

The Referral Patterns of Pediatric Dentists and General Practitioners to Orthodontists in Trinidad and Tobago

Jordyn Chrichlow, Sabrina David, Samantha Fletcher, Le Sher Gibson, Avinash Harrypaulsingh, Shanna Junkere, Arun Kowlessar, Trudee Hoyte

¹School of Dentistry, Faculty of Medical Sciences, The UWI
Shanna.junkere@my.uwi.edu trudee.hoyte@sta.uwi.edu



Introduction

Orthodontics is the branch of dentistry dealing with growth and development of the orofacial region as well as the diagnosis, inhibition and management of malocclusion. Dental practitioners should be able to competently assess the impact of a patient's malocclusion and formulate a treatment approach to improve oral-health-related quality of life issues whilst providing maximum benefit to the patient. Orthodontic training accounts for < 2% of undergraduate level dental education. Thus, general dentists graduate with insufficient experience in orthodontics. Only dentists who undergo advanced educational training for 2-3 years through an accredited postgraduate orthodontic program earn the title of orthodontic specialist and are properly equipped with the diagnostic and correctional skills needed to treat and/or manage dental and skeletal anomalies. Over the past 15 years a general trend has been observed whereby persons tend to gravitate away from specialists and move towards non-specialists with respect to their orthodontic care.

Objective

- To assess Referral Patterns
- To assess the Treatment Approach

Methodology

Ethical Approval
Obtained from University of West Indies Ethical Committee

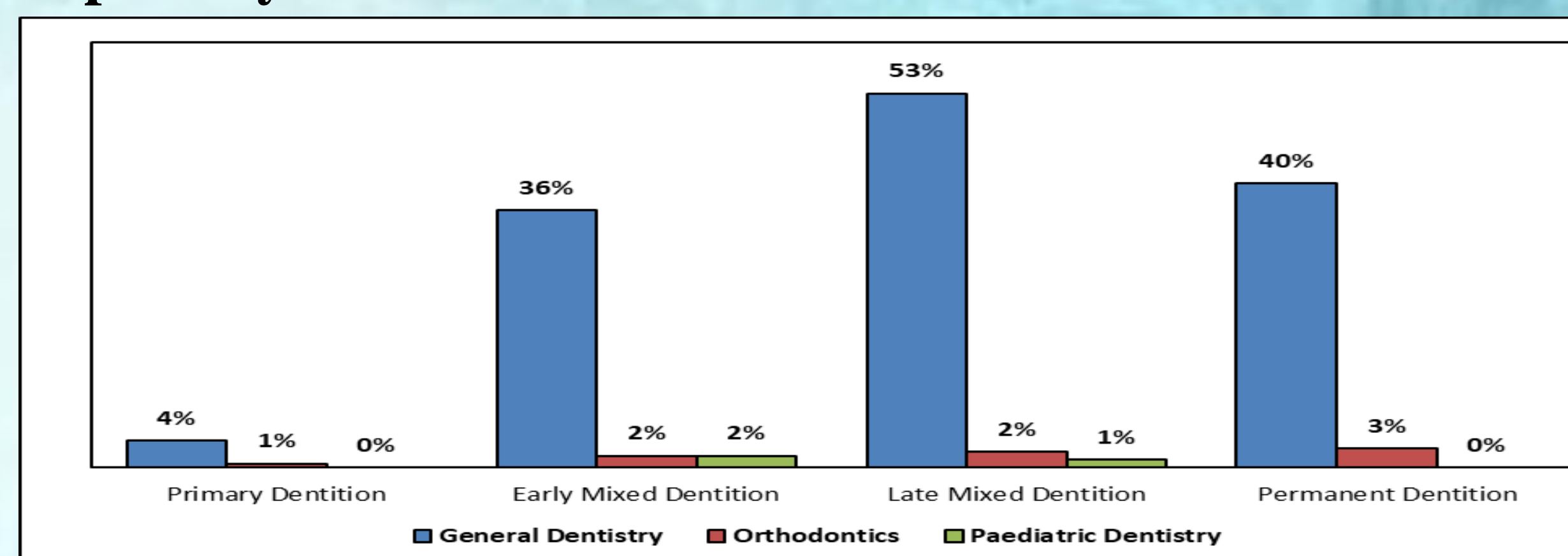
Study Population and Study Sample
Cross sectional and quantitative study
Included registered dental professionals working in Trinidad and Tobago

Research Instrument
Questionnaire containing open-ended and closed-ended questions inquiring about the referral patterns to orthodontists

Data Analysis and Protection
Data analyzed using SPSS
All participants remained anonymous

Results

Figure 1: Percentage of Each dental stage treated by type of Specialty.

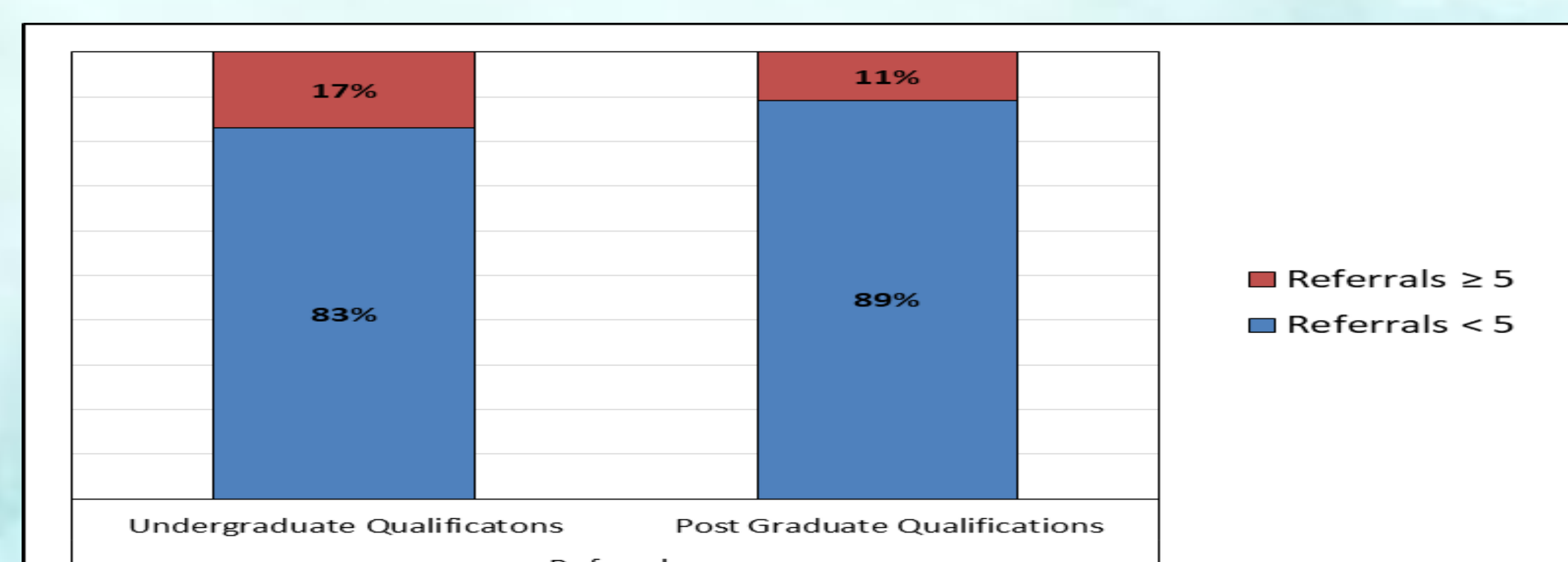


From Figure 1, it is observed that General dentistry treats a significantly higher percentage of patients within each dental stage in comparison to Orthodontics and Pediatric Dentistry.

Table 2: Fishers Exact Test showing association between dentistry and referrals

	General Dentists	Paediatric Dentist	P-Values
Patients referred to the orthodontists every month (on average)			
>10 patients	6 (85.7)	1 (14.3)	0.151
<=10 patients	166 (98.2)	3(1.8)	

Figure 2: Percentage of referrals < 5 and ≥ 5 for dentists with Undergraduate and Postgraduate qualifications



There is no significant association between the number of referrals and Qualifications. However, there are fewer referrals of 5 or more patients (11%) for dentists with postgraduate qualifications than undergraduate (17%)

Discussion

- The study showed a total of 182 subjects and of that, 4 specialized in Pediatric Dentistry, 6 specialized in Orthodontics and 148 were General Dentists.
- General dentists saw most of their patients who seek orthodontic treatment during the late mixed dentition while pediatric dentists saw most during the early mixed dentition. Orthodontists had a steady increase in percentages as the patient grew.
- Orthodontists used a higher percentage of all the appliances in comparison to both pediatric and general dentistry except for clear aligners whereby it seemed similar in number.
- In relation to the perceived benefits of orthodontic treatments the psychosocial benefits such as Improved self-esteem, improved psychological well-being, reduction in teasing and subsequent psychological stress had the highest perception scores from all three groups.
- Pediatric dentists generally rated Reduction of TMJ disorders a lot higher than General Practitioners and Orthodontists.
- 85.7% of general dentists referred more than 10 patients to the orthodontist compared to pediatric dentists which comprised 14.3%.
- Dentists who attained postgraduate qualifications (11%) refer less than a dentist with undergraduate qualifications (17%).

Conclusion

General dentists saw the majority of their patients seeking orthodontic treatment during the late mixed dentition stage. Pediatric dentists saw most of their patients seeing orthodontic treatment during the early mixed dentition stage. Majority of referrals to orthodontists came from general dentists annually.

References

- Littlewood SJ, Mitchell L. An introduction to orthodontics. Oxford university press; 2019 Mar 16.
- Kiyak HA. Does orthodontic treatment affect patients' quality of life? J Dent Educ. 2008 Aug;72(8):886-94. PMID: 18676797
- Aldrees AM, Tashkandi NE, AlWanis AA, AlSanouni MS, Al-Hamlan NH. Orthodontic treatment and referral patterns: A survey of pediatric dentists, general practitioners, and orthodontists. The Saudi dental journal. 2015 Jan 1;27(1):30-9.
- Batarse AP, English JD, Frey GN, Piazza JM, Akyalcin S. Referral patterns of pediatric dentists and general practitioners to orthodontists based on case complexity. American Journal of Orthodontics and Dentofacial Orthopedics. 2019 Jul 1;156(1):61-6.
- Park JH, Kim JH, Bay RC, Darendeliler MA, Wishney M, Nagel NJ. Trends in the choice of a clinician for orthodontic treatment in the United States. American Journal of Orthodontics and Dentofacial Orthopedics. 2021 Apr 24.
- Jain M, Dhakar N. Timing of orthodontic treatment. Journal of Orthodontic Research. 2013 Sep 1;1(3):99.
- Currell SD, Vaughan M, Dreyer CW. Interceptive orthodontic practices in general dentistry: a cross-sectional study. Australasian Orthodontic Journal. 2019 Nov;35(2):152-7