



Pilot Study: Pretreatment Video Modeling to Improve Pediatric Patient Behavior

Kimia Pouyafar, DDS, Trina Marie Villanueva, DDS, Lauren Feldman, DMD, Elizabeth Best, MPH

Department of Pediatric Dentistry, New York University College of Dentistry, NY



Background and Objective

In 2013, Mungara and colleagues found that audiovisual modeling in children aged 5-9 had a significant influence on overall fear. (1) Providing brief videos modelling expected procedures can be a useful tool for dental providers to reduce dental fear and ultimately increase cooperation and improve behavior. (2) The objective of this study is to assess if video modeling is effective in improving pediatric patient behavior during an initial exam appointment. The intention is to help minimize the element of surprise and increase familiarity for children attending their first appointment at New York University College of Dentistry (NYUCD). To date, no study has used video modeling before a patient's first dental exam. The video used as the intervention was intentionally created to portray the entire experience of a dental appointment at NYUCD.

Methods

Study Design: Double-blinded randomized controlled trial. IRB approval from NYU School of Medicine obtained: i21-00696. Scheduled patients were screened over the phone to assess eligibility. Informed consents were obtained electronically using REDCap. Participants were randomly assigned to a control or experimental group. Participants received a 3-minute video, via email, intended to be viewed 24-48 hours prior to their appointment. The intervention group received a desensitization video depicting the pediatric dental experience, from building entry to completion of comprehensive exam. The control group received an animated video of the same duration, unrelated to dentistry. Patients presented to the pediatric clinic at NYUCD on their scheduled date and time, and behavior was assessed by blinded, calibrated study team members using a modified behavior assessment tool.

Inclusion criteria: Children aged 3-6 years old with no medical conditions, English as primary language, accompanied by biological parent, and scheduled for a new patient exam.

Figure 1: Study Design Flowchart

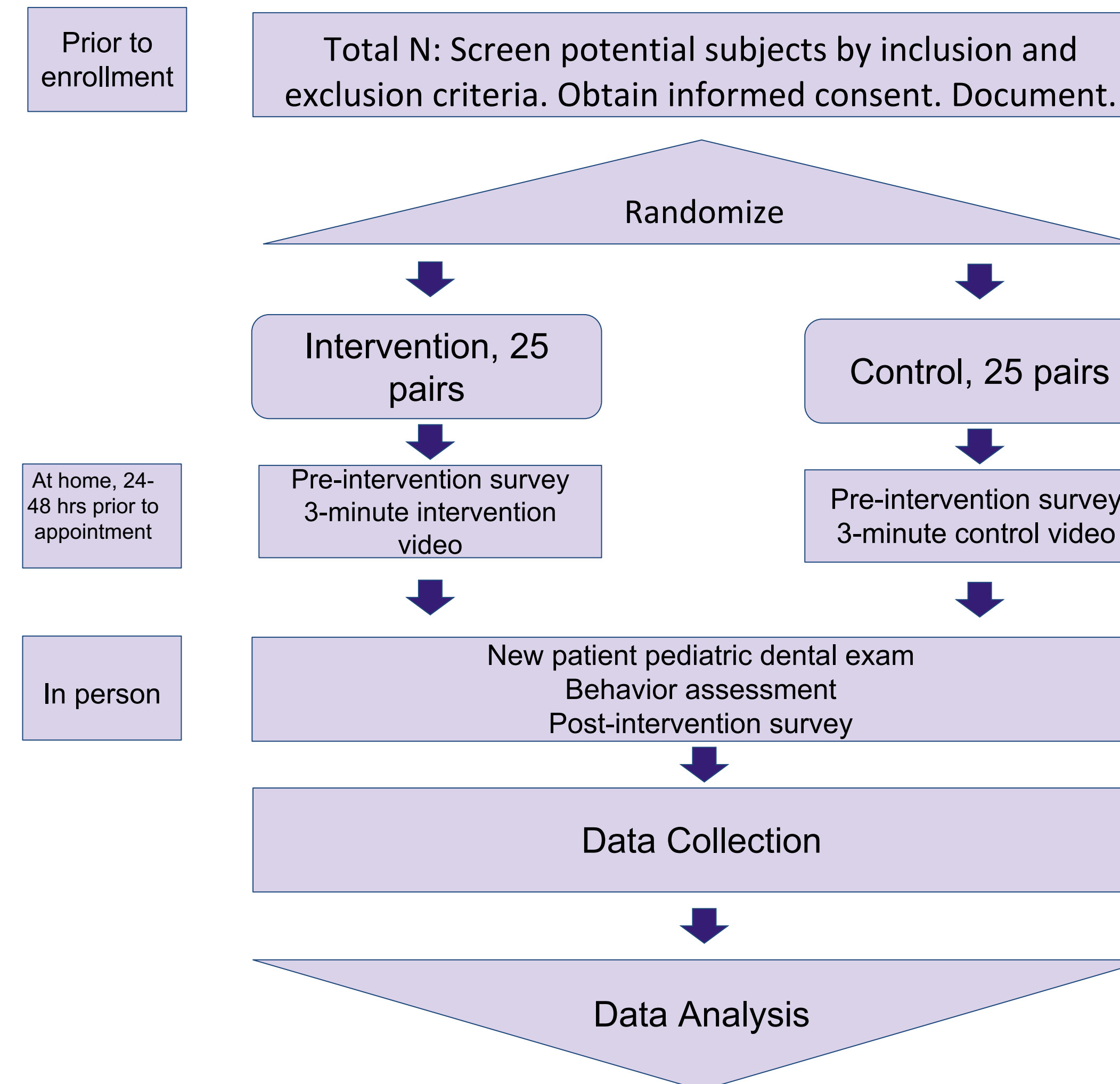


Table 1: Behavior Assessment Scale

Separation from mother	Successive 3-minute observation period	
	1-3 min	3-6 min
Cries		
Refuses to leave mother		
Refuses to open mouth		
Won't sit back		
Attempts to dislodge instruments		
Verbal complaints		
Restraints used (active or passive)		
Kicks		
Refuses to sit in chair/gets up from chair		

Results: Table 2

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

Discussion

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. Mungara J et al. (2013) Child's dental fear: cause related factors and the influence of audiovisual modeling. J Indian Soc Pedod Prev Dent, 31(4):215-20.
2. Hine J et al. (2019), Decreasing disruptive behaviour during routine dental visits: a video modelling intervention for young children. Int Dent J, 69: 265-272.