

Retrospective Dental Visits before and during COVID-19 Lockdown



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INTRODUCTION

- The World Health Organization (WHO) on March 11th, 2020, declared the novel coronavirus (COVID-19) outbreak a global pandemic. Severe acute respiratory syndrome coronavirus 2 (SARS-COV-2) is the causative virus for COVID-19. It first emerged in late 2019 in Wuhan, China and has become a global threat. The pandemic has resulted in a devastating impact worldwide, which prompted the need for mitigation policies to contain the pandemic. Most countries tried to reduce the transmissibility of the disease, often by non-pharmaceutical intervention (NPIs), including enforcing masks policy, hand sanitization, social distancing, travel restrictions, school closures, and partial or complete lockdown.³
- The COVID-19 pandemic has affected many aspects of daily life, including dental visits. Before the pandemic, patients were advised to visit their dentist regularly for continue check-ups and cleanings, usually twice a year. However, during the COVID-19 lockdown, many dental practices were closed, and people were advised to only seek emergency dental care. Access to dental care may have been difficult during this time.
- The social impact of oral disease in children is substantial. More than 51 million school hours are lost each year to dental-related illness.^{1,2}

METHOD

Sample:

- Existing data from Compass Health’s Pediatric Dental Department Broadway Bluffs location

Inclusion Criteria:

- Patients ages 6 months to 18 years
- Patients seen from March 15, 2020 to May 15, 2020 and March 15, 2017 to May 15, 2017 at Compass Health’s Pediatric Dental Department Broadway Bluffs location

Procedure:

- The electronic dental record (EDR), Next Gen, will be searched by the date of treatment
- Manually review the list of completed procedures to identify what CPT codes were completed
- All study information for eligible patients will be de-identified and entered into the study database in REDCap. Each eligible ADA code will have a description associated with the code, along with the date of service, age at time of service, and sex

Statistical Analysis:

- Count and percentage will be reported for categorical variables. Next, a bivariable analysis will be conducted to determine if the types of dental visits (non-emergency vs. emergency) changed before and after the COVID-19 pandemic. A chi-square test will be conducted, and significance level will be set at p<0.05 for all tests

DATA TABLES

Table 1. ADA Code Comparison

Level	2017	2020
n	3075	639
Description (%)		
COMPREHENSIVE ORAL EXAMINATION	58 (1.9)	17 (2.7)
CORONAL REMNANTS - DECIDUOUS TOOTH	13 (0.4)	5 (0.8)
LIMITED ORAL EXAMINATION- PROBLEM FOCUSED	36 (1.2)	68 (10.6)
NITROUS OXIDE INHALATION	105 (3.4)	27 (4.2)
ORAL EVAL FOR PT UNDER 3 YRS	23 (0.7)	2 (0.3)
PERIODIC ORAL EXAMINATION	298 (9.7)	42 (6.6)
PREFAB. STAINLESS STEEL CROWN- PRIMARY	61 (2.0)	3 (0.5)
PROPHYLAXIS-ADULT	41 (1.3)	5 (0.8)
PROPHYLAXIS-CHILD	332 (10.8)	18 (2.8)
PULP CAP-DIRECT (EX. FINAL RESTORATION)	2 (0.1)	0 (0.0)
RESIN-BASED COMPOSITE-FOUR+ SURF., POST.	2 (0.1)	0 (0.0)
RESIN-BASED COMPOSITE-ONE SURFACE, POST.	56 (1.8)	3 (0.5)
RESIN-BASED COMPOSITE-THREE SURF., POST.	6 (0.2)	0 (0.0)
RESIN-BASED COMPOSITE-TWO SURFACE, POST.	34 (1.1)	3 (0.5)
RESIN-FOUR OR MORE SURFACES ANTERIOR	2 (0.1)	2 (0.3)
RESIN-ONE SURFACE, ANTERIOR	12 (0.4)	2 (0.3)
SEALANT-PER TOOTH	73 (2.4)	4 (0.6)
SEDATIVE FILLING	6 (0.2)	7 (1.1)
SINGLE TOOTH EXTRACTION	39 (1.3)	27 (4.2)
THERAPEUTIC PULPOTOMY (EX. FINAL RESTOR.	17 (0.6)	1 (0.2)
TOPICAL FLUORIDE VARNISH	361 (11.7)	47 (7.4)
TRTMT COMPLETE E/R CHILD	21 (0.7)	37 (5.8)
TRTMT COMPLETE RECALL CHILD	208 (6.8)	20 (3.1)

Table 2. Patient Demographics

	Level	Overall	Year		p
			2017	2020	
n		3714	3075	639	
SEX (%)	F	1733 (46.7)	1453 (47.3)	280 (43.8)	0.124
	M	1981 (53.3)	1622 (52.7)	359 (56.2)	
AGEonDOS (mean (SD))		7.42 (3.74)	7.44 (3.83)	7.35 (3.32)	0.564

Table 3. Bivariable Analysis

	Level	Overall	Year		p
			2017	2020	
Emergency (%)	No	3352 (90.3)	2962 (96.3)	390 (61.0)	<0.001
	Yes	362 (9.7)	113 (3.7)	249 (39.0)	

PURPOSE

- The purpose of this study is to compare and contrast the number of dental visits, type of dental visits, and types of procedures completed before and during the COVID-19 lockdown
- Understanding the difference will provide clarity on the skills, equipment and processes required by dental staff to provide care in pandemic settings

RESULTS

- In 2017, 3075 ADA Codes were completed and in 2020, 639 ADA Codes were completed
- There was no difference in age or sex between the years
- In 2017, 113 or 3.7% of the ADA codes were considered emergency treatment
- In 2020, 249 or 39.0% of the ADA codes were considered emergency treatment
- There was a significant difference between emergency visits in 2017 and 2020
- 36 (1.2%) limited exams were completed in 2017 compared to 68 (10.6%) in 2020
- 39 (1.3%) single tooth extractions were completed in 2017 compared to 27 (4.2%) in 2020
- 21 (0.7%) patients had Emergency treatment completed in 2017 compared to 37 (5.8%) in 2020
- 208 (6.8%) patients had recall visits completed in 2017 compared to 20 (3.1%) in 2020

CONCLUSIONS

- There was significantly more emergency visits during the COVID-19 lockdowns than before
- There was no difference in age or sex among the patients
- Patient that came in during the COVID-19 lockdowns were less likely to receive preventative care such as sealants or prophies

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