

Evaluation of the Impact of the COVID-19 Pandemic on Emergency Pediatric Dental Visits as First Time Appointments



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INTRODUCTION

The COVID-19 pandemic has posed many considerable challenges to access healthcare for children throughout the world. Due to scarce reliable information at the beginning of lockdowns, pediatric dentists questioned whether it was safe to continue practicing at normal clinical hours. In March 2020, the Center for Disease Control and Prevention and the American Dental Association recommended that all dental offices postpone elective procedures and only provide emergency treatment¹. Regardless if a dental office reduced their clinical hours or not, the uncertainty around the viral disease’s etiology and transmission pathway also increased the incidence of patients not showing up for their regular preventive care and non-emergency treatment appointments². Children were more likely to not have their oral health evaluated during the pandemic, especially in families who experienced financial burden³. The State of Kansas extended an executive order on March 12, 2020 to secure the health and safety of the residents of Kansas by declaring a State of Disaster Emergency⁴. Although there have been some studies on the effects of the COVID-19 pandemic on children’s oral health on a national scale, there is a lack of data focusing on these effects on a regional scale.

PURPOSE

The objectives of this study are to evaluate whether the incidence of first-time appointments scheduled as emergency pain-related appointments changed due to the disruption the COVID-19 pandemic had on pediatric dental offices, and to determine whether regular pediatric dental services should be seen as a medical necessity during the time of a pandemic.

METHODS

A retrospective chart review of pediatric dental patients between the ages of 0-12 years old seen at the SEK Smiles Clinic in either Pittsburg or Parsons, Kansas, was conducted to compare the incidence and prevalence of first-time, emergency dental visits for pain. Data was collected over a 3-year period: one year before (March 12, 2019 – March 11, 2020), during (March 12, 2020 – March 11, 2021), and after (March 12, 2021 - March 11, 2022) the COVID-19 pandemic. Data was collected using the CDT code D0140. A Chi-square test was utilized to compare the number of first-time emergency appointments.

RESULTS

- Over the 3-year study period, 2,963 pediatric patients were seen for comprehensive exams and 46 patients were seen for first-time appointments due to pain.
- The mean age of the 46 patients included in the study was 5.8 years (\pm 3.01), and 25 (54%) were male and 21 (46%) were female.
- Eight (17%) pediatric patients were seen for emergency appointments before the pandemic, 21 (46%) patients were seen during the pandemic, and 17 (37%) patients were seen in the time period after the pandemic.
- There was no significant difference between the number of emergency visits for pain before, during or after the COVID-19 pandemic ($P=.05$).

FIGURE 1: DEMOGRAPHICS

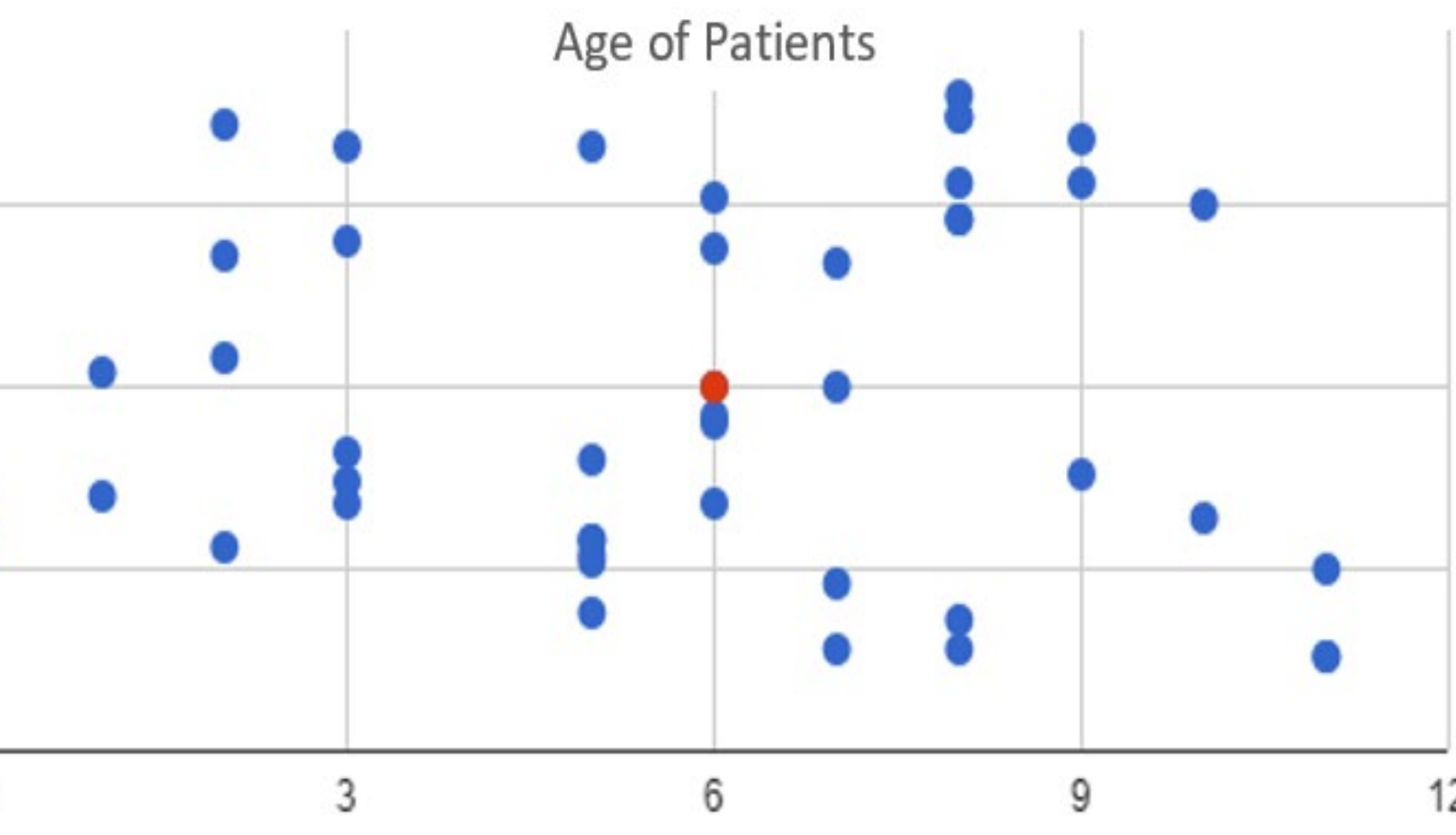
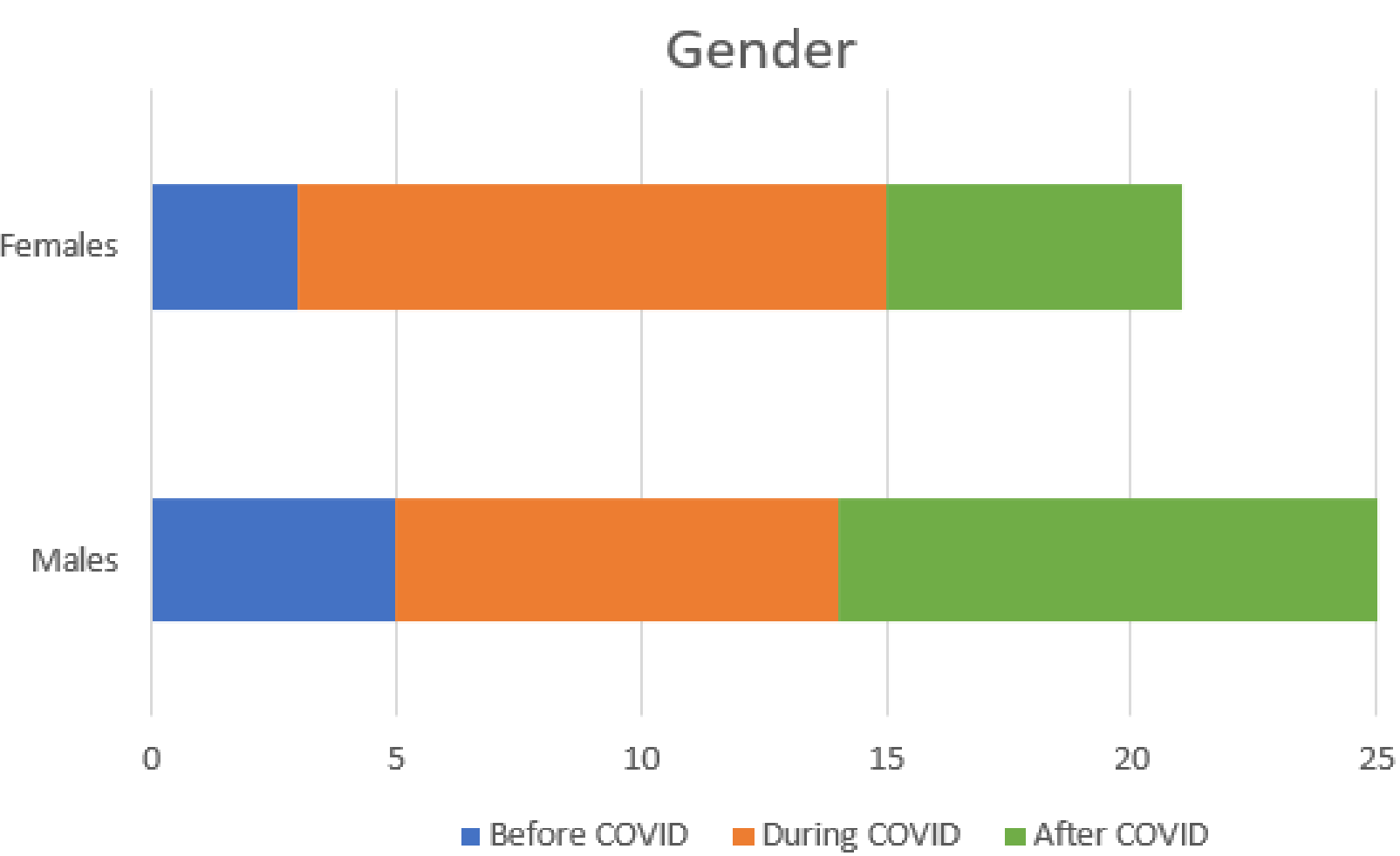


FIGURE 2: INCIDENCE OF FIRST-TIME EMERGENCY PEDIATRIC DENTAL VISITS

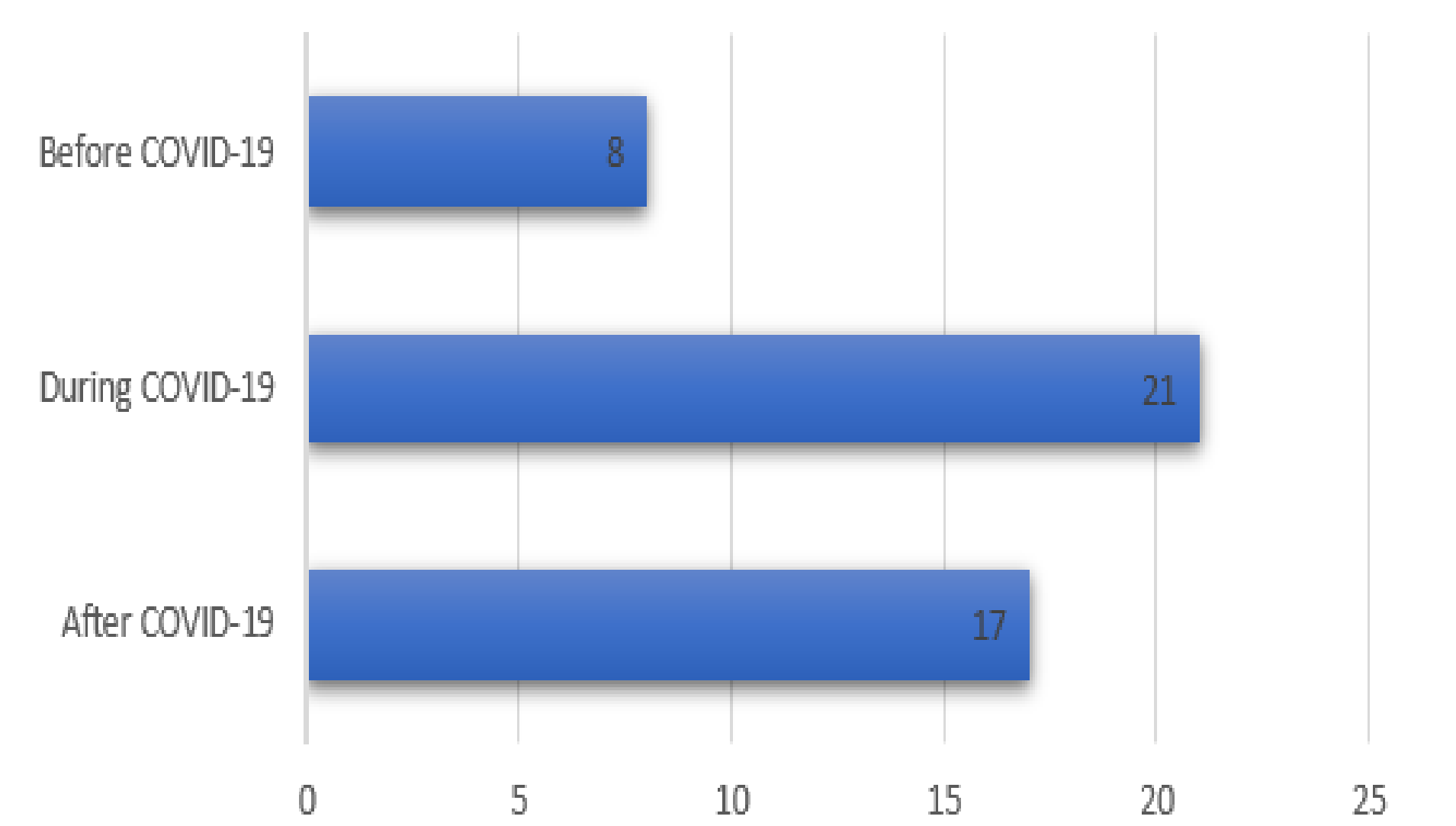


FIGURE 3: PREVALENCE OF FIRST-TIME EMERGENCY PEDIATRIC DENTAL VISITS

	Before COVID-19	During COVID-19	After COVID-19
Total Dental Visits	549	1076	1384
First Time Emergency Dental Visits	8	21	17
Prevalence	1.5%	1.9%	1.2%
P Value (Compared to Before COVID-19)	-	0.30	0.57

LIMITATIONS

The sample size was limited by the completion of the CDT code D0140 during appointments. Most children seen for the first time at the clinic sites studied had a comprehensive exam completed regardless of whether they presented for pain, therefore, the CDT code D0150 was completed. These children were not included in the present study since the CDT code D0140 was not completed.

CONCLUSIONS

- Based on the data collected in this study, the COVID-19 pandemic did not impact the incidence or prevalence of children seen for first time emergency dental visits. There was no significant difference in the prevalence of males or females nor a specific age that was seen more commonly during these time periods.
- The data may have yielded alternative conclusions if there was more consistency in how codes were completed at the dental offices for this type of appointment. Additional studies should be conducted using larger sample sizes.

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