



# Provider Acceptance and Utilization of the Hall Crown Technique among Pediatric Dental Specialists

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## BACKGROUND/PURPOSE

- The conventional SSC preparation is most performed, but the emergence of the Hall technique (HT) has provided an alternative restorative technique in pediatric dentistry.<sup>11</sup>
- HT may be performed without local anesthetic, tooth structure preparation and no caries excavation, which may be desirable for providing treatment to both pre-cooperative and cooperative children.<sup>8</sup>
- There is limited data in the United States on provider acceptance of the HT and when a clinician would elect to render this treatment option.

**Purpose:** The objective of this study is to examine the provider acceptance and clinical usage of the Hall Technique among active members of the American Academy of Pediatric Dentistry (AAPD).

## METHODS

- Obtained approval from the Institutional Review Board (IRB) at Indiana University.
- Using a 19-item web-based survey, responses to questions about the Hall Technique (HT) were collected from pediatric dental specialists registered as members of the American Academy of Pediatric Dentistry (AAPD).
- Questions involving a clinician’s decision to use the HT or the conventional technique in a variety of different scenarios, such as the environment, completing adjacent restorations, and the child’s behavior referencing the Frankl scale ranging from 1-4.
- Several survey questions are reproduced from “The Use of Hall Technique Preformed Metal Crowns by Specialist Paediatric Dentists in the UK”, a study by Roberts and Albadri et al.
- Chi-square test for categorical variables and t-test for continuous variables to test for the differences among pediatric dental specialists regarding the environment, scenario, and patient behavior, when treatment planning the HT.
- A 5% significance level was used for all the tests.

### GIVEN THE FOLLOWING SCENARIOS, WOULD YOU PLAN TO USE THE HALL TECHNIQUE?

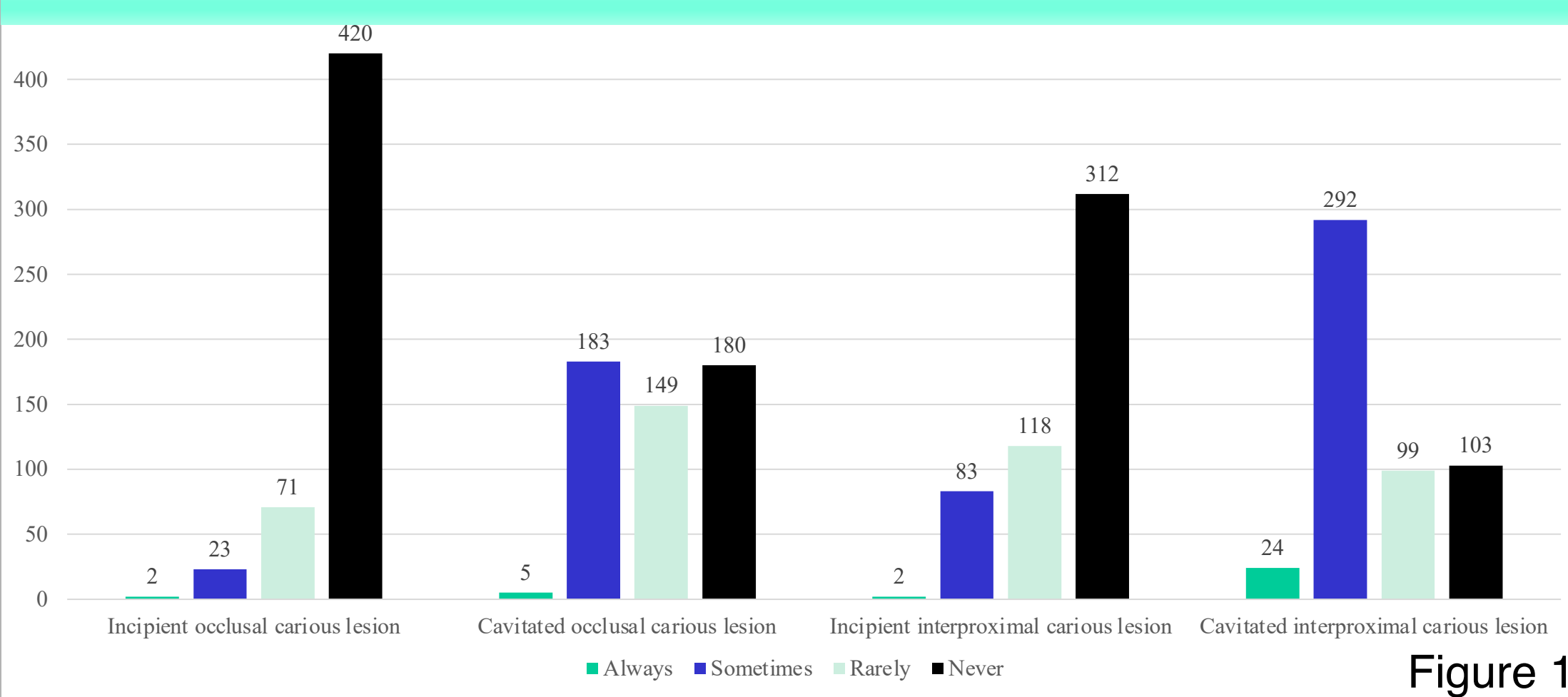


Figure 1

### CONSIDER A FRANKL SCALE 3-4 PATIENT (ACCEPTANCE OF TREATMENT; AT TIMES CAUTIOUS, GOOD RAPPORT WITH THE DENTIST): HOW LIKELY ARE YOU TO USE THE HALL TECHNIQUE GIVEN THE FOLLOWING SCENARIOS?

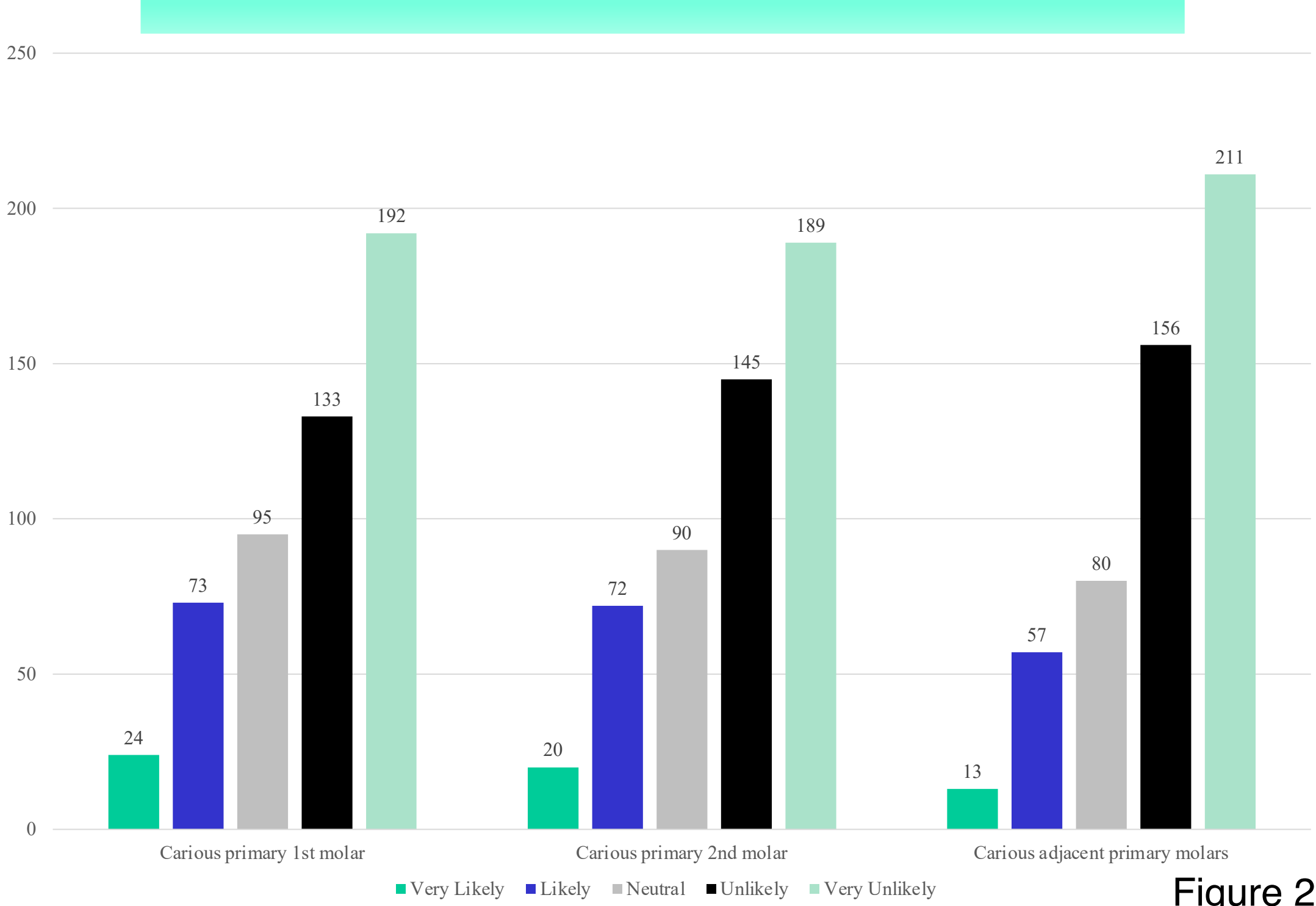


Figure 2

### CONSIDER A FRANKL SCALE 1-2 PATIENT (RELUCTANT TO ACCEPT TREATMENT, CRYING, FEARFUL, AND UNCOOPERATIVE): HOW LIKELY ARE YOU TO USE THE HALL TECHNIQUE GIVEN THE FOLLOWING SCENARIOS?

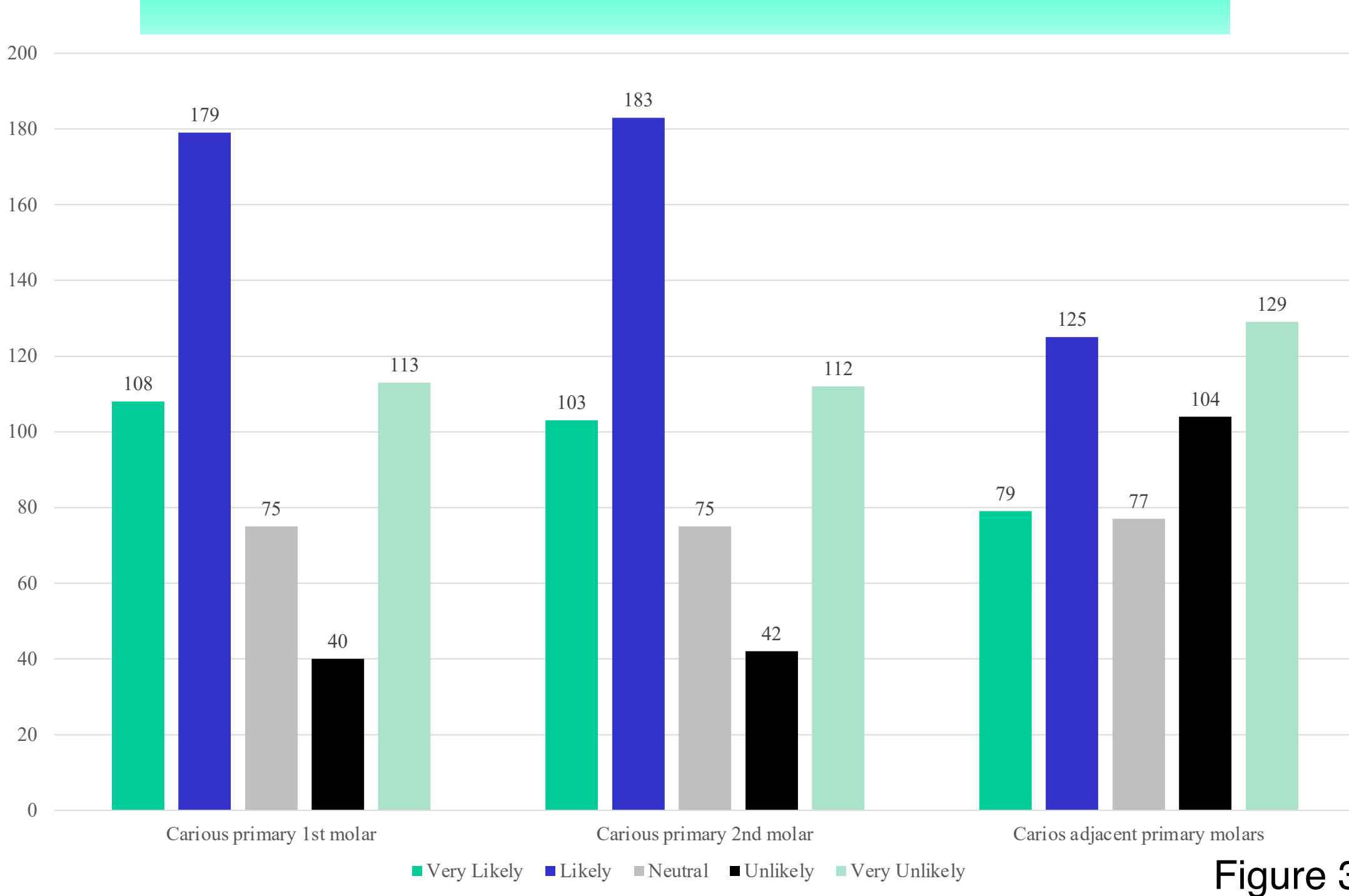


Figure 3

## RESULTS

- 520 (8% response rate) survey responses were received by active members of AAPD
- 51% of pediatric dental specialists consider HT as an alternative treatment option when unable to place a conventional restoration.
- Incipient occlusal carious lesions < Incipient interproximal carious lesions < Cavitated occlusal carious lesions < Cavitated interproximal carious lesions (all p<0.001)
- Frankl 3-4: Adjacent carious primary molars < Carious primary second molar < Carious primary first molar (p=0.020 for primary 1<sup>st</sup> molar vs primary 2<sup>nd</sup> molar, p<0.001 for other comparisons) (Figure 2)
- Frankl 1-2: Adjacent carious primary molars < Carious primary first molar & Carious primary second molar (p<0.001) (Figure3)
- Younger pediatric dentists are more likely to use HT as a treatment option in more situations (p<0.05).

## DISCUSSION/CONCLUSIONS

- **Most pediatric dentists prefer to place a conventional restoration rather than the HT.**
- The HT is recognized by most pediatric dentists as a treatment modality to consider rather than their treatment of choice.
- **There is an increased likelihood among providers to plan for the HT when the patient demonstrates poor behavior and is reluctant to treatment.**
- **Younger pediatric dentists, and those with fewer years in practice are more likely to use HT**
- Few pediatric dentists will utilize the HT in the operating room under general anesthesia.
- **The HT is more widely used in the UK when compared to the USA.**
  - Pediatric dental specialists in the USA most often consider the HT, only when unable to place a conventional restoration. The HT is regularly considered in the UK when treatment planning.

## REFERENCES:

