Teen Delivery in a Medically-underserved Region During the COVID-19 Pandemic

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Background: Teen pregnancy is an important public health issue in the United States. Although global rates of teen pregnancy have decreased over the past 3 decades, teen pregnancy rates are higher in the United States than other industrialized countries. Teen pregnancy disproportionately affects girls from minority and lower socioeconomic groups and is associated with intimate partner violence, poverty, and decreased educational attainment. When schools closed in 194 countries in March 2020 with the COVID-19 lockdown, teens were left at home. However, literature search showed limited information about the relation between the COVID-19 lockdown and teen sexual activity and pregnancy.

Objective: To evaluate teen delivery prevalence and risk factors associated with the COVID-19 lockdown in a medically-underserved region.

Methods: In this retrospective review of medical records, all birth records were obtained from our tertiary care academic hospital for all deliveries to teen mothers (defined as mothers aged less than 19 years at delivery) from November 1, 2018 to September 1, 2021. Records were grouped according to deliveries during 16-month periods (1) before the COVID-19 pandemic, from November 4, 2018 to March 29, 2020 and (2) during COVID-19, from May 4, 2020 to August 31, 2021. Demographic and clinical variables were extracted manually and entered into a survey tool for analysis. The numbers of all births were obtained for mothers of all ages who delivered during these periods. The primary study outcome was the prevalence of teen delivery before and during COVID-19. Secondary outcomes included frequency of complications and postpartum plans for feeding and birth control. Comparisons before vs during COVID-19 were made with *t*, chi-square, or Fisher exact test for different variable types.

Results: There were 88 teens in all 3222 mothers (3%) who delivered before and 89 teens in all 3064 mothers (3%) who delivered during COVID-19. Teen mothers before vs during COVID-19 were similar in mean age (before, 16.3 ± 0.9; during, 16 ± 1; P = .65) and frequency of obesity (body mass index ≥ 30 kg/m^2: before, 36 of 88 teens [41%]; during, 33 of 88 teens [38%]), black race (before, 55 of 88 teens [63%]; during, 49 of 89 teens [55%]), Medicaid insurance (before, 78 of 88 teens [89%]; during, 77 of 88 teens [88%]), and adequate prenatal care (before, 74 of 88 teens [84%]; during, 76 of 89 teens [85%]). Most deliveries were uncomplicated vaginal deliveries (before, 61 of 88 teens [69%]; during, 64 of 89 teens [72%]; P = .65), and the most frequent complication was gestational hypertension or preeclampsia (before, 34 of 88 teens [39%]; during, 27 of 89 teens [30%]; P = .27). Mean hospital stay was similar before (2.5 ± 1.2 d) vs during COVID-19 (2.4 ± 1.1 d; P = .54). During COVID-19, the frequency of teen mothers who planned exclusive breastfeeding was greater (before, 17 of 83 teens [20%]; during, 33 of

77 teens [43%]; *P* = .008) and who were undecided about postpartum birth control was lower (before, 22 of 88 teens [25%]; during, 9 of 77 teens [12%]; *P* = .04) than before COVID-19.

Conclusion: Teen delivery prevalence and most demographic and clinical characteristics of teen mothers were similar before vs during COVID-19. The frequency of teen mothers who were planning exclusive breastfeeding was markedly greater and undecided about postpartum birth control was markedly lower during COVID-19. Further study is needed to determine whether feeding and birth control plans during COVID-19 were associated with other socioeconomic factors, social isolation, the influence of cohabiting parents or siblings, or the fear of acquiring or transmitting COVID-19 infection.