



### Introduction

- ❖ One of the missions of “dental education is to prepare future-ready oral health professionals”<sup>1,2,6</sup>. “Effective interprofessional education opportunities for prospective health sciences students are important to prepare students for the work environment they will encounter after training”<sup>3</sup>.
- ❖ “Mini Dental School: Explorations in Dental Medicine” offers an immersive experience at Tufts University School of Dental Medicine (TUSDM), introducing high school students to the fascinating field of dentistry and the dental school journey.
- ❖ **The purpose of this program is to let students experience what it's like to study dentistry and to envision what dental school is like.**
  - ❖ The positive feedback related to the 2023 and 2024 Mini-Med dental rotation experiences (collected from high-students and TAs) helped to provide data-driven evidence supporting the need for Mini-Dental School's programming.
- ❖ **~80 applications were received. The program was originally intended for 20 to 25 students.**<sup>11</sup>
  - ❖ **The piloted and inaugural summer intensive began June 2025 and had n=44 participants and n=7 dental student TAs for the summer cohort.**
- ❖ The program provided interested **high-school students from across the United States and around the world** an opportunity to learn more about a career in dentistry.
- ❖ **No previous evaluation** of the Mini-Dental School has been conducted since its implementation.
- ❖ As a unique program at Tufts University, **it is important to evaluate the impact of the new pre-college dental education programming within Mini-Dental School to 1) better inform future programming and 2) continue to create a pipeline/pathway program for high-school students interested in dental school.**



Figure 1. Images from 2025 Mini-Dental Program

### Objectives

- ❖ The **main aim** of this study was to overall investigate and evaluate the effectiveness of the “Mini-Dental School: Explorations in Dental Medicine” pre-college summer program at TUSDM.
- ❖ A **secondary aim** was to evaluate the perspectives of the high-school participants and Teaching Assistants (TAs) through pre and post experience surveys to determine changes or updates for future dental education programming.

### Materials and Methods

- ❖ **The one-week program** combined workshops, educational sessions, and hands-on experiences to inspire interest in dentistry and healthcare.
  - ❖ Activities included suturing, impression-making, cavity fillings, plaque removal, dental technology, **exposure to TUSDM admissions office, a TA-dental student-led panel, and simulated patient cases.**
- ❖ The program concluded with a **capstone project** where students presented innovative oral healthcare ideas.

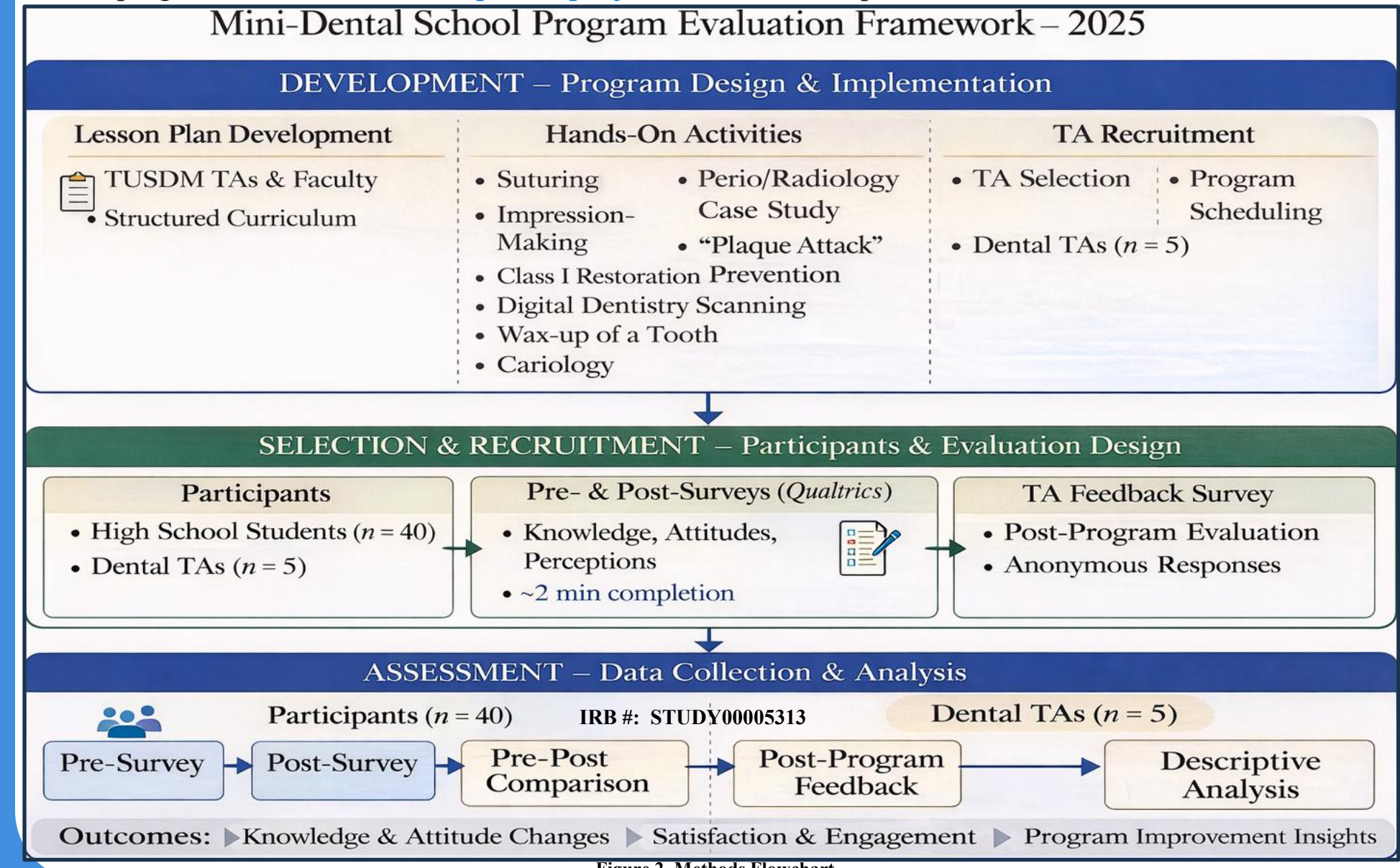


Figure 2. Methods Flowchart

Table 1. Pre-Post Comparison of Participant Outcomes (n = 40)

Outcome Measure	Response Category	Pre n (%)	Post n (%)	Absolute Change (pp)	Statistical Test	p-value
Q5. Understanding of Oral Health Care	Excellent	0 (0.0%)	22 (55.0%)	+55.0	Mann-Whitney U	<.001
	Good	18 (45.0%)	17 (42.5%)	-2.5		
	Fair	19 (47.5%)	1 (2.5%)	-45.0		
Q4. Perceived Importance of Interprofessional Collaboration	Poor	3 (7.5%)	0 (0.0%)	-7.5	Mann-Whitney U	.04
	Extremely Important	19 (47.5%)	27 (67.5%)	+20.0		
	Very Important	13 (32.5%)	12 (30.0%)	-2.5		
Q6b. Increased Understanding of Interprofessional Learning	Moderately Important	8 (20.0%)	1 (2.5%)	-17.5	Chi-square	.014
	Yes	27 (67.5%)	36 (90.0%)	+22.5		
	No	13 (32.5%)	4 (10.0%)	-22.5		
Q6e. Educational Opportunities in Dental Medicine	Yes	30 (75.0%)	38 (95.0%)	+20.0	Chi-square	.012
	No	10 (25.0%)	2 (5.0%)	-20.0		

Values are presented as number (percentage). Mann-Whitney U tests were used for ordinal outcomes. Chi-square tests were used for categorical outcomes. Statistical significance was set at  $p < .05$ . Absolute change is expressed in percentage points (pp).

### High-School Participant Data:

- ❖ **No statistically significant differences were observed in:**
  - ❖ Network-building expectations versus achievement ( $p = .745$ ) -88%
  - ❖ Hands-on experience expectations versus achievement ( $p = 1.00$ ) -98%
- ❖ Although not part of pre-post comparisons, **post-program satisfaction was notably high:**
  - ❖ **88%** of participants had **never previously attended** a pre-dental program
  - ❖ **95.7%** reported being “**Extremely Satisfied**” with the program
    - ❖ **92%** ranking the Keynote Speaker as their favorite lecture; **89%** favored cavity fillings and plaque removal.
    - ❖ **52%** of students were extremely satisfied with the Capstone project.
  - ❖ **78.3%** reported being “**Extremely Likely**” to recommend the program
- ❖ **100%** of students reported improved collaboration, academic and professional pathway identification, ethical reflection, and understanding of core dental fields.
- ❖ **97%** felt confident demonstrating basic clinical skills such as impressions, wax-ups, suturing, and radiographic interpretation.
- ❖ **About half of participants** were from Massachusetts, with others traveling from Florida, New Jersey, Georgia, Pennsylvania, Texas, Illinois, and internationally, including the Dominican Republic, Kuwait, and Taiwan.<sup>11</sup> Six students received **full tuition support**, and two received partial financial aid.<sup>11</sup>

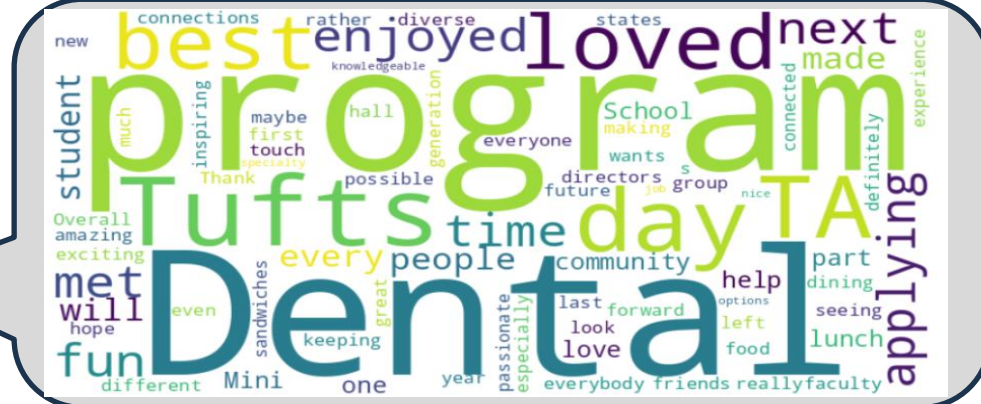


Figure 4. Word Cloud Representing Q10 “What else would you like to share with us?” Qualitative Data

### Results

- ❖ Overall satisfaction was uniformly high across program domains:
  - ❖ **100%** reported being extremely satisfied with the venue and content/variety of lectures and hands-on activities. **100%** Interested in Serving Again to TA and **100%** Extremely Likely to Recommend to another Dental Student to TA.
  - ❖ Satisfaction with organization was slightly more variable, with **60% reporting extreme satisfaction and 40% reporting some satisfaction.**
  - ❖ Perceived support from program leadership was strong, with **80% reporting extreme satisfaction** with communication from Lead Dental TA, Program Coordinator, and Program Lead.

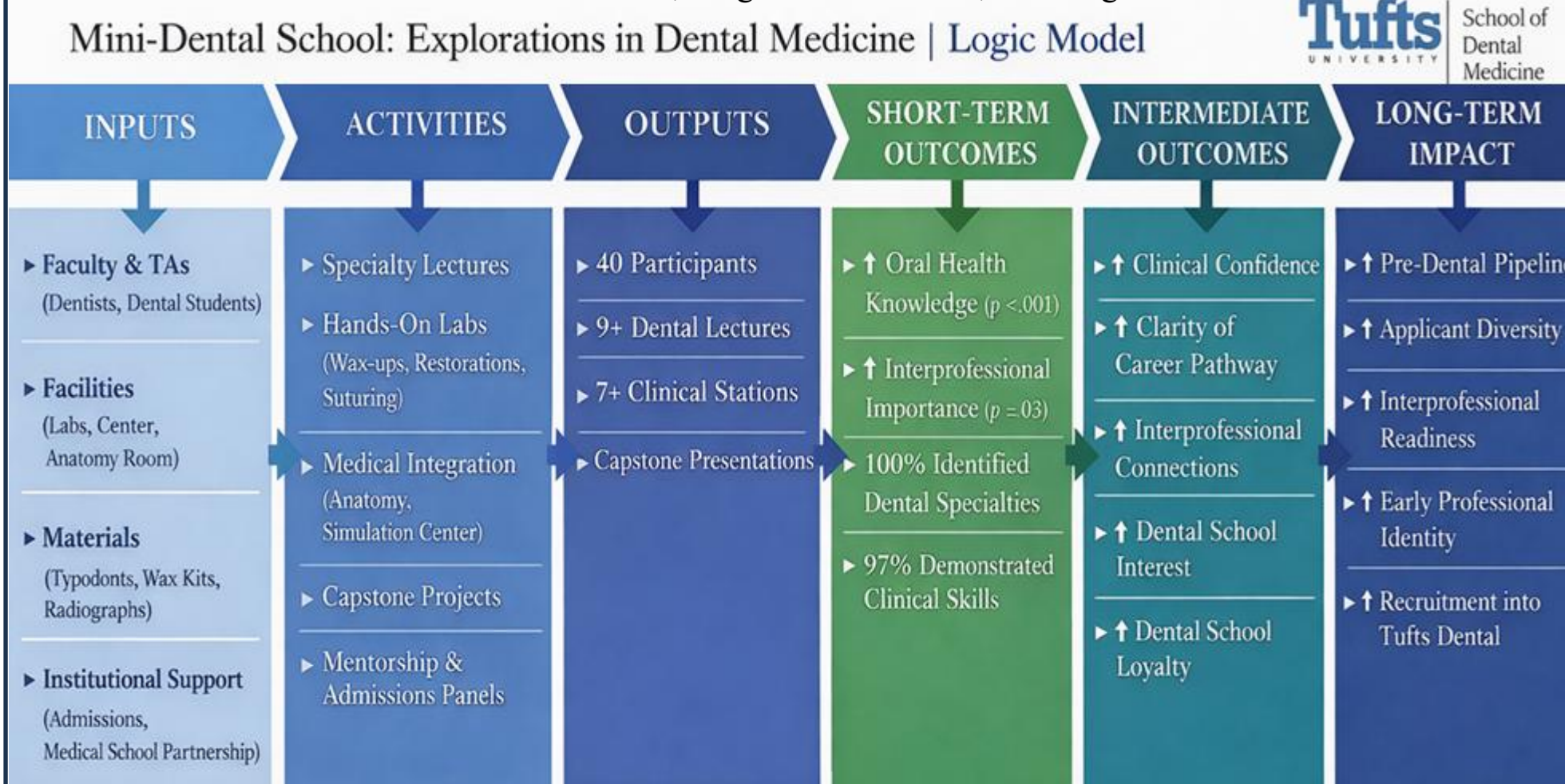


Figure 5. Logic Model designed for Mini-Dental School Program Evaluation

### Discussion

- ❖ “Previous studies have theorized that **earlier exposure to oral health careers could increase the future pool of dental applicants.**” Similar programs have resulted in “increasing interest among participants in joining undergraduate biomedical research training initiatives.”
- ❖ **Limitations** –Conduct literature review to become a systematic review following PRISMA guidelines. Small sample size for completed surveys (**n=40 participants, n=5 TAs**). Preparation prior to program launch showed the lowest satisfaction rate among TAs (**40%**). High school participants felt like they needed more than 1 week of time of the program. Need faculty evaluations. This study only has self-reported measures, short-term outcomes, is a single-institution study, and has no matched longitudinal follow-up.
- ❖ **Future program evaluations are warranted** to determine if **more than 1 week program is more beneficial** for learning experiences. Further statistical analysis is needed for future evaluations and streamlined surveys for individual lesson plans among faculty presenters as well.

### Conclusion

- ❖ The Mini-Dental School program significantly improved knowledge and interprofessional perceptions while generating high satisfaction. Immersive, hands-on pre-college programming may be an effective strategy for strengthening the dental education pipeline.
  - ❖ **The need to increase awareness of oral health care, dentistry interprofessionalism, and perceived program value was achieved through the Mini-Dental program.**
- ❖ The positive feedback related to the program supports its continuation. With support from TUSDM, TUSM, and Tufts University College, the “**Mini-Dental School: Explorations in Dental Medicine**” program will continue for the 2026 summer as a **pipeline program for high-school students!**

For more information about the “Mini-Dental School” program, please scan this QR Code:

📅 Session 1: June 22 - 26, 2026 (Commuter Only)  
📅 Session 2: July 5 - 17, 2026  
📍 Boston Health Sciences Campus  
🚗 Commuter 🏠 Residential  
Tufts University College

### Acknowledgements & References

A special note of thanks to the faculty and staff of Tufts University Colleges, School of Medicine, and School of Dental Medicine, including Dispensary Staff, Paula Callahan, Jennifer Finley, and Allyson Dacey, TUSDM Faculty Speakers, high-school participants in the 2025 Mini-Dental School cohort, and the 2025 Mini-Dental School dental student TAs.

