

# Recall Attendance Following Oral Moderate Sedation in Pediatric Dentistry

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## Background/Introduction

- Advanced behavior guidance can help improve future behaviors in the dental setting, reduce pain perception, and lessen anxiety (Espindola, D. et al, 2016)
- Repeat advance behavior guidance is very common and increasing (Vertullo, L et al, 2021)
- Similar studies have been completed following general anesthesia (GA) cases:
  - 39-57% return for 6 month recall following GA (Cardenas, M. et al, 2022)
  - Future behavior may differ between patients treated under GA vs. oral moderate sedation (Fuhrer, C.T. et al, 2009)

## Purpose

- Determine significant factors associated with patients seeking the recommended preventive dental care after treatment was completed under oral moderate sedation
- Research Questions: Does age of treatment or socioeconomic status affect the recall rate? Does success of oral moderate sedation treatment affect the recall rate?

## Methods

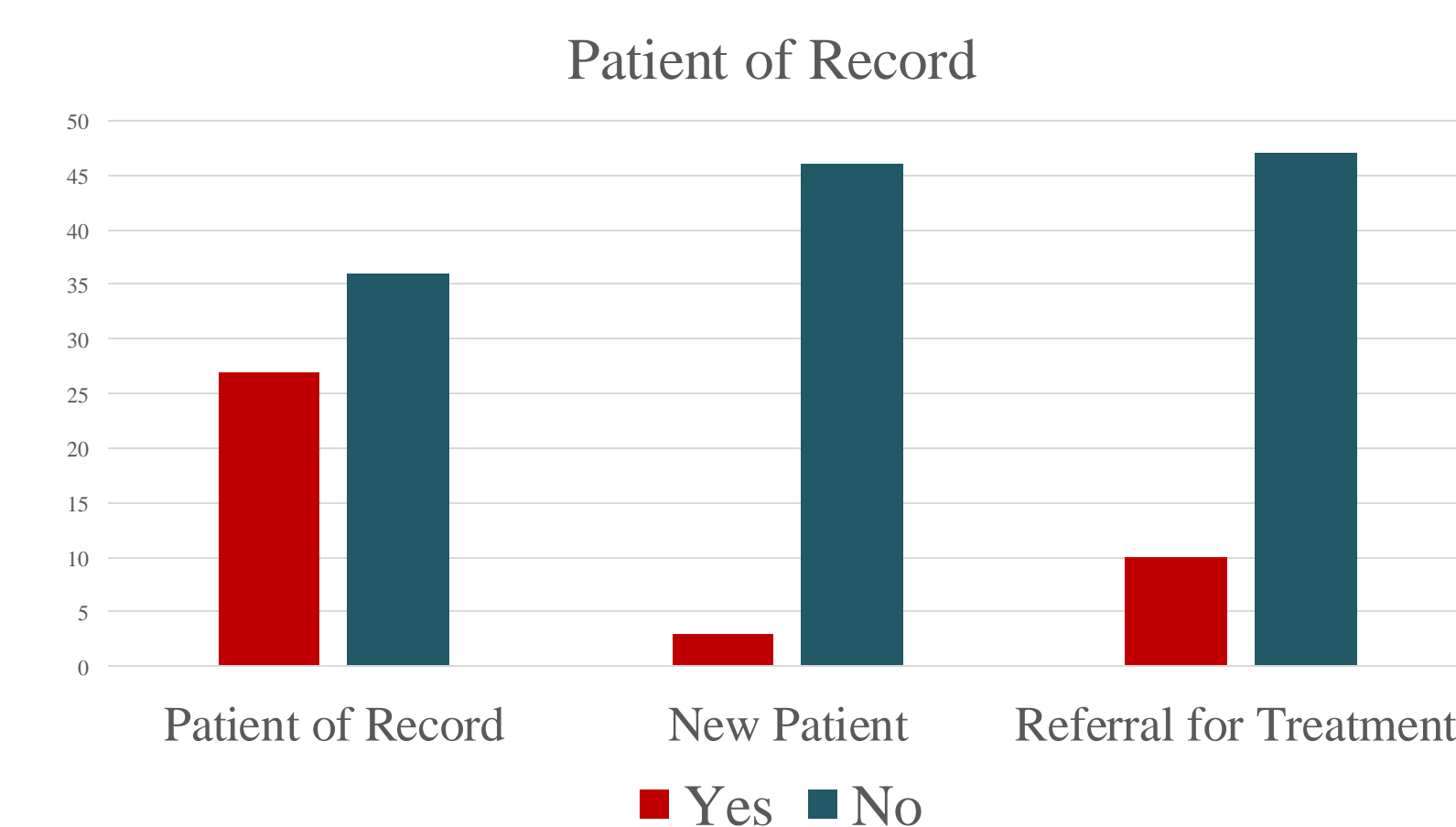
- Retrospective Chart Review
  - Oral Moderate Sedation appointments from February 1, 2021-October 1, 2022.
  - Age, Sex, DOB, Insurance type, Treatment completed, Procedural codes/dates
- Statistical Analysis: Associations between recall status and variables of interest were assessed using Chi-Square and Fisher exact tests

## Results

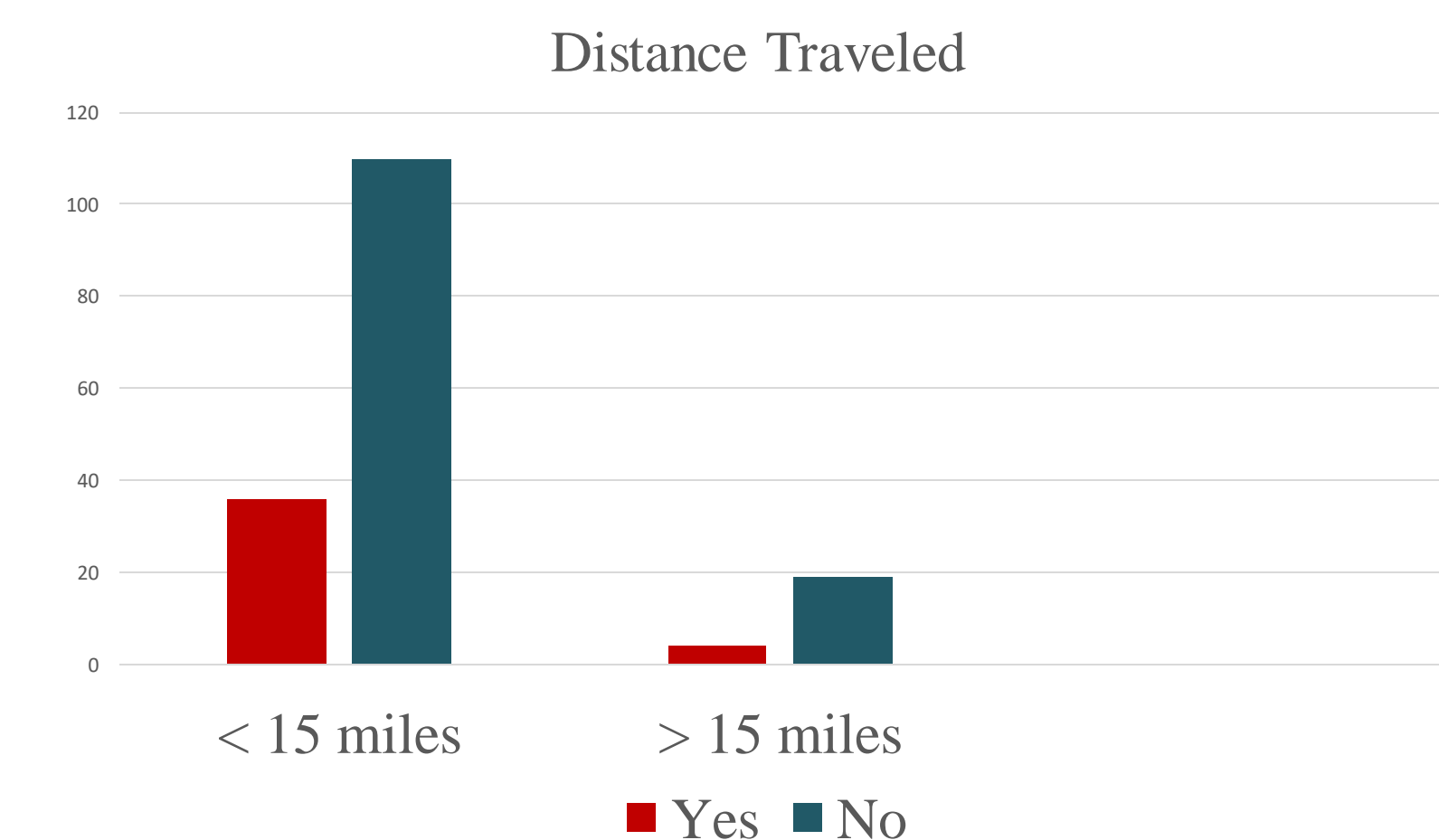
- Sample Size: N=169 oral moderation sedation patients

Age, n (%)	Insurance, n (%)	6 month Recall, n (%)
1. 0 - 6 years	Public	Yes
2. 6 - 12 years	Private	No/ER appt
3. 12+ years	None	
		12 month Recall, n (%)
		Yes
		No/ER appt
Gender, n (%)	Treatment Completed, n (%)	Recall_any, n (%)
Female	Yes	Yes
Male	Yes - GA to follow	No/ER appt
	No	
Distance Traveled, n (%)	Patient of Record, n (%)	
1. Less than 15 miles	Yes	Yes
2. 15 or more miles	Referral for Tx	No/ER appt
	New Patient	

- A high proportion of males patients attended a recall at least once in 12 months (32.9%) relative to female patients (17.2%) (p=0.02)



- There was a significant association between whether a patient was a patient of record prior to their sedation appointment and their recall attendance (p<0.001).
  - 42.9% of patients of record, 6.1% of those referred for treatment, and 17.5% of new patients attended a recall at least once in 12 months



- There was no significant association between the distance a patient traveled to their dental treatment appointment and recall attendance (p=0.60); however, a higher proportion of patients who lived closer to the dental clinic attended a recall at least once in 12 months (24.7%) than patients who lived farther than 15 miles away (17.4%).

- There was no significant association between patient age, patient's insurance type, or success of the treatment at the sedation appointment, and their subsequent recall attendance

## Conclusions and Future Directions

- Overall, Recall attendance is very poor. Only 8.9% of patients had a 6 month recall and 18.3% had a 12 month recall.
- Patients that are referred or do not have an established dental home prior to sedation treatment are difficult to follow-up with for future dental care or preventive care
- Findings are consistent with other studies that found poor recall attendance; however, this study provides a new perspective from a residency, hospital-based program and found significant associations between patients of record and higher recall attendance (p<0.001).
- This study provided insights into how UNMC Pediatric Dentistry patient demographics are associated with recall rates and could specifically help providers treat our patient population better
- Future research could look to measure the impact of implementing better referral follow-up or post-op recall scheduling systems
- Future research could also involve surveying parents at sedation appointments or recall visits to investigate factors that are important to them in determining their motivation to seek follow-up care

## References

Cardenas, M. et al. *Motivational Interviewing to Improve Pediatric Dental Recall Attendance after General Anesthesia*. Journal of Dentistry for Children 89:3, 2022.

Espindola, D. et al. *Moderate sedation helps improve future behavior in pediatric dental patients-a prospective study*. Braz. Oral Res. 30(1)ce107, 2016.

Fuhrer, C.T. et al. *Effect on Behavior of Dental Treatment Rendered Under Conscious Sedation and General Anesthesia in Pediatric Patients*. Pediatric Dentistry 31:7, 2009.

Kasemkhun, P. et al. *Characteristics and Predicting Factors of Repeat Dental Treatment Under General Anesthesia in Patients with Special Health Care Needs: A Retrospective Study*. Journal of International Dental and Medical Research. 15:2, 2022.

Salazar, D. et al. *Recall Attendance After General Anesthesia Versus Oral Conscious Sedation*. Pediatric Dentistry 44:5, 2022.

Vertullo, L et al. *Trends in repeat general anesthesia for treatment of dental caries at a children's hospital in Toronto, Canada; a 10-year retrospective investigation*. European Archives of Paediatric Dentistry 22:1087-1093, 2021.

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## Background/Introduction

- Advanced behavior guidance can help improve future behaviors in the dental setting, reduce pain perception, and lessen anxiety(2)
- Repeat advance behavior guidance is very common and increasing (6)
- Similar studies have been completed following general anesthesia cases:
  - 39-57% return for 6 month recall following GA (1)
  - Future behavior may differ between patients treated under GA vs. oral moderate sedation (3)

## Purpose

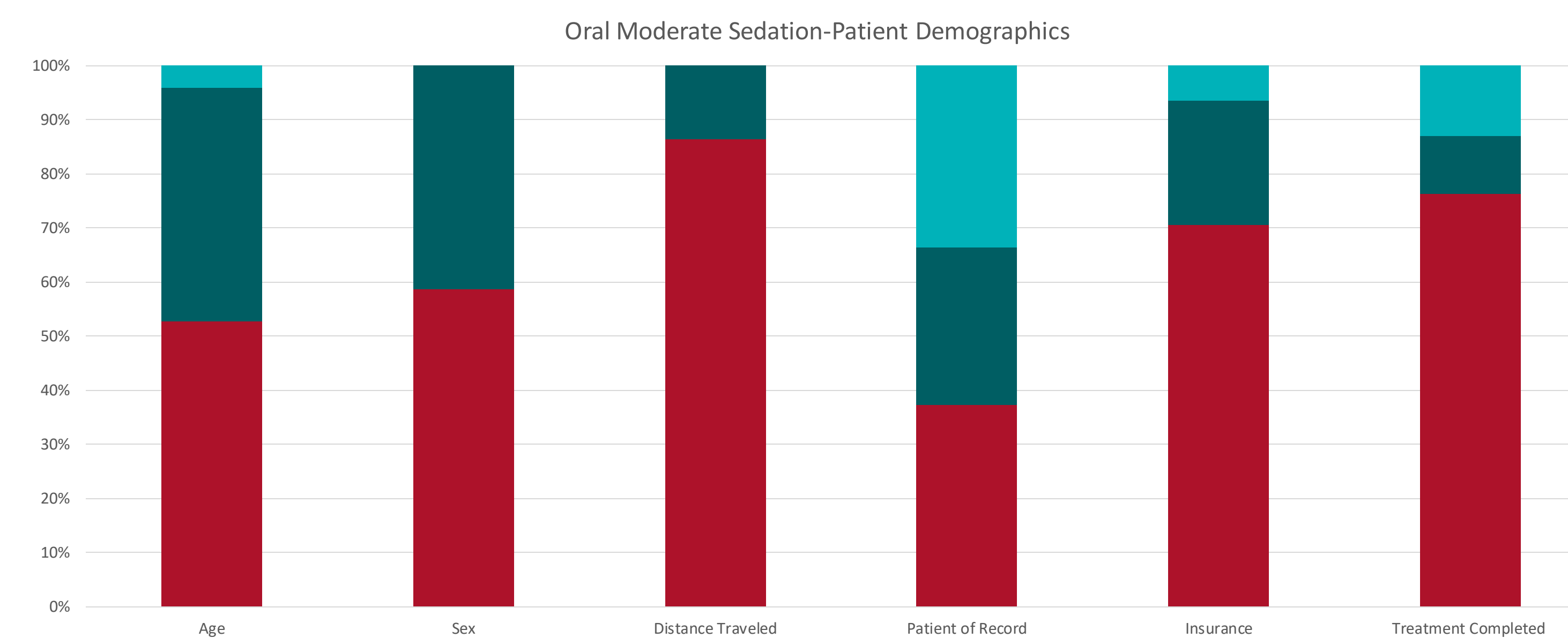
- Determine significant factors associated with patients seeking the recommended preventive dental care after treatment was completed under oral moderate sedation
- Research Questions: Does age of treatment or socioeconomic status affect the recall rate? Does success of oral moderate sedation treatment affect the recall rate?

## Methods

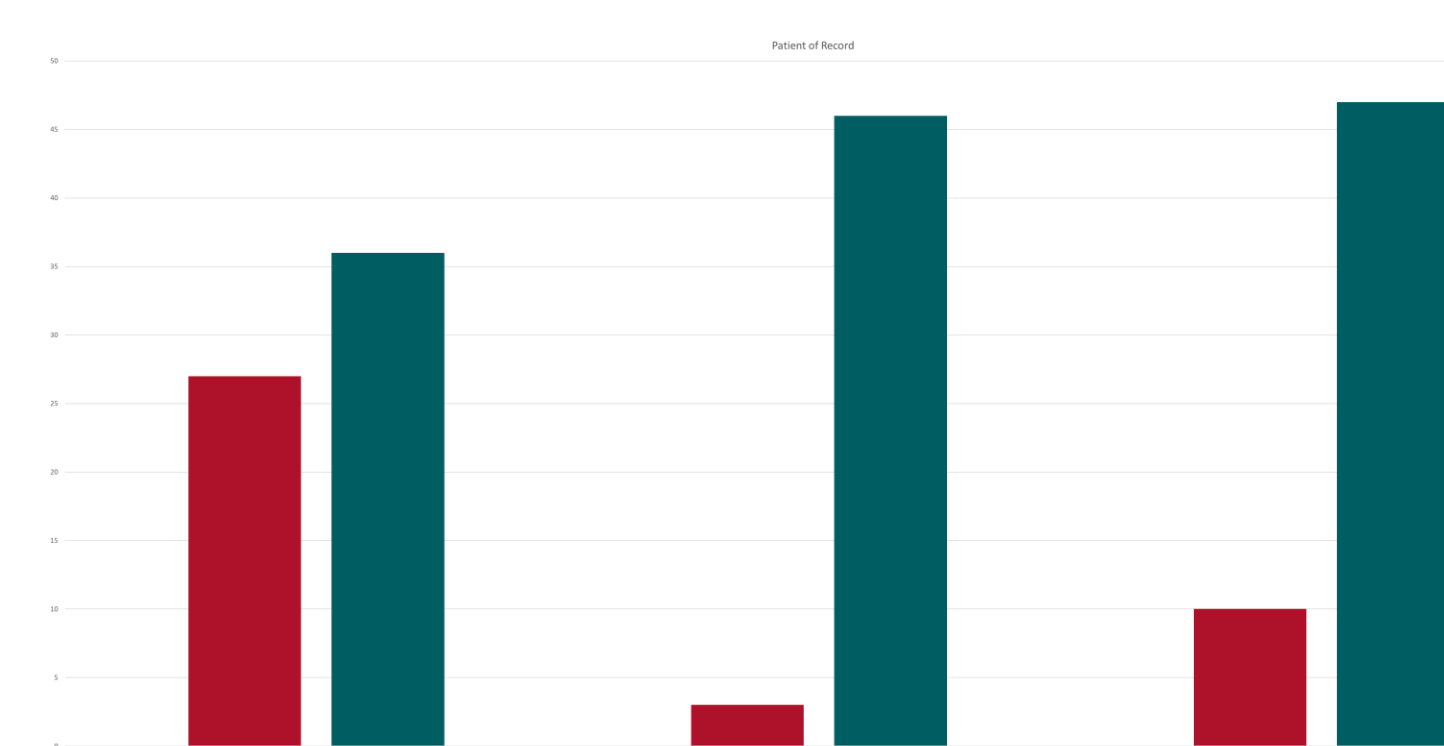
- Retrospective Chart Review
  - Oral Moderate Sedation appointments from February 1, 2021-October 1, 2022.
  - Age, Sex, DOB, Insurance type, Treatment completed, Procedural codes/dates
- Statistical Analysis
  - Statistical Power
  - Proportions
  - Chi-Square and Fisher exact tests for categorical variables
  - Wilcoxon Rank Sum or Kruskal Wallis tests for continuous variables

## Results

- Sample Size: N=169 oral moderate sedation patients

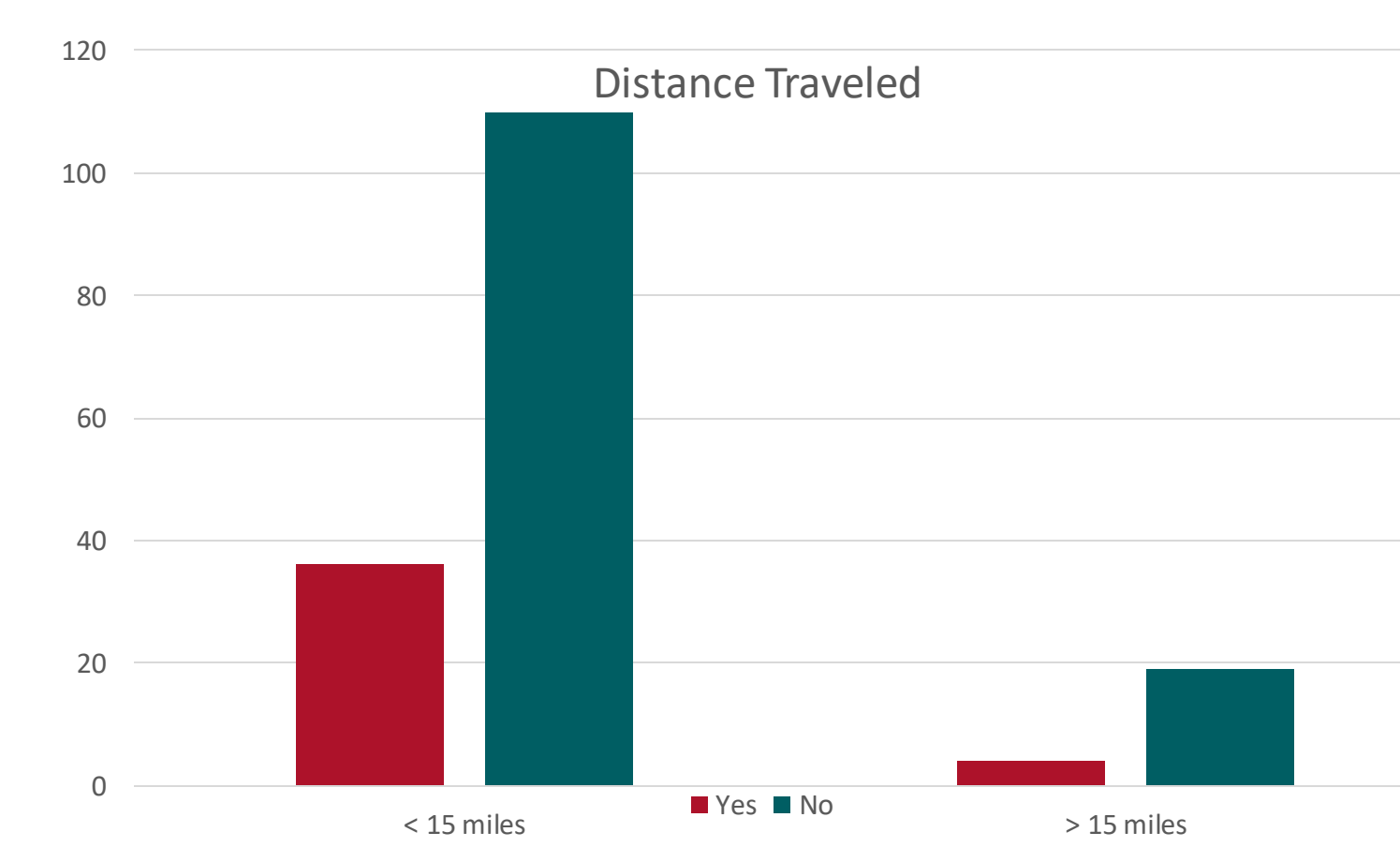


- A high proportion of males patients attended a recall at least once in 12 months (32.9%) relative to female patients (17.2%) (p=0.02)



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  - 42.9% of patients' of record, 6.1% of those referred for treatment, and 17.5% of new patients attended a recall at least once in 12 months

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- There was no significant association between patient age and recall attendance (p=0.20)
- There was no significant association between a patient's insurance type and their recall attendance (p=0.89)
- There was no significant association between success of treatment at the sedation appointment and their recall attendance (p=0.40)

## Conclusions and Future Directions

- Overall, Recall attendance is very poor
- Patients that are referred or do not have an established dental home prior to sedation treatment are difficult to follow-up with for future dental care or preventive care
- How do findings fit in with existing literature?
- This study provided patient demographic information for UNMC Pediatric Dentistry that could specifically help know and treat our patient population better
- Future research could look to measure the impact of implementing better referral follow-up or post-op recall scheduling systems
- Future research could also involve surveying parents at sedation appointments or recall visits to investigate factors that are important to them in determining their motivation to seek follow-up care

## References

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3. Fuhrer, C.T. et al. *Effect on Behavior of Dental Treatment Rendered Under Conscious Sedation and General Anesthesia in Pediatric Patients*. Pediatric Dentistry 31:7, 2009.
4. Kasemkhun, P. et al. *Characteristics and Predicting Factors of Repeat Dental Treatment Under General Anesthesia in Patients with Special Health Care Needs: A Retrospective Study*. Journal of International Dental and Medical Research. 15:2, 2022.
5. Salazar, D. et al. *Recall Attendance After General Anesthesia Versus Oral Conscious Sedation*. Pediatric Dentistry 44:5, 2022.
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