**INTRODUCTION**

- The importance of increasing access to oral health services for underserved populations has dominated discussions about effective strategies to improve population oral health.
- Teledentistry is used for providing oral health screening, assessment and examination, specialty care consultation, follow-up examinations, and patient education.
- Teledentistry may also be a useful tool in helping children establish a dental home.
- The objectives of this study were to:
  - Evaluate whether children who received a teledentistry consultation and treatment with a pediatric dental specialist accessed follow-up oral health services at general dentistry clinics.
  - Assess the factors influencing access to oral health services in primary dental clinics among children living in rural upstate New York following a teledentistry consultation with pediatric dental specialists.

**METHODS**

**Study location** - Finger Lakes Community Health (FLCH), headquartered in Penn Yan, New York, which:
- Has provided telehealth services since 2002 and teledentistry services since 2010 for rural populations.
- Has 6 co-located dental clinics and 2 stand-alone dental centers providing general dentistry services.
- Partnered with pediatric dental specialists at the Eastman Specialty Oral Health (EOIH) in Rochester, NY.

**Subjects & data collection**:
- 144 children with serious dental decay who had a teledentistry consultation in one of the FLCH dental clinics from 2015–2016; the study was conducted in 2017.
- FLCH Health and dental records: sociodemographics, teledentistry and case management services, clinical outcomes, follow-up general dentistry visits at the FLCH.

**Data Analysis**:

- **Outcome**: utilization of follow-up dental services at the FLCH general dentistry clinics defined as a visit at EIOH in Rochester NY following a teledentistry consultation and treatment with a pediatric dental specialist.
- **Covariates**:
  - Timeliness of initiation/completion of specialty dental treatment estimated by calculating # of weeks between:
    - Teledentistry & 1st in-person consultation w/pediatric dentist.
    - 1st in-person specialty consultation and treatment completion.
  - Intensity of case management services estimated by calculating # of contacts by community health workers (CHWs), including telephone calls, letters, & home visits.
  - Travel distance from the children's residence to FLCH general dentistry clinics estimated by calculating # of miles between the two zip code locations.

**Statistical analyses**: associations between utilization of follow-up dental services and covariates evaluated using Fisher Exact and Mann–Whitney U tests using SAS v9.4.

**RESULTS**

- Most study children completed a specialty dental treatment plan (97.2%) and subsequently accessed follow-up oral health services at one of the FLCH general dentistry clinics (77.1%). Children with follow-up visits had 1 to 5 visits (mean=2.2) after the specialty dental treatment (over a period of up to 2.3 years).
- Overall, slightly more subjects who accessed follow-up oral health services at the FLCH general dentistry clinics were:
  - Girls, older, White, of ethnicity other than Hispanic, living in a two-parent family, and had no history of a behavioral or developmental disorder.
  - However, these differences were not statistically significant.

**CONCLUSIONS**

- The study findings show that teledentistry consultation promoted access and utilization of specialty oral health care as well as follow-up services at local dental clinics for rural children with serious dental decay.
- The results indicate that case severity and compliance to treatment are predictors of ongoing utilization of oral health services in general dentistry clinics.
- The study findings also suggest that case management interventions are important in facilitating specialty dental care as well as follow-up care at community dental clinics, particularly in rural, underserved communities.
- A study of the long-term dental utilization patterns of these children who experienced a teledentistry consultation and a surgical intervention in early childhood would be instructive.

**REFERENCES**

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