

Educating General Practice Residents to Care for Pediatric Dental Patients

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Purpose

The purpose of this study was to determine if basic pediatric dentistry knowledge lectures help recent dental school graduates to increase their knowledge and confidence in treating pediatric patients.

Introduction

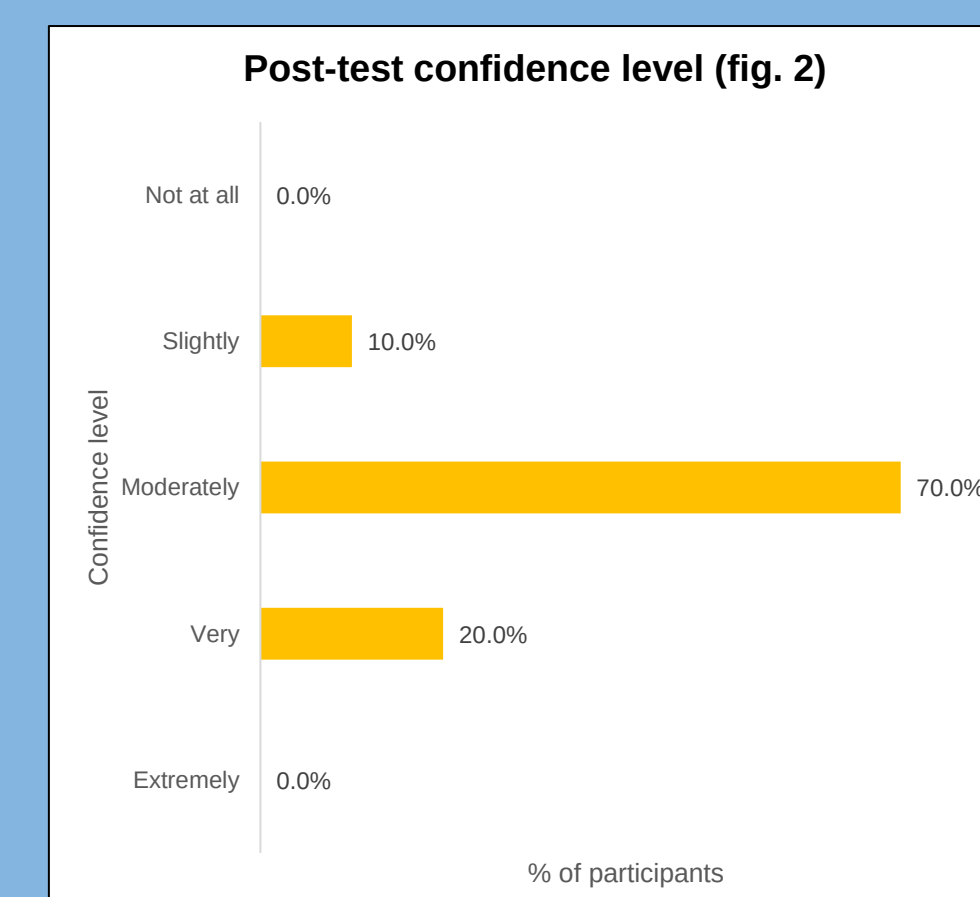
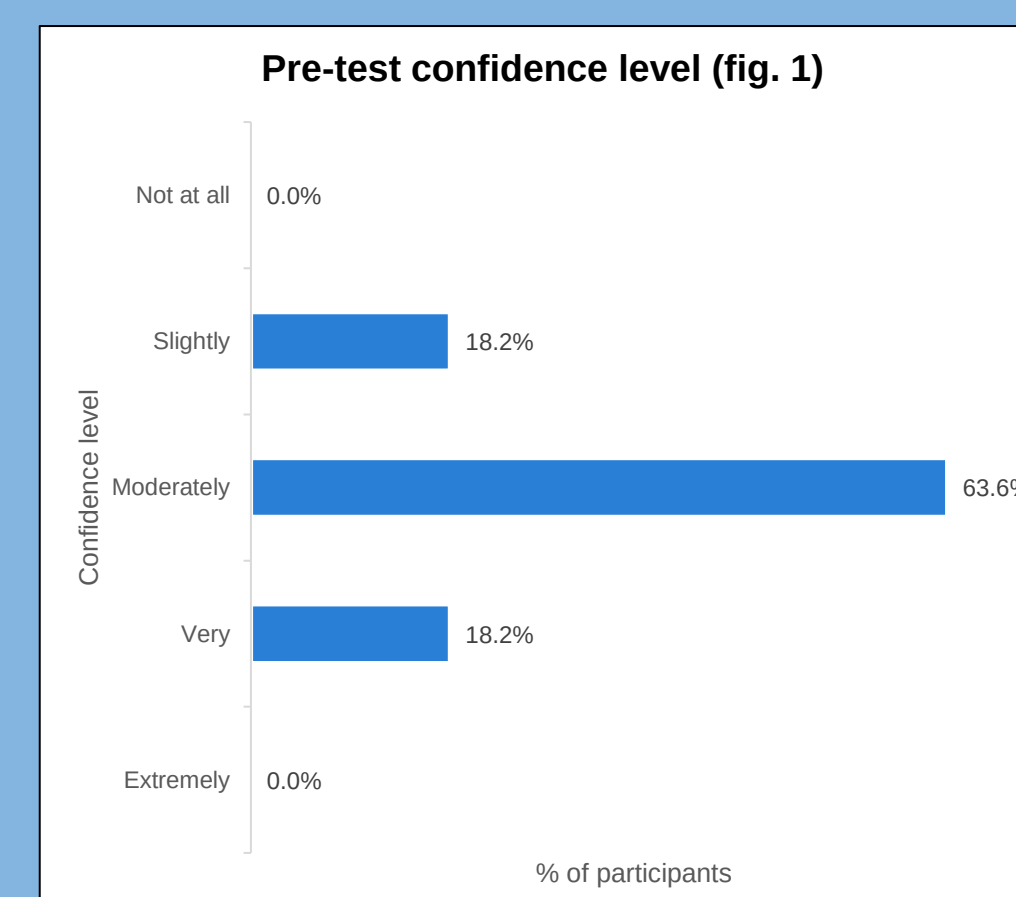
- Dental caries is prevalent among children, with disparities disproportionately affecting poorer and minority populations.
- Pediatric dentists are not sufficient in number to meet the dental needs of the pediatric patient population. In the United States, there are approximately 4 pediatric dental practitioners for every 100,000 children under the age of 18.¹
- Pediatric dental services provided by general dentists are crucial to meet the oral health care needs of children in the United States.
- General dentists often lack sufficient education in pediatric dentistry and state this as one of the reasons for not treating young pediatric dental patients.
- Studies highlight gaps in dental school pediatric dentistry education, leading to varied levels of knowledge and confidence among recent graduates.
- Areas mentioned by general dentistry practitioners feeling unprepared for are placing silver diamine fluoride, interim therapeutic restorations, Hall crown technique, fabrication and placement of space maintainers, performing pulp therapy, and managing dental trauma.³
- Improving education in pediatric dentistry is essential to enhance the quality of care for children.

Methods

- An anonymous pre-test questionnaire was administered to the entering Bronxcare Health System GPR residents through Survey Monkey.
- The questionnaire consisted of 10 questions focused in the areas of pediatric dentistry that were specified as lacking in education by previous studies.
- Participants were given an hour didactic lecture reviewing key concepts in pediatric dentistry that studies have found inadequacies in recent predoctoral dental school graduates.
- A post-test questionnaire was given to determine if the lecture resulted in improvement of knowledge and confidence and willingness of general practice residents in treating pediatric dental patients.
- Due to a small sample size, descriptive statistics was used to assess collected results.

Pediatric dentistry categories assessed by the questionnaire:

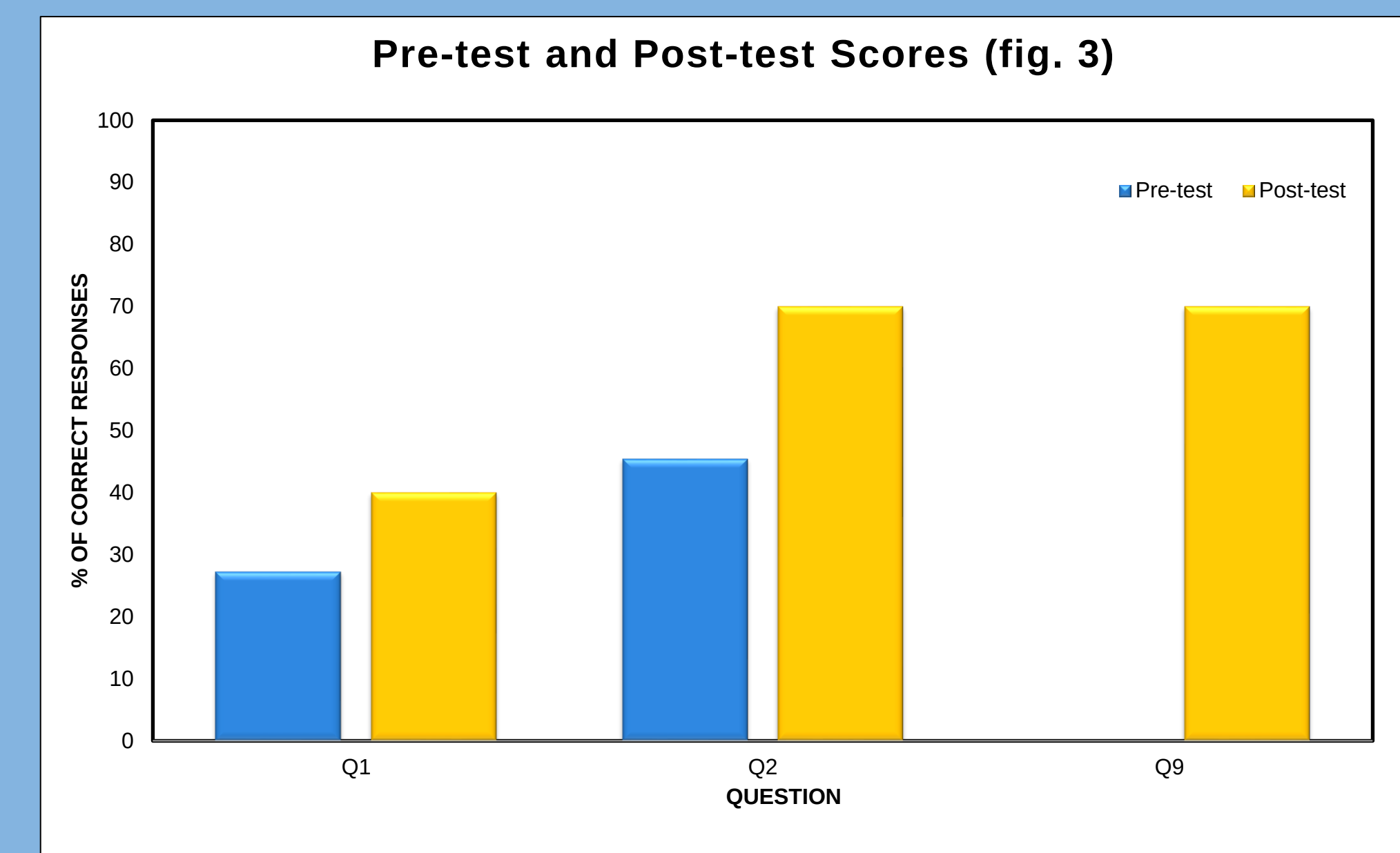
- Primary pulp therapy
- Stainless steel crowns
- Nitrous oxide
- Infant oral health
- Space maintenance
- Dental trauma



Results

11/15 residents completed the pre-test
Pre-test average score: 57.3%

10/15 residents completed the post-test
Post-test average score: 79%



Discussion

- The higher post-lecture scores suggest improvement in pediatric dentistry knowledge of GPR residents.
- Participants scored lowest on question 9 regarding age recommended for cessation of pacifier with 0% answering correctly on the pre-test. Questions 1 and 2, regarding contraindications for pulpotomy in a primary tooth and indications for placement of a stainless steel crown on a primary tooth, were poorly scored as well. In the post test, participants improved in scores (Q9: 0% to 70%, Q1: 27.3% to 40%, Q2: 45.5% to 70%) but these questions still remained the lowest scoring. There was no expected significant improvement in the reported confidence of the GPR residents in treating pediatric dental patients.
- Limitations of this study include small sample size and loss to follow-up to complete the post-test. Further research with larger sample sizes and additional lectures covering key concepts in pediatric dentistry thoroughly are recommended.

Conclusion

- This study suggests that basic pediatric dentistry knowledge lectures may be beneficial in enhancing the understanding of recent dental school graduates.
- These results align with previous research indicating incompetencies in placing stainless steel crowns and performing pulp therapy procedures are consistently identified among general dentists.^{3, 4, 5}
- Additional research is necessary to evaluate methods for augmenting pediatric dentistry education for dental school graduates, thereby advancing the treatment and care of pediatric dental patients.

References

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