



# Development and Implementation of Template to Record VPT in Permanent Teeth

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## Introduction

Vital pulp therapy (VPT) is intended to preserve pulp vitality and support continued root development in immature permanent teeth affected by deep caries or trauma. Regular follow-up of these cases is needed to ensure pulp vitality is maintained and root development continues.

The purpose of this retrospective chart review was to assess the feasibility of measuring outcomes of VPT treatments in our clinic, which are dependent on consistent documentation and follow-up over time. Our overall aim is improving the quality of the treatment we provide.

## Methods

The study was approved by the Institutional Review Board at NYU Langone and was deemed exempt from IRB review (i24-01685).

A data collection form previously designed by pedo/endo faculty to collect: age, gender, tooth number, clinical signs and symptoms, radiographic findings, diagnosis, VPT type used, treatment details, and final restoration. This form was intended for use at time of treatment and follow-up visits. Following treatment, patients were instructed to return for follow-up at the following intervals: 1-month, 3-month, 6-month and 1-year.

A retrospective chart review of permanent teeth treated with VPT from January 1, 2024 to November 30, 2025 in the postgraduate pediatric dental clinic was performed. We captured data on whether the VPT template was partially or fully completed, and whether follow-up was documented. Patients who did not return for follow-up were contacted via phone.

## Results

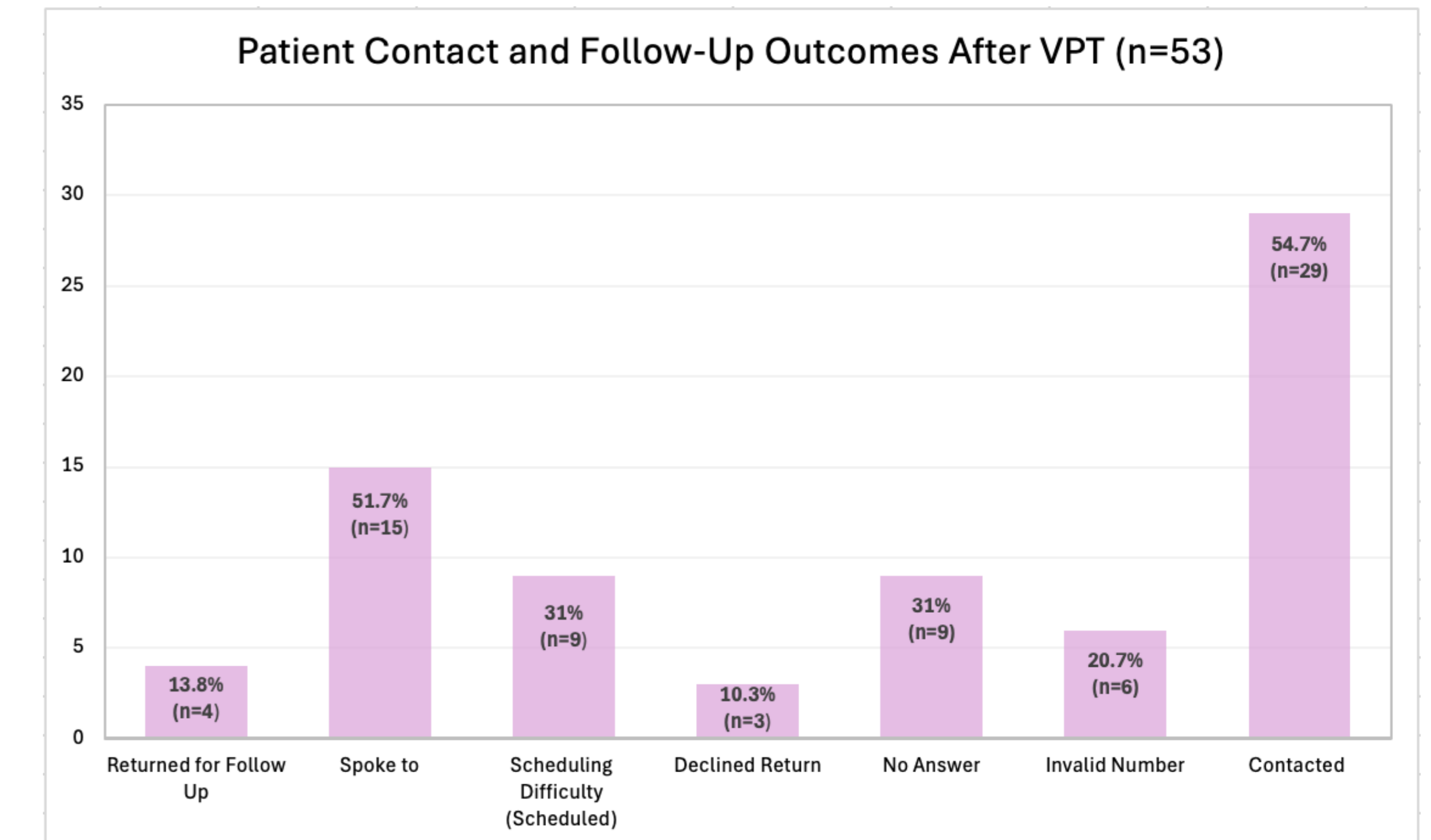
The sample included 53 patients and 60 permanent teeth treated with VPT. The most common VPT procedures were pulpotomies and indirect pulp caps, primarily performed on first permanent molars. The most common final restoration was composite. The VPT template was used in 34 of 60 teeth; however, follow-up was inconsistently documented, limiting the ability to assess treatment outcomes. Of the 53 patients treated with VPT, 71.7% (n=38) did not return for follow-up visits. Of the patients who did not return (n=38), 29 (54.7%) were successfully contacted. Contact attempts revealed that 6 (20.1%) had inactive or incorrect phone numbers, 9 (31%) did not answer, and 15 (51.7%) were spoken to. Among those spoken to (n=15), 9 (60%) scheduled a follow-up appointment, and 5 (33.3%) ultimately returned for evaluation. Among patients who declined to return (n=6) most cited barriers including distance to the clinic and difficulty with scheduling.

Table 1: Vital Pulp Therapy Treatment Modalities

VPT Treatment	Teeth Treated	Teeth with follow-up
Indirect Pulp Cap	18	2 (11.11%)
Direct Pulp Cap	5	1 (5%)
Partial Pulpotomy	15	6 (40%)
Pulpotomy	22	4 (18.20%)
Total	60	13 (20.67%)

Table 2: Tooth type treated

Tooth Type	Teeth
Maxillary Anterior	5
Maxillary Molar	18
Mandibular Premolar	2
Mandibular Molar	35



## Discussion

These findings of poor follow-up suggest that the main challenge is not only whether the template can effectively record data for VPT outcomes to be measured, but whether follow-up is realistic in this setting. Most of the patients (teeth treated with VPT) were seen for emergency visits. This may have impacted our ability to follow-up these cases as our clinic did not serve as their regular dental home and patients were only seeking pain resolution.

Data recorded in an EHR template is helpful to evaluate the variables that affect success of failure of the treatment, but a post-operative clinical and radiographic examination is crucial to determine the outcome of the treatment, and this can only be obtained in person.

## Conclusions

The knowledge that patients are not likely to return for follow-up visits after VPT in a post-graduate pediatric clinic should be accounted for by clinicians in this setting. Selection of VPT should consider practices that have demonstrated higher success in single encounters, i.e. placing a final restoration on the same visit.

A structured VPT note template can improve documentation, but VPT outcome assessment in a dental school clinic is limited by difficulty contacting families and barriers to accessing the clinic. Future efforts should focus on addressing barriers to follow-up.