

INTRODUCTION AND BACKGROUND

Facial trauma, particularly traumatic dental injuries (TDI), is a prevalent issue, especially among children^{1,3,4}. TDI constitute about 5% of all treated injuries, with approximately 16% resulting in tooth loss. This not only affects facial development but also leads to emotional and psychological consequences, impacting children's daily lives significantly¹.

Timely and appropriate emergency care is crucial for better outcomes, often relying on prompt action by parents who are frequently present during injuries¹. However, studies show insufficient parental knowledge in managing TDIs, leading to delays in seeking treatment and affecting therapeutic results¹. Pediatric dental specialists can play a vital role in educating parents during dental visits to prevent and manage orofacial injuries, yet the effectiveness of such guidance remains understudied².

Our survey, "Assessing the Impact of Pamphlet-Based Anticipatory Guidance on Dental Trauma Education During Dental Visits," aims to investigate the effectiveness of educational materials like pamphlets in enhancing parental knowledge and readiness in responding to dental injuries. By evaluating these resources, we seek to improve anticipatory guidance during dental visits, ensuring parents are well-prepared to provide timely and appropriate care, thus safeguarding children's oral health and overall well-being.

OBJECTIVES

The research aims to achieve the following objectives:

1. Assess the impact of pamphlet-based anticipatory guidance in enhancing the knowledge of parents or caregivers on dental trauma in permanent teeth.
2. Identify potential variables, such as socioeconomic status, parental education, appointment type, and prior encounters with dental trauma, that may influence the study's outcomes.

STUDY METHOD

This study adopts a pre- and post-test experimental approach to evaluate the effectiveness of a pamphlet-based intervention in enhancing parental understanding of preventing and managing traumatic dental injuries. Participants include parents or caregivers of children aged 7-12 undergoing treatment at Montefiore Medical center.

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Informed Consent: Prior to participation, parents provide informed consent emphasizing voluntary participation, confidentiality of responses, and the option to withdraw without repercussions.

Baseline Survey: Parents complete a baseline survey at the start of the dental visit to establish their initial knowledge levels regarding traumatic dental injuries.

Pre-survey   Post-survey
QR code   QR code

Pamphlet Distribution: Participants receive an informative pamphlet after the baseline survey, providing anticipatory guidance on preventing and managing traumatic dental injuries

Question Clarification: Parents can seek clarification on any aspects of the pamphlet or related information during their dental visit, ensuring comprehension and addressing queries.

Post-Surveys: Participants are invited to complete follow-up surveys via QR code or provided link, conducted one week after the pamphlet intervention.



RESULTS

Descriptive summary, frequency(%) or median (IQR), was employed to summarize data. The pre and post intervention scores were computed as a total sum of correct responses for the items listed under Question 6. Results are presented as pre/post- anticipatory guidance score difference along with associated interquartile range (IQR). Pre-post intervention score comparison as well as an exploratory analysis looking at change in score and visit type were carried out employing a nonparametric approach.

Pre- post Intervention score				
Characteristic	Pre-intervention N= 64(50%) ¹	Post-intervention N= 64(50%)	Difference ²	P- value ³
Score	7.00(6.00, 9.00)	12.00(10.00,13.00)	3.50(2.0, 5.00)	<0.001

1Median (IQR)

2 Median Post/Pre-Score Difference (IQR)

3 Wilcoxon signed rank test with continuity correction

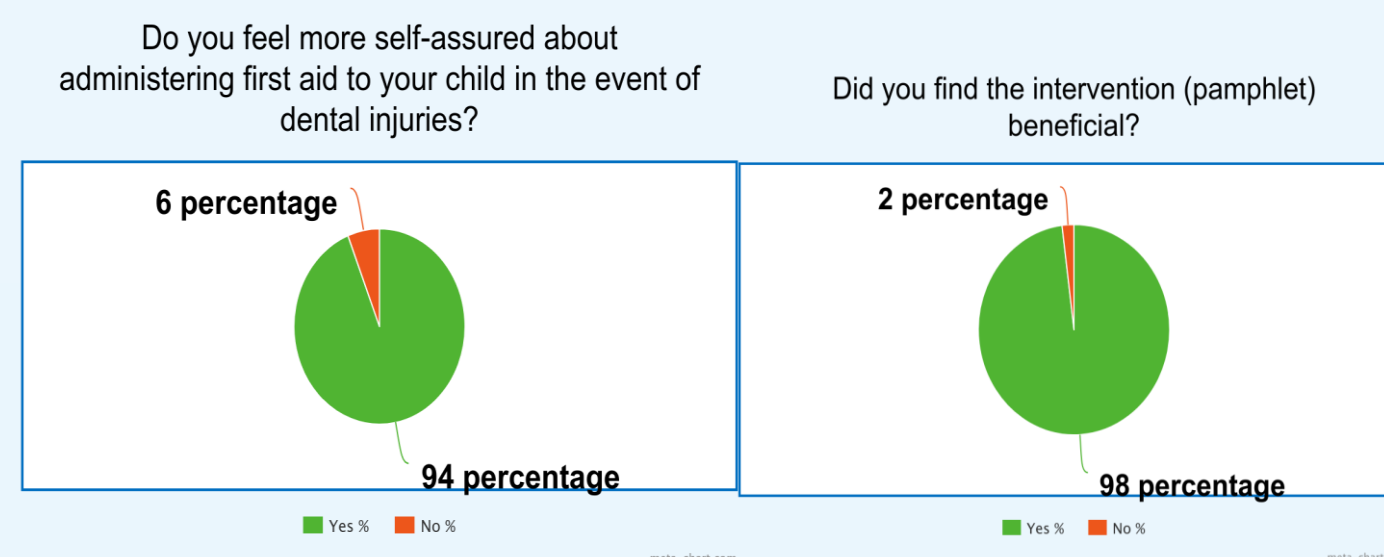
Change in score by visit type			
Change in score	Dental exam and cleaning N= 42(66%) ¹	Other dental treatment N= 22(34%) ¹	P- value ²
Post/pre-score difference	4.00(1.25, 5.00)	3.00(2.00, 5.75)	0.7

1Median (IQR)

2Wilcoxon rank sum test

Change in score based on previous trauma experience			
Change in score	Yes N= 21	No N= 43	P- value
Post/pre score difference	3.33	3.62	>0.7

Change in score based on involvement in sports			
Change in score	Yes N= 41	No N= 23	P- value
Post/pre sore difference	3.22	3.86	>0.7



DISCUSSION

The intervention pamphlet was found helpful by a substantial majority of participants (94%). Following the intervention, a high percentage of participants reported feeling more confident about administering first aid to their child in case of dental injuries (98%). The intervention significantly improved post-intervention scores, showing a notable median increase of 3.5 with an interquartile range (IQR) of (2.0, 5.0), ($p < 0.001$). Exploratory analysis indicated no evidence of association between changes in scores and the type of dental visit ($p = 0.7$), previous direct/indirect trauma experience ($p > 0.7$), or the child's active involvement in sports($p > 0.7$). However, caution is advised in interpreting these findings.

CONCLUSION

In conclusion, the pamphlet-based intervention effectively improved parental knowledge and confidence in managing traumatic dental injuries, suggesting its potential application for other preventive health topics. Offering dental practices a range of easily accessible pamphlets tailored to different age groups may hold immense potential for creating a seamless anticipatory guidance system. This system could automatically provide pertinent educational materials to parents and caregivers during dental visits, ensuring they receive consistent and tailored information on oral health topics. This approach not only equips parents to enhance their children's oral health but also can nurture a culture of preventive healthcare within dental practices.

REFERENCES

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