

## INTRODUCTION

Burnout is classified by the WHO as an occupational phenomenon characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. It remains a critical and growing concern in healthcare, with dentists being one of the most affected professionals globally<sup>4</sup>.

Pediatric dentists face a uniquely demanding combination of stressors: managing anxious and uncooperative young patients, navigating complex caregiver expectations, heavy administrative burdens, and long work hours. These pressures, compounded by high self-expectations and limited institutional support, place both residents and practicing dentists at elevated burnout risk across all career stages.

Despite growing recognition of burnout in dentistry, research directly comparing burnout experiences between pediatric dental residents and practicing pediatric dentists remains limited. Understanding role-specific stressors, coping strategies, and workplace protective factors is essential for developing targeted, evidence-based interventions.

### Objectives:

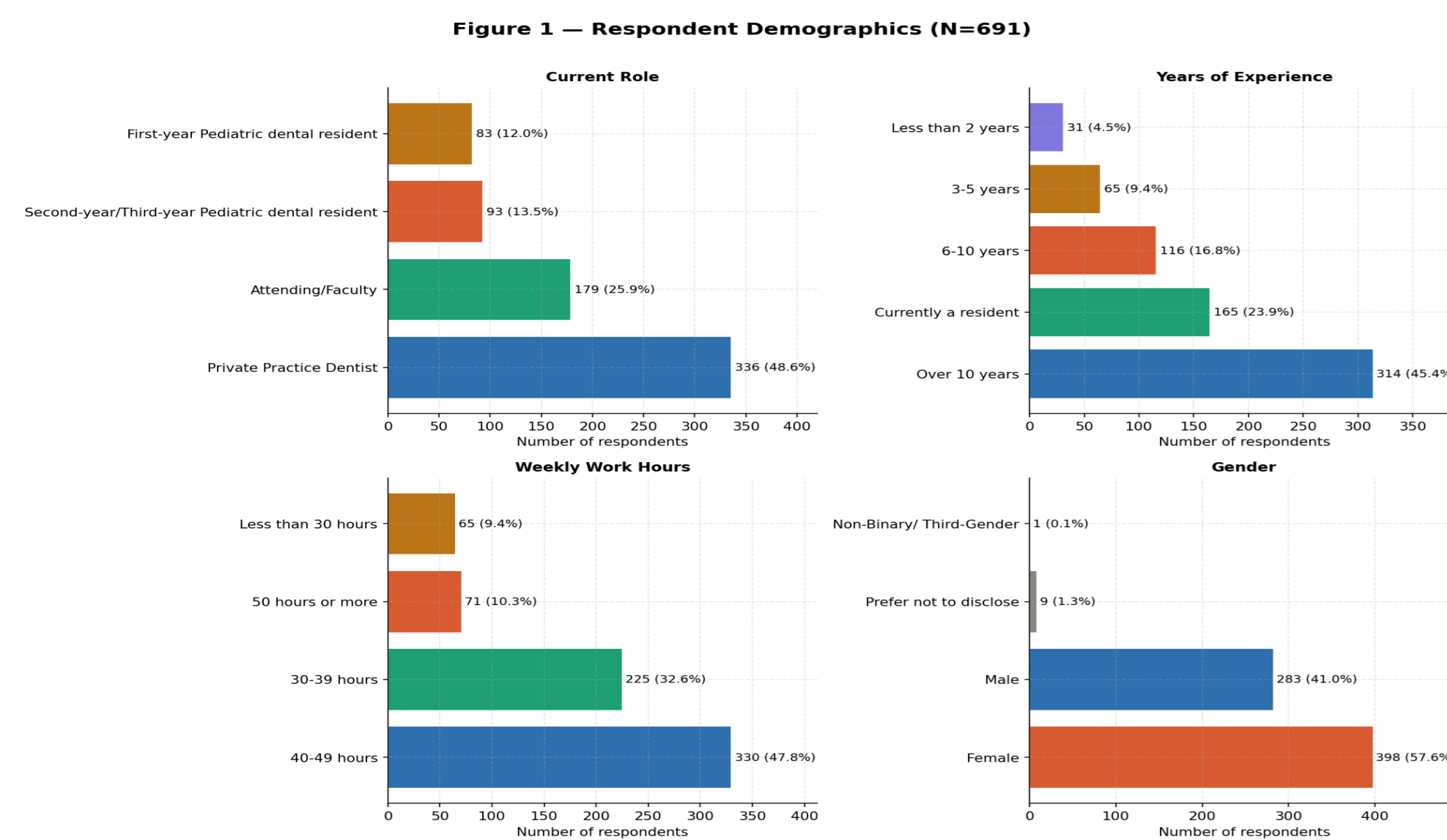
- (1) To evaluate the prevalence, causes, and impact of burnout among pediatric dental residents and practicing pediatric dentists.
- (2) To identify key internal and external stressors contributing to burnout and assess coping strategies utilized to manage work-related stress.

## METHODS

**Study Design:** Cross-sectional study design through an anonymous electronic survey. Expedited IRB protocol was approved by The Research and Clinical Project, Committee/Institutional Review Board (IRB) at Brookdale Hospital Medical Center.

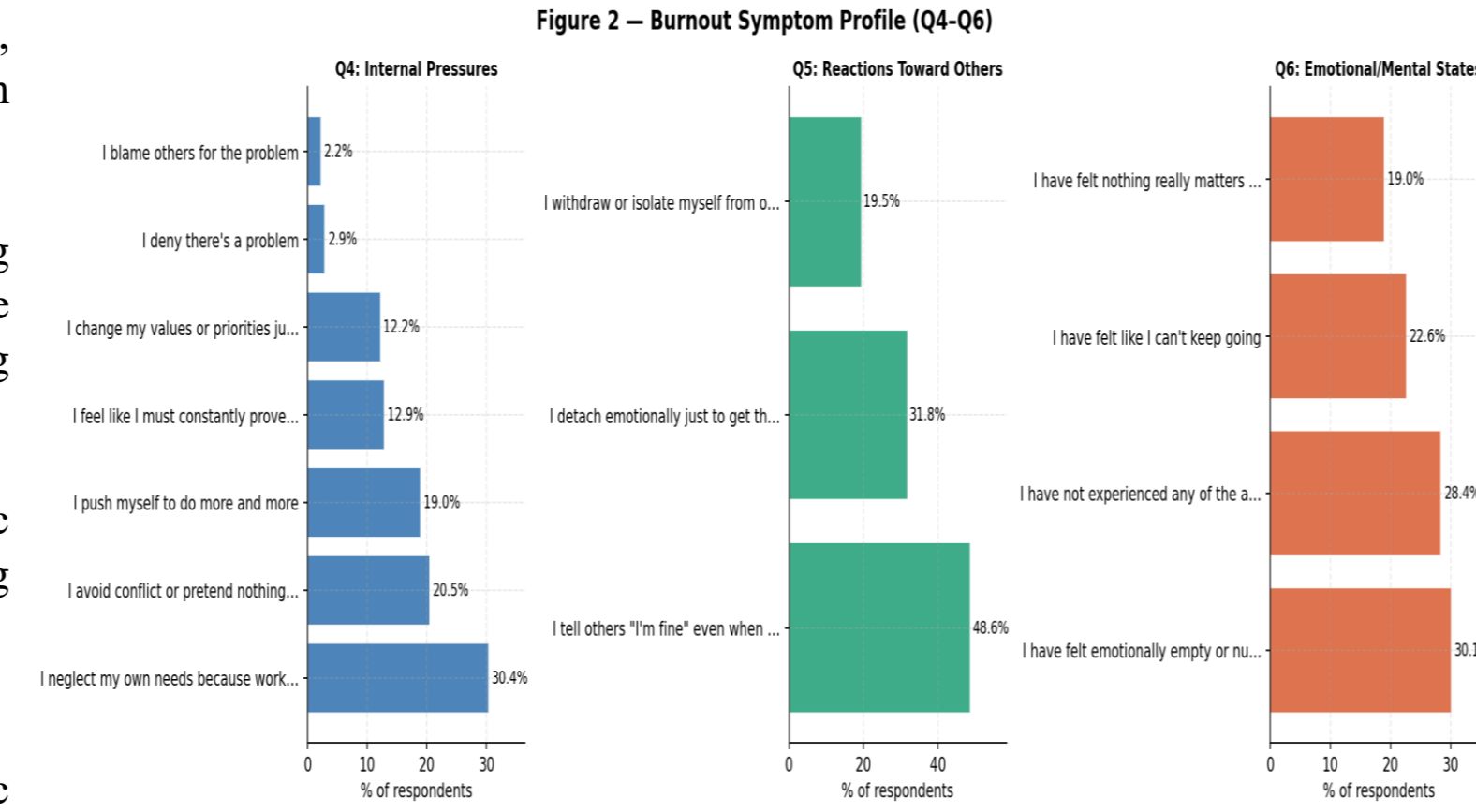
**Participants & Distribution:** Survey hosted on SurveyMonkey with transport layer security encryption, and the survey was distributed via email to the members of AAPD on the serve list after approval from AAPD. AAPD reports 7,170 active members. A total of 691 completed responses were received, representing approximately a 9.6% response rate.

**Statistical Methods:** Descriptive statistics (means +/- SD, frequencies/percentages) were reported for all variables. Independent samples t-tests compared residents vs. practitioners on composite Likert scores. One-way ANOVA assessed differences across 4 role types with Bonferroni post-hoc correction. Chi-square tests evaluated categorical outcomes by role group (Cramer's V for effect size). Pearson correlations assessed relationships between composite scores. Multiple linear regression identified independent predictors of burnout composite. All analyses conducted with significance threshold  $p < 0.05$ .

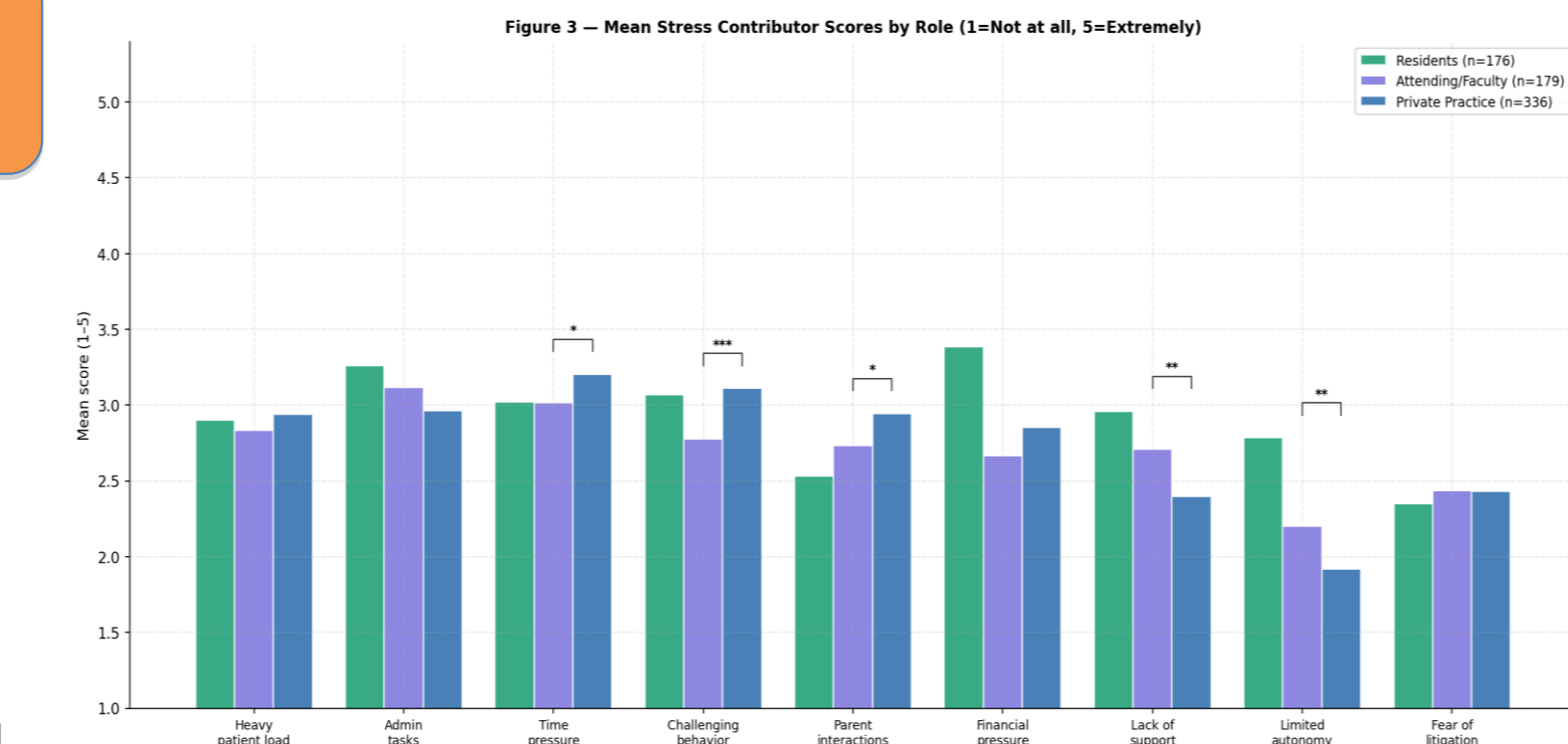


**Figure 1: Respondent Demographics (N=691).** Bar charts displaying the demographic composition of the study sample across four characteristics. The largest role group was Private Practice Dentists (n=336, 48.6%), followed by Attending/Faculty (n=179, 25.9%), Second/Third-year residents (n=93, 13.5%), and First-year residents (n=83, 12.0%). Residents (n=71, 10.3%) indicated that they worked 50 hours or more weekly.

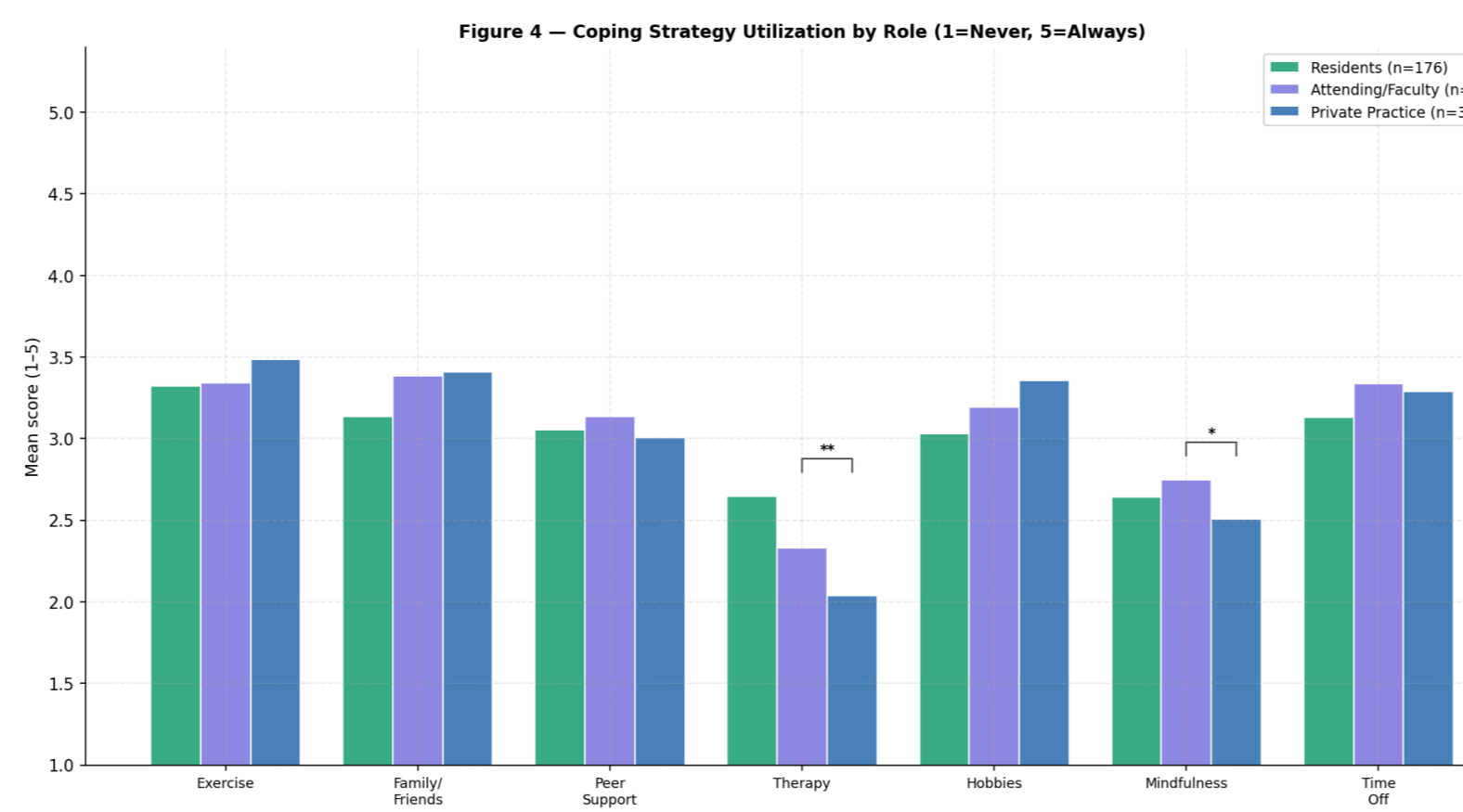
## RESULTS



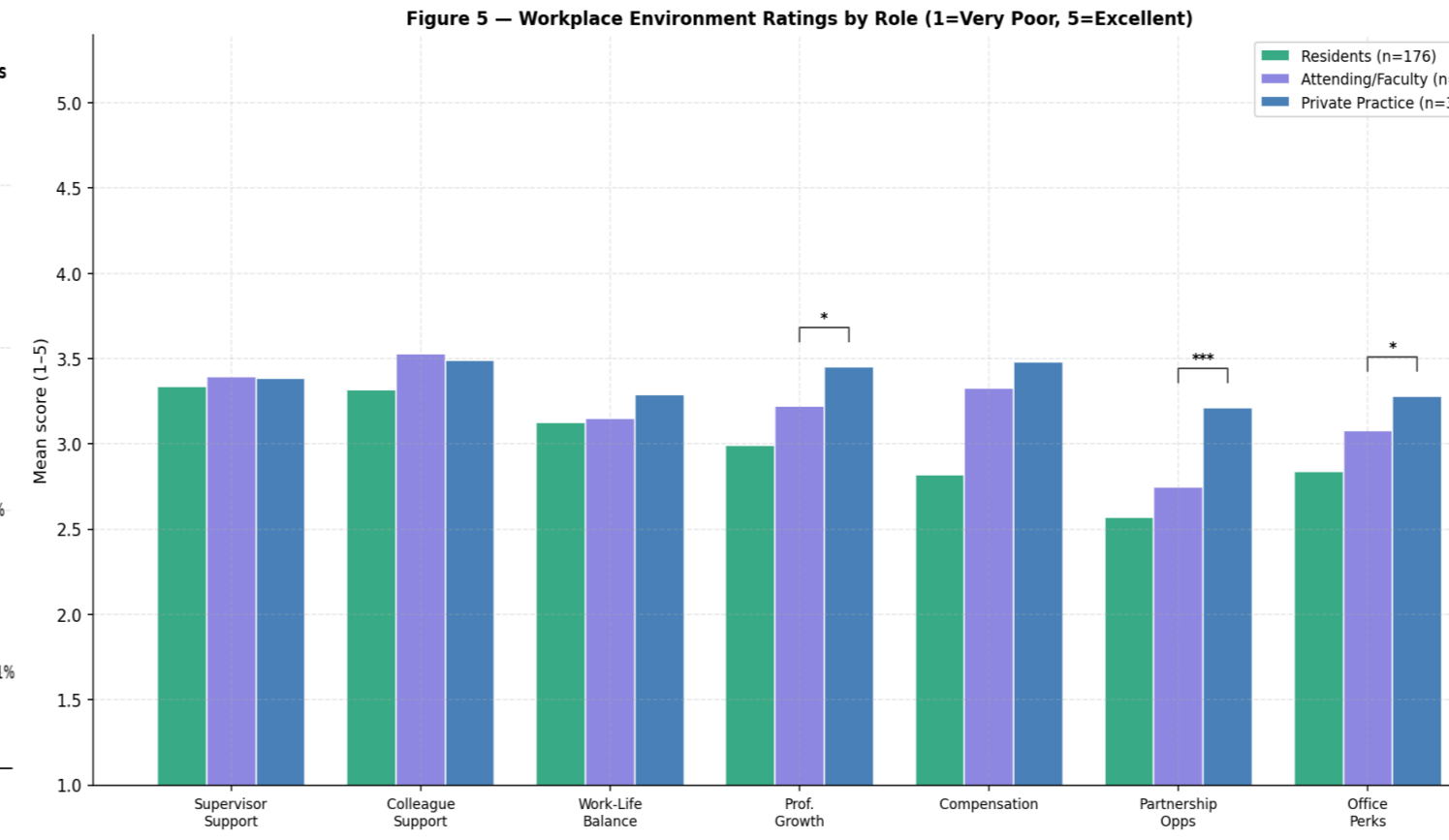
**Figure 2: Burnout Symptom Profile (Q4-Q6):** Three horizontal bar charts depicting self-reported burnout-related behaviors and emotional states.



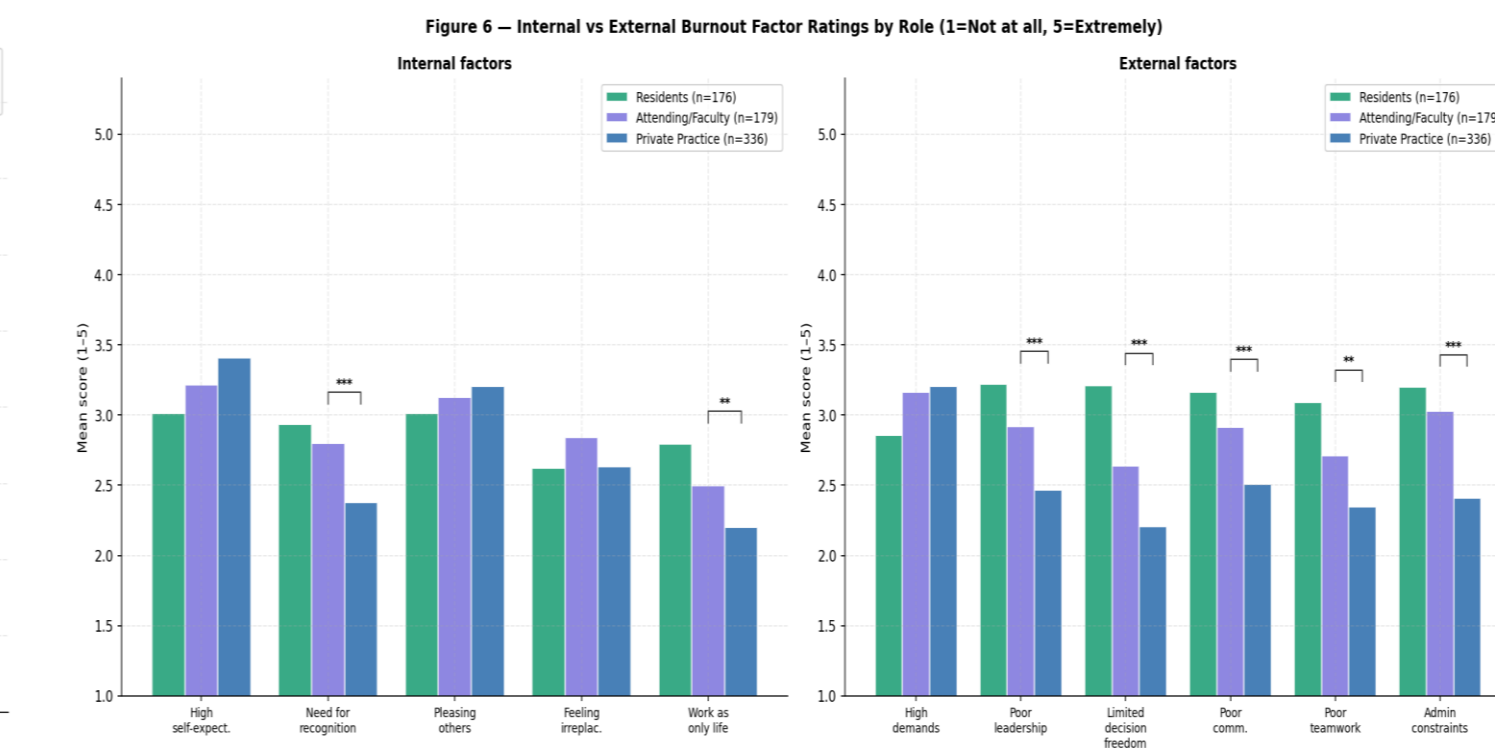
**Figure 3: Mean Stress Contributor Scores by Role (1=Not at all, 5=Extremely)** Grouped bar chart comparing mean stress contributor scores across three role groups



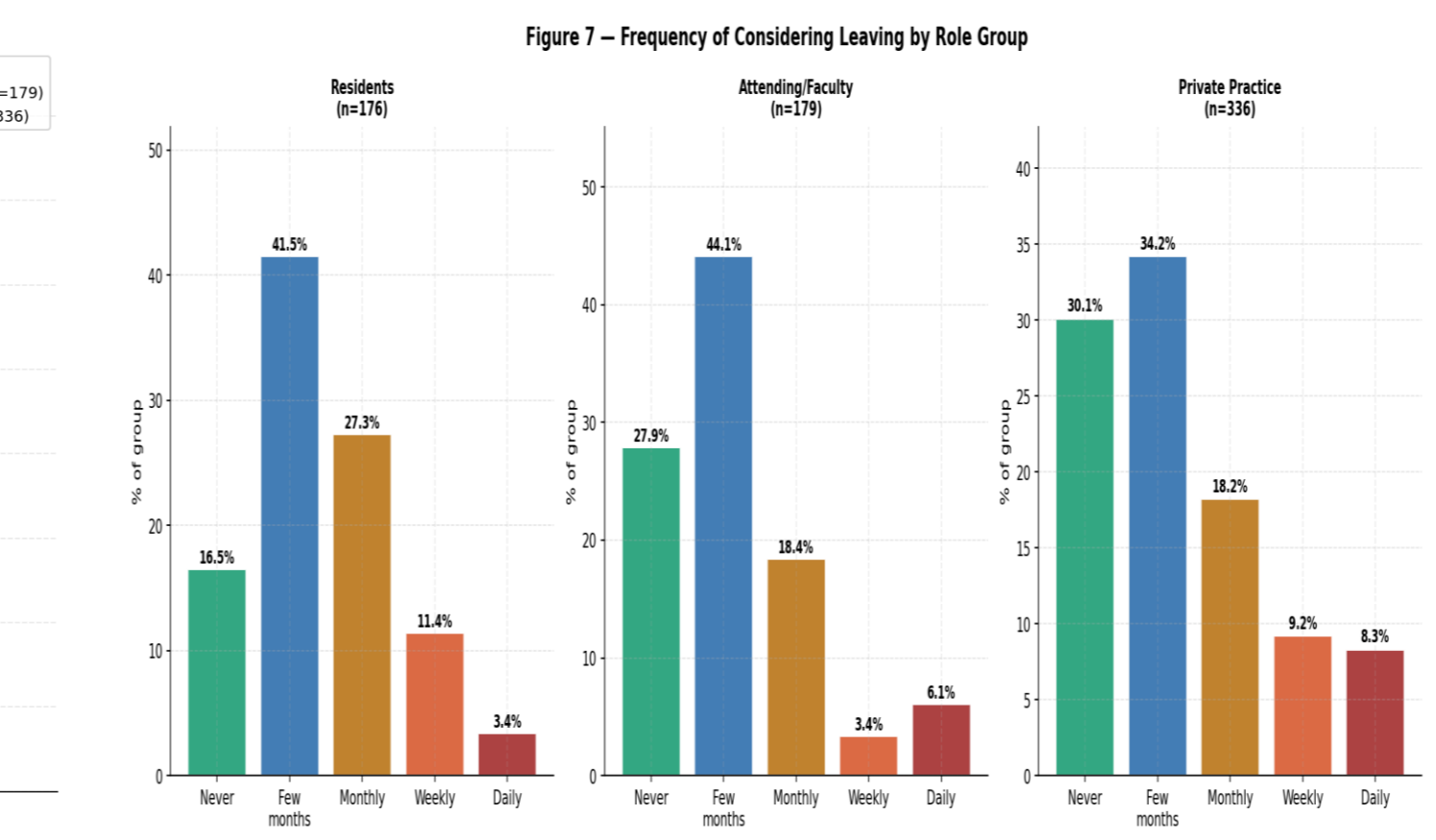
**Figure 4: Coping Strategy Utilization by Role (1=Never, 5=Always)** Grouped bar chart showing the frequency of coping strategy use across role groups. Exercise, family/friends support, and peer support were utilized at comparable rates across all three groups



**Figure 5: Workplace Environment Ratings by Role (1=Very Poor, 5=Excellent)** Grouped bar chart displaying mean workplace environment ratings across seven domains by role group.

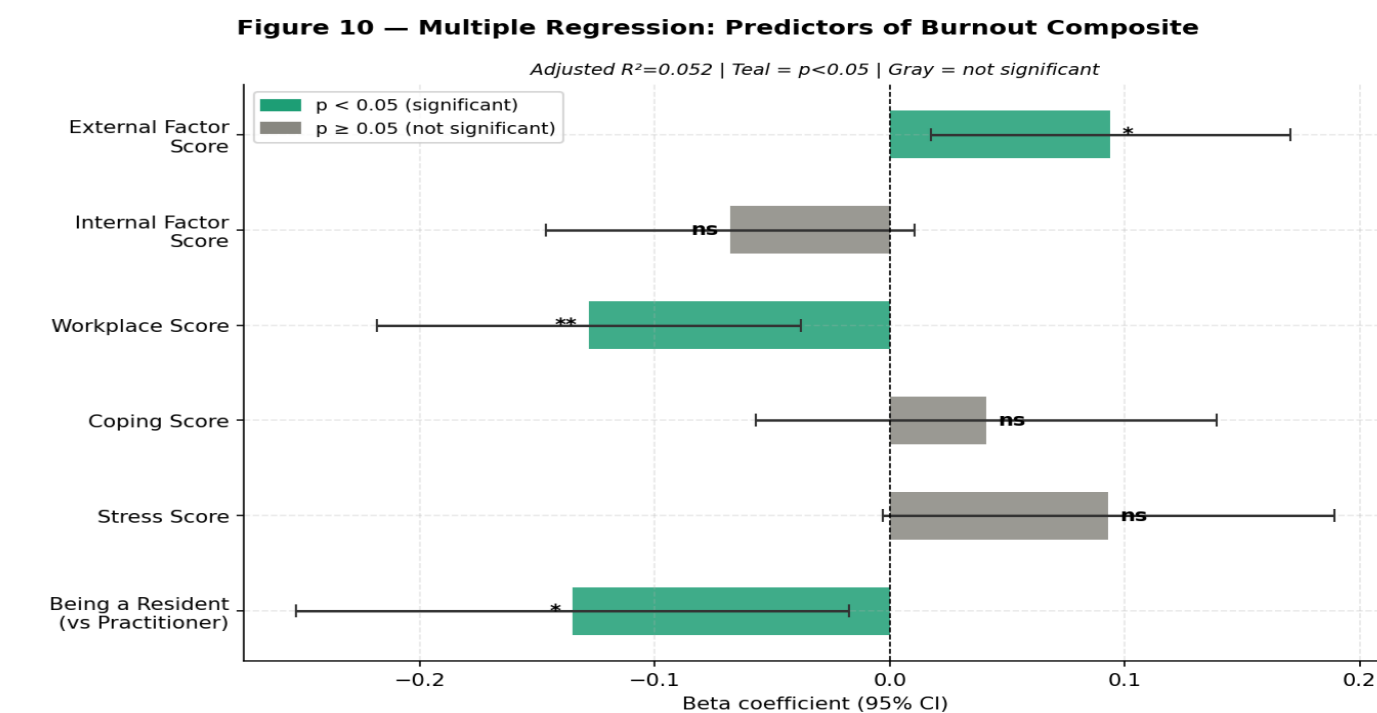


**Figure 6: Internal vs External Burnout Factor Ratings by Role (1=Not at all, 5=Extremely)** Split bar chart comparing internal and external burnout factor ratings by role group.

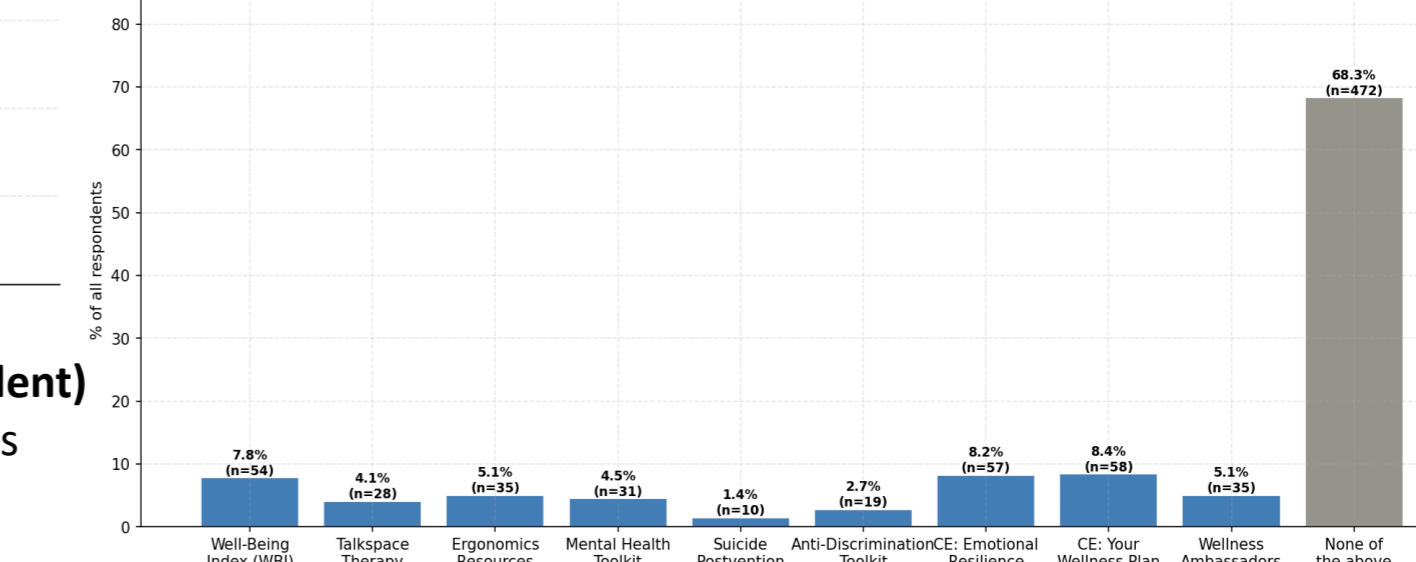


**Figure 7: Frequency of Considering Leaving by Role Group** Three grouped bar charts showing the distribution of how frequently each role group considers leaving the profession. Residents showed the highest rates.

**Figure 9: Multiple Regression: Forest plot** displaying standardized beta coefficients with 95% CI from the multiple linear regression model predicting burnout composite scores



**Figure 8: ADA Wellness Resource Utilization (N=691)** Bar chart displaying the percentage of respondents utilizing ADA's available wellness resources



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## DISCUSSION

**Burnout is widespread across all roles:** 71.7% of respondents reported at least one burnout-related emotional state (Q6). The most common internal pressure was neglecting personal needs (30.4%), and emotional numbness was the most prevalent emotional state (30.1%).

**Residents carry disproportionate external stress:** Residents reported significantly higher external factor scores than practitioners (t=6.72, p<0.001, Cohen's d=0.61), driven by poor leadership, high demands, and limited decision-making autonomy.

**Attending/Faculty are a high-risk group:** Faculty had the highest burnout composite scores of all four role types (mean=2.35) and were the only group significantly different from Private Practice dentists in post-hoc comparisons (p=0.012). They also considered leaving their positions most frequently, a critical retention concern for academic programs.

**Workplace environment is a modifiable protective factor:** Lower workplace environment scores independently predicted higher burnout in the regression model (beta=-0.13, p=0.005). Private Practice dentists rated their workplace highest, suggesting greater autonomy and ownership may confer protection.

**Multiple Regression:** The regression model (Adjusted R<sup>2</sup> = 0.052) identified External Factor Score and Workplace Environment as the strongest independent predictors of burnout. Higher external organizational pressures increased burnout risk, while a better-rated workplace was protective. Being a Resident was negatively associated with the composite score. Stress, coping, and internal factors did not reach significance, suggesting organizational conditions are more actionable for intervention targets than individual-level traits.

**Coping strategies are underutilized:** While family/friend support and hobbies were the most common coping tools, professional mental health support (therapy) had very low utilization rates. Coping score did not correlate with burnout severity (r=0.013, ns), suggesting that the coping strategies being used may not be sufficient or effective.

## CONCLUSION

Burnout among pediatric dentists is prevalent, multifactorial, and role dependent. This study demonstrates that residents, attending faculty, and private practitioners each face distinct stressor profiles that require differentiated intervention strategies. Perhaps the most striking finding is that 68.3% of respondents, nearly 7 in 10 pediatric dentists had used none of the wellness resources made available by the ADA. This is not merely a gap in utilization; it represents a fundamental failure of awareness and dissemination. Dentists cannot use resources they do not know exist.

**Limitations and Future Directions:** This study is limited by its cross-sectional design, reliance on symptom-based burnout indicators rather than a validated instrument, sample restriction to AAPD serv list members, and potential self-report bias; future research should pursue longitudinal designs, validated tools, and targeted wellness interventions for residents and faculty.

