

# Telehealth Clinical Impact on Medically Complex Patients: Pilot Study

Alyssa Evans, Hannah Kim, Christine Chiao, Keri Discepolo

Department of Pediatric Dentistry, Boston University Henry M. Goldman School of Dental Medicine, Boston, MA



## INTRODUCTION

**Objective: To determine the value of a Pre-Dental appointment Telehealth Visit (PDT) for pediatric patients with intellectual and developmental disabilities (IDD).**

- 1 Whether telehealth facilitates the establishment of achievable clinical goals
- 2 Caregiver satisfaction with telehealth utilization
- 3 Provider perceptions of telehealth usefulness in delivering care to pediatric patients with special health care needs

## METHODS

- **Subjects** | Caregivers with children between the ages of 6-17 with an IDD diagnosis were recruited and randomized into a telehealth intervention group or standard-care control group (25 per group)
- **Intervention** | The intervention group completed a scripted telehealth visit within one week prior to the in-person dental appointment to review history and establish a treatment goal, which was shared with the treating provider.
- **Expert Review** | Telehealth visits were recorded, transcribed, and asynchronously reviewed by an expert for qualitative feedback.
- **Surveys** | Post visit satisfaction surveys were completed by caregivers and providers in both groups.
- **Analysis** | Qualitative data analyzed using open and axial coding and Likert-scale survey data analyzed using Mann-Whitney U tests.

## RESULTS

PRELIMINARY

### Caregiver Satisfaction Scores by Item

5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree)

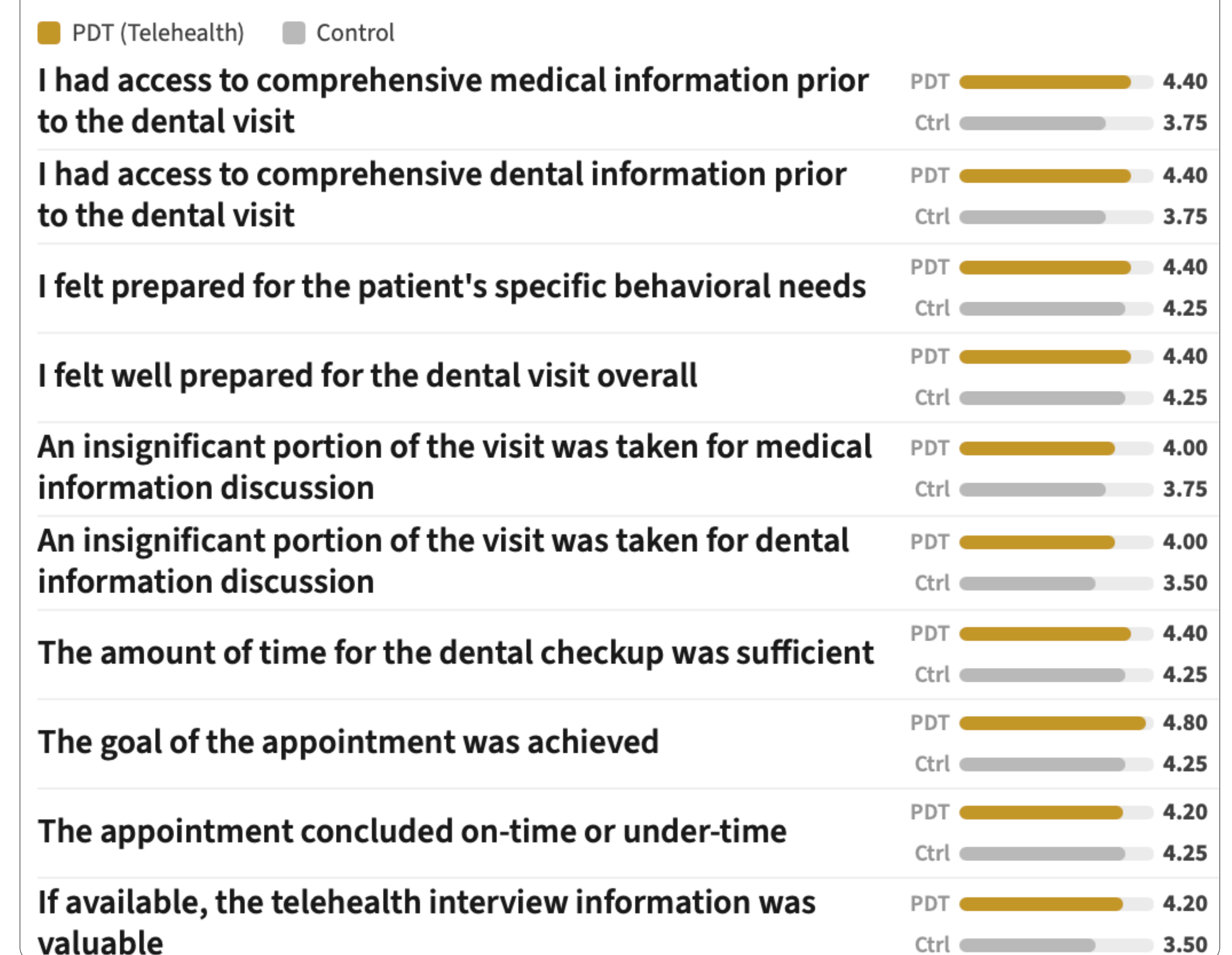
PDT n=3, Control n=5



### Provider Satisfaction Scores by Item

5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree)

PDT n=5, Control n=4



### QUALITATIVE EXPERT REVIEW FINDINGS

Asynchronous Review

Open & Axial Coding

- 1 **Visit Length & Efficiency**  
17- minute PDT demonstrates efficiency gains - completing history review before the appointment prevents significant lengthening of the dental visit.
- 2 **Provider-Caregiver Interaction**  
Caregiver was given opportunity to ask questions and the interviewer gave caregiver ample time to respond.
- 3 **Provider-Patient Rapport**  
Interaction between provider and patient was very comfortable. The interviewer was respectful and the overall dynamic was warm and supportive.
- 4 **Areas for Improvement**  
Better access to medical records; targeted oral hygiene education, more specific dietary questions; advise caregivers to bring comfort items (tablet, headphones, sunglasses).

## CONCLUSIONS

- **Pre-appointment telehealth (PDT) may improve appointment goal achievement** for pediatric patients with IDD, with preliminary trends suggesting the intervention group was more likely to complete planned clinical goals
- **Provider preparedness and goal alignment** appear improved when a scripted PDT visit precedes the in-person appointment, reducing time spent on intake and allowing more focus on clinical care.
- **Caregiver satisfaction** was high in both groups. Preliminary data suggest greater trends favoring the PDT group, though results must be interpreted with caution at this sample size.
- **The PDT model is financially sustainable** — telehealth visits are reimbursable by Medicaid and required under private payer parity laws, supporting broader dissemination.

## REFERENCES & ACKNOWLEDGEMENTS

Funded by the Noonan Memorial Foundation Grant (SAP Grant #55211805). The authors thank the families, caregivers, and clinical staff at BU Goldman School of Dental Medicine and Boston Medical Center for their participation. Data managed using REDCap, supported by Boston University.

