

Diversity Trends and Current Status in Pediatric Dentistry

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Introduction

This research survey will aim to measure generational differences and changes within the current pediatric dental provider workforce, to better understand the workforce's diversity and inform policies and innovative programs that will foster access to oral health services for the underserved. A well-prepared, diverse oral health pediatric workforce will be essential to provide services to an increasingly diverse patient population. Understanding the differences in practice choice based on gender, generational, or cultural differences within the professional workforce will be crucial to achieving optimal oral health outcomes for children. In this report, we will discuss the importance of promoting diversity and inclusivity within the dental profession, and the need to integrate oral health care with other health care systems to improve patient outcomes.

Objective

This study aims to investigate the diversity trends in pediatric dentistry providers in the United States. Specifically, the study aims to determine whether the following trends are evident among recent graduates in pediatric dentistry:

1. A higher representation of non-male individuals in the pediatric dental workforce.
2. A higher percentage of individuals who identify as non-white among recent graduates in pediatric dentistry.
3. A higher likelihood of recent graduates in pediatric dentistry being foreign-trained.

Methods

Literature Review → Survey Development → Content & Face Validity Testing → Survey Distribution → Data Analysis

Study Population: American Academy of Pediatric Dentistry (AAPD) members were invited to participate in the study.

Statistical Analysis

Statistical analysis – Descriptive statistics (counts and percentages) were calculated. Associations between nominal variables were assessed via the chi-square test, or via Fisher's exact test in the case of small expected cell counts. Associations between nominal and ordinal variables were assessed via the Mann-Whitney U test or the Kruskal-Wallis test; for the latter, post-hoc comparisons were assessed via Dunn's test in conjunction with the Bonferroni correction. The significance level was set at $\alpha=.05$, with the exception of tests in which the Bonferroni correction was used. SPSS v. 28 (IBM Corp., Armonk, NY, USA) was used in the analysis.

Results

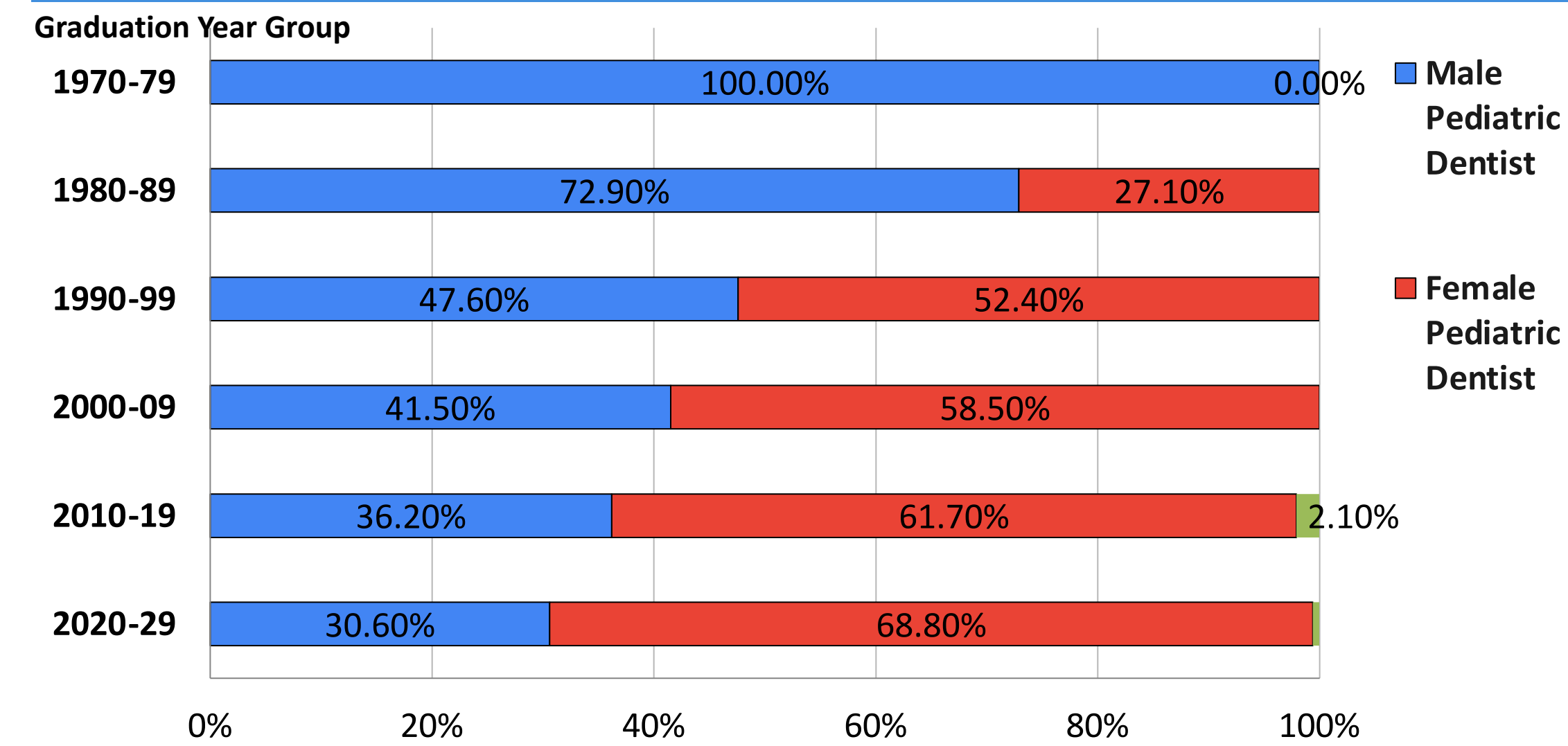


Figure 1: Gender ratio base on graduation years of study participants (N=593)

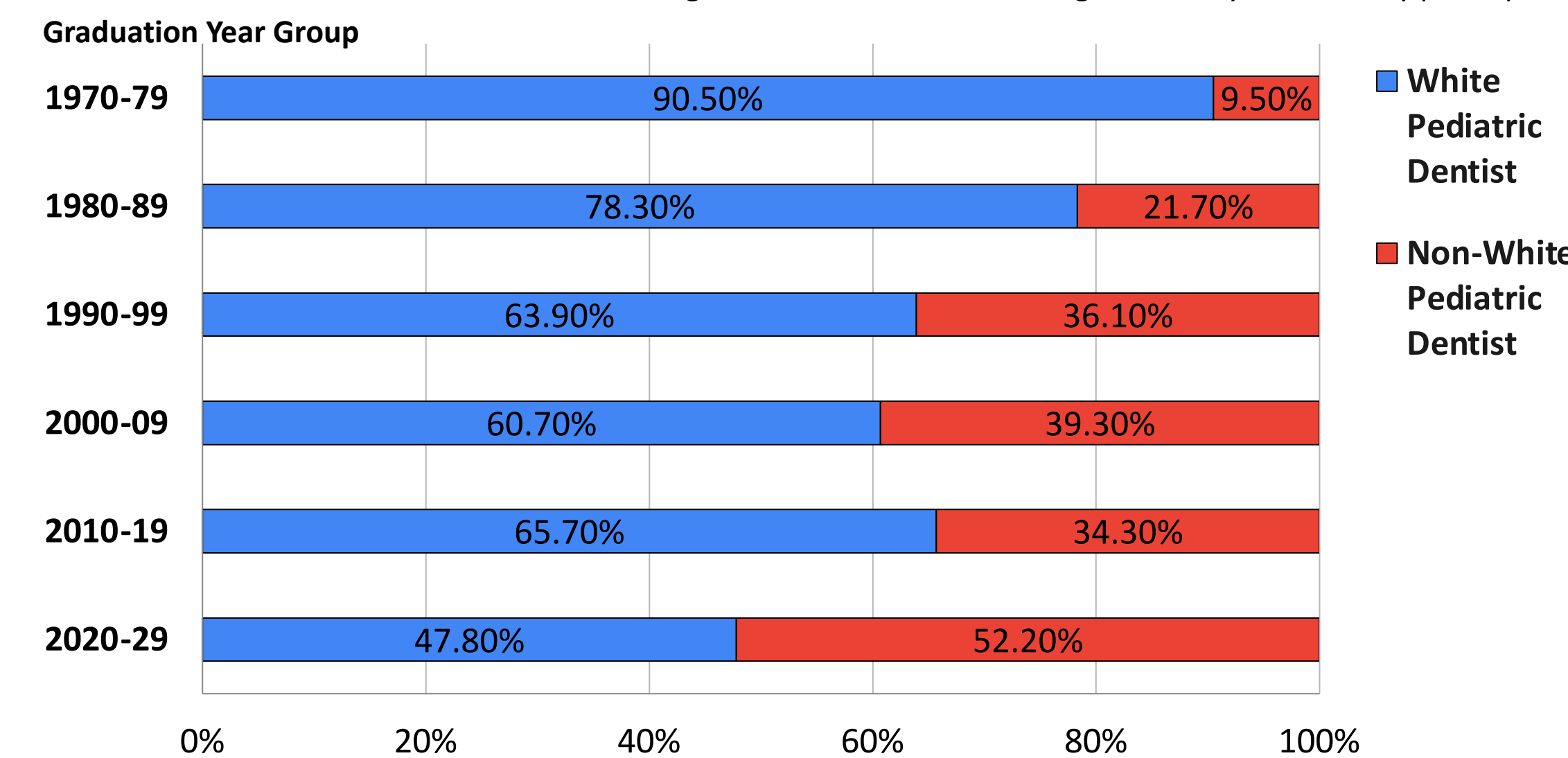


Figure 2: Racial ratio base on graduation years of study participants (N=593)

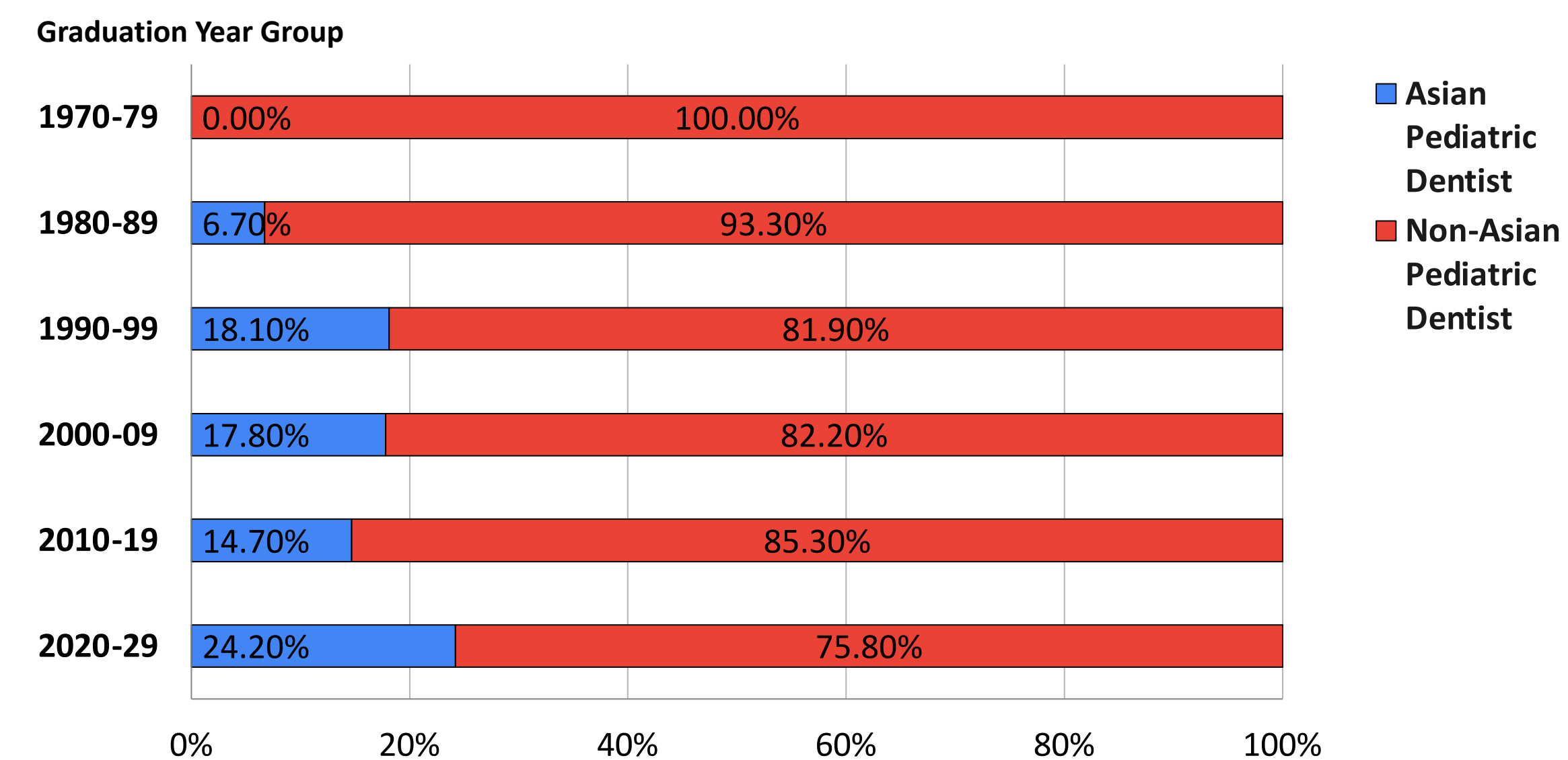


Figure 3: Asians and Non-Asians ratio base on graduation years of study participants (N=593)

The response rate for this survey was 6.92%, with a total of 593 valid responses collected from the 8,577 surveys that were distributed to AAPD specialist and resident members practicing in the United States.

From the nationwide data we collected, it was found that there is a statistically significant difference in the proportion of female dentists across birth year groups, with an increase from 4% (birth year between 1933-1949) to 72.1% (birth year between 1990-1999), while the proportion of male dentists decreased from 90.5% (birth year between 1933-1949) to 26.9% (birth year between 1990-1999) (birth year of 1933-1999, $p < .0001$). The overall ratio of male to female pediatric dentists is 45.6% and 53.8%, respectively (birth year of 1933-1999, $p < .0001$).

Moreover, there is a statistically significant difference in the proportion of White pediatric dentists across birth year groups, with a decrease from 90.5% (birth year between 1933-1949) to 51.0% (birth year between 1990-1999) (birth year of 1933-1999, $p < .0001$). The overall ratio of White to non-White pediatric dentists is 62.9% and 37.1%, respectively (birth year of 1933-1999, $p < .0001$).

Interestingly, the proportion of Asian pediatric dentists increased significantly from 0.0% to 23.1% (comparing birth year group 1 to 6), and the overall ratio of Asian pediatric dentists is 16.2% (birth year of 1933-1999, $p < .0001$).

Conclusion

The study found that the proportion of female pediatric dentists increased, and the proportion of male pediatric dentists decreased over the years. The proportion of White pediatric dentists also decreased, while the proportion of Asian pediatric dentists grew.

These findings suggest that the pediatric dental workforce in the United States is becoming more diverse in terms of gender, race, and ethnicity. Future research directions can investigate the impact of these changing demographics on the provision of pediatric oral health care and patient outcomes.

Reference

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