



In-Office Emergency Dental Visits During the COVID Pandemic

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Introduction

The COVID-19 pandemic generally affected the delivery of health care, including dental care. Dental visits were mostly restricted to emergency care only. However, little is known about the impact of the COVID-19 pandemic on oral health and the dental visits of children in urban settings where minority populations are treated. The purposes of this study were to describe the demographics of patients younger than 18 years of age who sought dental emergency visits during the COVID-19 pandemic, the treatment provided, the patients' payment sources and the impact of the pandemic on oral health.

Methodology

A retrospective electronic chart review was conducted for dental emergency visits between 2020 and 2023 at the University of Detroit Mercy School of Dentistry, Detroit, Mich., USA. The data set included the patients' demographics, insurance type, reason(s) for the dental emergency visit and the provider's diagnosis and treatment provided.

Results

Six- to 10-year-old children were the most frequently seen group for an emergency dental visit (40 percent). The majority had public insurance. Delta Dental was the most common payment source (47 percent). Diseases of pulp and periapical tissues accounted for the highest proportion of emergency visits (55 percent) and extractions were the most common treatment performed (54 percent).

Results

Table 2. In-Office Emergency Dental Visit Characteristics							
Year	2020 N (%)	2021 N (%)	2022 N (%)	2023 N (%)	Total N (%)	P-value	
Reason for visit							
Pain to a primary tooth	22 (30)	42 (42)	38 (37)	47 (39)	149 (37)	<0.01*	
Pain to a permanent tooth	34 (45)	38 (37)	44 (43)	53 (43)	169 (42)		
Pain and swelling primary	2 (3)	4 (4)	5 (5)	1 (0)	12 (3)		
Pain and swelling permanent	4 (6)	5 (5)	7 (7)	3 (2)	19 (5)		
Pain/gingival related	4 (6)	11 (11)	7 (7)	14 (12)	36 (9)		
Others	8 (10)	1 (1)	1 (1)	4 (4)	14 (4)		
Clinical diagnosis							
Disorder of dental hard tissues and teeth							
Dental caries	10 (14)	19 (18)	18 (18)	33 (27)	80 (19)	<0.01	
Dental trauma	4 (5)	4 (4)	3 (3)	6 (5)	17 (4)		
Diseases of pulp and periapical tissues							
Irreversible pulpitis	25 (34)	31 (31)	37 (36)	14 (11)	107 (27)		
Pulp necrosis	16 (22)	30 (30)	28 (27)	38 (31)	112 (28)		
Gingival and periodontal diseases							
Ulcer	2 (3)	3 (3)	1 (1)	4 (3)	10 (3)	<0.01	
Acute periocoronitis	6 (8)	8 (8)	7 (7)	13 (11)	34 (9)		
Other conditions							
Retained teeth	7 (9)	2 (2)	5 (5)	2 (2)	16 (4)		
Unspecified	4 (5)	4 (4)	3 (3)	12 (10)	23 (6)		
Treatment performed							
Pulp therapy							
Primary tooth	1 (1)	4 (4)	1 (1)	0 (0)	6 (2)	0.1285	
Permanent tooth	10 (14)	12 (12)	20 (20)	18 (15)	60 (15)		
Extraction							
Primary tooth	31 (42)	55 (55)	47 (46)	46 (38)	179 (45)		
Permanent tooth	11 (15)	3 (3)	4 (4)	16 (13)	34 (9)		
Restoration	8 (11)	15 (15)	13 (13)	22 (18)	58 (14)	<0.01	
None was done/referred due to behavior	13 (17)	11 (11)	17 (16)	20 (16)	62 (15)		
Follow-up visit							
Yes within a month	32 (43)	48 (48)	52 (51)	59 (48)	191 (48)	0.1285	
No	42 (57)	53 (52)	49 (49)	63 (52)	207 (52)		
Unanswered			1 (1)		1 (0)		
Medications prescribed							
Yes	28 (38)	12 (12)	25 (24)	10 (8)	75 (19)	<0.01	
No	46 (62)	89 (88)	77 (76)	112 (92)	324 (81)		
Total	74	101	102	122	399		

Table 3. In-Office Emergency Dental Visits by Age Groups and Insurance				
Age group (years)	Medicaid N (%)	Private insurance N (%)	Uninsured N (%)	Total N (%)
0-5	33 (8)	6 (1)	6 (1)	45 (11)
6-10	103 (26)*	14 (4)	42 (11)	159 (40)*
11-14	50 (13)	2 (0)	17 (4)	69 (17)
15-17	81 (20)	7 (2)	38 (10)	126 (32)
Total	267 (67)*	29 (7)	103 (26)	399 (100)

Results

Table 4. Emergency Dental Diagnosis by Age Group					
Age group (years)	Disorders of Dental Hard Tissues & Teeth N (%)	Diseases of Pulp & Periapical Tissues N (%)	Gingival & Periodontal Diseases N (%)	Others N (%)	Total N (%)
0-5	14 (4)	23 (6)	4 (1)	4 (1)	45 (11)
6-10	39 (10)	92 (23)*	9 (2.5)	19 (5)	159 (40)
11-14	20 (5)	35 (9)	6 (1.5)	8 (2)	69 (17)
15-18	24 (6)	69 (17)	25 (6)	8 (2)	126 (32)
Total	97 (24)	219 (55)	44 (11)	39 (10)	399 (100)

Conclusions

During the COVID-19 pandemic, children may not have received optimum dental care and lacked regular dental visits and preventive treatment, which probably led to an increase in the severity of dental conditions.

The results of this study showed that emergency dental visits steadily increased as patients returned for dental care. The study had limitations, such as examining the data of in-office emergency dental visits only that did not result in hospital admissions and the fact that the majority of the population studied was healthy.

Resources

Haqiqi AM, Bedos C, Macdonald ME. The emergency department as a 'last resort': Why parents seek care for their child's non-traumatic dental problems in the emergency room. Community Dent Oral Epidemiol 2016;44(5):493-503

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