



INTRODUCTION

- Behavior management in pediatric dentistry is crucial, defined by the AAPD as a continuum of interaction involving the dentist, dental team, patient, and parent, focused on communication, education, and safety during care delivery.⁴
- Techniques like tell-show-do, positive reinforcement, and distraction are commonly used to modify patient behavior, often preferred to pharmacologic techniques.⁶
- Pharmacologic interventions such as nitrous oxide, oral conscious sedation (OCS), or IV sedation/General Anesthesia (GA) are reserved for non-compliant cases.¹
- OCS has historically been the most utilized behavior management technique utilized.³ Pediatric dental residents are extensively trained in these techniques, used in 1-20% of cases, reflecting its integration into treatment planning.^{8,11,12}
- OCS, noted for cost-effectiveness compared to GA, remains popular despite parental concerns about side effects.⁹
- Safety risks like respiratory depression and patient discomfort underscore providers' caution in OCS use.⁷
- Variability in patient responses to OCS, with deeper sedation occasionally leading to complications, prompts some providers to prefer IV sedation or GA for predictable outcomes.⁵
- Many dentists choose not to offer OCS due to safety concerns, focusing on alternative methods for procedural safety and efficiency.
- Understanding new dentists' perspectives on OCS informs practice decisions, balancing benefits and safety considerations in dental care.

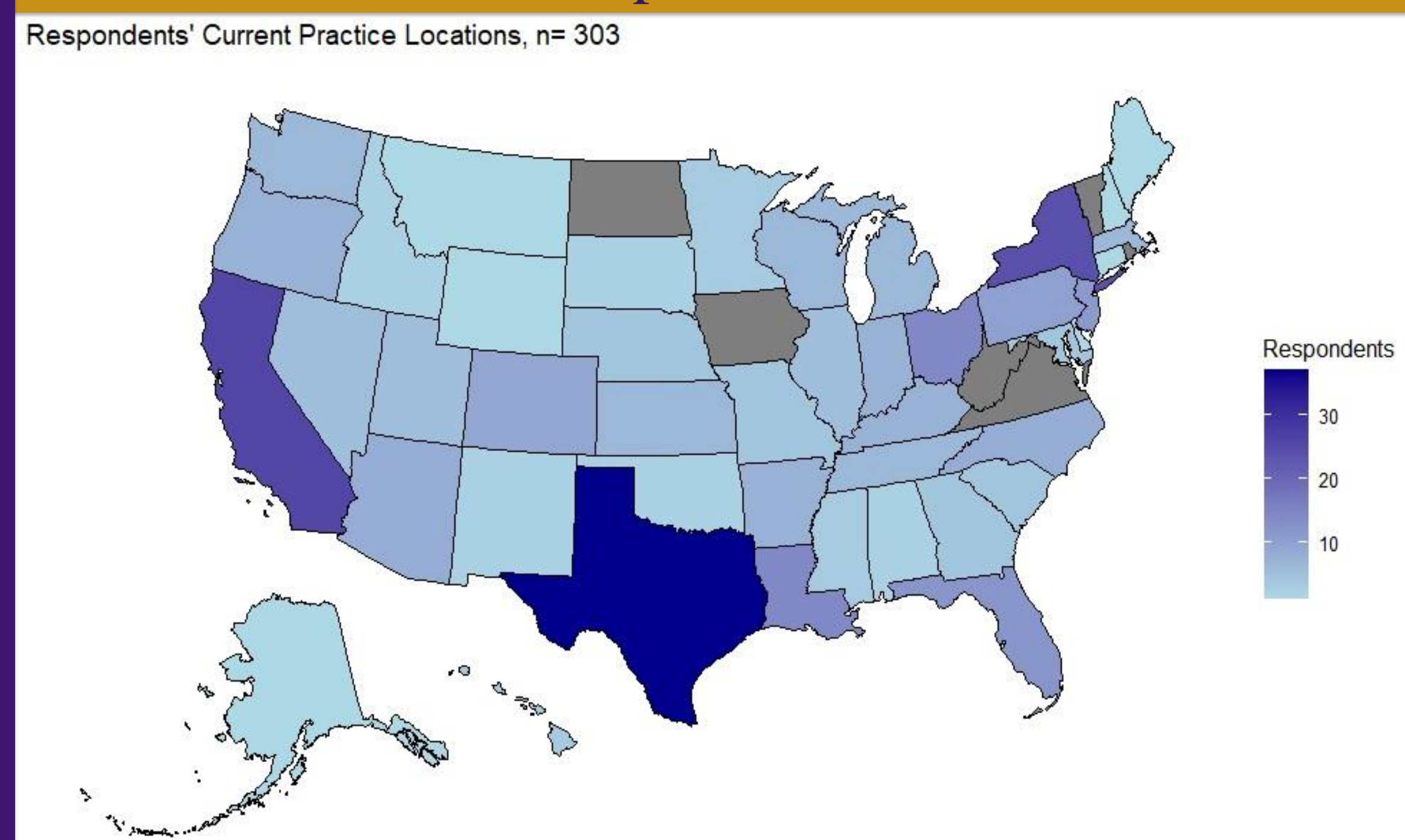
OBJECTIVE

To analyze the preference of using oral conscious sedation (OCS) among the new generation of pediatric dentists compared with older generation.

METHODS

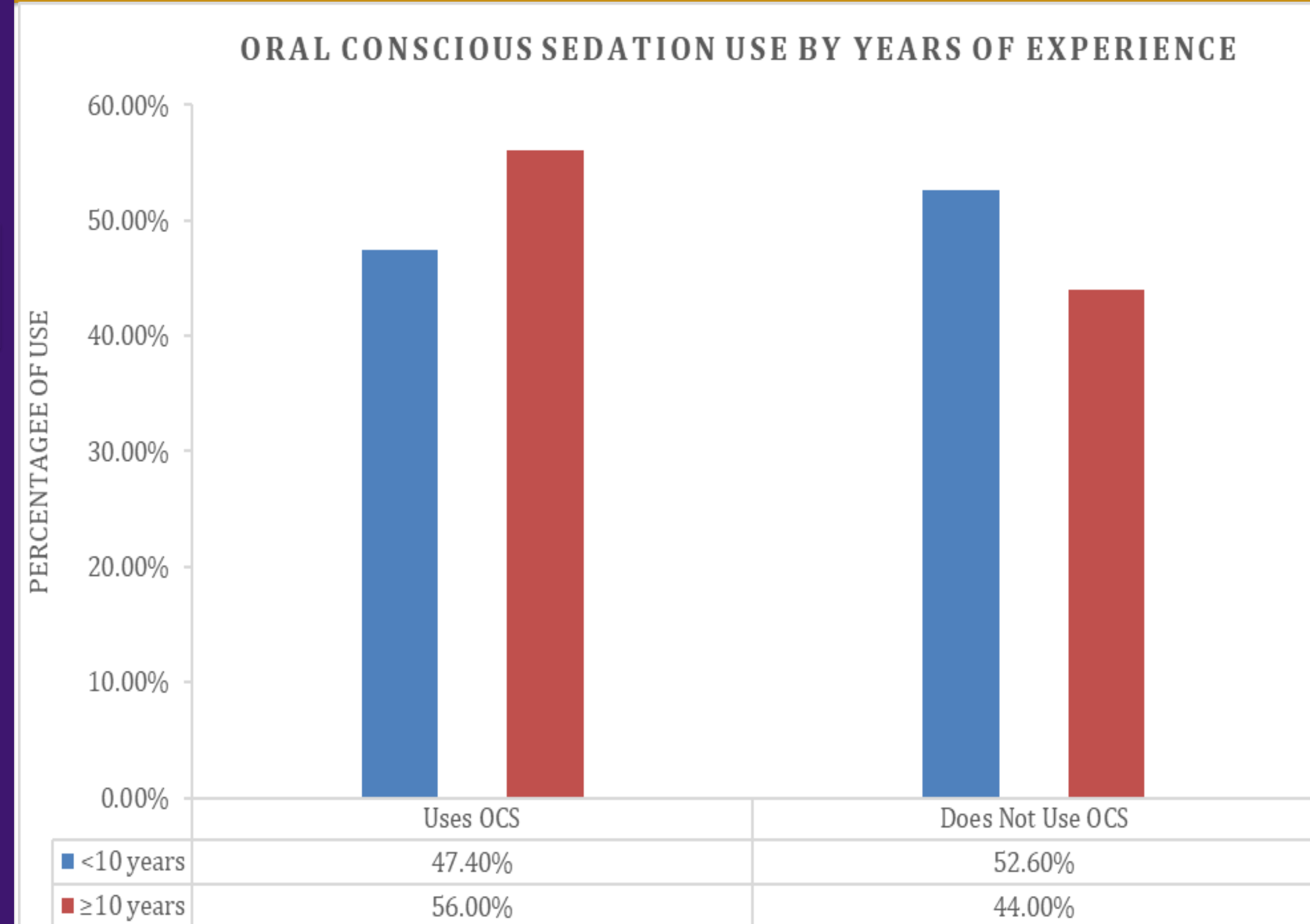
- IRB Exempt status granted (Protocol ID: #7821) by LSU Health Science Center, New Orleans.
- A survey of up to 36 questions (dependent of participant's answers) assessing OCS use, risks, benefits, and alternatives was distributed via email to 8,781 AAPD members anonymously.
- For this survey, the "New" pediatric dentists were defined as those who graduated residency within the past 10 years.²
- Participation was voluntary with no risks.
- Survey responses were compared across experience groups (<10 years and ≥10 years) using Chi-square or Fisher's exact tests for categorical variables and Wilcoxon rank-sum or ANOVA tests for numerical variables.
- Categorical variables were summarized as counts and percentages, while numerical variables were reported as means and standard deviations.
- Multi-category variables, such as Likert scales, were recategorized into smaller groups (e.g., agree/strongly agree, neutral, disagree/strongly disagree).
- Similar analyses were conducted to compare responses between OCS use groups (yes vs. no).
- A multivariable logistic regression model was used to predict OCS use, adjusting for potential confounders.
- The average treatment effect of having ≥10 years of experience was computed to assess its impact on treatment use.
- Significance Level: 5% threshold applied to all analyses.

Figure 1. Map of current practice locations of respondents



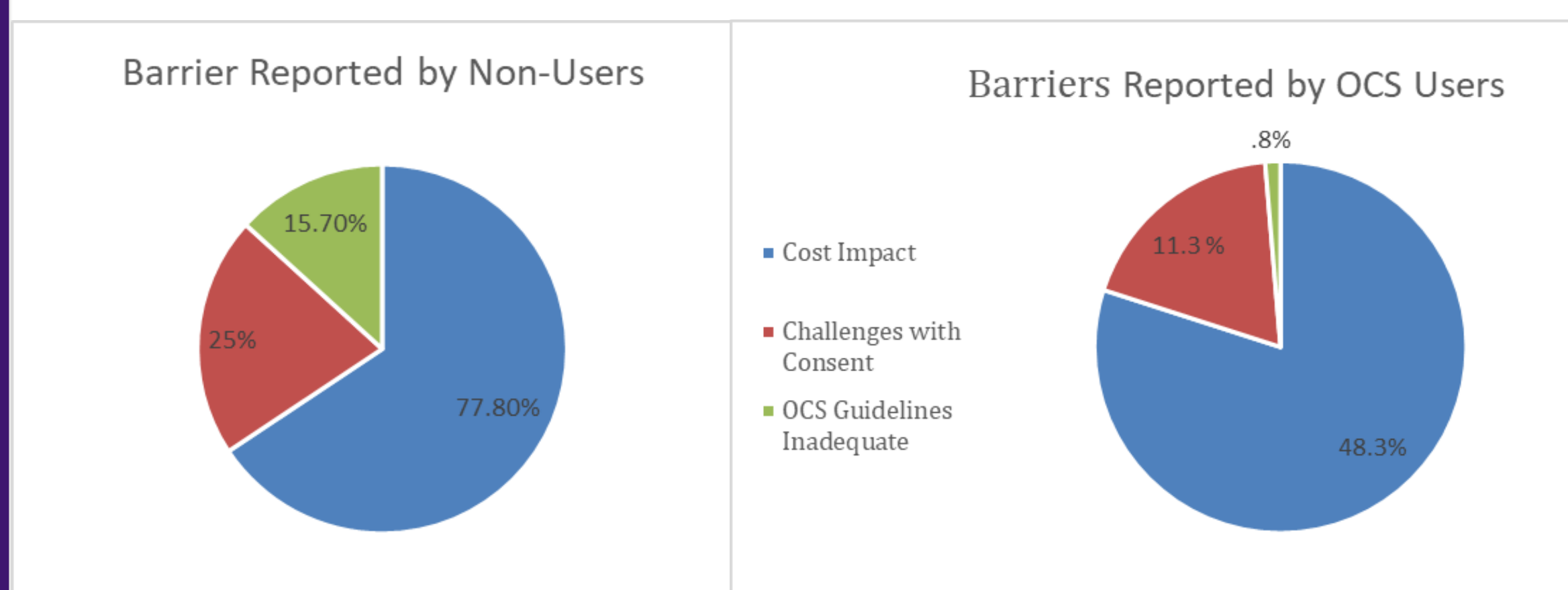
The top three states with respondents were Texas (12.2%), California (8.58%) and New York (7.92%).

Figure 2. Proportion of pediatric dentists using or not using OCS by years of experience.



Dentists with ≥10 years of experience were slightly more likely to report using OCS than those with less experience.

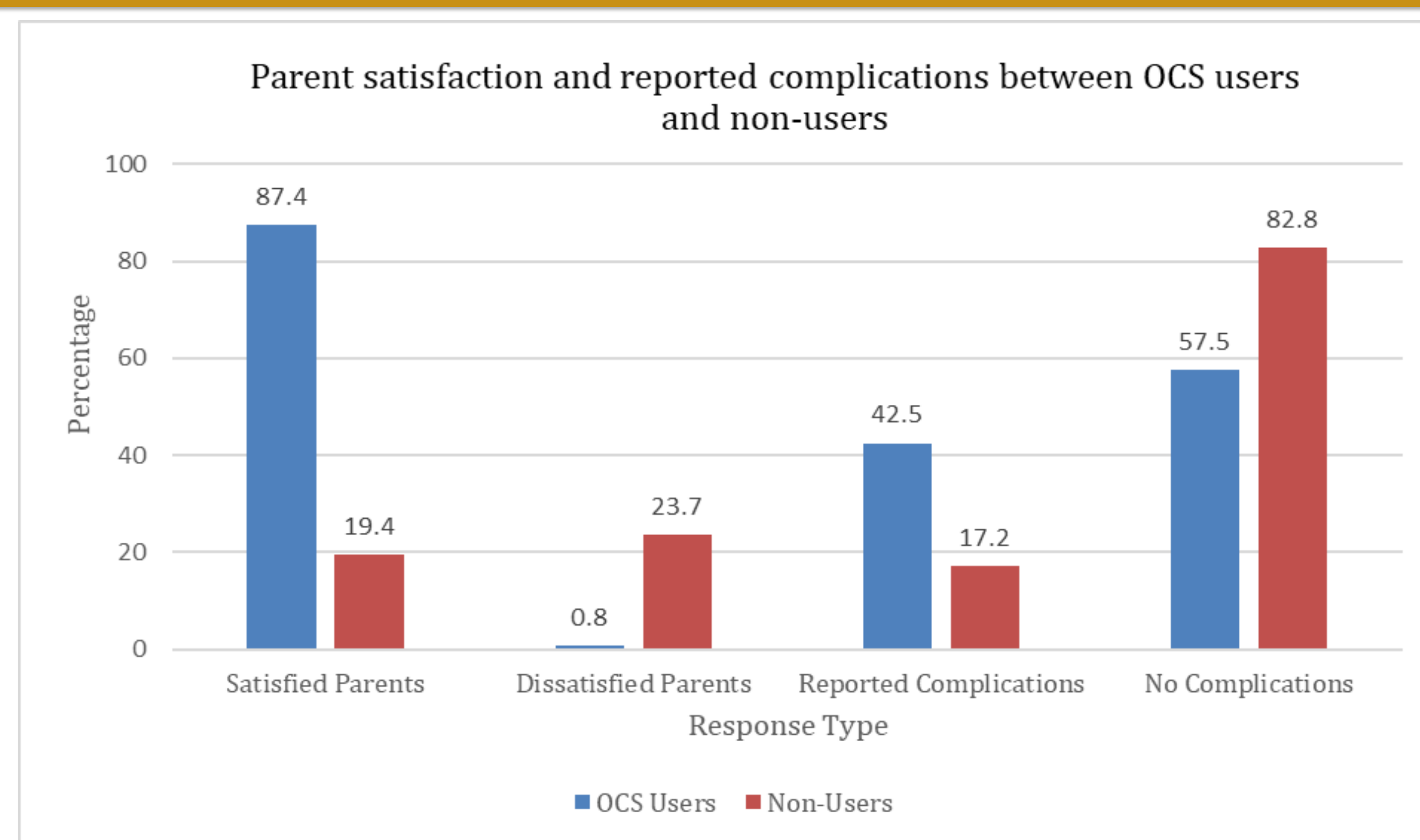
Figure 4. Distribution of top barriers to OCS use among users and non-users



Top barriers to OCS use as reported by pediatric dentists. Cost concerns were the most frequently cited barrier, particularly among non-users. Challenges with consent and perceived inadequacy of guidelines were also reported. While both groups acknowledged similar issues, non-users cited cost as a barrier nearly twice as often.

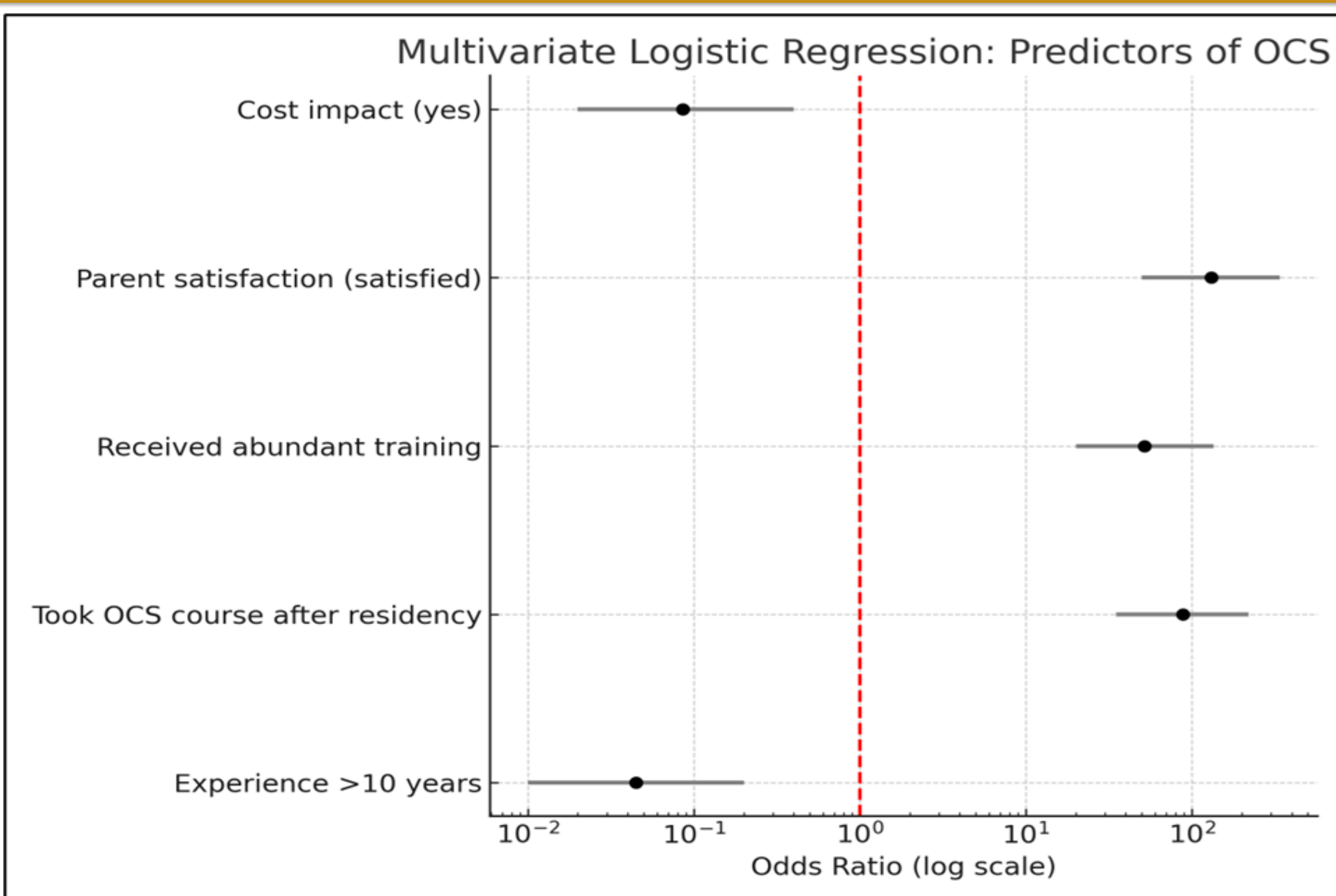
RESULTS

Figure 3. Parent satisfaction and reported complications between OCS users and non-users



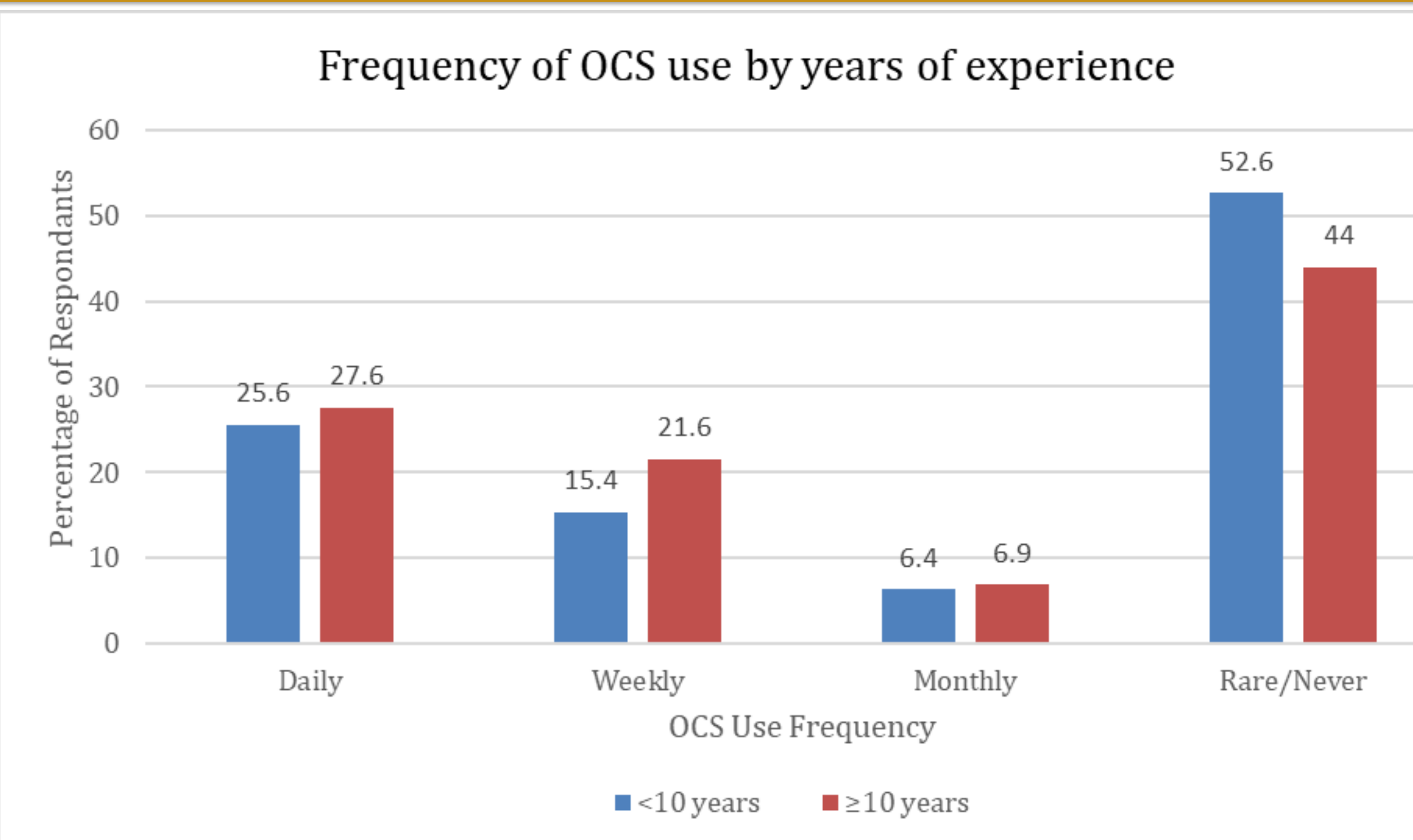
While OCS users reported significantly higher satisfaction rates, they also reported more complications.

Figure 5. Forest plot of multivariable logistic regression predicting OCS use among pediatric dentists.



Odds ratios (OR) are displayed on a log scale, with 95% confidence intervals. Training after residency, parental satisfaction, and abundant sedation exposure were strong positive predictors, and experience >10 years and cost concerns were strong negative predictors..

Figure 6. Frequency of OCS use by years of experience



Most dentists reported rare or no use of OCS, with a smaller proportion using it daily or weekly. These patterns were similar across both experience groups.

CONCLUSIONS

- Newer pediatric dentists are potentially adopting OCS at lower rates despite receiving more training in residency; however, this trend changes with multivariate analysis.
- Post-residency education, parental satisfaction, cost concerns, and liability fears influence OCS usage.
- Expanding continuing education, increasing reimbursement, improving safety protocols, and enhancing risk communication with parents could support more balanced sedation practices.
- The future of OCS in pediatric dentistry will depend on how these evolving trends are addressed within the profession. Further research is needed to explore long-term sedation trends, financial accessibility, and liability mitigation strategies.

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