



Pilot Study: Video Modeling to Reduce Parental Dental Anxiety

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Background

Themessl-Huber and colleagues confirmed that dental fear of children under the age of 8 is significantly related to parental dental fear.¹ Two randomized control trials conducted by Al-Namankany et al. concluded that children who watched a modeling video had less anxiety for nitrous nasal mask placement² and local anesthesia administration,³ as compared to the children who did not watch the modeling video. The primary objective of this pilot study was to compare parental dental anxiety before and after viewing a video modeling a new patient pediatric dental exam. The secondary objective was to compare parental dental anxiety with their child's dental anxiety before the child's new patient pediatric dental exam. The video used as the intervention in this study was intentionally created to depict the entire experience of a new patient pediatric dental appointment at New York University College of Dentistry (NYUCD) from the moment patients walk into the building until their dental exam is complete.

Methods

Approved by the NYU School of Medicine Institutional Review Board (IRB i20-01725)

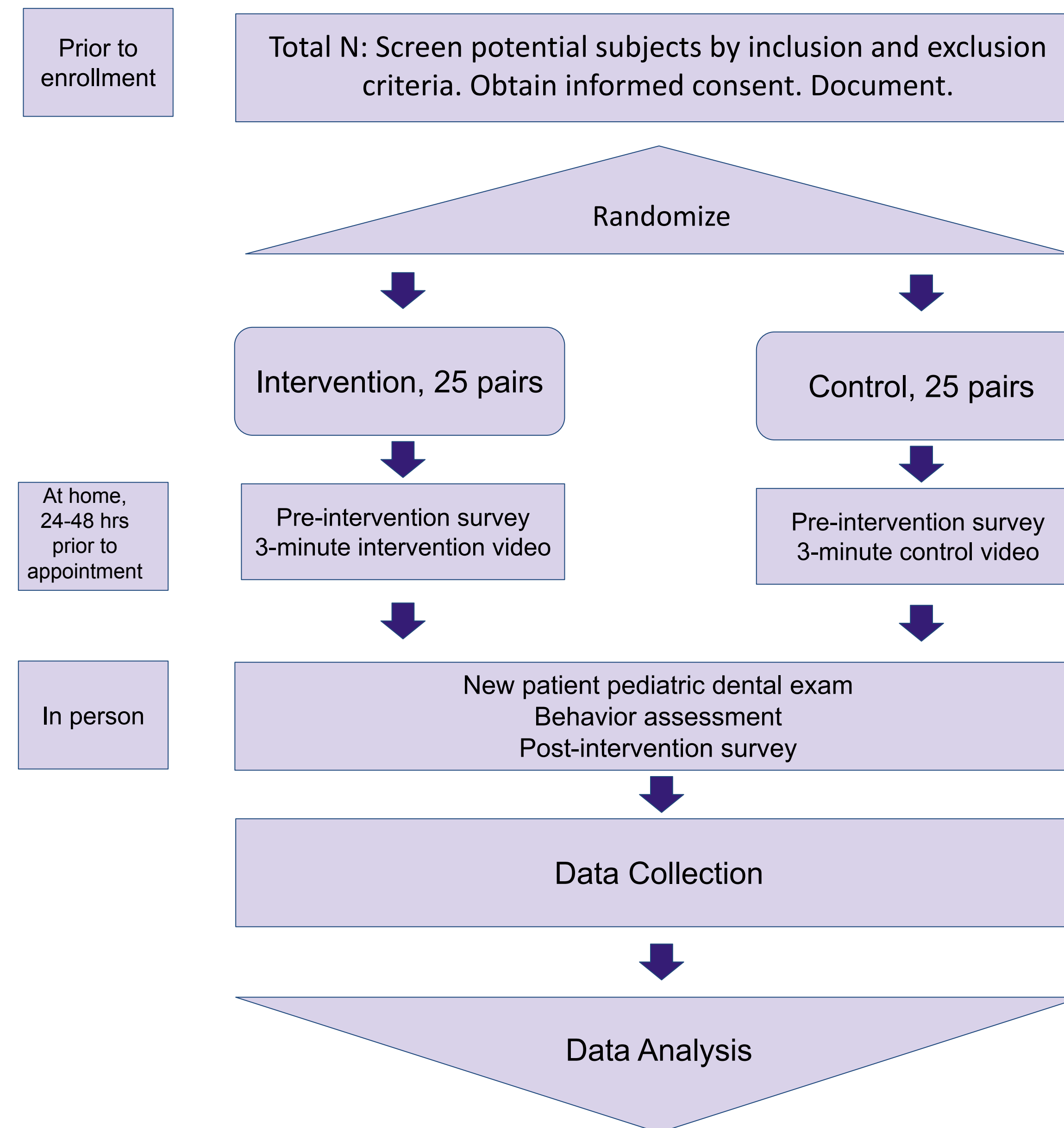
Target population: Children between the ages of 3 and 6 being seen for a new patient exam at the pediatric dental clinic with a post-graduate pediatric dental resident at New York University College of Dentistry.

Exclusion criteria: Children <3 and >6 years, pre-existing medical conditions, primary language not English, appointments for multiple siblings on the same day, not accompanied by biological parent.

Randomization: Participants (pairs of one pediatric patient and their respective parent) were randomly selected to either the intervention or control group.

Study procedures: The intervention group received a desensitization video depicting a standardized dental exam while the control group received a cartoon video that was not dental related and was of similar duration. Videos were viewed by participants 24-48 hours prior to their new patient dental exam. Parental anxiety was assessed with a survey completed by each parent prior to and at the end of the visit using the Modified Dental Anxiety Scale (MDAS), with the highest possible score of 25. Parents were also asked to complete a survey regarding their child's dental fear prior to the new patient dental exam using a modified version of the Children's Fear Survey Schedule - Dental Subscale (CFSS-DS), with the highest possible score of 75. Both surveys utilized the Likert scale with a score of 1 signifying least fearful and a score of 5 signifying most fearful.

Figure 1: Study Design Flowchart



Discussion

From October 2021 through March 2022, 89 patients were scheduled with the study team. As shown in Table 1, complete data was obtained for only 3 patients.

Challenges encountered:

- Difficulty coordinating schedules of research residents and students
- Patients scheduled who do not meet inclusion criteria
- Inability to contact scheduled patients to screen and consent
- Difficulty engaging and incentivizing parents over the phone; lack of incentive for enrollment
- Time constraints for study team to screen and randomize patients
- Time constraints for participants to watch video and complete survey
- Incomplete surveys
- Patient no shows

Advice for future studies:

- Involve more research participants to minimize scheduling constraints
- Communicate clear instructions with schedulers, check-in routinely
- Screen patients at the time appointment is created if possible
- Reducing number of steps or emails for parents
- Provide incentives for patients and parents

References

1. Themessl-Huber M et al. (2010). Empirical evidence of the relationship between parental and Child Dental Fear: A structured review and meta-analysis. *International Journal of Paediatric Dentistry*, 20(2), 83–101.
2. Al-Namankany A et al. (2014). Video modelling for reducing anxiety related to the use of nasal masks place it for inhalation sedation: A randomised clinical trial. *European Archives of Paediatric Dentistry*, 16(1), 13–18.
3. Al-Namankany A et al. (2014). Video modelling and reducing anxiety related to dental injections – a randomised clinical trial. *British Dental Journal*, 216(12), 675–679.

Results: Table 1

Patients scheduled with study team	89
Verbal communication established for study consent	53
Patients not interested in learning about the study	18
Patients interested in the study but did not meet the inclusion criteria	17
Patients enrolled in the study	18
Patients enrolled in the study with complete data	3