

COVID-19 Impact on Breastfeeding in Lynchburg, VA: A Retrospective Analysis

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Abstract

BACKGROUND: The United States continually falls short of breastfeeding goals as established by the U.S. Department of Health and Human Services. Healthcare has been challenged significantly with the development of the new health crisis COVID-19, and obstetrics and gynecology was no exception. Pregnant women and mothers had new environmental stressors to deal with in addition to existing challenges pregnancy already entails including varying work requirements as non-essential businesses closed, potential lack of family support with varying socioeconomic status, and the adverse health outcome risk group with COVID-19 infection. It is pertinent to increase the understanding of how this pandemic and the healthcare challenges it presented have affected already existing healthcare disparities such as breastfeeding. Developing this understanding will allow healthcare providers to then explore appropriate interventions to better support breastfeeding initiation and duration in future health crises. Specifically, this research was conducted at the Women's Health of Central Virginia clinic in Lynchburg, VA. The objective of this research is to contribute to the understanding of how the COVID-19 pandemic affected breastfeeding rates amongst mothers who gave birth during this health crisis as compared to the previous year in the Women's Health of Central Virginia clinic in Lynchburg, VA.

METHODS: Data was collected from mothers who gave birth during the 2020 quarantine beginning in March 2020 (n = 330) through July 2020 and compared to the control group of mothers who gave birth in 2018 beginning in March 2018 (n = 444) through June 2018. The data included patient's choice of feeding modality, feeding modality at 6 weeks postpartum and employment status. Potentially confounding variables known to be associated with breastfeeding outcomes were assessed including age, race, parity, and mode of delivery. Multiple births (twins, etc.), premature births, and anyone who was lost to follow-up were excluded from the data set. Chi square tests of independence was run for comparisons between all groups with $p < 0.05$ being the standard for a significant association.

RESULTS: The COVID study group (Group 2) did not have a statistically significant change in breastfeeding initiation compared to the previous year (Group 1) ($p = 0.540$). Additionally, there was no association between feeding modality at 6 weeks postpartum and Group 1 and Group 2 ($p = 0.236$). Initial feeding modality and choice of feeding modality at 6 weeks postpartum was not statistically impacted by employment status, mode of delivery, or age in either group, with the exception of employment status having a statistically significant relationship with initial feeding modality in Group 1 ($p = 0.028$). Parity and initial feeding modality did not show any association in Group 1 or 2. Parity and feeding modality at 6 weeks did have a significant relationship Group 2 ($p = 0.048$) but not Group 1. Amongst all racial groups within Group 2, breastfeeding was the most popular option compared to formula feeding at for both initial and 6 weeks postpartum feeding modality ($p < 0.001$). Upon further analysis, when the minority racial groups were excluded (Asian and unknown) it was

found that in Group 2 there was found to be a statistically significant relationship between race and feeding modality, both initially ($p < 0.001$) and at 6 weeks postpartum ($p < 0.001$).

DISCUSSION/CONCLUSION: Based on the results of this study, it cannot be proven that COVID had any impact on breastfeeding initiation or duration. Further study would need to be conducted in order to further understand the impacts of the pandemic. Some shortcomings of this research was that the sample size of each group differed once all the necessary exclusions were made. Furthermore, much of the results in the race category can be attributed to the large population difference. This study also could not follow the mothers past 6 weeks.