

Efficacy of Visual Aids in Promoting Parental Oral Health Literacy

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Purpose

- The purpose of this study was to assess whether the use of visual aids was effective in promoting oral health education to parents of pediatric dental patients 3 to 6 years old in the Bronx, NY.

Introduction

- Early childhood caries (ECC) is one of the most common chronic childhood diseases and is particularly prevalent in socio-economically disadvantaged groups.¹
- Oral health literacy is the “degree to which individuals have the capacity to obtain, process and understand basic oral health information and services to make appropriate health decisions and is significantly associated with socioeconomic status, level of education and occupation.”²
- For pediatric patients, oral health is largely dependent on parental oral health literacy.³
- Visual aids have been reported to significantly aid in attention, interest, understanding and retention of educational material provided.⁴
- Visual aids may be used as an educational tool to stimulate attention, curiosity and engagement and help more easily explain pediatric oral health concepts to the parents of pediatric patients.

Methods

- Parents of pediatric patients aged 3-6 years old presenting for a new patient or recall exam were recruited over a period of 6 months.
- A booklet with pediatric oral health information conveyed by illustrations, pictures and minimal verbiage was provided to parents during their child’s dental visit.
- After viewing the booklet, parents were given a survey comprised of 19 questions designed to assess their pediatric oral health literacy, their perceived efficacy of the visual aids in providing an educational experience and parental demographics.
- A Spanish version of the booklet and survey was provided to accommodate for a large Spanish-speaking population in the Bronx, NY.

Results

- A total of 422 questionnaires were collected.
- A total of 349 questionnaires were included in the final data analysis. 73 questionnaires were not completed in their entirety and thus were not included.

Figure 1. Demographic data

		Number of Responders	Percent of Responders
Gender	Female	254	72.8%
	Male	95	27.2%
Age (years)	<20	43	12.3%
	20-29	98	28.1%
	30-39	133	38.1%
	40-49	65	18.6%
	50+	10	2.9%
Level of education	Primary school	65	18.6%
	High school	197	56.4%
	College level and above	77	22.0%
Language	English	231	66.2%
	Spanish	118	33.8%

Figure 2. Overall parental oral health knowledge test performance

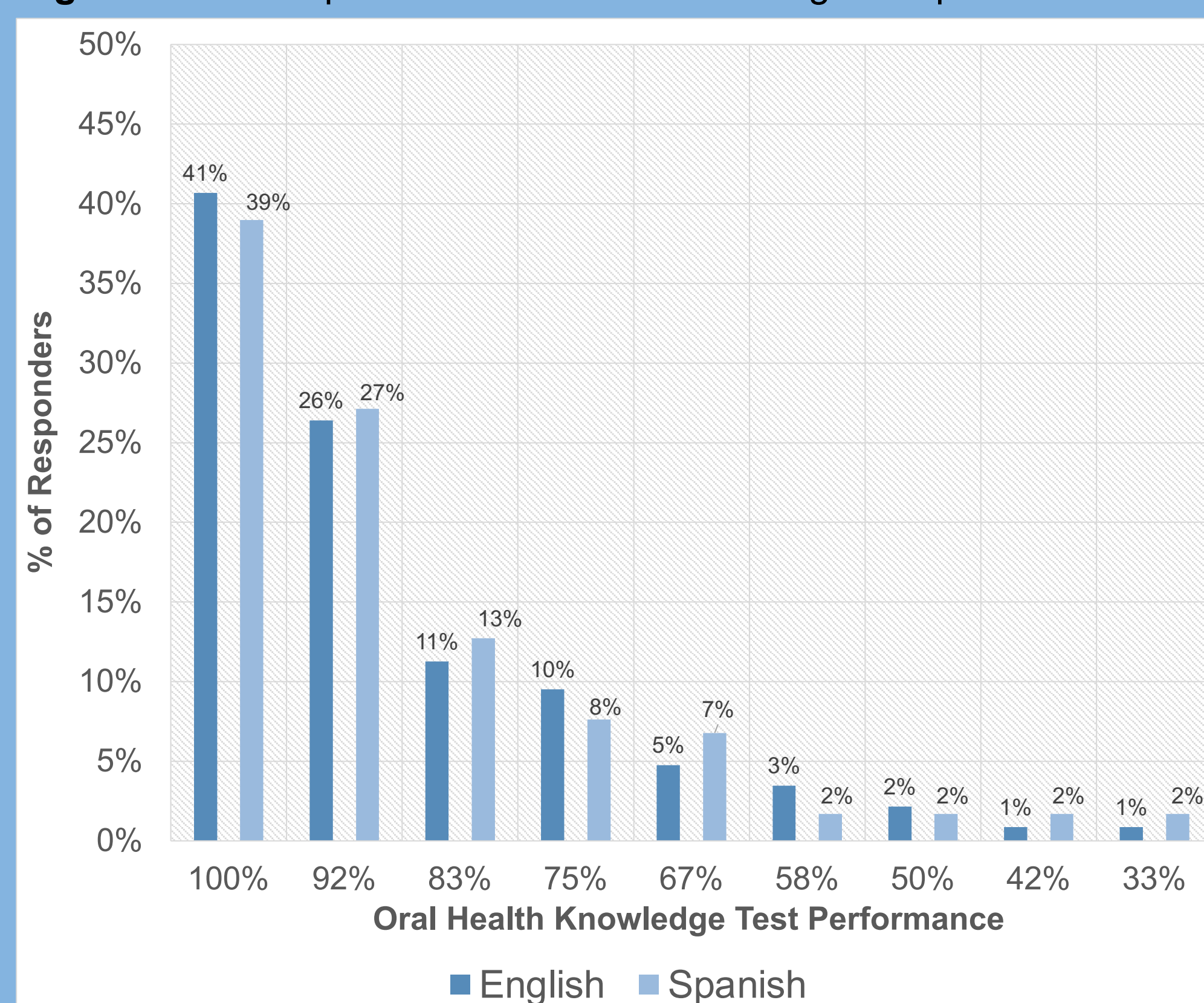


Figure 3. Parental gender and average test performance

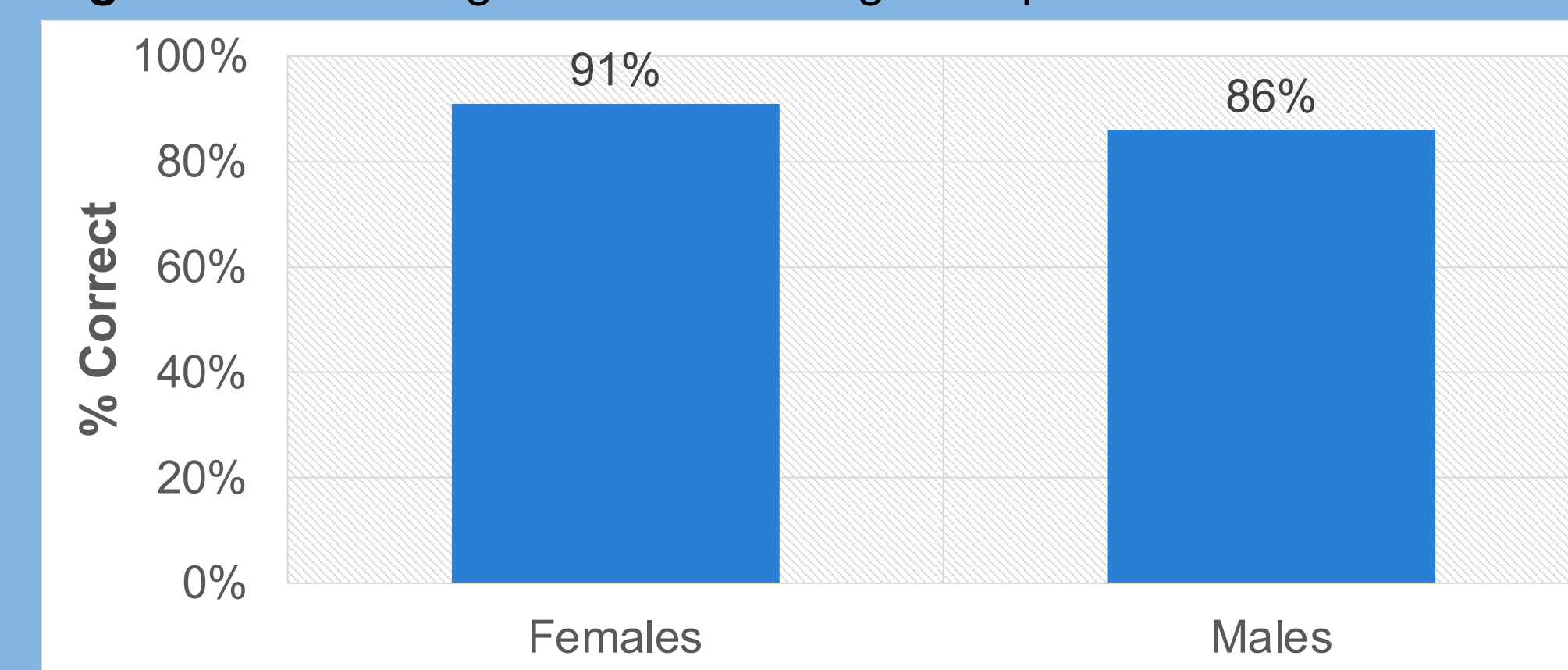


Figure 4. Parental age and average test performance

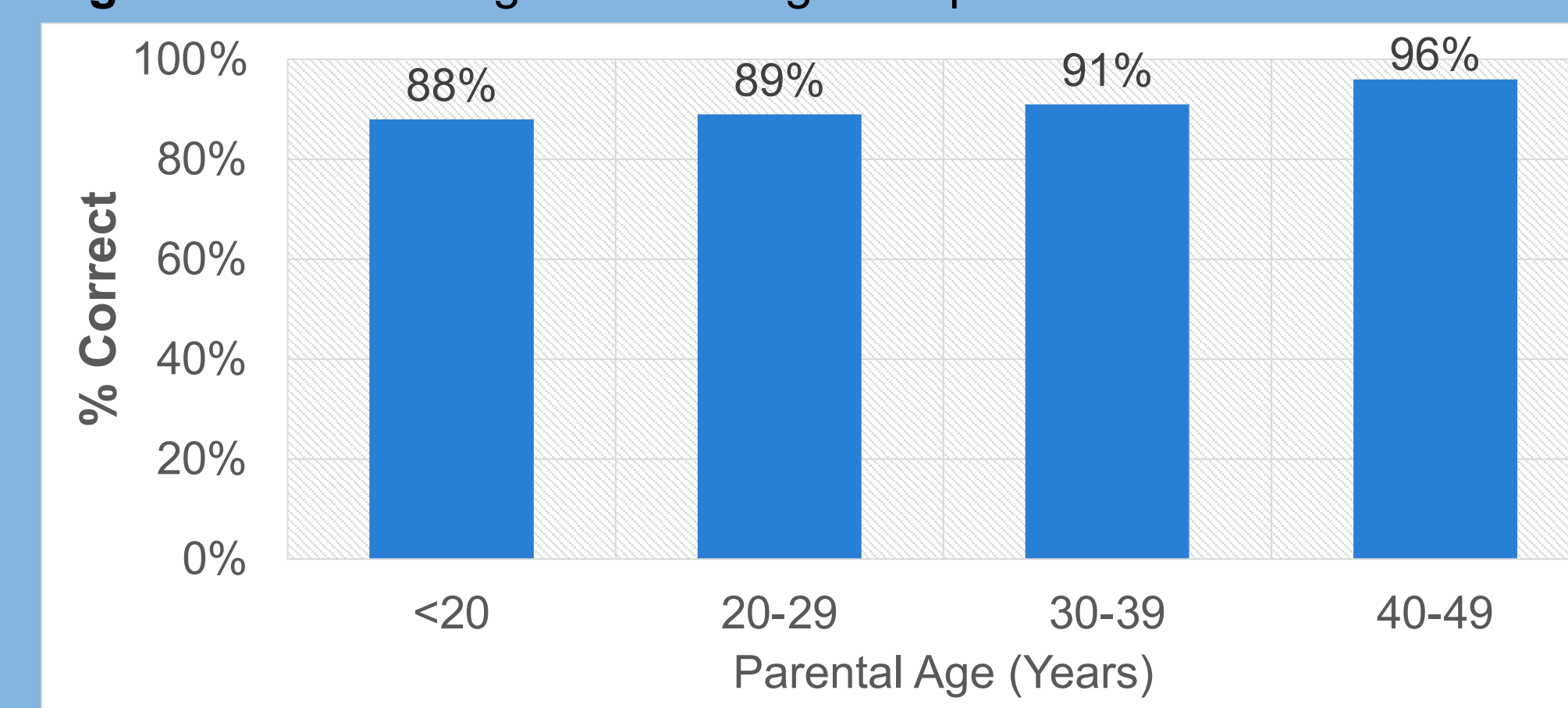


Figure 5. Parental education and average test performance

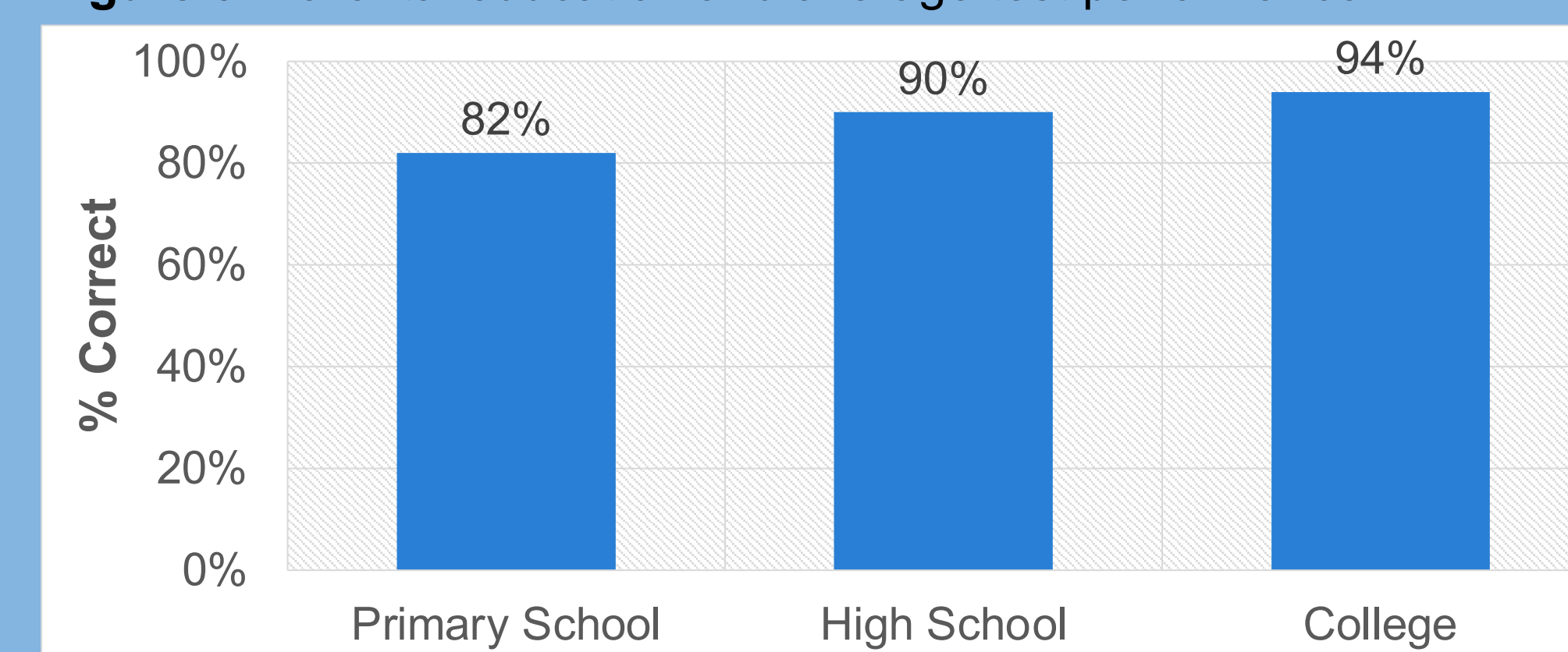
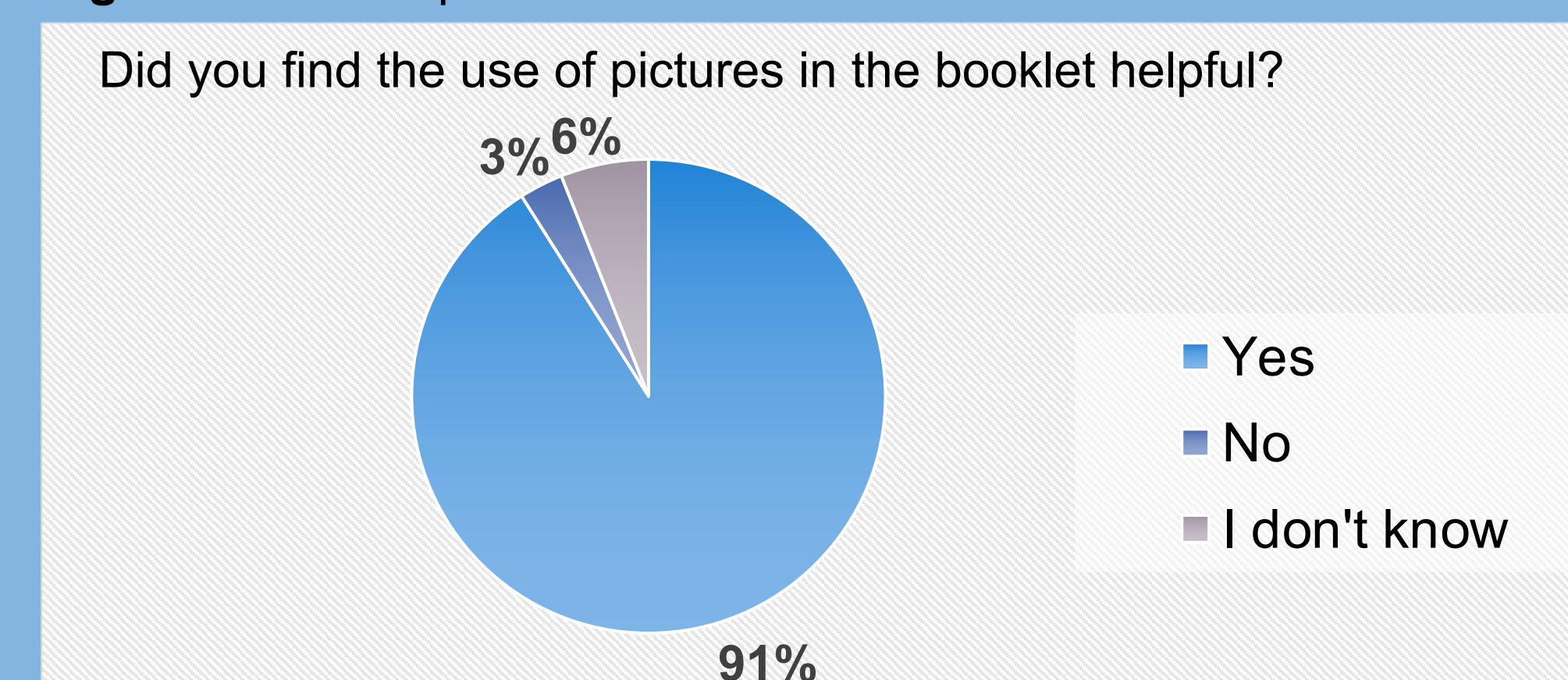


Figure 6. Overall parental attitudes towards visual aids



Discussion

- The high parental oral health knowledge test scores demonstrate parental knowledge of pediatric oral health information after a visual intervention (Fig 2).
- Results of this study are consistent with those of previous research that show increased understanding, retention of information and engagement when visual aids are employed.⁴
- A number of factors such as gender, age, level of education and/or primary language, may influence the educational effectiveness of visual aids.
- Limitations of this study include: 1) lack of a pre-test to demonstrate a learning effect due to a visual aid intervention and 2) lack of a control group to compare the effects of visual aids as opposed to verbal, written or other educational mediums.

Conclusion

- Parents of pediatric dental patients found the use of visual aids effective and helpful in understanding and remembering pediatric oral health information.
- The belief that visual aids helped to provide an enhanced educational experience was seen regardless of parental gender, age, education level and primary language (English or Spanish).
- Visual aids may improve parental learning and can be utilized to help increase the oral health literacy of the parents of pediatric dental patients.

References

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