence adolescent health disparities? What role does healthcare access play in the mental and physical health of different racial and ethnic groups? How do lifestyle behaviors, such as diet and physical activity, vary across demographics and contribute to disparities in obesity rates? How does school environment and educational attainment impact adolescent health outcomes?

Prior research underscores the multifaceted nature of youth obesity. Studies indicate that poor diet and low physical activity increase cardiometabolic risk even among active adolescents (Bezrati et al., 2024). Racial and ethnic disparities in sleep health further exacerbate obesity-related risks (Clark et al., 2024), while structural inequalities in healthcare access and socioeconomic status limit preventive interventions (Foster et al., 2024). School-based policies, such as nutritional programs and physical activity initiatives, have demonstrated varying degrees of success, particularly in diverse and low-income school districts (Sanchez-Vaznaugh et al., 2024). The COVID-19 pandemic has further intensified these disparities, disrupting healthcare access, school environments, and physical activity patterns, leading to increased obesity rates and mental health challenges (Todd, 2024; Kaneko et al., 2025).

By integrating a mixed-effects modeling approach, this study aims to quantify the impact of SES, healthcare access, and behavioral factors on youth obesity while controlling for individual and environmental influences. Findings from this research will contribute to evidence-based policy recommendations to mitigate health disparities, enhance healthcare accessibility, and improve school-based interventions aimed at reducing adolescent obesity.