

# Parental Awareness and Attitude toward Dental Sealants for Caries Prevention

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## Purpose

The objective of this study was to examine the level of dental sealant awareness among the parents of children treated in BronxCare pediatric dental clinic. It also examined whether demographics has a role in awareness and their attitude towards dental sealants

## Introduction

- Dental caries is the most prevalent disease in children. Caries is a multifactorial disease that results from a balance between microorganism, carbohydrate, saliva and therapeutic treatment. Environmental factors such as diet and oral hygiene are thought to have a significant role in caries risk.<sup>1</sup>
- Dental sealant is another caries preventive treatment where resin is applied over the pit and fissure of teeth to decrease food trap and formation of bacterial biofilm. By isolating the area from the oral environment, it prevents progression of non-cavitated lesion, reduces total bacterial count, as well as isolate bacteria underneath from carbohydrate substrate in the mouth.<sup>2</sup>
- Even though dental sealants were introduced in the 1960s, sealant awareness and prevalence remain low among the population.<sup>3</sup>

## Methods

- Parents of children being treated in BronxCare pediatric dental clinic were asked to complete a paper questionnaire during their child's dental visit.
- Questionnaire was provided in English and Spanish.
- The questionnaire comprised of 10 questions, including:
  - Parent demographics
  - Parent awareness of dental sealants
  - Past history of sealant treatment
  - Parental attitude toward dental sealant
  - Literacy level
- Missed dental appointments were collected from Allscripts patient information

## Results

- A total of 390 questionnaires were collected.
- 83% of parents that brought the children to the clinic were female. 8 people needed help with the questionnaire.
- 204 of parents were aged 23-35, 142 were aged 35-60 and 12 declined to answer.
- 13% of parents graduated from elementary school or had no schooling. 45% of parents graduated from high school, whereas 37% had college or post graduate education.
- 255 parents identified themselves as Hispanic, 123 African American, 9 Asian and 9 multi-racial.
- When asked about dental sealants, 54% of parents did not know what it was.
- After reading about the benefits of dental sealants on the questionnaire, 72% said they would want their child to get the treatment done. However, 8% did not want their child to get dental sealants and 20% were unsure.

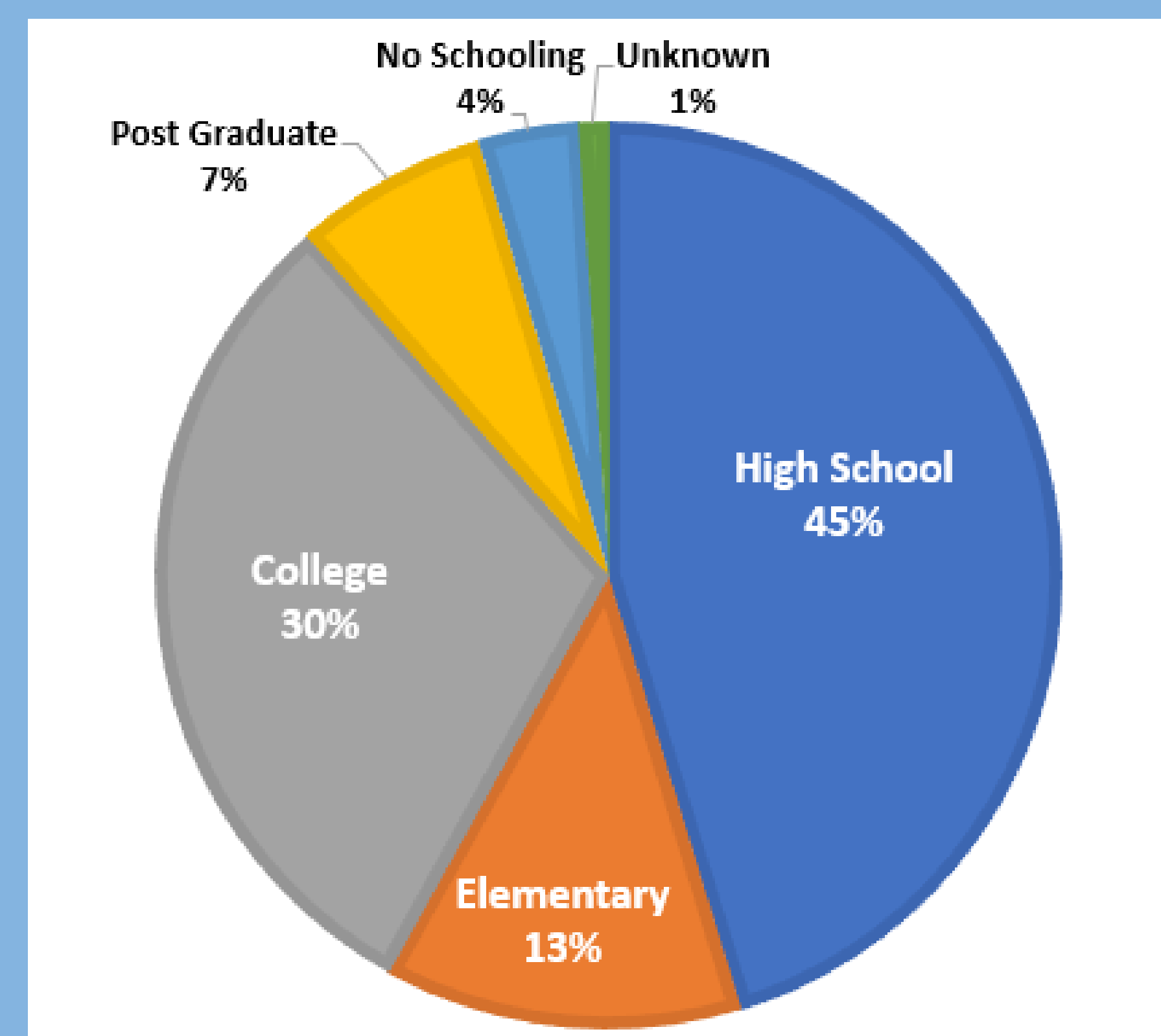


Figure 1. Education level of parent

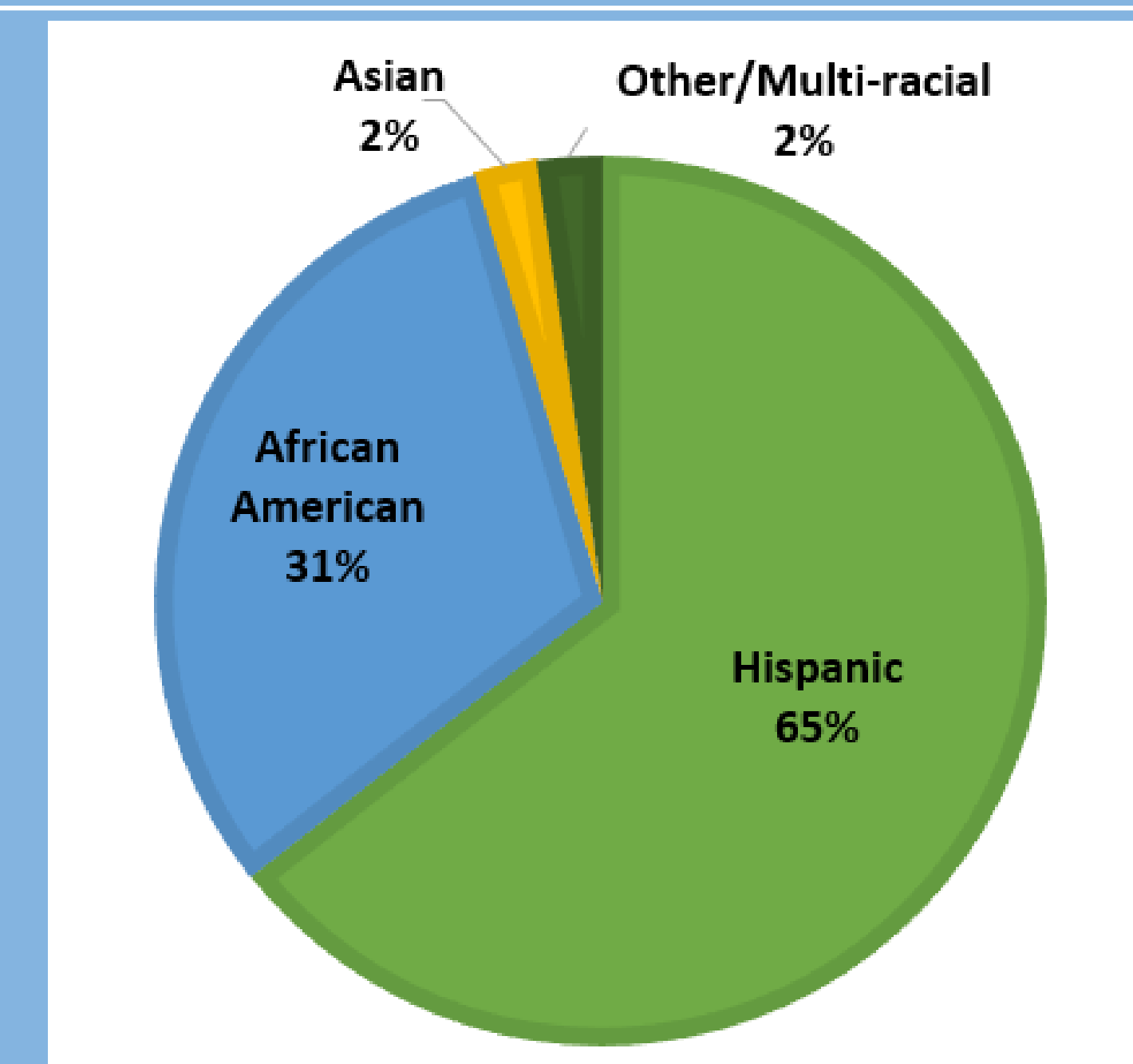


Figure 2. Ethnic background of parent

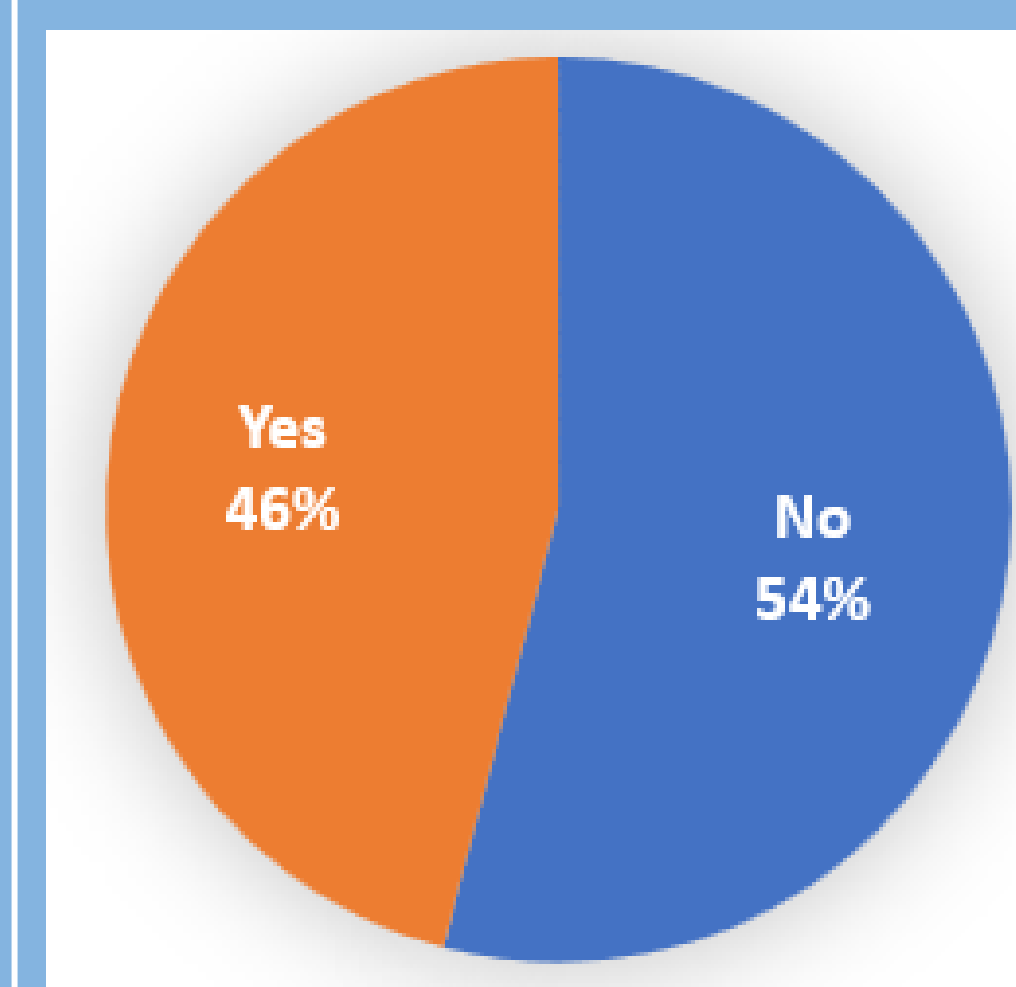


Figure 3. Sealant Awareness

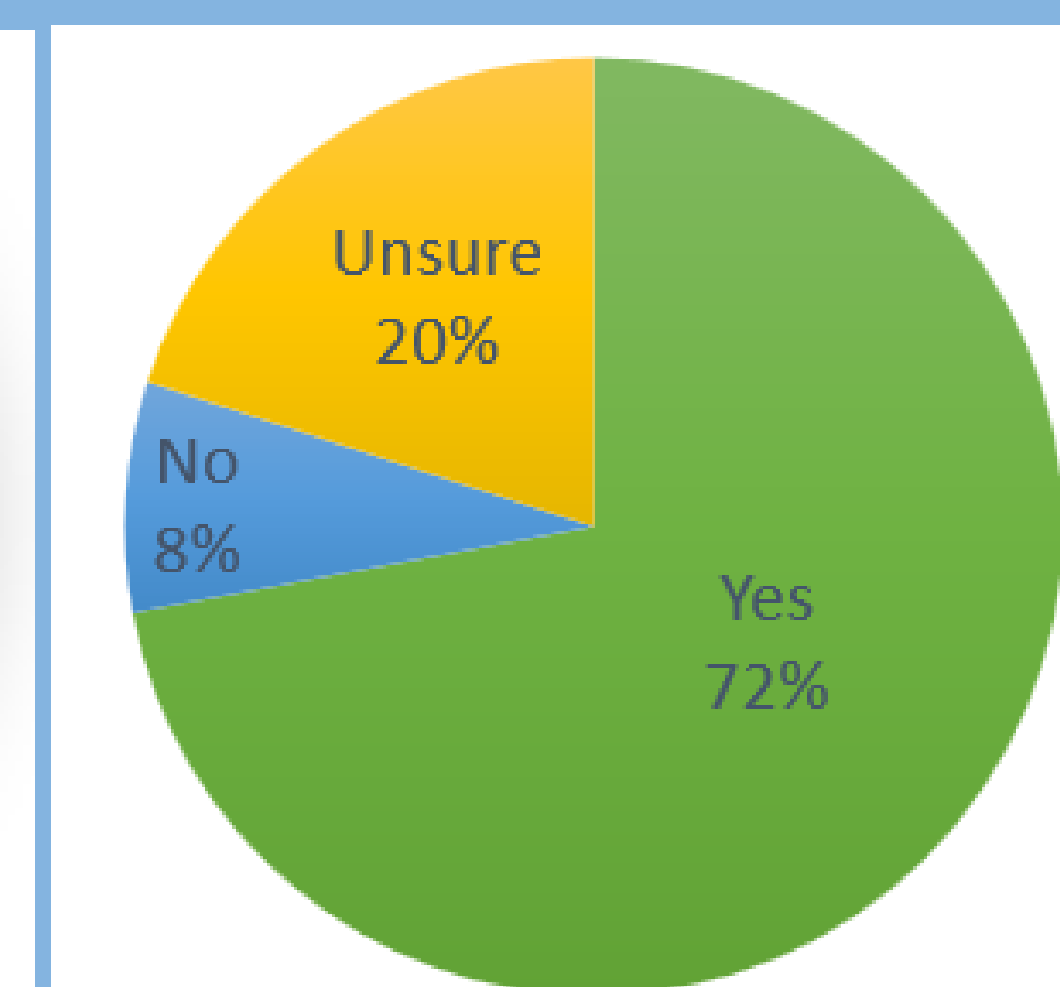


Figure 4. Parental Attitude toward Dental Sealant

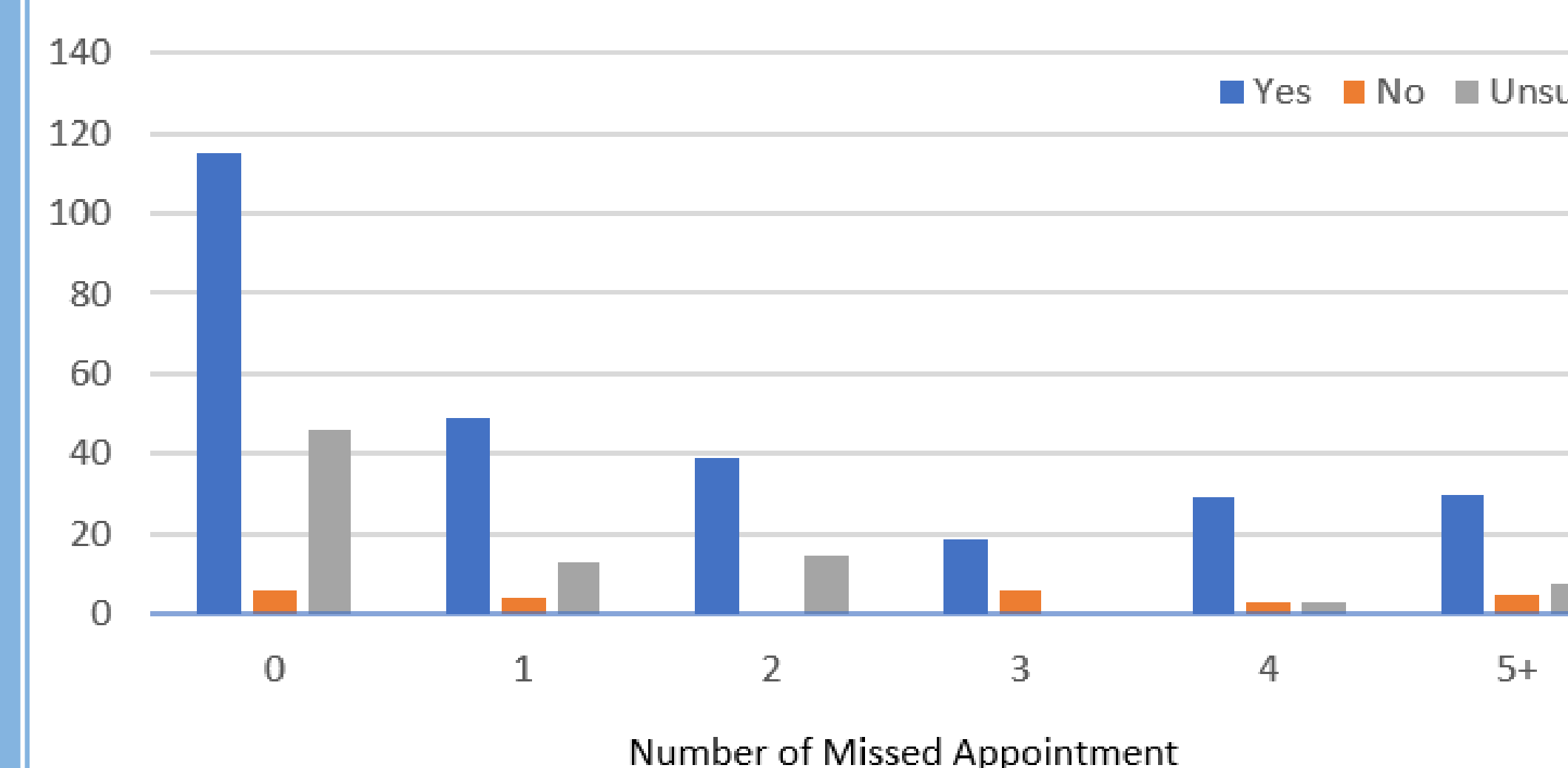


Figure 5. Number of Missed Appointment and Acceptance of Sealant Treatment

## Discussion

- When educated on the benefits of sealant, most parents were interested in getting the treatment done for their children.
- There was no significant relationship found between sealant awareness or acceptance and demographic factors. Notably, parents who had never missed an appointment exhibited a higher acceptance rate for sealant treatment ( $p < 0.05$ ).
- The study did not differentiate whether the lack of awareness was of the terminology or the treatment itself
- Further research is needed to examine the reasoning behind parents' negative attitude toward dental sealant
- Possible concerns may be presence of Bisphenol A in dental sealant.
- American Dental Association concluded that BPA released from dental sealants were very low (.09 nanograms). This is below the limit proposed by the U.S. Environmental Protection Agency (1 million nanograms per day) for a 6 year old child.<sup>4</sup>
- ADA recommends having the patient rinse their mouth after sealant placement to minimize potentially free BPA from leaching

## Conclusion

- This study shows that sealant awareness remains low among the population in the South Bronx. However, when educated on the benefits of sealant, most parents were interested in getting the treatment for their children.

## References

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