

Introduction

The COVID-19 pandemic has drastically changed many aspects of life including social life, work life, and schools and businesses.

During the first outbreak, dental treatment was limited to only emergencies as recommended by the Centers for Disease Control and Prevention (CDC) which later went through multiple revisions where now SARs COVID 19 is in a constant flux.

Multiple articles claiming dentist, hygienist, nurses and doctors were among highest risk for contracting Coronavirus in 2020.⁶

Objectives

To analyze how COVID-19 may have altered the treatment planning of pediatric patients due to the dangers of viral exposure.

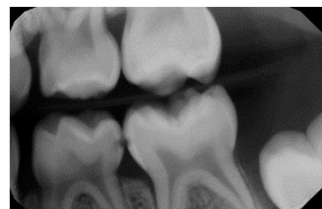
Methods

Surveys were distributed via SurveyMonkey to practicing pediatric dentists using emails available in the AAPD directory.

5 Clinical based questions were asked using intra-oral radiographs with each standardized case. Respondents were asked to give proposed dental treatment for each radiograph.

Every clinical radiograph was repeated twice and question was altered to proposed treatment prior to COVID-19 versus treatment planning at time of survey.

Results



Treatment	Before COVID	After COVID
Silver Diamine Fluoride (SDF)	13.64%	19.09%
SSC/ Pulpotomy SSC / Pulpectomy SSC	3.64%	2.73%
Composite Restoration	71.82%	64.55%
Hall Crown	1.82%	2.73%
SMART technique	0.00%	1.82%
Extraction	0.00%	0.00%
No treatment	3.64%	3.64%
Other	5.45%	5.45%

Case #3 (left radiograph) and case #4 (middle radiograph) were the cases with the smallest lesions, these cases also displayed the greatest change in proposed treatment pre and post COVID-19

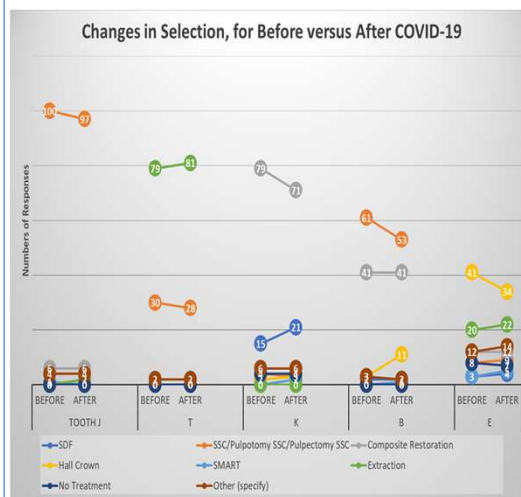


Treatment	Before COVID	After COVID
Silver Diamine Fluoride (SDF)	1.82%	1.82%
SSC/ Pulpotomy SSC / Pulpectomy SSC	55.45%	48.18%
Composite Restoration	37.27%	37.27%
Hall Crown	2.73%	10%
SMART technique	0.00%	0.91%
Extraction	0.00%	0.00%
No treatment	0.00%	0.00%
Other	2.73%	1.82%



Treatment	Before COVID	After COVID
Silver Diamine Fluoride (SDF)	2.80%	3.74%
SSC/ Pulpotomy SSC / Pulpectomy SSC	7.48%	8.41%
Composite Restoration	11.21%	11.21%
Strip Crown	38.32%	37.78%
SMART technique	2.80%	4.67%
Extraction	18.69%	20.56%
No treatment	7.48%	6.54%
Other	11.21%	13.08%

Case 5 showed the greatest variability among proposed treatment plans



Few dentist altered their treatment planning to favor non-invasive/ non-aerosol producing techniques

Smaller carious lesions were more likely to have treatment altered to a more non-invasive technique in response to COVID as seen in case #3 and #4 shown above.

Treatment planning among pediatric dentist varies and greatest variation was for maxillary anterior.

Less variation noted in "textbook" cases Case #1 and #2 showed least amount of variability in treatment planning. These cases not shown were cases with large multi-surface caries.

Conclusion

COVID- 19 continues to change daily living and a "Post COVID-19" period has yet to occur and has no end in sight.

The Pandemic was not enough of a factor for broader adoption of minimally invasive techniques in pediatric dentistry. Only case #4 had a statistical significant results which involved switching from SSC to using the hall crown technique instead. SDF also showed an increase in proposed treatment planning in case #3. For smaller lesions it appears that less invasive treatment planning increased where as

Pediatric dentist treat teeth differently. For some cases, techniques were adjusted due to COVID but treatment was relatively consistent.

Some cases showed large discrepancies in proposed treatment among dentist and the most esthetic case demonstrated greatest variability in treatment planning

More research is needed to see how COVID has impacted not only pediatric dentists, but healthcare as a whole.

Limitations

Some limitations to this research include low sample size (117), limited clinical questions (5), and multiple confounding variables including time when survey was taken, patient population, educational and clinical biases.

References

Available upon request.