

INTRODUCTION

Phase 1 orthodontics refers to early intervention treatments during the deciduous or mixed dentition aimed at preventing, intercepting, or correcting malocclusions before comprehensive orthodontic treatment is needed. Common minor orthodontic procedures that can be performed by pediatric dentists include unilateral or bilateral space maintenance for premature tooth loss, palatal expansion, and correction of minor crossbites using fixed transpalatal appliances.

Because pediatric dentists regularly follow up with young patients, they are in a unique position to identify and manage minor orthodontic concerns early—often before referral to a specialist is necessary. However, even though CODA requires pediatric dentists to be trained in diagnosing orthodontic issues, there is currently no standardized level of clinical exposure to orthodontic treatment across postdoctoral programs.

Many pediatric dentists choose not to perform these procedures in practice, even with basic knowledge from residency. This study aims to better understand how often pediatric dentists are engaging in early orthodontic treatments, what factors influence their decision to provide or refer, and what could potentially be done in training or continuing education to encourage more consistent participation in early interceptive orthodontics.

OBJECTIVE

The aim of this study is to gather information on how often pediatric dentists are engaging in simple orthodontics, including minor tooth movement (MTM), Phase 1 orthodontics, and early interceptive treatments, and how this correlates with their postdoctoral educational experiences.

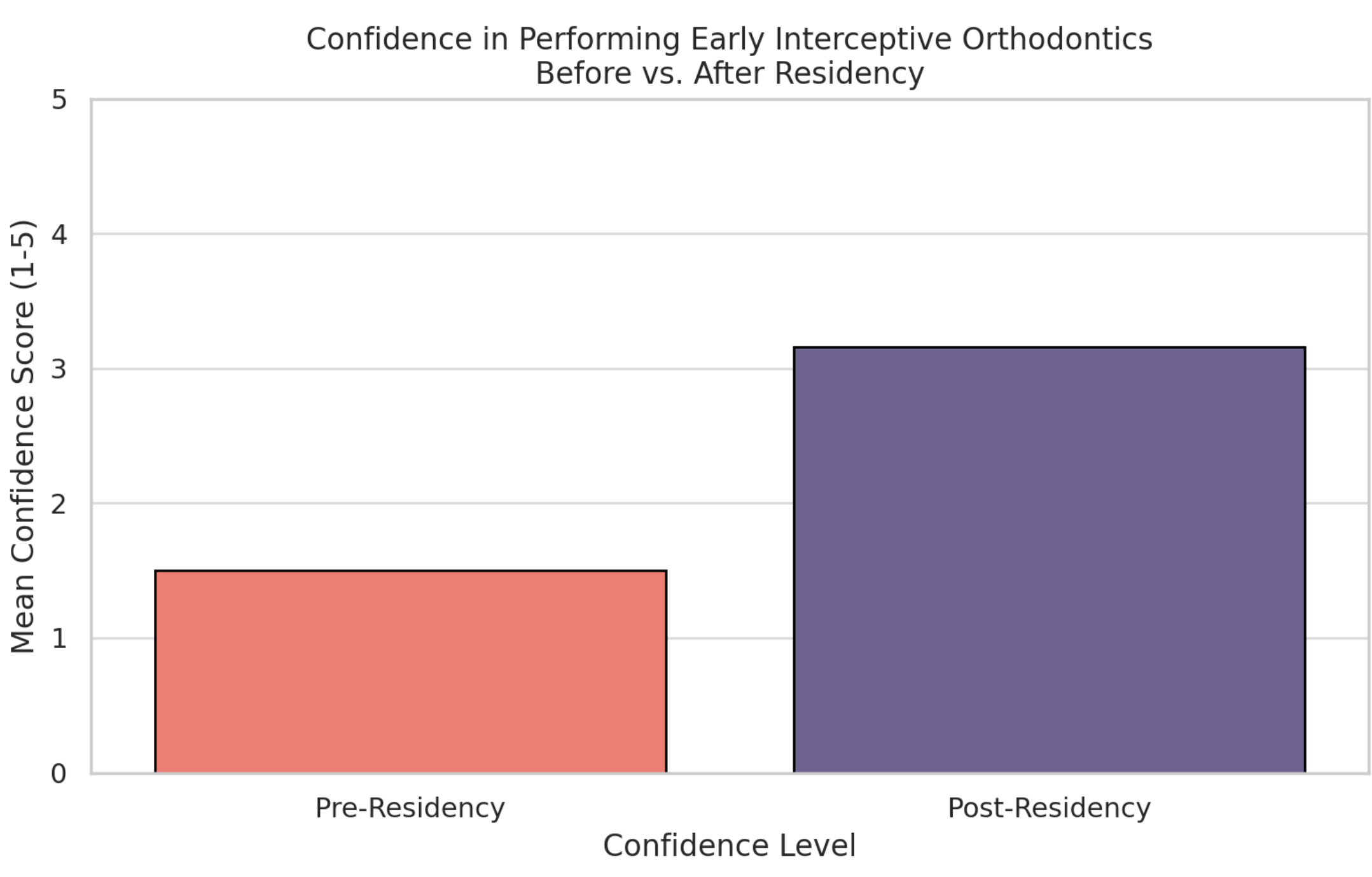
METHODS

An anonymous survey was distributed to practicing members of the American Academy of Pediatric Dentistry (AAPD) with the goal of collecting at least 500 responses. The survey gathered information on practitioner demographics, training background, years in practice, and orthodontic exposure during residency. It also assessed current clinical practice patterns and self-reported confidence levels before and after training.

Additionally, the survey examined factors that may influence practice behaviors, such as proximity to orthodontists and patient insurance status. Statistical analyses included chi-square tests, t-tests, ANOVA, and Fisher's exact tests to evaluate relationships between variables.

RESULTS

Figure 1. Confidence in Performing Early Interceptive Orthodontics Before v After Residency



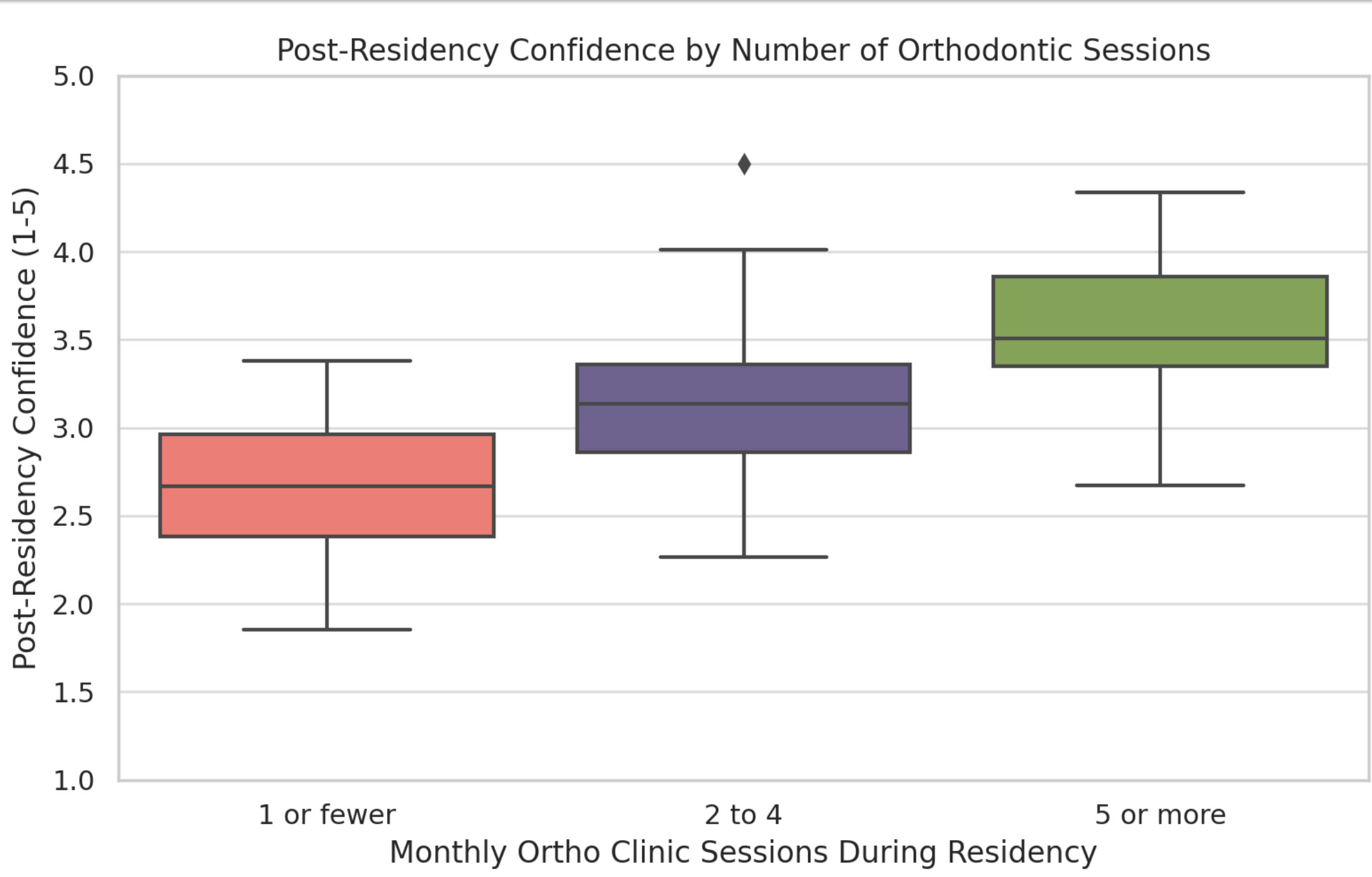
Confidence in performing early interceptive orthodontics before and after residency. Mean confidence scores significantly increased following residency training, indicating that postdoctoral education plays a critical role in improving clinical self-efficacy.

Figure 2. Post Residency Confidence by Level of Residency Exposure



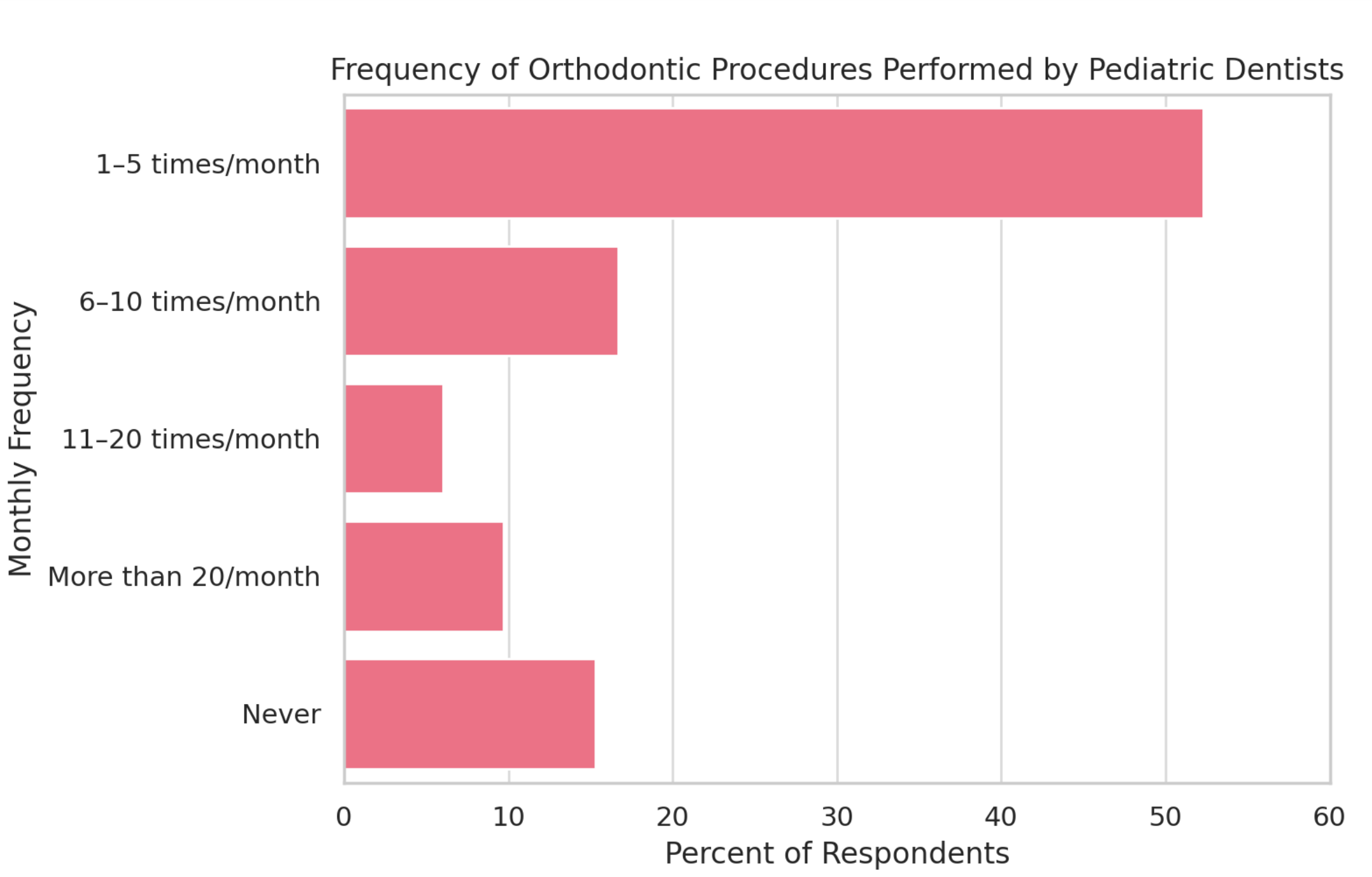
Post-residency confidence by level of orthodontic exposure during residency (eduq8). Participants who reported more extensive exposure during training demonstrated higher levels of confidence in delivering Phase 1 orthodontic treatment.

Figure 3. Post Residency Confidence by Number of Orthodontic Sessions



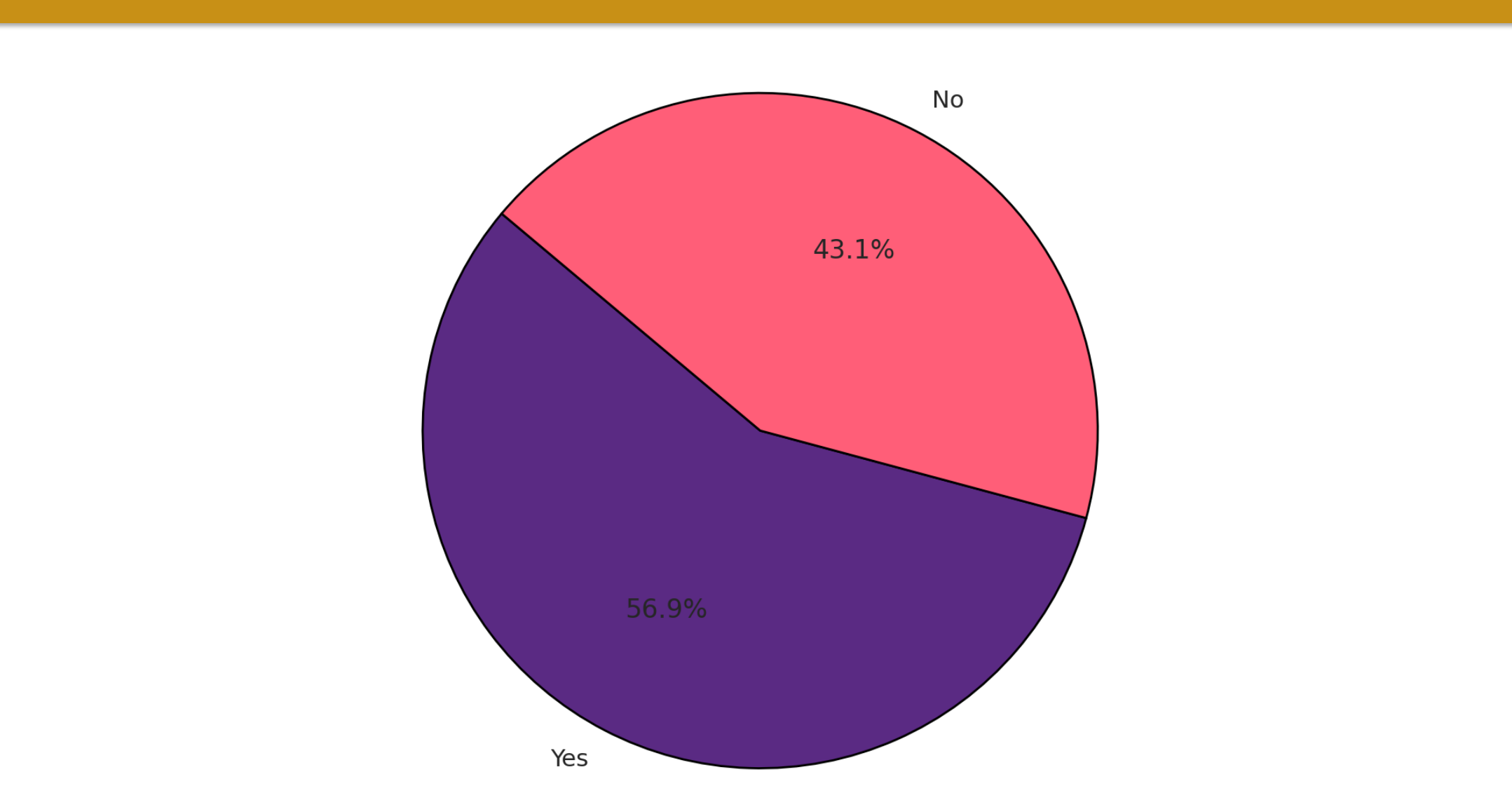
Post-residency confidence by number of orthodontic sessions attended during residency (edu_q7). Greater frequency of orthodontic sessions was associated with higher confidence levels following training.

Figure 4. Frequency of Orthodontic Procedures Performed by Pediatric Dentists



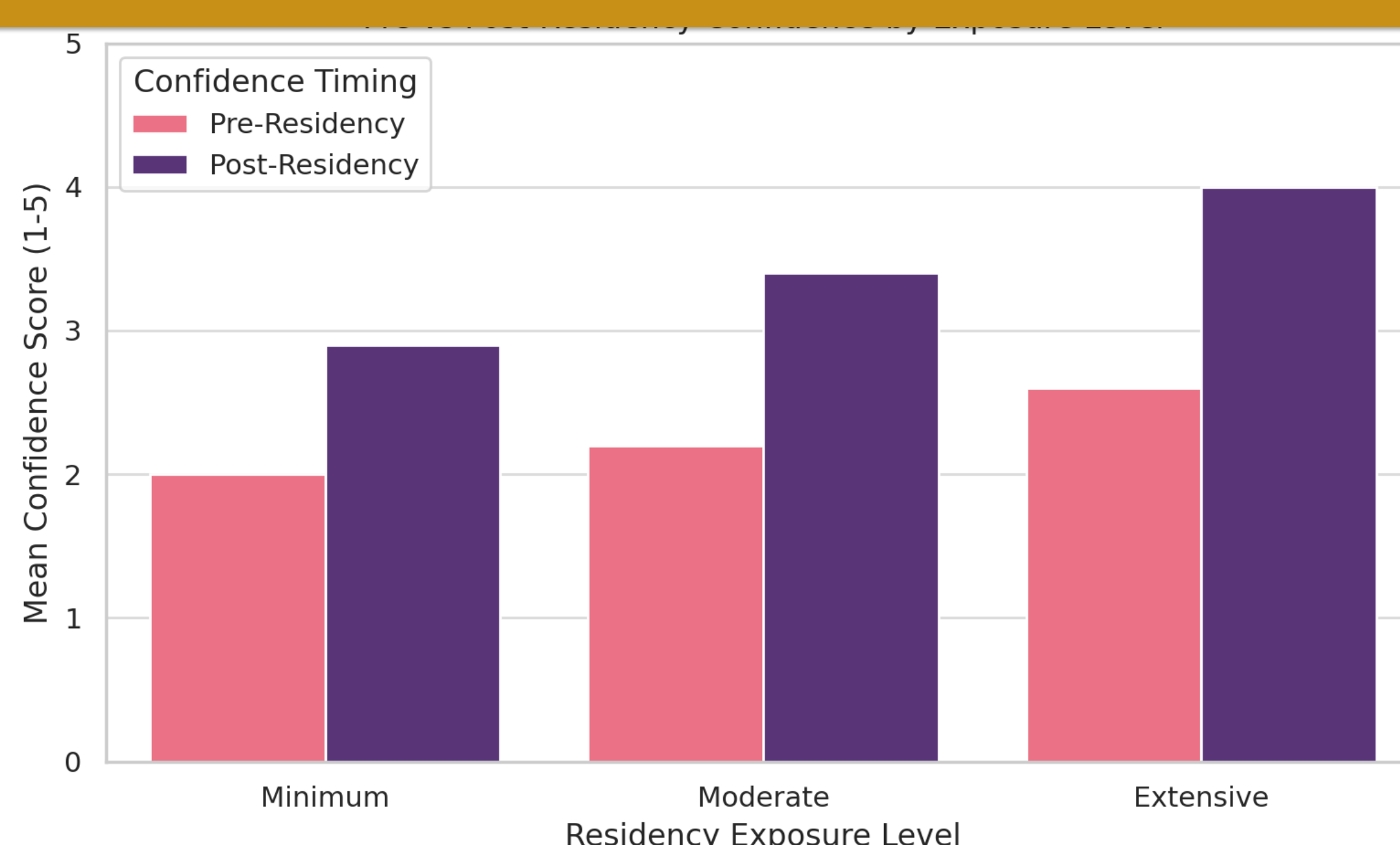
Frequency of minor orthodontic procedures performed per month by pediatric dentists. The majority of respondents reported placing appliances between 1 to 5 times per month, while approximately 15 percent indicated they do not engage in orthodontic procedures at all.

Figure 5. Do You Feel Comfortable Performing Early Orthodontics



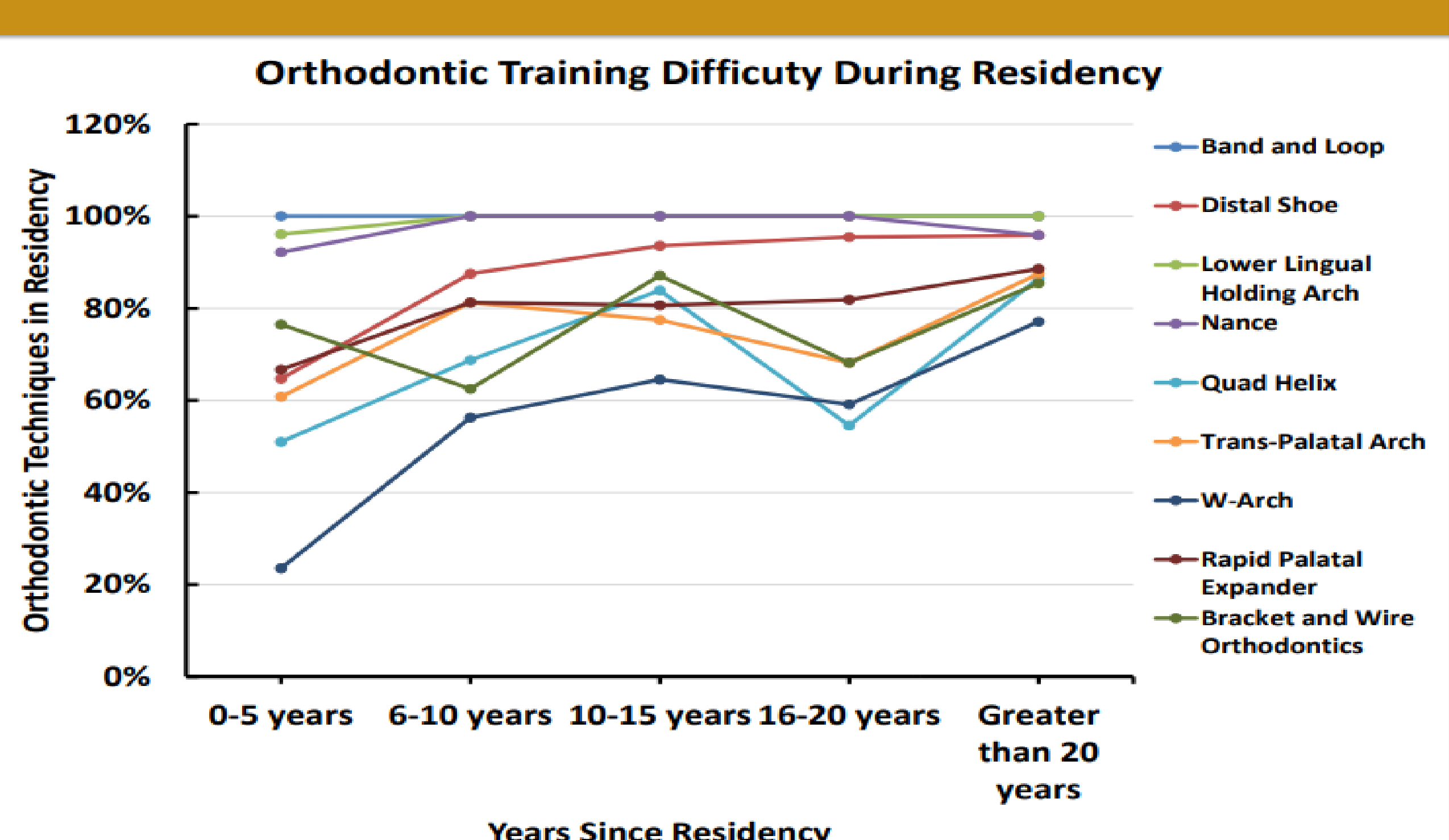
Reported comfort level with performing early orthodontics. Over half of respondents (56.9 percent) indicated they feel comfortable providing early orthodontic care, while 43.1 percent reported discomfort or lack of confidence.

Figure 6. Pre vs Post Residency Confidence by Exposure Level



Pre- and post-residency confidence scores by level of reported orthodontic exposure during residency. Confidence increased across all exposure levels, with the most substantial gains observed among those who reported extensive orthodontic exposure during training.

Figure 7. Orthodontic Appliance Use at Residencies Over Time



Usage of different orthodontic appliances at residencies over time. All appliances except for band and loop had some level of decrease in usage at residencies over time.

CONCLUSIONS

Pediatric dentists are less likely to attempt Phase 1 orthodontic treatment when case difficulty increases, which likely reflects limitations in comfort and clinical confidence. There is a strong association between perceived total exposure to Phase 1 orthodontics during residency and how often practitioners choose to provide these services in practice. Simply attending more orthodontic clinic sessions or being exposed to a greater number of appliances during training did not significantly impact current orthodontic practice. These findings suggest that the quality and depth of orthodontic exposure during residency may be more influential than the quantity of procedures or clinic sessions alone.

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