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### An Evaluation of Knowledge, Attitude, and Practice of Accelerated Orthodontics amongst Orthodontists

*Évaluation des Connaissances, Attitudes et Pratiques de l'Orthodontie Accélérée chez les Orthodontistes*

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#### ABSTRACT

**BACKGROUND:** Accelerated orthodontic teeth movement are procedures carried out to increase the rate of tooth movement thereby reducing treatment time. There are numerous techniques currently available to accelerate orthodontic treatment time, but evidence is still needed to determine the degree to which orthodontists accept and practice accelerated orthodontics. The present study is aimed at assessing the knowledge of Orthodontists on the practice of accelerated orthodontics; as well as their willingness to adopt it as a treatment option for their patients.

**METHODOLOGY:** Ethical approval was obtained before the commencement of the study. The study population comprised all orthodontists practicing in Nigeria. Questionnaires were administered physically to the orthodontists at their annual general meeting. E-mails were further used to distribute the questionnaire to the orthodontists who were absent from the annual meeting. The questionnaire obtained information on respondents' biodata, knowledge, attitude, and practice of accelerated orthodontic treatment procedures. Statistical analysis was performed using IBM SPSS software version 27. The level of significance was 0.05 for all statistical analysis.

**RESULTS:** The study participants comprised 60 respondents, with a mean age of 34.18 years and a male-to-female ratio of 1.3:1. A Majority of them were satisfied with treatment time/duration (61.7%), they had a good knowledge of accelerated orthodontics (83.3%) with piezocision (75%) and micro-osteoperforation (63.3%) being the most popular. All orthodontists were interested in accelerated orthodontics, if it offered up to 30% reduction in treatment time. Major limitations to the practice included unavailability of technique materials (50%), insufficient knowledge (41.7%) and cost (35%).

**CONCLUSION:** Most orthodontists did not routinely practice accelerated orthodontics despite adequate knowledge. They were willing to offer accelerated orthodontic treatment (AOT) if patients were willing to pay an additional fee. The less invasive methods were more accepted.

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**KEYWORDS:** Accelerated orthodontics, Orthodontist, Treatment time, Piezocision

#### RÉSUMÉ

**CONTEXTE:** Les mouvements dentaires orthodontiques accélérés sont des procédures réalisées pour augmenter la vitesse de déplacement des dents, réduisant ainsi le temps de traitement. Il existe de nombreuses techniques actuellement disponibles pour accélérer le temps de traitement orthodontique, mais des preuves sont encore nécessaires pour déterminer dans quelle mesure les orthodontistes acceptent et pratiquent l'orthodontie accélérée. La présente étude vise à évaluer les connaissances des orthodontistes sur la pratique de l'orthodontie accélérée, ainsi que leur volonté de l'adopter comme option de traitement pour leurs patients.

**MÉTHODOLOGIE:** L'approbation éthique a été obtenue avant le début de l'étude. La population étudiée comprenait tous les orthodontistes exerçant au Nigeria. Des questionnaires ont été administrés physiquement aux orthodontistes lors de leur assemblée générale annuelle. Des courriels ont ensuite été utilisés pour distribuer le questionnaire aux orthodontistes absents de l'assemblée annuelle. Le questionnaire a recueilli des informations sur les données biographiques des répondants, ainsi que sur leurs connaissances, attitudes et pratiques en matière de traitement orthodontique accéléré. L'analyse statistique a été réalisée à l'aide du logiciel IBM SPSS version 27. Le niveau de signification était de 0,05 pour toutes les analyses statistiques.

**RÉSULTATS:** Les participants à l'étude étaient au nombre de 60, avec un âge moyen de 34,18 ans et un ratio hommes-femmes de 1,3:1. La majorité d'entre eux étaient satisfaits du temps/durée du traitement (61,7 %), ils avaient de bonnes connaissances en orthodontie accélérée (83,3 %) avec la piezocision (75 %) et la micro-ostéoperforation (63,3 %) étant les plus populaires. Tous les orthodontistes étaient intéressés par l'orthodontie accélérée, si elle offrait une réduction allant jusqu'à 30 % du temps de traitement. Les principales limitations à la pratique comprenaient l'indisponibilité des matériaux de technique (50 %), le manque de connaissances (41,7 %) et le coût (35 %).

**CONCLUSION:** La plupart des orthodontistes ne pratiquaient pas systématiquement l'orthodontie accélérée malgré des connaissances adéquates. Ils étaient prêts à proposer un traitement orthodontique accéléré (TOA) si les patients étaient prêts à payer des frais supplémentaires. Les méthodes moins invasives étaient plus acceptées.

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**MOTS-CLÉS:** Orthodontie accélérée, Orthodontiste, Temps de traitement, Piezocision

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