Influence of the COVID-19 Pandemic on Pediatric Oral Health

Kayla L Moller DDS[1], Fernando D. Testai MD, PhD[2], Evelina Kratunova MDS, D. Ch. Dent[1] and Flavia Lamberghini DDS, MS, MPH[1]

UNIVERSITY OF ILLINOIS CHICAGO

[1] Department of Pediatric Dentistry, UIC College of Dentistry, Chicago, IL, USA
[2] Department of Neurology and Rehabilitation, UIC College of Medicine, Chicago, IL, USA

INTRODUCTION

- COVID-19 is caused by the SARS-CoV-2 RNA virus which appeared in China in late 2019 and rapidly spread worldwide
- In response to the pandemic "stay at home" orders went into effect mid March 2020 and many non-emergency dental procedures were cancelled or postponed to minimize virus transmission

HYPOTHESIS/OBJECTIVE

To assess the impact of the COVID-19 pandemic on the oral health (OH) of the children exposed (cases) versus non-exposed historic matched controls.

H_0: The COVID-19 pandemic did not impact the children OH
H_1: The COVID-19 pandemic negatively impacted the children OH

METHODS

This study was conducted as a *retrospective chart review* of new patients seen at a UIC affiliated clinic 03/01/20 to 03/14/20, matched (age , sex , and insurance type) to historic controls seen 03/01/19 to 03/31/19: baseline **dmft/DMFT**, **recall date**, and **recall dmft/DMFT** were statistically analyzed using SPSS.

IRB Protocol: 2020-1051

Inclusion	Exclusion
Age 0-17	Age ≥18
Comprehensive new patient exam	Limited exam, existing patient
Medically healthy	Medically complex

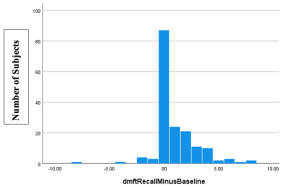
RESULTS

512 pediatric dental charts were analyzed, 256 patients from the COVID-19 group matched based on age, sex and insurance with 256 controls.

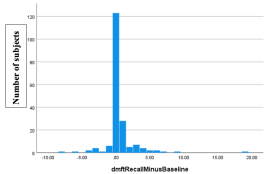
- **94% of the patients were on Medicaid insurance recipients**
- **51.9% of the patients were male and 48.1% were female**
- **The average age of the sample was 5.36 years (SD= 3.44)**

The mean changes in dmft and DMFT were analyzed using a Mann-Whitney test.

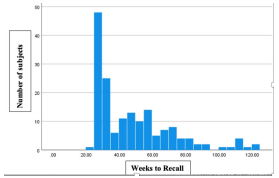
- **Primary dmft the mean change for pre-pandemic group was .476 and .982 for COVID-19 group, *P <.001*.**
- Permanent DMFT the mean change was .116 for pre-pandemic and .159 for COVID-19 group, *P= .731* (not significant)



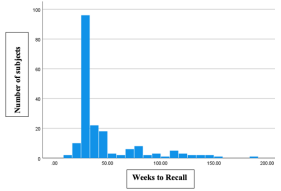
Change in dmft COVID-19



Change in dmft pre-pandemic



Time to recall COVID-19



Time to recall Pre-Pandemic

Recall Failure:
COVID-19 Group: 90/256 (35%), *P=.038*
Pre-pandemic group: 68/256 (26%)

Time to recall:
The median time for the COVID-19 group was 42 weeks
vs. 31 weeks in the pre-pandemic group, ***P< .001***

CONCLUSIONS

- Patients seen during the pandemic time frame were loss to follow up (lacked recalls) at higher rates
- Patients who attended a recall appointment were seen at delayed intervals to patients seen prior to the pandemic
- Patients seen during the COVID-19 pandemic had a higher change in dmft (significant) than patients seen prior to the COVID-19 pandemic