



Factors that Influence Parental Satisfaction with Silver Diamine Fluoride (SDF) Treatment

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Introduction/Background

Silver diamine fluoride has been adopted in the dental community to arrest dentinal caries on primary teeth, supported by AAPD and ADA guidelines. It is a helpful tool for caries management in pediatric dentistry due to the high prevalence of caries and the limited cooperation for restorative treatment on young children and those with special health care needs. One barrier for its use is the characteristic black staining of the affected surfaces, which can be more or less visible depending on the location of the cavity.

Our previous work evaluated parental perceptions and acceptance of SDF treatment based on a hypothetical scenario represented by clinical photographs, that led to the development of an adequate informed consent.

The aim of this study is to evaluate parental satisfaction with the treatment provided in our clinic, and to identify the factors that influence satisfaction.

Methods

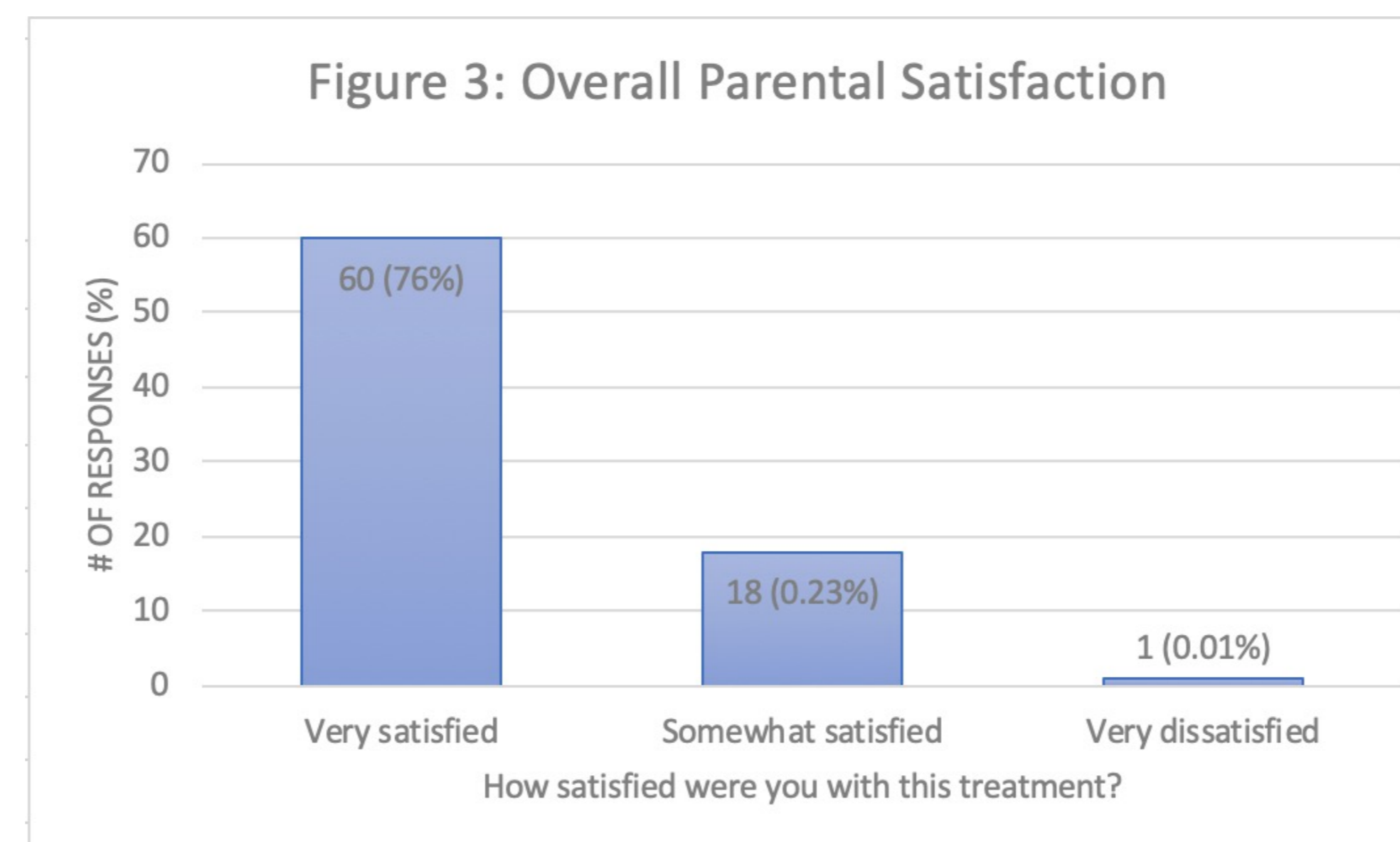
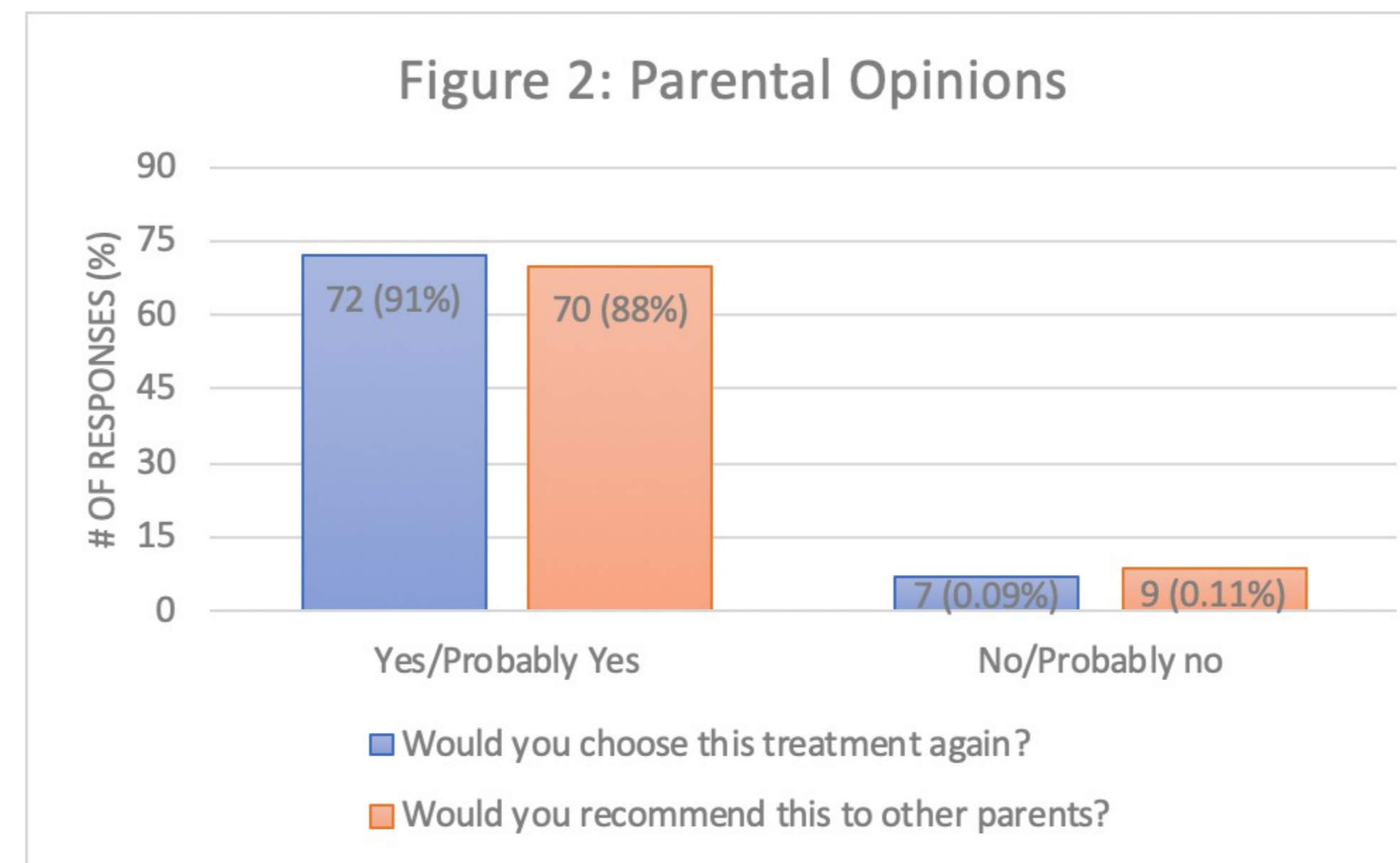
We obtained retrospective data from the pediatric dental clinic at NYUCD of patients who received SDF from February 1st, 2019, to February 29th, 2021.

A questionnaire was designed to capture data during a phone interview with parents. Questions included their recollection of: ease of treatment, their child's experience, outcome of the tooth/teeth treated, their understanding (benefits/side effects), and their level of satisfaction with SDF therapy. Collected information from their charts included: gender, age, phone number, dental insurance, tooth/teeth treated with SDF, behavior during the treatment, outcome of the tooth if available, and date of last visit at NYUCD.

Parents who consented to participate in the study, completed the 10-minute telephone interview in English or Spanish, as they preferred.

Tooth Outcome	# of Teeth
SDF only	28 (35%)
Extraction	22 (27%)
Stainless Steel Crowns	19 (24%)
Fillings	15 (19%)
Don't recall	5 (6%)

Figure 1. Most teeth received further treatment following SDF application. Each patient may have one or more outcome depending on how many teeth were treated



Results

- From 209 patients, 91 parents were successfully contacted by phone, and 79 of those agreed to participate (37.8%)
- 47/79 (59%) were male and 32/79 (40%) were female
- Most children were in the age group: 5 to 12 (74/79, 94%)
- 23/79 (29%) patients had special healthcare needs (SHCN)
- After SDF treatment, about 2/3rd of the sample received additional care of the affected tooth (Figure 1)
- Most, 72/79 (91%), were satisfied with the treatment (Figure 3)
- Parental dissatisfaction was related to the need for further treatment ($P= .02$) and a lesser understanding of side effects ($P= .002$), but not, importantly, to esthetics.

Conclusions/Summary

Many patients seen at NYUCD were referred from their dental homes due to extensive dental needs requiring advanced behavior management. Our results confirm that NYUCD acts as a safety net clinic where patients come for specific care, but those who have us as a dental home, include a significant proportion of special health care needs patients.

The outcome of most teeth in this study resulted in further treatment, whether it was crowns, fillings, or extractions, which highlights the frequent interim nature of this treatment. Thus, with appropriate recall regimens, SDF therapy can be used to stabilize disease until further treatment can be done.

Results show the necessity of clearly explaining the benefits and side effects of SDF therapy to set realistic parental expectations which in turn can increase their satisfaction with SDF therapy.

SDF application is easy, non-invasive, and halts the progression of disease until further treatment is possible. Overall, SDF therapy was judged to provide satisfactory results by parents in the population seen at NYUCD.