

## Introduction

There is a growing interest in the use of Silver Diamine Fluoride (SDF) amongst general dentists worldwide. SDF is a non-invasive, safe, and low-cost treatment option that has been proven to be effective in arresting the progression of dental caries in children and adults.<sup>1</sup> Many studies and clinical trials have been conducted on SDF's effectiveness in pediatric patients. Additionally, it is perceived as a successful treatment option for children with behavioral concerns who do not allow for traditional caries management techniques as local anesthesia is not required and its application is fast and straightforward. Research continues to expand on SDF because it is proven to be a method that can treat both children and adults in a minimally invasive manner, especially given that dental caries is recognized by the World Health Organization as a serious public health concern, affecting nearly 3.5 billion.<sup>1</sup> However, little research has been done on the use of SDF amongst general dentists in the United States. Further research is needed to determine whether general dentists are using SDF as its use in the general dental office setting can help improve access to care. The aim of this study is to:

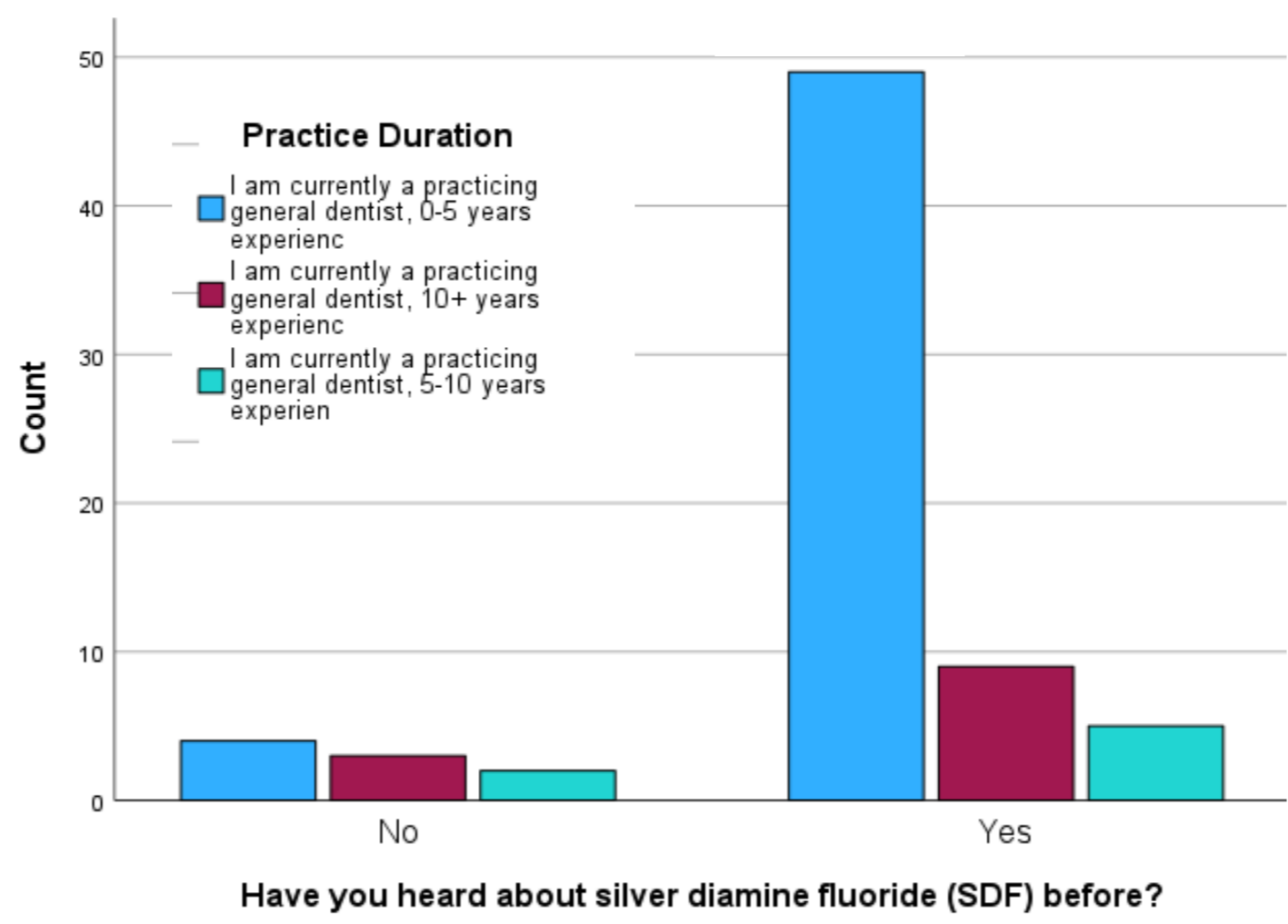
- (1) Assess how often newer trainees, academics, and experienced general dentists use SDF
- (2) Assess how comfortable newer trainees, academics, and experienced general dentists are with using SDF

## Methods

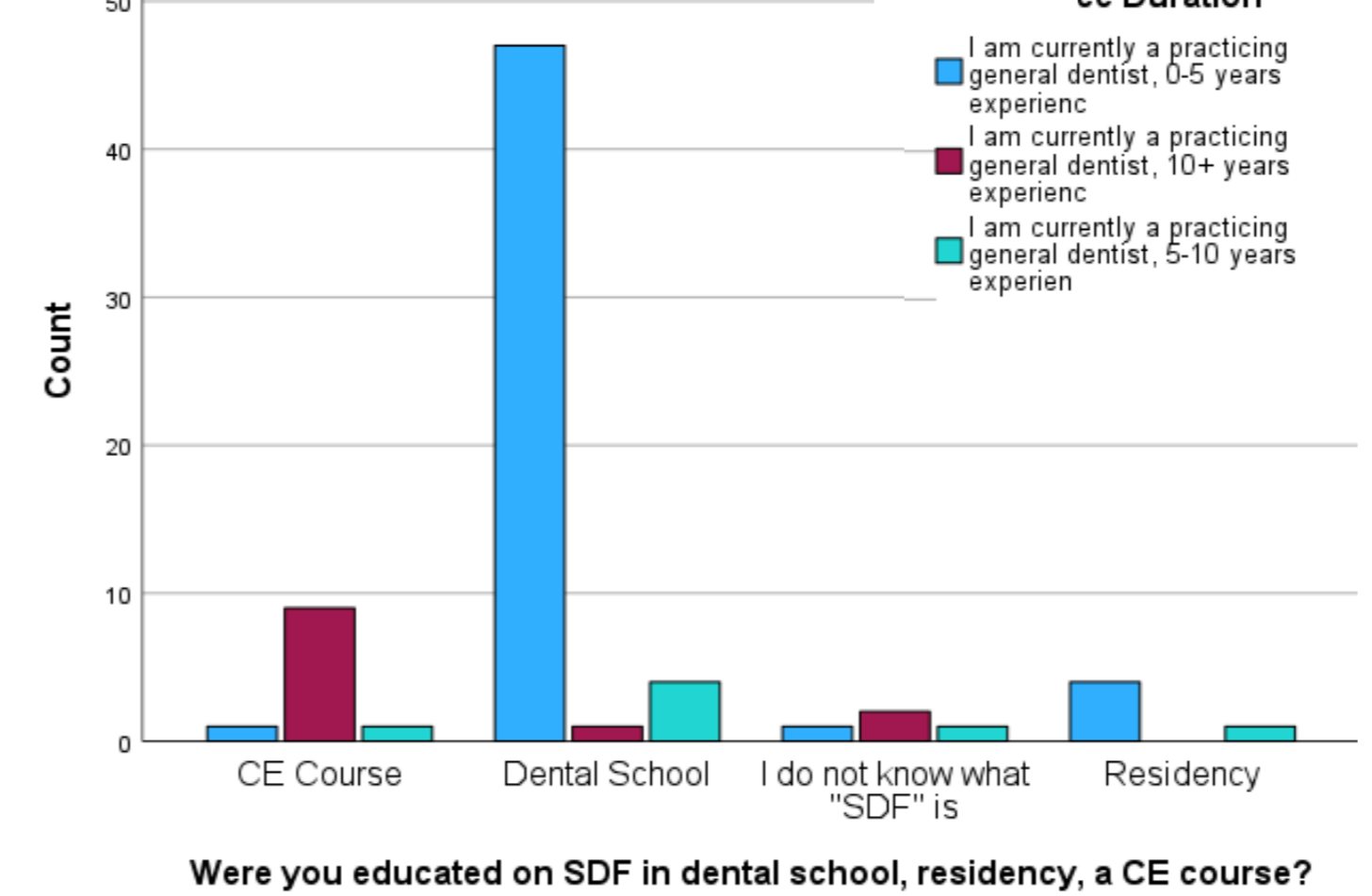
A cross-sectional, prospective study was conducted via a survey sent to 76 general dentist practitioners. Data was collected via an encrypted electronic survey distributed to active members of New York Dental Societies. The survey consisted of 14 questions addressing the participants demographics, year of experience, frequency of SDF use, and comfort level and knowledge of SDF application. SurveyMonkey issued the survey to meet security standards for the transmission of online data which are frequently backed up in an encrypted storage. To ensure anonymous responses, no IP addresses were collected. Frequency and statistical analyses were conducted for all study variables. Data collected and analyzed was maintained on password-protected computer encrypted computer with encrypted storage.

## Results

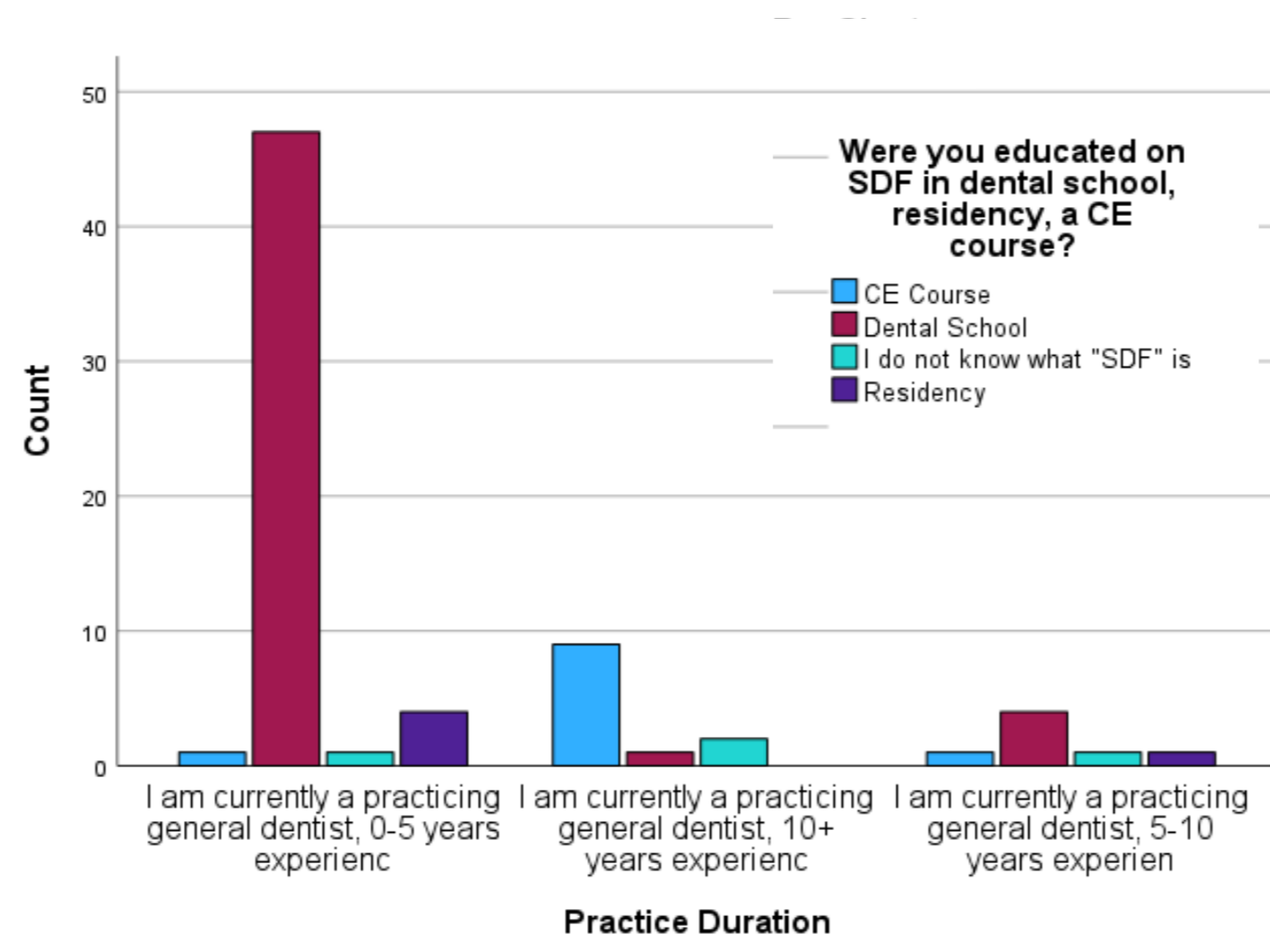
**Figure 1a: General knowledge SDF**



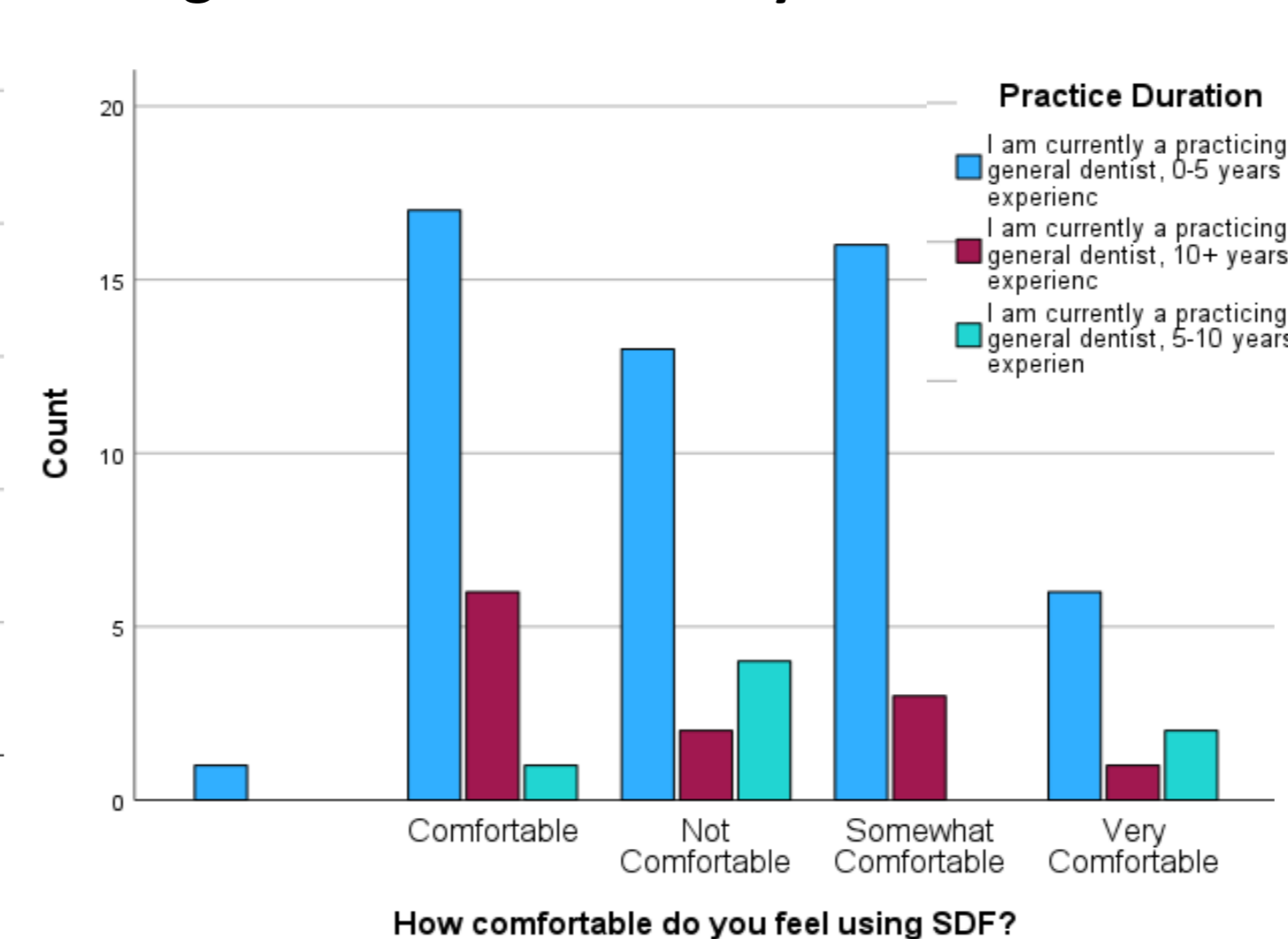
**Figure 2a: Where SDF Education was Acquired**



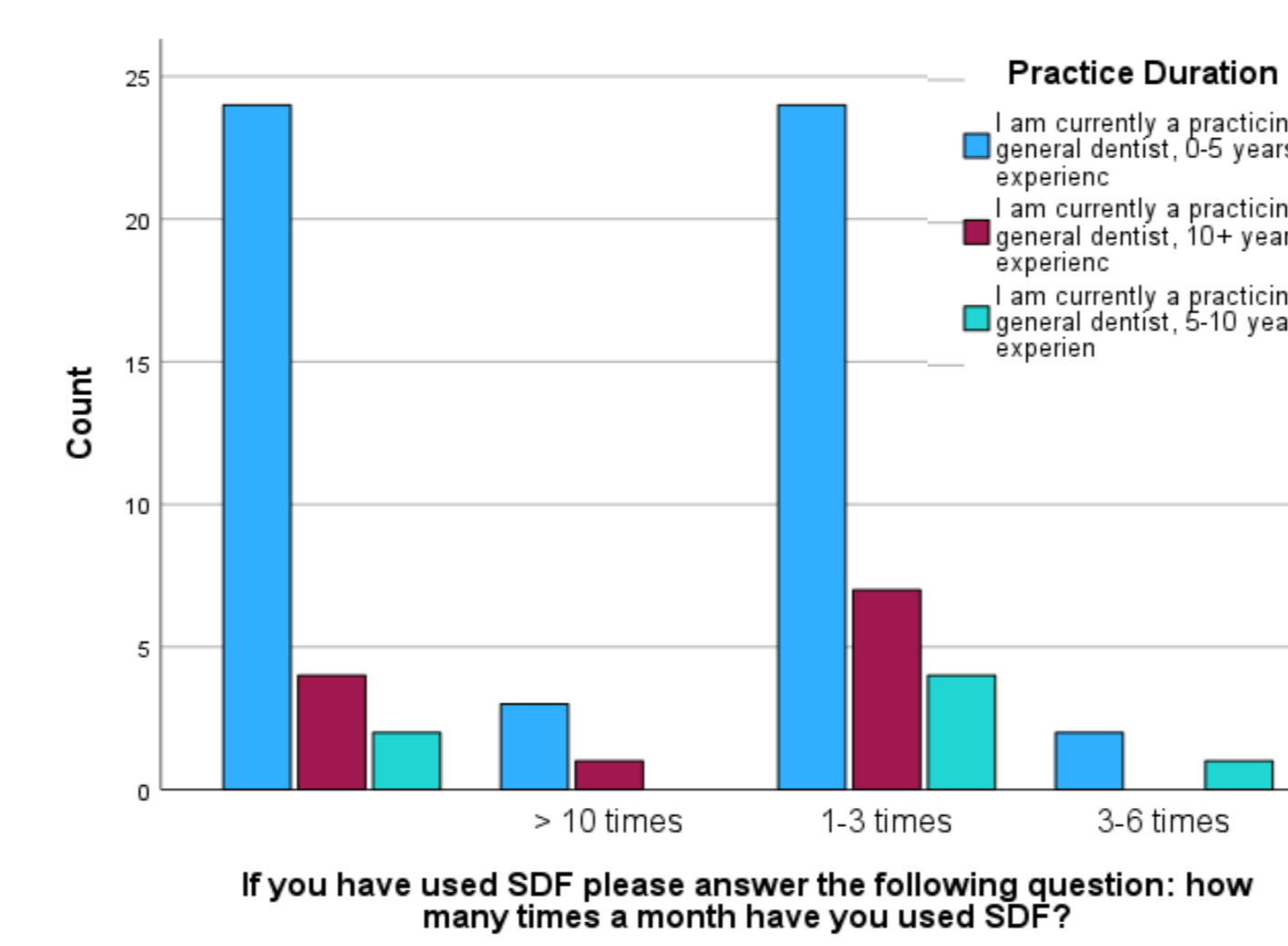
**Figure 2b: SDF Education**



**Figure 3 : Comfortability of SDF Use**



**Figure 4: Frequency of SDF Use in Practice**



## Results

This study shows a current representation of the use and comfortability of Silver Diamine Fluoride (SDF) amongst general dentists. The total number of responses received for the 14-item survey was 72. Majority of the responses were from currently practicing general dentists with 0-5 years of experience. Out of 72 respondents, 87.5% said they have heard about SDF before, while 12.5% said they have not heard about SDF before, with the majority of those 'no' respondents being general dentists with 5-10 years experience (28.6%) followed closely by 10+ years of experience (25%) compared to only 7.5% of general dentists with 0-5 years of experience (Figure 1). Out of those general dentists who were familiar with SDF and with 0-5 years of experience and 5-10 years of experience, the most learned about SDF in dental school (88.7% and 57.1% respectively). The majority of those with 10+ years of experience learned about SDF in a CE course (75%) (Figure 2a, 2b). Out of the general dentists with 0-5 years of experience most respondents were comfortable (32.1%) and somewhat comfortable (30.2%) with SDF use. For those with 5-10 years of experience 57.1% were not comfortable with SDF use while 50% those with 10+ years were comfortable (Figure 3). More than half of general dentists with 0-5 years, 5-10 years and 10+ years of experience use SDF 1-3 times a month (45.3%, 58.3% and 57.1% respectively) (Figure 4).

## Discussion and Conclusions

Despite its advantages, there are still some practicing general dentists who are not familiar with SDF. It is interesting to note that most of the newer trained dentists have heard about SDF in their dental schools while many of those general dentists who have been practicing for 10+ years have sought education on SDF through CE courses. The lack of training in dental school for those dentists who are practicing 10+ years could be attributed to their discomfort in using SDF. Further research is warranted to better understand the cause of discomfort amongst general dentists. Limitations of this study include a small sample size of just 72 responses. Additionally, future studies could include geographic location of practice within the NY area or expand survey to general dentists across the United States. Based on the results of this study, the following conclusions can be drawn:

- (1) General dentists practicing for 0-5 years are comfortable using silver diamine fluoride. Those who have been practicing for 10+ years are not as comfortable using SDF.
- (2) Most general dentists surveyed are using SDF 1-3x per week.

## References

References:



Survey Questionnaire:

