

# Impact of Medical Play on Neurotypical Patients during Dental Care

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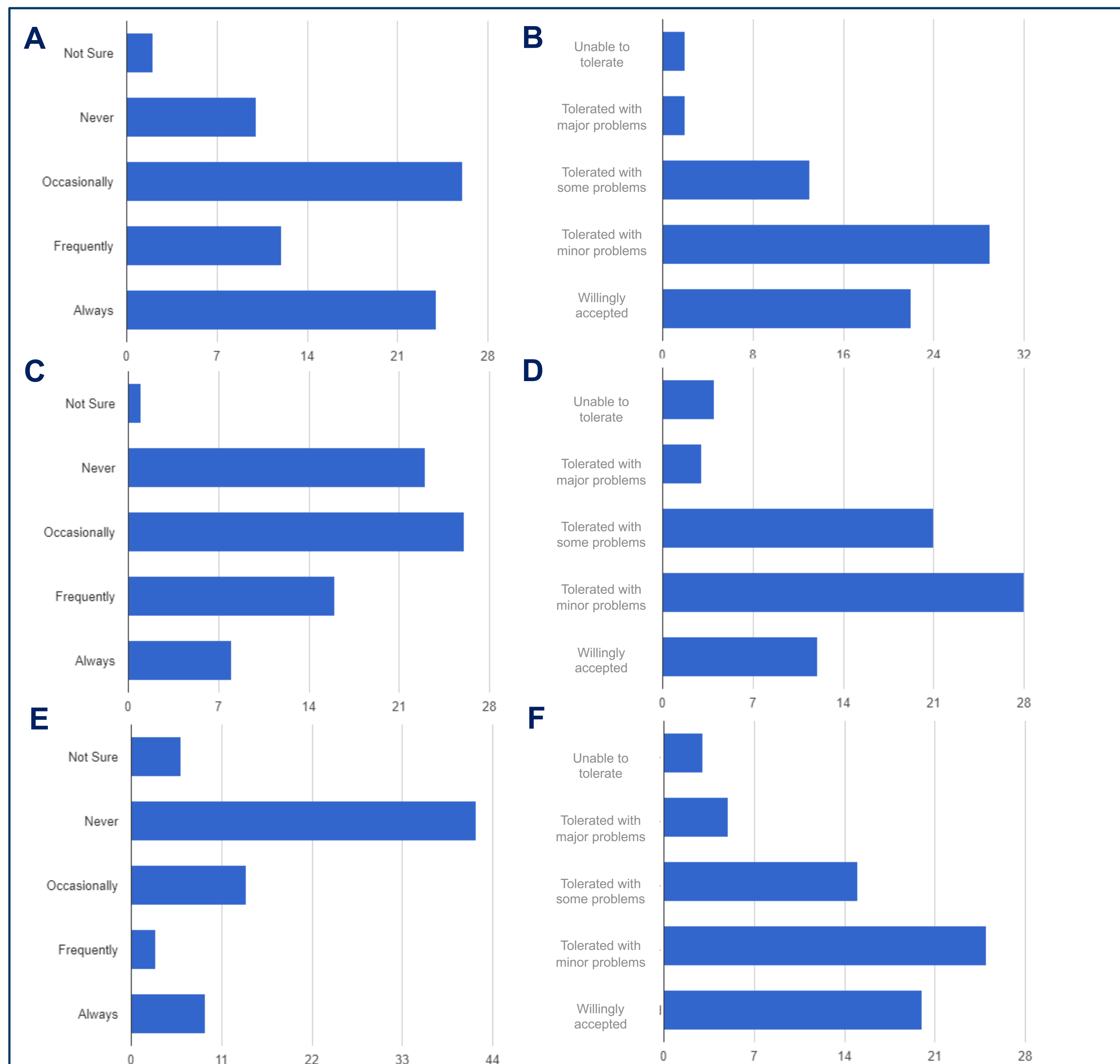
## Background

- ❖ Medical play is a therapeutic intervention in which a Certified Child Life Specialist (CCLS) uses props that mimic medical instruments to engage children in play before healthcare encounters.
- ❖ There are no clinical trials studying medical play's impact on the behavior of a child during dental care.
- ❖ The purpose of this prospective, randomized controlled trial was to investigate the efficacy of medical play to improve the behaviors/cooperation of patients during routine dental examinations.
- ❖ The aim of this study was to evaluate behavior and cooperation levels of children after medical play (test) or recreational play (control) intervention.

## Methods

- ❖ This single-blinded, clinical trial was approved by the University of Colorado's Institutional Review Board.
- ❖ Neurotypical patients (ages 5-10 years) with previous uncooperative behavior during dental procedures were screened and offered study participation.
- ❖ After consent, subjects were randomized into two study arms: medical play or recreational play.
- ❖ Play sessions were facilitated by CCLS. Pre- and post-intervention survey tools were validated.
- ❖ The caregivers completed Dental Behavior Assessment (DBA) survey and post-visit survey assessing their child's behaviors before and after the visit, respectively.
- ❖ The subjects rated their perceived well-being before and after the dental visit while the provider recorded patient behavior and levels of cooperation.
- ❖ The study was registered at ClinicalTrials.gov ID: NCT05571423

## Results



**Figure legends:** Parent perception regarding their child's dental anxiety to accept for dental visit (A), prophylaxis (C), and fluoride application (E) at baseline. Independent, calibrated examiner's survey after implementation of medical play regarding dental visit (B), prophylaxis (D), and fluoride application (F).

## Results

- ❖ Sixty children were recruited for the study with groups consisting of 32 recreational play and 28 medical play.
- ❖ The preliminary results from this ongoing clinical trial demonstrated that most parents and children reported dental anxiety at baseline.
- ❖ However, a higher proportion of parents reported that medical play improved their child's behavior during dental visit and parents expressed preference to use medical play for their child's future dental visits.
- ❖ Most children reported less anxiety after medical play intervention as compared to the recreational play.
- ❖ An independent observer reported that most of the study participants in the medical play intervention willingly accepted dental care after.
- ❖ Due to the low statistical power and effect size, the differences between medical and recreational play groups were non-significant.

## Conclusions

- ❖ From the preliminary results medical play is an important behavior intervention tool to positively shape the behavior of the child during dental care because it has shown to help reduce procedural anxiety. Its use should be considered and increasingly implemented in the dental practice setting.

## Implications

- ❖ Medical play could be an effective non-pharmacologic modality for reducing anxiety in children in a pediatric dental clinic.

## Acknowledgments

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