

Impact of Postoperative Follow-up after Dental Rehabilitation on Recall Rates

B. McKeegan, Z. Houser, E. Lyden
Department of Growth and Development, University of Nebraska Medical Center, Omaha, NE 68198



Background

- The majority of Full Mouth Dental Rehabilitation (FMDR) patient's experience dental caries reoccurrence.^{1,2,3,4} One study found 9-17% patients who received FMDR required a repeat operation within 24 months.¹
- Finding realistic ways to prevent reoccurrence of dental caries in patients who have undergone FMDR should be examined.¹
- One previous study has compared different timing strategies for postoperative visits. The study found that a two-week follow-up visit had a higher attendance rate, the two-week group showed better recall compliance over six months (70.6%), compared to a six-week visit (40.4%).⁵
- Regular dental recall is associated with improved oral health and is a predictor of better oral health-related quality of life.⁶
- The American Academy of Pediatric Dentistry recognizes teledentistry as an expanding, economical, and beneficial technology that is accepted by patients and providers.⁷ A postoperative interaction over the phone limits the need for children to miss school or parents to miss work as a opposed to an in-person postoperative visit.

Purpose

- Assess recall rate of patients that underwent Full Mouth Dental Rehabilitation (FMDR) under general anesthesia in a hospital-based pediatric dental residency program.
- Examine recall rate at one year based on the type of postoperative follow-up interaction, following FMDR.

Methods

- Retrospective chart review of electronic dental records who received Full Mouth Dental Rehabilitation (FMDR) in the year 2023 was conducted.
- Age (0-20 years), gender, type of postoperative follow-up interaction, and presence of recall visit within one year were accounted for.
- Postoperative follow-up interaction groups
 1. Postoperative phone discussion with parent/caregiver
 2. Postoperative voicemail
 3. Postoperative in person visit
 4. No postoperative contact made
- Descriptive statistics were used to summarize the data.
- Age was compared between the recall groups using the independent samples t-test.
- Fisher's exact test was used to compare gender and post operative interaction categories with recall status.
- Pairwise comparisons between post operative interaction categories were adjusted using a Bonferroni adjustment to find associations between post operative interaction categories and recall status.
- All analyses were done using SAS, Version 9.4.
- A p-value < 0.05 was considered statistically significant.

Results

- 558 electronic dental records were reviewed.
- 95 patients returned within 1 year for a recall (17%).

	Recall visit within one year of FMDR			Recall Percentage
	Yes (N=95)	No (N=463)	Total (N=558)	
Postop phone discussion	39 (41.1%)	129 (27.9%)	168 (30.1%)	23%
Postop voicemail	13 (13.7%)	110 (23.8%)	123 (22.0%)	11%
Postop appointment	18 (18.9%)	47 (10.2%)	65 (11.6%)	28%
No postop contact	25 (26.3%)	177 (38.2%)	202 (36.2%)	12%

Postoperative Comparisons	p-value
No postop contact vs Postop appointment	0.02087
No postop contact vs Postop phone discussion	0.03638
No postop contact vs Postop voicemail	1.00000
Postop appointment vs Postop phone discussion	1.00000
Postop appointment vs Postop voicemail	0.01572
Postop phone discussion vs Postop voicemail	0.03247

- No significant difference in recall rate at 1 year between postoperative phone discussion vs postoperative appointment following FMDR.
- No significance difference in recall rate at 1 year between postoperative voicemail and no postoperative contact.
- Significant difference between no postoperative interaction and postoperative voicemail vs postoperative appointment and postoperative phone discussion respectively.

Comparisons of Gender and Postoperative Interaction and Recall

	Recall visit within one year of FMDR			P-value
	Yes (N=95)	No (N=463)	Total (N=558)	
Gender, n (%)				0.0422 ¹
F	34 (35.8%)	219 (47.3%)	253 (45.3%)	
M	61 (64.2%)	244 (52.7%)	305 (54.7%)	

¹Fisher Exact p-value;

Comparisons of Age and Recall

	Recall visit within one year of FMDR			P-value
	Yes (N=95)	No (N=463)	Total (N=558)	
Age				0.0053 ¹
N	95	463	558	
Mean (SD)	7.89 (4.74)	6.44 (3.42)	6.69 (3.71)	
Median (Range)	7.00 (2.00, 20.00)	6.00 (1.00, 19.00)	6.00 (1.00, 20.00)	
IQR	4.00, 10.00	4.00, 8.00	4.00, 8.00	

¹Unequal variance two sample t-test;

Discussion

- Overall recall attendance at one year following Full Mouth Dental Rehabilitation (FMDR) was poor (17%).
- FMDR patients are more likely to return for recall within a year if they had a postoperative appointment or their parent/caregiver had a postoperative phone discussion.
- FMDR patients are less likely to return for recall within a year if postoperative voicemail message was left or no postoperative contact was made.
- No difference in recall attendance at 1 year following FMDR for patients that a postoperative appointment or a postoperative phone discussion with a parent/caregiver.
- Postoperative phone discussions are just as effective for recall attendance at one year following FMDR and prevent children from missing school and parents from missing work, thus saving time and money.

Conclusion

- A postoperative appointment or phone discussion with a parent/caregiver following FMDR is important to retain patients for routine recall.
- Pediatric dentists should consider having a postoperative phone discussion with a parent/caregiver vs a postoperative appointment, based on a patient's needs.

References

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