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Cephalometric analysis using a mobile application



Complications associated with orthodontic treatment



Case Report: Management of Class III malocclusion



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ORAL PRESENTATIONS

ABSTRACT ONE

Prevalence and Distribution of Dental and Occlusal Anomalies in Paediatric Patients with Endocrine Disorders at LUTH.

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Background: Dental anomalies involve abnormalities in the number, size and shape of teeth, structural defects or eruption pattern disruptions. Endocrine disorders are associated with various dental and occlusal anomalies including enamel defects, delayed tooth eruption, changes in tooth size and position, crowding, spacing, deep bite, open bites, crossbites. The identification of dental and occlusal anomalies are important since they can cause disturbances such as malocclusion, increased susceptibility to caries and aesthetic concerns.
Aim: To determine the prevalence and distribution of dental and occlusal anomalies amongst paediatric patients with endocrine disorders in LUTH.
Methods: Cross -Sectional study conducted at the Paediatric Endocrinology clinic, LUTH. Informed consent, assent and ethical approval was obtained. Forty -Two Participants were recruited via convenient sampling technique, aged 7-18 years. Clinical examination was done with dental examination sets. Data was analyzed with p value set at <0.05.
Results: The prevalence of dental and occlusal anomalies was 64.3%, mean age was 11.31 ± 4.3 years. Females 59.5% and males 40.5%. The frequencies of the anomalies included Crowding 11.9%, Crossbite 14.3%,Open bite 16.7%, Missing teeth 9.5%, Enamel defects 23.8%, Microdontia 2.4%, Malformed teeth 2.2%.
Conclusion: Dental and occlusal anomalies are prevalent and commonly distributed amongst paediatric patients with endocrine disorders. Timely identification can minimize complications and enable a more favorable prognosis.

ABSTRACT TWO

Evaluation of The Maxillary and Mandibular Dental Midlines and Facial Midlines of Adolescents Aged 12-18years in Rivers State, Nigeria

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Background and Aim: Dentofacial symmetry is an important factor in the evaluation of dentofacial aesthetics in orthodontics. The dental midline is equally important in smile design. The aim of this study was to assess dental midline of secondary school students in Rivers State.
Methods: This was a cross-sectional analysis of 12- 18years old private and public secondary school students in Rivers State. SPSS version 25.0 was used for data analysis, with level of significance set at $p < 0.05$.
Results: Six hundred and ten students, comprising 212(34.8%) males and 398(65.2%) females with mean age of 13.7±1.4years participated in this study. Fifty two percent of participants had dental midline coincidence while 48% had dental midline deviation. About three quarters (78.2%) had mandibular dental midline deviation,17.4% had maxillary dental midline deviations while only 4.4% had deviations in both arches. More than half (57%) of the deviations were to the right, 42% to the left while only 1% had asymmetrical deviations in both arches. The mandibular dental midlines were deviated more to the right in 60.7% cases while majority (56.9%) of maxillary dental midlines was deviated to the left. A greater proportion (58%) of the males had dental midline deviation than the female adolescents (45.5%).
Conclusion: Almost half of the study participants had dental midline deviations. Most of the affected participants were males. The dental midlines of mandibles were more deviated than those of maxillae and the right side was more affected than the left.
Keywords: Dental midlines, Facial midlines, Adolescents, Aesthetics, Rivers State

ABSTRACT THREE

Evaluation of Colour Preferences for Elastic Ligatures among Orthodontic Patients in Nigeria: A Guide for Clinicians

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Background/Aim: Elastic ligatures, beyond their functional role, allow patients to personalize their treatment through color selection. Preferences for these colors may change over time within specific cultural contexts like Nigeria. This study aimed to evaluate elastic ligature color preferences among Nigerian orthodontic patients over time, guiding clinicians in inventory
decisions and enhancing patient-centered care.
Methods: A prospective longitudinal observational study, conducted among patients undergoing fixed orthodontic treatment. Color preferences were recorded at treatment initiation and at six-week intervals over six months. At each visit, patients selected colors from a standardized color guide under consistent lighting. Data were analyzed using descriptive and inferential statistics.
Results: Silver and Black elastic ligatures were the two top most preferred colors (16.4% and 10.9% respectively) and were consistently the most preferred across all visits.
Other popular colours included shades of Blue; and Violet.
Preferences evolved over time, with brighter colors gaining popularity. Gender differences were statistically significant, with females preferring bright colors while males favored neutral tones. Age-related differences were

significant only at early visits ($p<0.01$). Patient enthusiasm influenced early bright color choices ($p<0.05$), though this effect decreased as treatment progressed.

Conclusion: Elastic ligatures preferences among Nigerian orthodontic patients are dynamic and influenced by a number of factors. Regular update of color inventory can improve patient satisfaction and minimize product waste.

Keywords: Elastic ligature, color, preferences, orthodontic, clinician

ABSTRACT FOUR

An Audit of Factors Affecting the Duration of Orthodontic Treatment by Residents at Lagos University Teaching Hospital

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Background: The duration of orthodontic treatment is very important to both patients and orthodontists. Prolonged treatment time not only decreases patient's compliance but also puts a strain on already limited resources, especially in resource-challenged societies like Nigeria.

Aim: To investigate the possible influential factors affecting the duration of orthodontic treatments carried out by senior residents at Lagos University Teaching
Hospital.

Methods: A cross-sectional retrospective study conducted at the Orthodontics Unit, Department of Child Dental Health, Lagos University Teaching Hospital (LUTH), using records of all patients whose treatment was initiated and completed by orthodontic residents with Roth 0.022" appliances between 2018 and 2025.

Results: A total of 41 participants (68.3% female; mean age 22.71 ± 9.0 years) were selected. Over half (56.1%) were managed by first-year senior residents and 80.5% were non-extraction cases. Treatment gaps were common; 53.7% had 1-3 months gap, while 34.1% had >3 months gap. Overall, 65.9% had treatment durations >24 months, while 34.1% completed treatment within 24 months. There was a statistically significant ($p<0.05$) association between the residents' level of training, treatment gaps, extraction cases, and treatment duration.

Conclusion: This study showed that lack of experience in the early stages of residents' training, complex cases, and lack of consistency with clinic attendance by patients prolonged treatment time at LUTH

ABSTRACT FIVE

Clear Aligner Therapy in Nigeria: Awareness, Training and Clinical Practice Patterns among Dental Practitioners

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Background And Aim: Clear aligner therapy has gained global popularity in recent years, but its adoption and integration in clinical practice may vary by region. This study evaluates the awareness, training, and clinical application of clear aligners among dental practitioners in
Nigeria.
Methods: A pilot survey was conducted among 120 dental practitioners. Data were collected through a structured questionnaire addressing demographics, knowledge of clear aligners, sources of training and clinical use of clear aligners. Descriptive statistics were used to analyze responses.
Results: Awareness of clear aligners was high (96.5%), with conferences and peer discussions among colleagues being the main sources of information (54.3% each). Only
31 respondents (26.7%) reported acquiring the knowledge from dental school. Although 57.8% were aware of aligner training programs, only 24.1% had undergone such training. Only 33.6% of respondents currently use aligner therapy. Among these, most were trained via certification courses (66.7%), had less than 3 years of experience (77.0%), and mostly used the Invisalign brand (97.4%). The common indications included mild spacing (89.7%), mild crowding (84.6%) and open bite (53.8%). The major barriers among nonusers included lack of training (38%) and cost (15.2%), however, 79.7% expressed willingness to undergo training.
Conclusion: While awareness of clear aligners among dental practitioners in Nigeria is high, clinical adoption remains limited due to insufficient training and experience.
KEYWORDS: Clear aligners, Invisalign, orthodontics, dental practitioners, clinical practice

ABSTRACT SIX

From Braces to Business: Building A Scalable Orthodontic Practice without Losing A Clinical Soul.

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Background and Aim: While clinical mastery remains the foundation of orthodontics, the long-term success of any practice depends increasingly on sustainable business systems, patient-centric innovation, and leadership evolution. This presentation shares the Smile
360 journey from a single-chair practice to a multi-million dollar brand and offers a framework for scaling orthodontic care without compromising clinical values.
Methods: Drawing on 15+ years of clinical entrepreneurship and 30 years + as a clinician, this case based analysis explores the strategic pillars that supported Smile 360's growth: digital workflow integration, brand positioning around smile design, patient experience innovation, and structured team development.
Emphasis was placed on adopting systems thinking, aligning vision with structure, and developing internal leaders to drive continuity and succession.
Results: Over a decade, Smile360 has grown into a leading orthodontic and cosmetic dental brand in West Africa. Key outcomes include increased aligner adoption, high patient retention, optimized treatment efficiency through digital tools, and team-led practice expansion.
Conclusion: The evolution from clinician to clinical entrepreneur is not a detour, it is a deepening of impact.
For orthodontists to pioneer the future, we must master the art of building practices that are not only clinically excellent but also structurally resilient, brand-aware, and legacy-minded. This session will empower colleagues to lead with both heart and systems.
Keywords: Orthodontic business, practice growth, clinical entrepreneurship, digital workflows, succession planning

ABSTRACT SEVEN

Determination of Arch Width in Pretreatment Orthodontic Patients in a Tertiary Health Facility

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Background: Human dental arches can be normal, wide or narrow. The intercanine and intermolar arch widths are established after eruption of canine and molars in the dental arches. Assessment of dental arch dimensions is an important diagnostic criterion in orthodontic diagnosis, treatment planning and post treatment stability.
Objective: The aim of this study was to determine mean intercanine and intermolar arch width in Angle's class I, malocclusion. To determine sexual dimorphism and effect of early and late permanent dentition on the dental arch width.
Methods: Pre-treatment maxillary and mandibular dental 150 pairs of casts of orthodontic patients of the University of Benin Teaching Hospital were used for this study. Maxillary and mandibular intercanine arch width and intermolar arch width were measured with digital caliper.
Result: 150 pairs of dental casts was used in the study. The mean age of the study participants was 17.92 (± 9.050) years. 62.6% were females. The mean maxillary inter-canine and inter-molar widths were 34.38 ± 3.817 mm and 39.92 ± 3.671 mm, respectively,the corresponding mandibular values were 27.02 ± 3.036 mm and 34.13 ± 3.580 mm.
Conclusion: The study showed sexual dimorphism with male casts having greater maxillary and mandibular inter-canine and inter-molar widths compared to female casts.
Keywords: Dental Arch Width, Malocclusion

ABSTRACT EIGHT

Pattern of Dental Anomalies seen On Panoramic Radiographs of Patients Attending Orthodontic Clinic at University Of Nigeria Teaching Hospital, Enugu

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Background: Dental anomalies refer to developmental disturbances that affect number, size, shape, structure or position of teeth, These deviations from normal tooth development may result in irregular alignment and malocclusion which can compromise both function and aesthetics often needing orthodontic or restorative intervention.
Aim: To determine the prevalence of developmental dental anomalies on panoramic radiographs of patients attending the Orthodontic clinic at University of Nigeria Teaching Hospital.

Methods: This was a retrospective cross sectional study in which panoramic, radiographs of patients who presented to the orthodontic clinic from 2021-2025 were assessed for the presence of dental anomalies. The anomalies assessed were, supernumerary teeth, hypodontia, oligodontia,
Transposition and mesiodens. Data analysis was carried out with SPSS version 23 with results summarized in tables and frequency distributions
Results: A total number of 185radiographs of patients were reviewed. There were 110 females and 75 males. Forty six patient's radiographs(24.8%) had dental anomalies and a total of 86 dental anomalies were recorded from these radiographs. These anomalies included, Impaction 63 (72.4%), Supernumerary teeth 12(13.8%), Transposition 5(5.5%) , Hypodontia 5(5.75%) and mesiodens 2(2.3%).
Fifty four (62.1%) dental anomalies were seen in the mandible while 33(37.9%) anomalies were seen in the maxilla. More females had dental anomalies than males.
Conclusion: Impaction was the most common dental anomaly observed. They were more common in the mandible than the maxilla and female patients were more frequently affected than males. These findings highlight the importance of routine radiographic evaluation for early detection and timely intervention in orthodontic patients
Keywords: Dental anomalies, Maxilla, Mandible, Developmental, Radiograph

ABSTRACT NINE

Cephalometric Evaluation Of The Soft Tissues Following Orthodontic Treatment.

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Background: Orthodontic treatment aims to improve the aesthetic and functional aspects of the dentofacial complex. The determination of facial aesthetics is influenced by both the dentoskeletal tissue and the underlying soft tissues. Cephalometric assessments are valuable for soft and hard tissue evaluation in orthodontic treatment planning and outcome.
Aim: This study evaluated the changes in soft tissue parameters following fixed orthodontic treatment using cephalometric analysis.
Methods: A cross-sectional retrospective study. The study population comprised patients who had completed their orthodontic treatment in the Lagos University Teaching Hospital over one year. Their pre-treatment and post-treatment cephalograms were manually traced to compare pre- and post-treatment linear and angular soft tissue measurements. Statistical analysis was carried out using the Statistical Package for Social Sciences, SPSS version 26.0. The level of significance was set at P=0.05.
Results: A total of 47 patients with 94 cephalometric radiographs were recruited for the study. The male-to female ratio was 1:2.1. Extraction cases comprised 14.9% while non-extraction treatments were 85.1%. There was no statistically significant difference between the pre and post-treatment soft tissue cephalometric values in both males and females, as well as the extraction and nonextraction treatment ($p<0.05$)
Conclusion: Fixed orthodontic treatment showed no significant soft tissue changes in both extraction and nonextraction cases.
Keywords: CEPHALOMETRIC RADIOGRAPH, ORTHODONTICS, SOFT TISSUE, EXTRACTION

ABSTRACT TEN

Evaluation of Dental Age and Skeletal Maturation in A Patient Population with Repaired Cleft Lip and Palate, Aged 5-16 Years Old.

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Background: Children with clefts usually have skeletal discrepancy and compromised aesthetics resulting in orthodontic treatment need. Growth modification is important in the orthodontic management of patients with clefts and this is best achieved during the peak growth
period. Also, the best timing for orthognathic surgery is dependent on the remaining growth potential. A good understanding of the dental and skeletal ages is important in the treatment planning and success in patients with clefts.
Objectives: To assess and compare dental age and skeletal maturity in children with non-syndromic UCLP and in children without clefts using Demirjian and Baccetti methods respectively.
Methods: Fifty children with UCLP and fifty non-cleft children with chronological ages 5 to 16 years were assessed. Each study group was matched for age and sex. The participants panoramic and lateral cephalometric radiographs were assessed to determine the dental age
and cervical ver tebrae maturation stages. Mean comparison of numerical variables was assessed using independent t-test. Statistical significance was inferred at $p<0.05$.
Results: The dental age was significantly ahead of the chronological age in both cleft and non-cleft groups. However, there was a delay in the dental age in the cleft group when compared with the non-cleft group, however, this difference was not significant (p-value = 0.407). At ages 8.1-12.0 years, during CVM 3 and 4, (peak period) the patients without cleft attained skeletal maturity earlier than children with UCLP. However, by age 12-16 years, both groups matched in skeletal maturity. There was a positive association between dental age and skeletal maturity in the cleft and non-cleft groups.
Conclusion: The non-cleft participants attained peak skeletal maturity significantly earlier than children with UCLP. This needs to be considered when timing orthodontic treatment in patients with clefts.

ABSTRACT ELEVEN

Craniofacial Morphology and Risk of Obstructive Sleep Apnoea in Adolescent Orthodontic Patients: A Cephalometric Evaluation

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Background and Aim: Obstructive sleep apnoea (OSA) is a multifactorial sleep disorder affecting all age groups. Its pathogenesis is linked to structural craniofacial anomalies, as well as factors such as obesity and male

gender. The study aimed to assess the risk of OSA in adolescent orthodontic patients using the modified STOP Bang questionnaire and to evaluate its association with craniofacial morphology.

Methods: A prospective, comparative study was conducted among 46 adolescent orthodontic patients at the Lagos State University Teaching Hospital. Participants were screened for OSA risk using the modified STOP-Bang questionnaire and categorized into control (n=23) and test (n= 23) groups based on risk scores. All subjects underwent clinical evaluation and hard tissue lateral cephalometric radiographic analysis using FACAD® software. Data were analysed using SPSS® version 22.

Results: The mean age of participants was 15.22 ± 2.0 years. Among those at risk, (test group) 13% (n = 6) had a high risk and 37% (n = 17) an intermediate risk of OSA.

Cephalometric analysis revealed significant associations between OSA risk and reduced SNB angle, reduced Sn-Go-Gn, and increased N-S-H angle.

Conclusions: Mandibular retrognathia, reduced mandibular plane angle, and inferior hyoid bone positioning were significantly associated with increased

OSA risk.

Keywords: Obstructive sleep apnoea, Craniofacial, Cephalometry, Modified STOP Bang Questionnaire

ABSTRACT TWELVE

Mandibular Canines' Transmigration and Ectopia along the Midline: Case Series and Literature Review

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Background and Aim: Ectopic eruption of mandibular canines is an uncommon clinical finding, with a reported prevalence ranging from 0.08% to 1.29%. Unlike their maxillary counterparts, mandibular canines rarely present ectopically, yet when they do, they may exhibit atypical migration patterns such as transmigration or transposition. These cases pose diagnostic and therapeutic challenges, especially in resource-limited settings. This study reports three presentations of ectopic mandibular canines and their management by observation, extraction, or orthodontic correction.

Methods: Three patients presenting with midline-displaced mandibular canines were evaluated through clinical and radiographic examinations. Each case was classified according to established systems (Mupparapu's classification for transmigration; Rai's classification for transpositions).

Management was tailored to tooth position, space, esthetics, function, age, resources, and patient preference.

Results: Case 1 involved a 26-year-old male with Mupparapu's Type III transmigration of the left mandibular canine, managed conservatively by observation. Case 2, a 52- year-old female, presented with Mupparapu's Type V

transmigration of the right mandibular canine, treated by extraction and orthodontic space management. Case 3, a 13- year-old female with bilateral mandibular canine-lateral incisor transpositions (Rai's Type C), underwent fixed orthodontic treatment supported by temporary anchorage devices, achieving progressive alignment.

Conclusion: Ectopic mandibular canines present with variable clinical patterns requiring case-specific diagnosis and tailored interventions. Observation, extraction, and orthodontic realignment all represent viable

management options, with the choice guided by tooth position, space availability, esthetics, and patient-centered factors. This case series underscores the importance of early diagnosis, appropriate classification, and patient-centered decision-making in optimizing outcomes for ectopic mandibular canines.
Keywords: Ectopic mandibular canine, transmigration, transposition, orthodontic management, case series

ABSTRACT THIRTEEN

Knowledge, Perception and Attitude of Patients towards use of Artificial Intelligence in Orthodontic Treatment: Awareness and Privacy Concerns.

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Background: Artificial intelligence (AI) is increasingly being integrated into orthodontic practice, offering potential benefits in diagnosis, treatment planning, and patient monitoring. Patient's acceptance depends on their knowledge, perception, and attitude toward such technologies.
Aim: Assessment of Patients, Knowledge, Perceptions, and Attitudes to AI-Integrated Treatment in Orthodontics.
Methods: Cross-sectional survey was conducted among 135 patients attending orthodontic clinics in Lagos, Nigeria. A structured questionnaire assessed demographic characteristics, knowledge of AI in orthodontics, perceptions of its benefits, risks, and attitudes toward its integration. Data were analyzed using descriptive statistics.
Results: Knowledge of AI was high, 80% recognizing its potential to aid diagnosis, reduce human error, and personalize treatment.62% expressed willingness to accept AI-assisted care under orthodontist supervision, 65–70% reported concerns regarding data privacy, security, and liability for errors. Younger, more educated respondents, those with prior orthodontic treatment, demonstrated greater acceptance of AI integration.
Respondents were predominantly female (80%),21–30years (50%), with most having tertiary education (90%) and prior orthodontic experience (75%).
Conclusion: Patients showed strong awareness of AI's potential benefits in orthodontics but maintained caution due to trust, ethical, and privacy concerns. Targeted education, especially the need for further research into specific privacy-enhancing AI features or patient-provider communication strategies. This may enhance acceptance and facilitate safe, ethical adoption of AI in orthodontics.

ABSTRACT FOURTEEN

Patient Centric Mindset in Orthodontic Practise

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Keywords: Patient- Center, Mindset, Patient Satisfaction, Orthodontics

Background And Aim: Patient – Centric Mindset means prioritizing patient's need in every operational (clinical/ research) and strategic decisions. The orthodontist should not only be an expert in the use of diverse treatment

modalities and the latest technology, but he or she must also manifest honesty, empathy, compassion, altruism, and respect to the dignity and beliefs of the patients and their families.
Various researches have found that the doctor-patient relationship was the most important factor contributing to patient satisfaction. Patient-centered treatment is based on assessing patient experience, patient reported outcomes and patient satisfaction. Achieving patient satisfaction comes with a lot of challenges in our environment as we are cumbered with excessive work load due to the JAPA Syndrome that has led to reduced workforce coupled with the harsh economic and work environment. The pull and push factors are discussed.
What can be done to make patients more satisfied?
Adopting a culture of responsibility, taking charge to deliver results, willingness to take up small task, recognizing your role is significant, taking ownership and being dedicated to assignments.
Conclusion: At the heart of making shift to patient centered mindset is a commitment to excellence, efficiency and high productivity ensuring that every patient enjoys seamless Orthodontic care experience. Thus, the true art in orthodontic care is to establish a cooperative relationship with the patient through effective communication, critical thinking, and empathetic behavior.

POSTER ONE

Esthetic Appeal of Fixed Orthodontic Appliances: A Multi-centre Nigerian Study

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Background and Aim: Aesthetic concerns increasingly shape orthodontic appliance design, with options such as ceramic brackets, lingual appliances, and clear aligners reducing the visibility of metal braces. At the same time, the rise of "fashion braces" highlights varied perceptions of orthodontic aesthetics. This study assessed the esthetic appeal of fixed appliances among Nigerian patients and examined the influence of sociodemographic factors.
Methods: A cross-sectional survey was conducted among patients on fixed appliance therapy in three southern Nigerian teaching hospitals. A structured questionnaire captured demographics, treatment characteristics, and aesthetic perceptions. Associations were tested using Chisquare or Fisher's Exact Test ($p < 0.05$).
Results: A total of 182 patients (mean age 21.17 ± 8.08; 59.0% female) participated. More than half (59.9%) found braces esthetically pleasing, and 73.1% reported improved self-esteem. Braces were perceived as fashionable by 53.3%, while 80.2% anticipated debonding; only 27.5% wished to retain braces after alignment. One-quarter (25.0%) would consider braces purely for fashion, with significant variation by treatment facility ($p = 0.004$) but not age or gender. Those considering braces for fashion were more likely to find them esthetically pleasing ($p = 0.002$). Positive esthetic perception was also associated with believing benefits outweighed oral hygiene challenges ($p = 0.002$) and discomfort ($p = 0.024$) but not cost or diet.
Conclusion: Most orthodontic patients in southern Nigeria regard braces as esthetically appealing and selfesteem enhancing. Perceptions are influenced by treatment facility, fashion considerations, and tolerance of treatment challenges, underscoring the importance of integrating esthetic concerns into orthodontic care planning.
Keywords: Orthodontics, Esthetic appeal, Fixed appliance, Braces, Patient perception, Nigeria

POSTER TWO

Community Engagement and Dental Outreach in An Underserved Community

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Background: The World Health Organisation Global Oral Health Action Plan 2023-2030 has outlined six major goals to include people centred oral care. Community Dental Outreach and engagement allows dental professionals to work with people within a community to improve oral health access and outcomes. Orthodontists are dental professionals that can volunteer to work in underserved communities. This study presents statistics from a series of community outreaches in a selected underserved community
Methodology: The following data were collected on a spreadsheet; age, gender, socio-economic status, significant lifestyle relevant to oral health, presenting complaint, type of intervention done, type of treatment received. Data collected was analysed using a computer software.
Results: Five hundred people (500) attended 10 organised dental outreaches over one year period. Monthly statistics showed an average attendance of 26 (52%) males and 24(48%) females. The most common presenting complaint was poor oral hygiene/ gingivitis (55%); followed by toothache (40%); poorly arranged teeth (25%); Missing teeth (20%) Discoloured teeth (10%).
Concerning social life style, 50% of attendees gave a history of chewing kolanut and bitter cola, 10% of attendees gave history of cigarette smoking. The following dental treatment were offered during the community outreaches; Scaling and
Polishing (60%), extraction of teeth (40%); A traumatic restoration of teeth (30%) Denture replacement of missing teeth (20%); Study models (10%); Stain removal(10%); Specialist refferals (25%).
Conclusion: Organisation of dental outreaches are ways of engaging with the community and offering people centred oral care .
Keywords: Community engagement, Dental Outreach, Underserved Community.

POSTER THREE

Multiple Supernumerary Teeth In A Nonsyndromic Adult Patient: A Cbct-based Case Report

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Background: The presence of multiple impacted supernumerary teeth typically raises suspicion of an underlying genetic or syndromic condition. However, in rare cases, this may be present without any identifiable syndrome

and often present diagnostic and management challenges. We report an unusual presentation of multiple hyperodontia and dental anarchy in an adult female without any known familial or systemic syndromes; emphasizing the potential for subclinical or undiagnosed syndromic associations and the diagnostic value of conebeam computed tomography (CBCT).

Case Presentation: A 25-year-old female patient who presented with multiple supernumerary teeth in both the maxillary and mandibular arches and had no relevant medical, familial, or syndromic history. Extraoral examination revealed distinct craniofacial features such as hypertelorism and prognathism. Intra-oral examination revealed complex malocclusion pattern with a total of 37 teeth in occlusion, including a retained deciduous canine.

Despite the absence of a known family history or medical diagnosis suggestive of a syndrome, the dental and facial findings pointed towards an underlying, possibly undiagnosed craniofacial disorder. CBCT was utilized to accurately assess the number, position and spatial relationships of the impacted teeth. There was a total of 43 teeth, including 11 supernumeraries dispersed throughout both arches, with varying morphologies and orientations, of which 6 were impacted.

Conclusion: Non-syndromic presentations of extensive dental anomalies with craniofacial dysmorphism may represent subclinical or novel conditions. CBCT is essential in the evaluation of such complex cases, and further genetic assessment may be warranted.

Keywords: Supernumerary teeth, hyperodontia, CBCT, non-syndromic, malocclusion.

CASE ONE

Management oof Angles Class 1 Malocclusion with Canine Class 2 Relationship on The Right and Canine Class 1 Relationship on The Left, Protruded Front Teeth, Congenitally Missing Upper Second Premolar.

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Background: This case reports the orthodontic management of a 14-year-old female who presented at LUTH with Angles class 1 malocclusion on skeletal pattern 1, with canine class 2 relationship on the right and canine class 1 relationship on the left. This was complicated by increased overjet of 8.5mm on the right and 7mm on the left, increased upper incisal angle, incompetent lips with a Jackson score of 1/0, retained and mobile upper second primary molars, congenitally missing upper second premolars, upper midline shift to the left by 1mm, mild upper and lower anterior crowding and rotations.

Aim: To maintain full unit class I molar relationship bilaterally, to achieve class I canine relationship bilaterally, level and align the upper and lower arches to achieve normal overjet and overbite, unravel the mild upper and lower anterior crowding, achieve coincident midlines and derotate the rotated teeth.

Methods: Interdisciplinary management with paediatric dentist of the extraction of the retained primary second molars due to mobility. Comprehensive upper and lower fixed orthodontic appliance (preadjusted edgewise) was used with Roth 0.022 prescription brackets.

Results: The treatment was completed and outlined objectives were achieved.

Conclusion: The objectives were achieved with significant improvement in the patient's profile. Fixed lingual retainers and Essix retainers were used for retention

CASE TWO

Management of Angle's Class I Division 1 Malocclusion on Skeletal Pattern 2 Using Functional And Fixed Orthodontic Appliance Therapy

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Background: Early intervention using a combination of functional and fixed appliances in Angle's class II malocclusion on a class 2 skeletal base can effectively guide growth and correct malocclusion.
Case Presentation: A 12-year-old male presented with a chief complaint of protruding teeth. Extra-oral examination revealed a convex profile with lip incompetence and a skeletal pattern 2. Intra-orally, he exhibited an overjet of 8 mm, a deep traumatic overbite, bilateral buccal crossbites, and malalignment in both arches. The molar and canine relationships were Class II bilaterally. The patient had a history of relapse following previous removable appliance therapy and a positive family history of similar malocclusion. A diagnosis of Angle's Class II Division 1 malocclusion on skeletal pattern 2, complicated by lip incompetence, deep bite, buccal crossbite, and crowding was made.
Treatment Objectives: To establish lip competence, correct the skeletal discrepancy by modifying mandibular growth, achieve Class I molar and canine relationships, and normalize overjet, overbite, and arch alignment.
Treatment Plan And Outcome: A non-extraction approach using fixed orthodontic therapy and functional appliance therapy resulted in class I molar and canine relationships with a reduction in overjet to 2mm.
Conclusion: Early intervention, growth modification, and appropriate appliance selection were key to achieving a stable, functional, and aesthetic outcome.

CASE THREE

A Case of 35-year-old Female with Class III Malocclusion and A Tongue Sucking Habit

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Background: A case of a 35-year-old female physician who presented to the department of Child Dental Health, University of Port Harcourt Teaching Hospital with complaints that she has never been caught smiling on camera due to the arrangement of her teeth. She was observed to have Angle's class III sub-division left malocclusion on skeletal base pattern III, complicated by crossbite of all anterior teeth, a tongue sucking habit, severe spacing on both arches and a compromise of her lower anterior periodontal tissues. Baseline cephalometric values were SNA 83˚, SNB 91˚, ANB -8˚, UIFP 136˚ and LIMP 103˚.
Methods: A comprehensive fixed orthodontic therapy of both arches was done using preadjusted edgewise Roth's 022 slot in addition to a fixed tongue rake on the upper arch. The work up to her management involved the preventive and restorative dentists.

Results: At the end of management patient was discharged with class I molar relationship, the anterior crossbites were corrected and all the spaces were
effectively closed-up. Cephalometric values at the time of debonding were SNA 85˚, SNB 90˚, ANB -5˚, UIFP 126˚ and LIMP 85.5˚.
Conclusion: After 25 months of management, the patient was satisfied with the aesthetic and psychosocial outcomes of management. Retention was done with both fixed and ESSIX retainers on both arches.

CASE FOUR

Orthodontic Management of A Patient with Angle's Class III Malocclussion Subdivision Right: A Case Report.

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This case reports the orthodontic treatment of a 24-yearold female patient who presented with angle's class III malocclusion subdivision right and mild anterior segment crowding in both maxillary and mandibular arches with an anterior crossbite, retroclined upper incisors. Orthodontic treatment was done comprehensively using upper and lower fixed orthodontic appliance therapy, non-extraction case with removable posterior bite plane appliance, using the pre-adjusted straight wire technique, Roth 0.22x030 prescription. The aim of the treatment was to achieve normal overbite and overjet, class 1 canine relationship and unravel crowding. Remarkable results were seen after over eight months of treatment. Thus, restoring aesthetic, occlusal and functional properties.
Keywords: malocclusion, crossbite, angle's class III

Pictures from the Conference











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