Gender differences in depression prevalence before and during the COVID-19 pandemic in a predominantly Black Adolescent/Young Adult population

Background: Depression is increasing in adolescents and young adults. While mental health disparities exist for minority, urban, low SES communities, they may be exacerbated by the COVID-19 pandemic.

Objectives: To evaluate the depression prevalence among patients seen at a Downstate Pediatric practice before and during the COVID-19 pandemic, and to identify risk factors for adverse pandemic-related mental health outcomes.

Methods: The Patient Health Questionnaire-9 (PHQ-9), a validated self-report depression screening tool, was administered to patients 11-21 years old at well-child visits. Patients completed surveys on paper when seen in person and electronically using REDCap during televisits. Pre-pandemic time period, Jan 1-Mar 20, 2020 was compared to Pandemic period Apr-Dec, 2020. Using standard cut-offs, PHQ-9 scores <10 were classified as negative and ≥ 10 were positive for depression. Demographics obtained were age, gender, race, ethnicity and insurance (proxy for SES).

Results: 399 PHQ-9s were collected, 177 before and 222 during the pandemic. 47.6% of responders were aged 11-14, 50.4% female, 85.0% Black, and 60.2% had Medicaid/Medicaid Managed Care. Chi-square showed no significant difference in prevalence of depression pre- and mid-pandemic (p=.881). While girls had a higher prevalence of depression compared to boys before (7% vs. 16%), this relationship became significant only during the pandemic (8.7% vs. 18.9%, p=0.03). Highest depression prevalence was seen among girls from Sep to Dec at 24.1%. A binomial logistic regression with gender and time periods as covariates found only gender to be significant, with an increased risk of depression in female gender by a factor of 2.47 [95% CI: 1.31 to 4.67].

Conclusion: While depression prevalence did not increase during the pandemic, 1 in 4 girls were depressed from Sep to Dec 2020. Findings suggest that resources must be allocated to help this population as the COVID-19 pandemic continues.

Additional contributors to this project:
Molly Schneider, College of Medicine student