

The Impact of the Pandemic on Tufts' Dental Alumni Clinical Preparedness and the Motivation to Pursue Advanced Education

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Introduction

- Dentistry is a branch of medicine that emphasizes the importance in patient interaction.¹
- The slowdown in clinical activities has caused a massive reduction in this and has rendered dental undergraduates less confident in communicating and providing care for patients.²
- The addition of stress from the slowdown of clinical operations, has led to dental undergraduates feeling more overwhelmed, uncertain, and lacking confidence in their clinical skills.¹
- With this lack of confidence, students more so than ever have committed to applying to post graduate education such as GPR, AEGD, or in one of the dental specialties such as pediatrics, orthodontics, periodontics, prosthodontics, and oral surgery.³
- In the past, many students sought to explore postgraduate education in order to eliminate their massive debt, better fine tune their skills, pursue an interest, or follow in their mentor's footsteps.⁴

Objective

To assess clinical readiness and the motivation to pursue advanced education amongst dental students from the graduating years of 2019, 2020, and 2021 at the U.S. accredited dental school, Tufts University School of Dental Medicine during the slowdown of clinical activities.

Methods

Statistical Analysis

- A 25-question survey was developed and consisted of questions regarding demographics, the effect of the pandemic on students' mental wellbeing, education, career plans post-graduation, and students' self-perceived readiness to enter clinical practice or residency.
- The survey was emailed via listservs to the Tufts' alumni from the graduating classes of 2019, 2020, and 2021 and was administered through Qualtrics.
- Differences in responses to continuous items between classes were determined with the Kruskal-Wallis test and for post-hoc comparisons, Dunn's test with the Bonferroni correction was used.
- Associations between categorical variables were evaluated with the Fisher's exact test.
- P-values less than 0.05 were considered statistically significant except for tests in which the Bonferroni correction was used ($p < 0.0167$).

Content Validity was performed by distributing the survey to three dental faculty members at Tufts University School of Dental Medicine.

Face Validity was performed by distributing the survey to three third year or fourth year dental students at Tufts University School of Dental Medicine to ensure that questions were easily understood, simple, useful, and necessary.

Results

Table 1: Demographic Characteristics of Participants

Participant Demographics	n (%)
Number of Participants	44
Gender	
Female	26 (59.1%)
Male	16 (36.4%)
Other	0 (0.0%)
Do Not Wish To Answer	2 (4.5%)
Ethnicity	
Hispanic	5 (11.4%)
Non-Hispanic	39 (88.6%)
Race	
White	26 (59.1%)
Black or African American	4 (9.1%)
Asian	9 (20.5%)
Native Hawaiian or Pacific Islander	0 (0.0%)
Other	1 (2.3%)
Do Not Wish To Answer	4 (9.1%)

- 44 responses to the survey were collected: 10 from the graduating class of 2019, 13 from the class of 2020, and 21 from the class of 2021.
- There was statistical significance using the Kruskal-Wallis test among the classes for confidence in completing a restoration at graduation ($p=0.025$).
- In addition, there was statistical significance using the Kruskal-Wallis test among the classes for confidence in entering clinical practice or advanced education ($p=0.039$).
- However, in the post-hoc comparisons, when using the stricter Bonferroni correction ($p < 0.0167$) there was no statistical significance.
- 60% of participants from the class of 2019, 54% of participants from the class of 2020, and 71% of participants from the class of 2021 reported thinking about pursuing advanced education after graduation ($p=0.571$).
- The three most common factors influencing plans after graduation were clinical preparedness (68%), followed by a desire to pursue an interest (30%), and debt (30%).

Figure 1: Overall Self-perceived Quality of Predoctoral Clinical Training Before the Pandemic

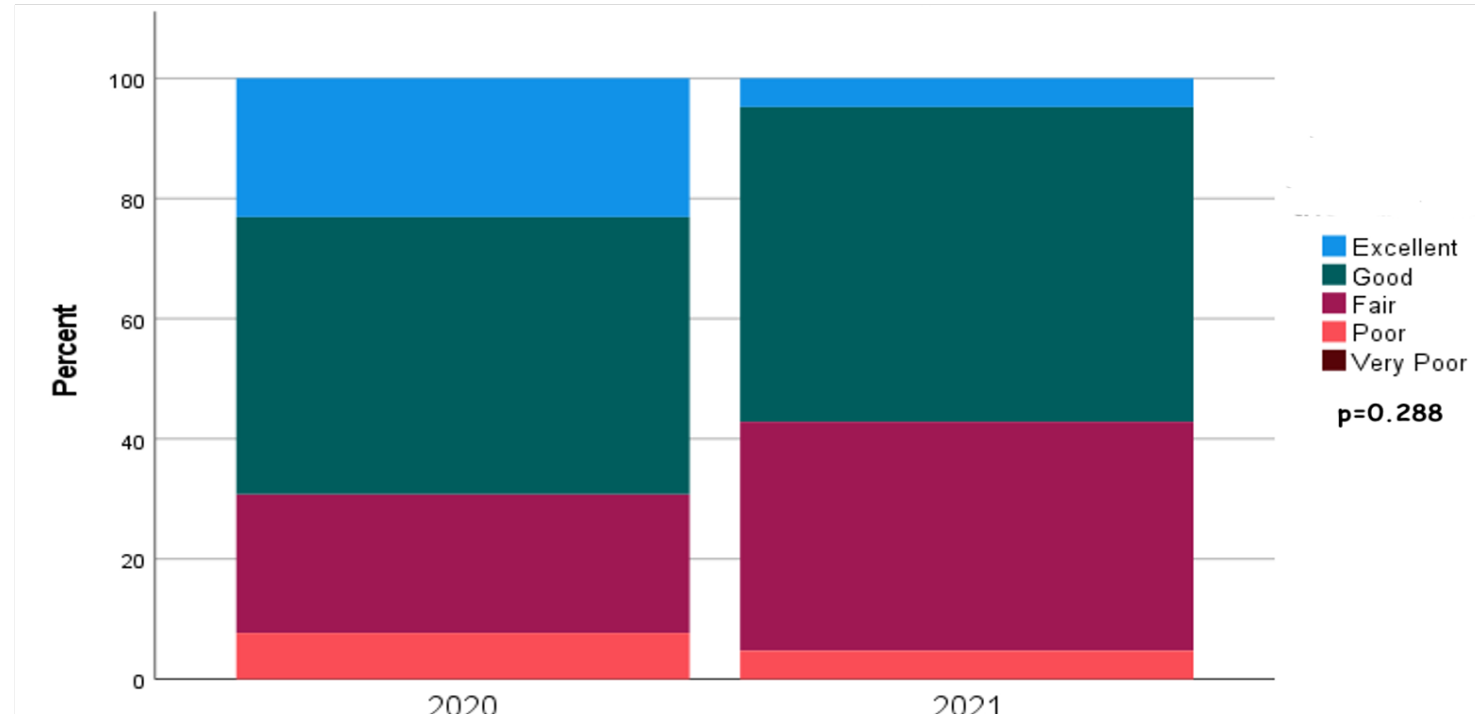


Figure 3: At graduation, how confident were you in doing a full mouth examination and a treatment plan?

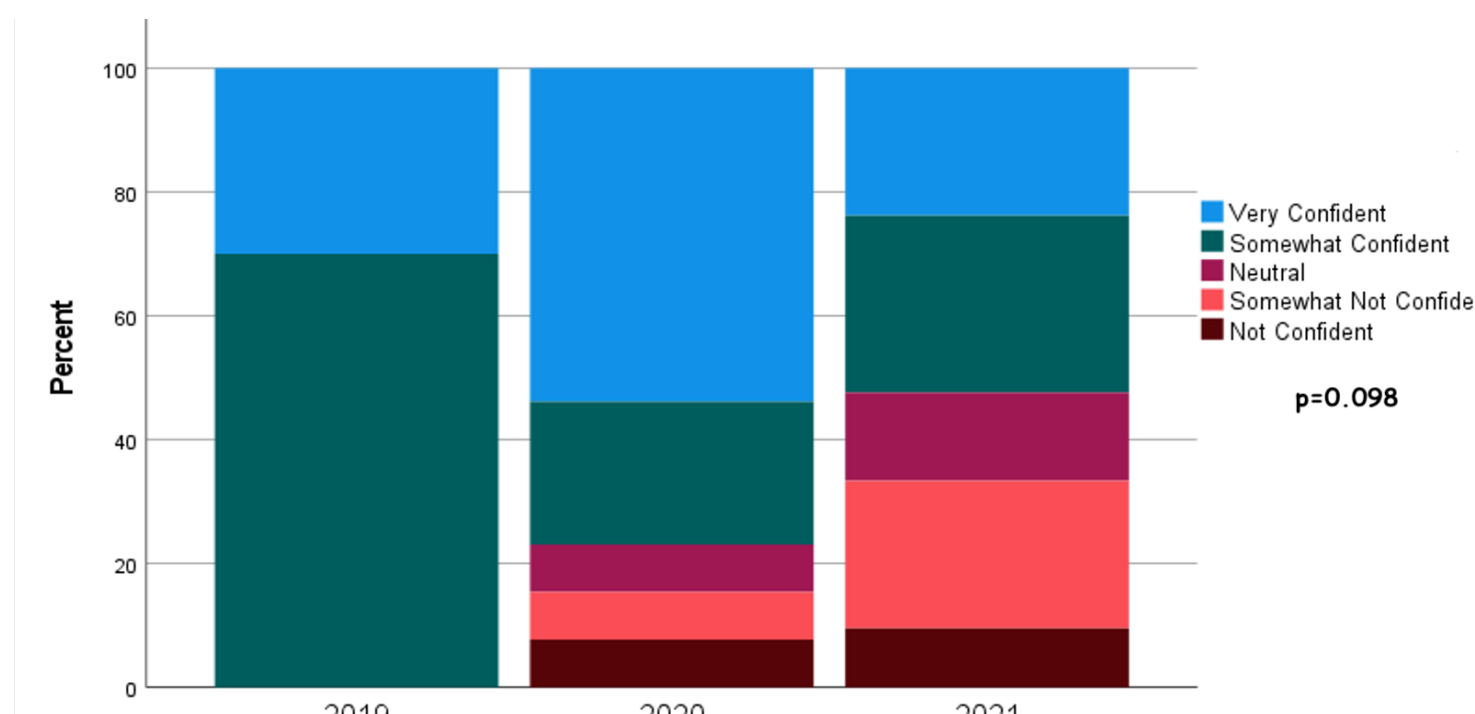


Figure 5: At graduation, how confident were you in completing a restoration?

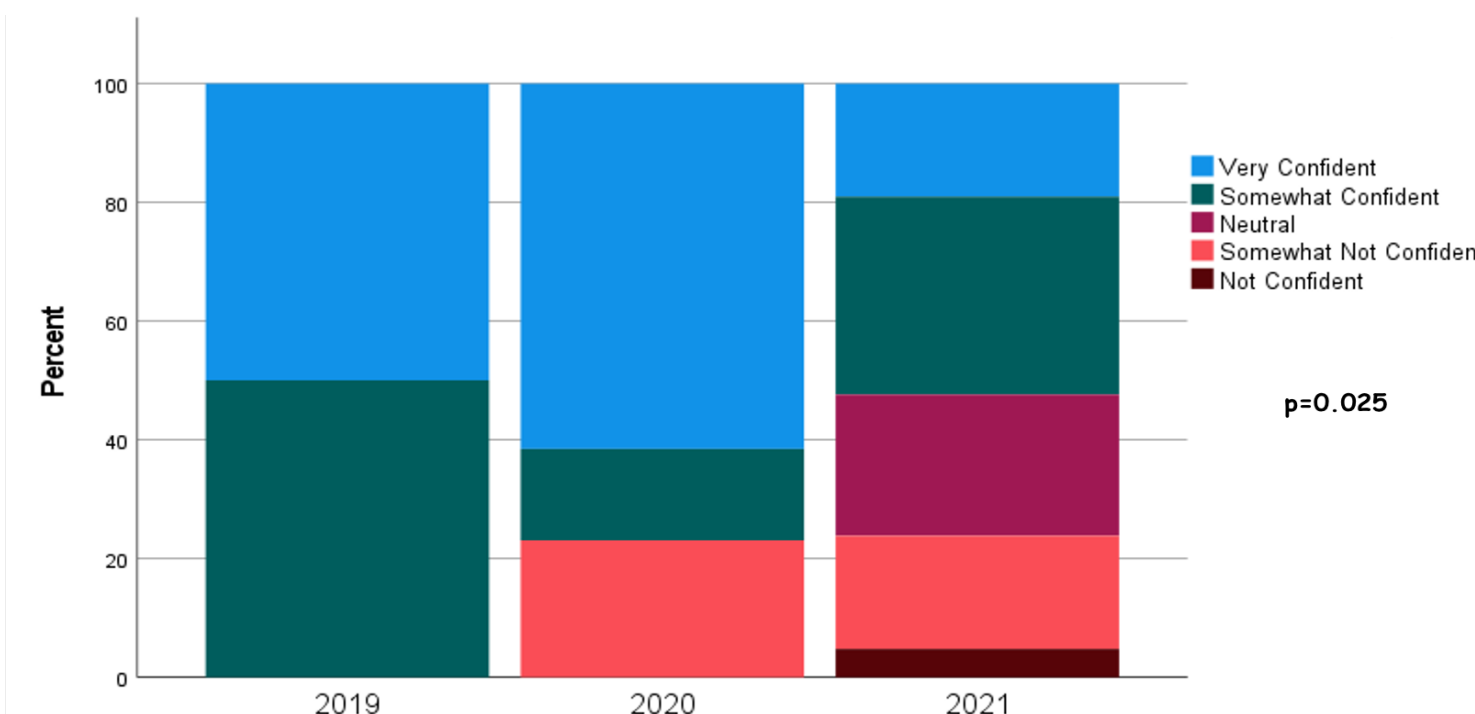


Figure 2: Overall Self-perceived Quality of Predoctoral Clinical Training After the Start of the Pandemic

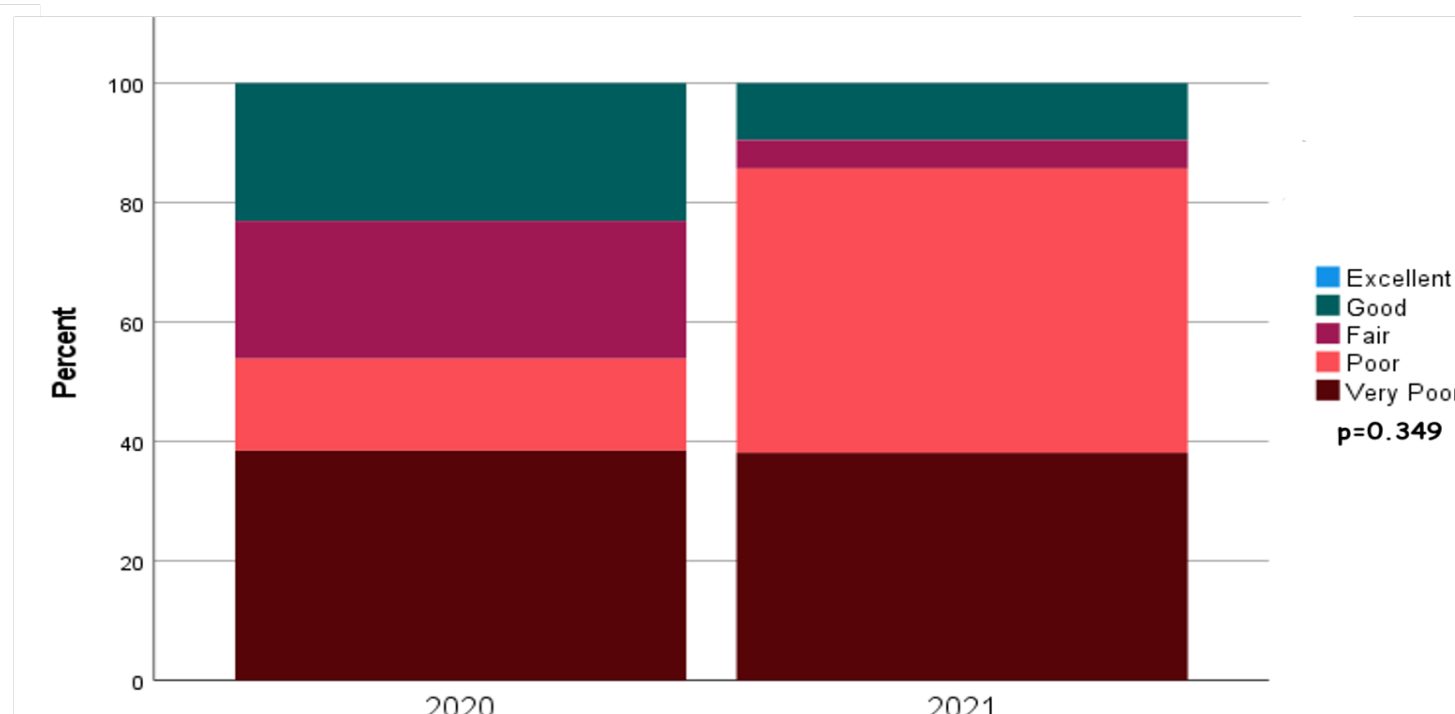


Figure 4: At graduation, how confident were you in obtaining profound local anesthesia?

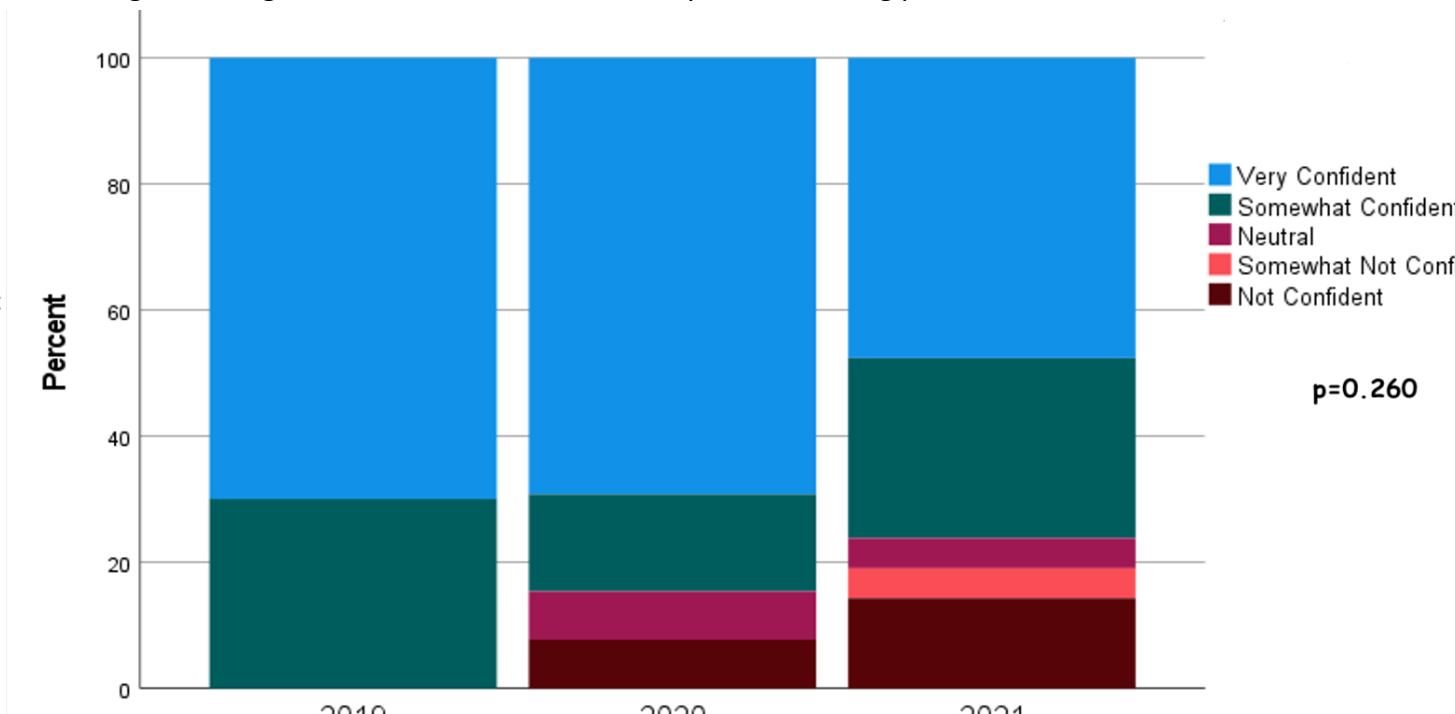


Figure 6: At graduation, how confident were you in communicating with a patient?

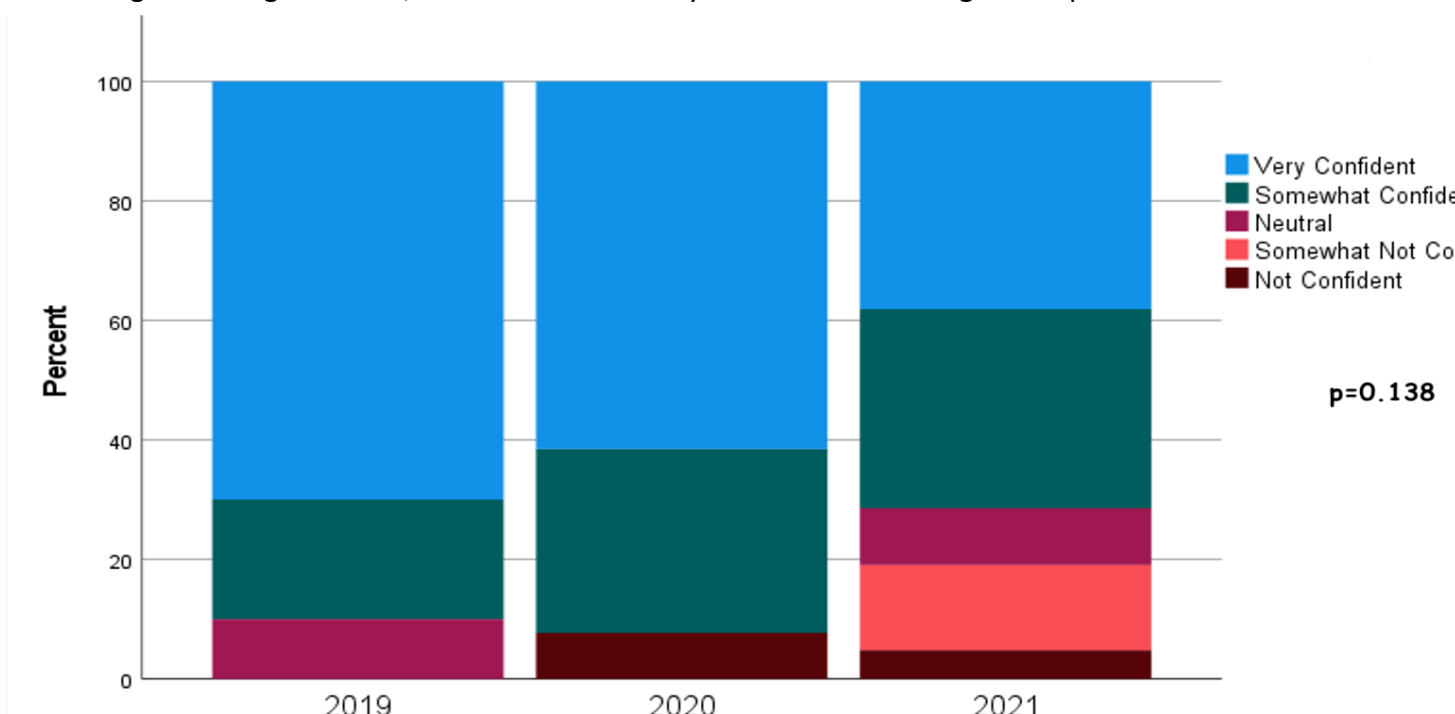


Figure 7: Upon graduation, what was your confidence level in entering clinical practice or advanced education?

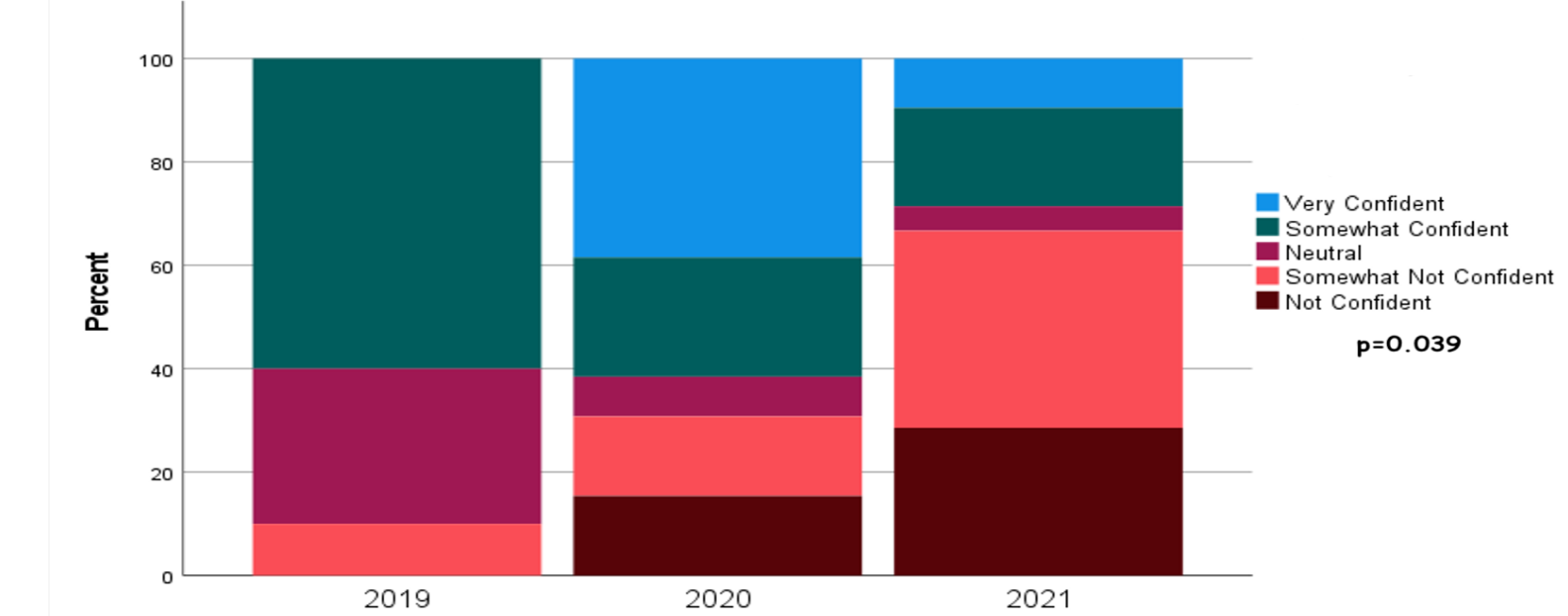


Figure 8: After graduating from Tufts, what was your next plan?

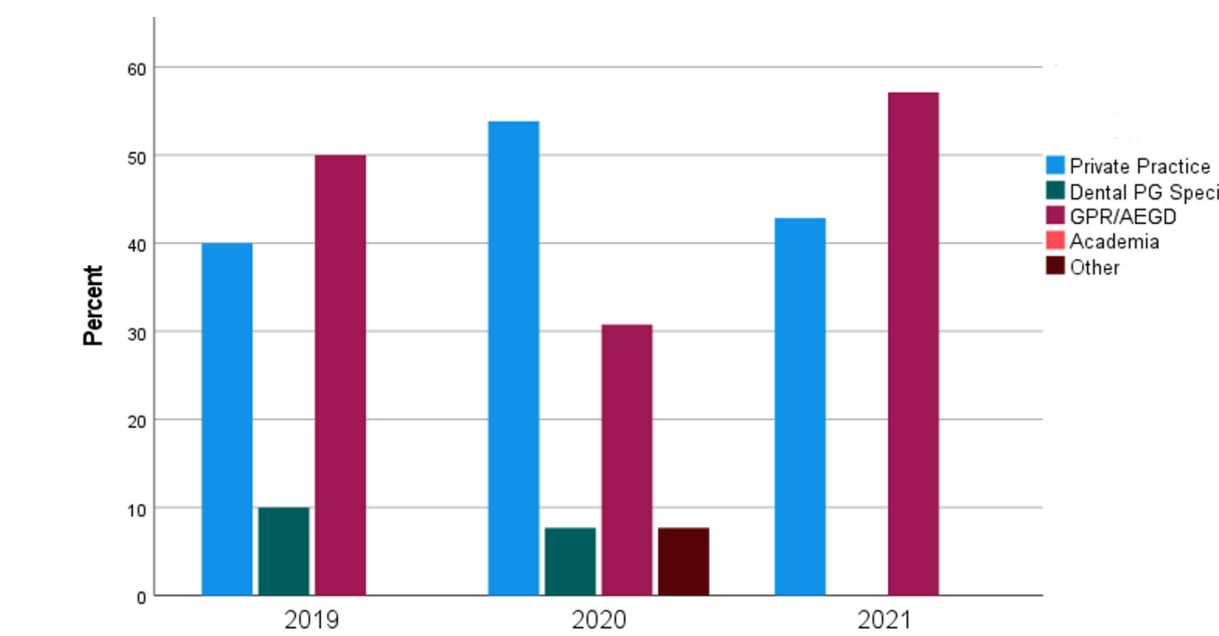


Figure 10: What influenced your plans after graduation?

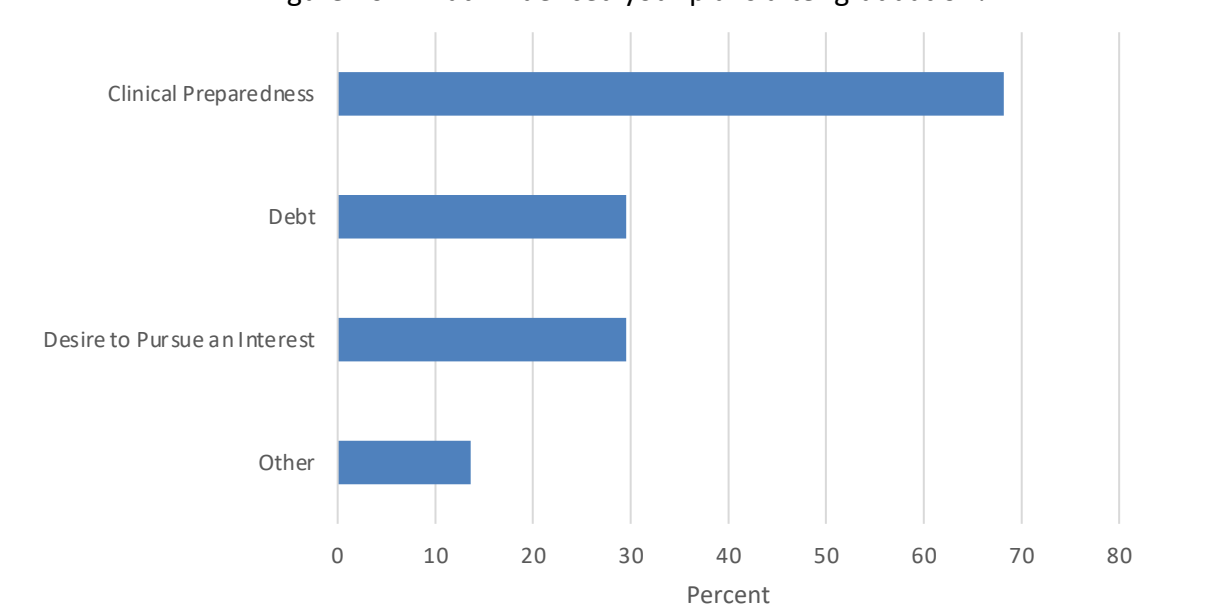


Figure 9: What is your current employment situation?

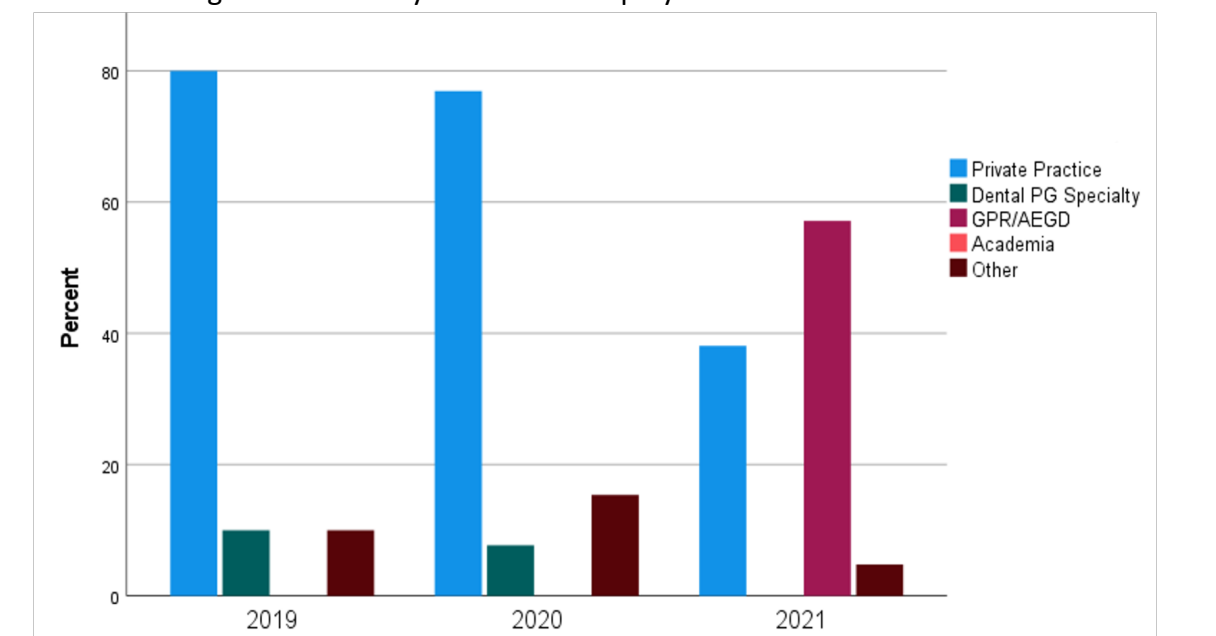
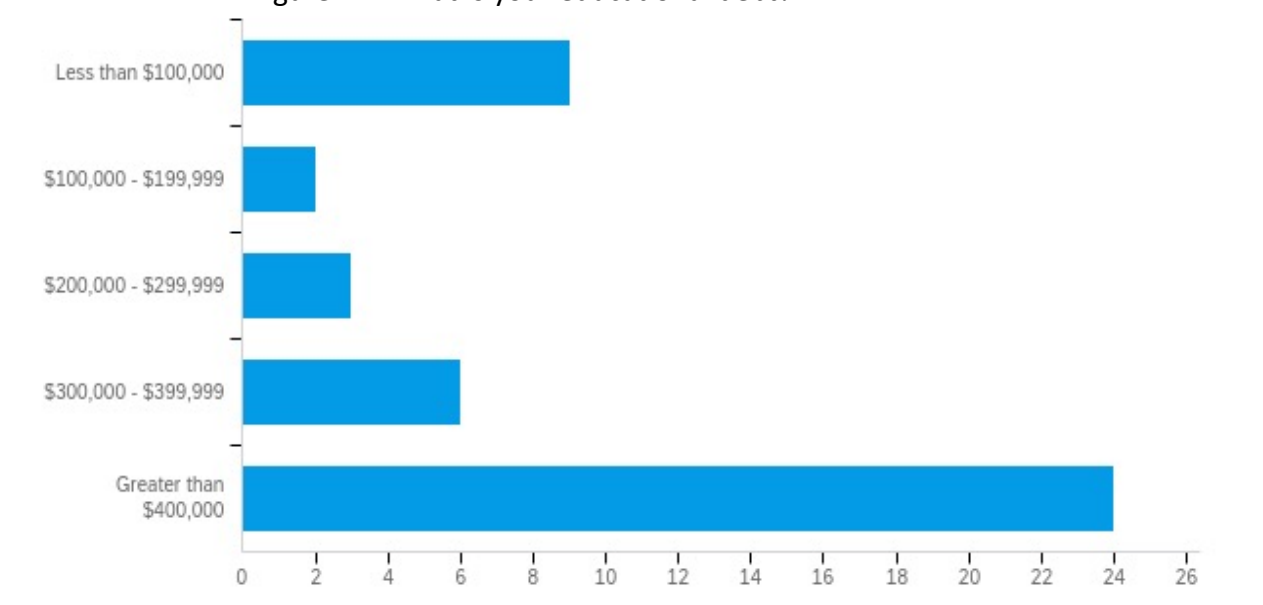


Figure 11: What is your educational debt?



Conclusion

A majority of Tufts' dental students graduating in 2019, 2020, and 2021 considered pursuing advanced education after graduation. Clinical preparedness was the largest influence in their post graduate plans. There was considerable variation among Tufts' dental students regarding their confidence level about entering clinical practice or advanced education.

Acknowledgement

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References

- Akinkugbe, Aderonke A et al. "A descriptive pilot study of the immediate impacts of COVID-19 on dental and dental hygiene students' readiness and wellness." Journal of dental education vol. 85,3 (2021): 401-410. doi:10.1002/jdd.12456
- Divaris, K et al. "The academic environment: the students' perspective." European journal of dental education : official journal of the Association for Dental Education in Europe vol. 12 Suppl 1 (2008): 120-30. doi:10.1111/j.1600-0579.2007.00494.x
- "Dental Education." Dental Education Programs – ADA Health Policy Institute Data Center, www.ada.org/en/science-research/health-policy-institute/data-center/dental-education.
- Shin, Jane H et al. "Factors influencing dental students' specialty choice: a survey of ten graduating classes at one institution." Journal of dental education vol. 79,4 (2015): 369-77.