

Mental Health Disparities and Socioeconomic Conditions

Policy Question

How are income, education, employment status, and general health associated with the number of poor mental health days reported in a typical month? Which factors independently predict higher mental health burden after adjustment?

Data and Methods

This analysis uses large-scale survey data capturing self-reported poor mental health days (0–31 days per month). Descriptive statistics, bar plots, histograms, and boxplots were used to explore distributions and group differences. Inferential methods included chi-square tests, ANOVA with Tukey post-hoc comparisons, simple linear regression, and multivariable linear regression. Model comparison was conducted using nested F-tests and adjusted R-squared.

Key Findings

Mental health outcomes are highly unequal across socioeconomic groups. Lower-income individuals consistently reported more poor mental health days, with a clear gradient across income categories. Education showed a similar pattern, with higher educational attainment associated with fewer poor mental health days. Employment status mattered, but much of its association diminished after controlling for income and education, suggesting partial confounding. General health status emerged as the strongest predictor: individuals reporting fair or poor general health experienced substantially higher mental health burden, even after adjusting for socioeconomic factors. Model comparison showed that adding general health significantly improved explanatory power.

Policy Implications

These findings suggest that mental health disparities are driven by layered socioeconomic and health-related disadvantage. Policies that focus solely on employment or individual behavior are unlikely to substantially reduce mental health burden without addressing underlying economic insecurity and physical health conditions. Targeted interventions should prioritize low-income populations and individuals with poor general health, integrating mental health services with primary care and social support systems. From a policy perspective, the results support upstream investments in income stability, education access, and preventive healthcare as core components of mental health strategy.

This brief demonstrates how applied statistical analysis can inform evidence-based, equity-focused mental health policy.