

Impact of Operating Room Referrals due to COVID-19 Mandated Closure

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Background

The COVID-19 pandemic impacted access to pediatric dental care in two significant manners.

1. Restrictions on dental services in the community and hospital setting thus preventing access to restorative care and increasing need for emergency services¹
2. Worsening dental disease due to lifestyle changes. Patients had increased caries risk due to sedentary lifestyles, increased snacking, and difficulty with oral hygiene²

We predicted the combination of these 2 factors increased demand for pediatric dental operating rooms once the restrictions were relieved.

The Eastman Pediatric Dentistry clinic was closed for 3 months (March 16, 2020 to June 3, 2020). The pediatric dentistry operating rooms were also closed at these times.

Study objectives:

1. Determine the difference in wait times from initial consult to oral rehabilitation under general anesthesia before and after the pandemic-forced closure of the pediatric dentistry clinic
2. Determine if there is an increase of operating room (OR) referrals coming from the Pediatric Dentistry Emergency Clinic before and after the closure

There is currently a lack of studies investigating the impact of the COVID-19 pandemic on pediatric dentistry operating rooms wait time.

Methods

This retrospective cohort study utilized data from the dental clinic database. The data included 12 months of patients before and after the clinic closure.

3 groups were made based on the timing of the initial consult and the OR relative to the closures (Table 1).

Specific variables to be assessed were:

1. Wait time difference (in days) between initial OR referral and date of dental OR
2. Source of initial referral as either emergency visit (EMERG), new patient exam (NP), recall exam (RECALL), external referrals (REFER) or treatments (TREAT) such as a failed nitrous or sedation appointment.

Two-sample t-test was used to compare wait time differences and source of referrals. Linear regression analysis was used to study the association between the clinic closure and the primary outcomes adjusting the effects of some factors such as age, gender, insurance type, etc.

Results

Table 1: Subject Demographics										
		Age	Sex		Race		Ethnicity		Insurance	
Group	N	Mean± SD (years)	Female	Male	African American	White	Hispanic	Non-Hispanic	Medicaid	Private
1	520	5.1± 2.64	43.7%	56.3%	40.5%	59.5%	16.1%	83.9%	92.1%	7.9%
2	355	5.4 ±2.64	44.2%	55.8%	41.9%	58.1%	12.0%	87.9%	88.7%	11.3%
3	782	5.3±2.94	42.2%	57.8%	37.4%	62.6%	16.0%	84.0%	92.7%	7.3%
Group 1 - Consult Pre-Closure, OR Pre-Closure; Group 2 - Consult Pre-Closure, OR Post-Closure; Group 3- Consult Post-Closure, OR Post-Closure										

Table 2: Source for Initial Consult					
Group	EMERG	NP	RECALL	REFER	TREAT
1	18.3%	14.6%	14.6%	35.6%	16.9%
2	14.9%	15.8%	14.1%	43.9%	11.3%
3	↑28.9%*	↓10.0%*	10.2%	39.5%	11.4%
Total (n)	374	210	206	650	217
*Statistically significant and T-Test and linear regression used					

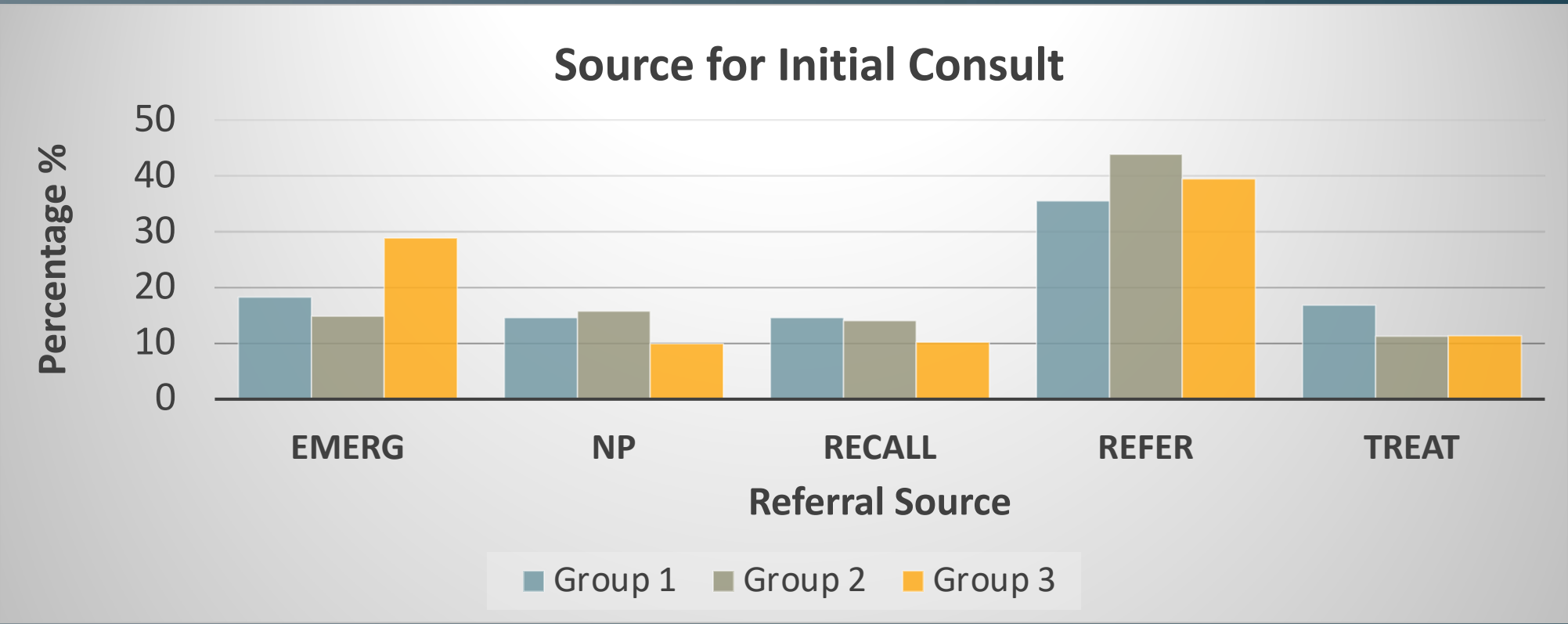


Table 3: Wait Time difference Between Initial Consult and OR		
Group	Mean ± SD (days)	Median
1	107.9 ± 56.7	103
2	↑256.7 ± 150.4*	↑215*
3	123.9 ± 103.7	100

References

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Summary of Findings

- Total of 1657 subjects included in this study with no significant differences in demographics
- Emergency visits were statistically increased while NP exams were statistically decreased after the lockdown
- Wait time mean for Group 2 was statistically greater than Group 1 and 3
- The mean wait time was greater for Group 3 than Group 1 but not statistically significant.

Conclusions

- The pandemic-forced closures of the Eastman Pediatric Dentistry department resulted in increased wait times for OR immediately after lockdown, but it decreased in the year after
- The number of patients requiring OR referrals from our emergency visits statistically increased after the lockdown as there was a delayed access to care
- This study shows the pandemic had significant impacts on access to care and wait times of healthcare delivery