

# WEST AFRICAN JOURNAL OF ORTHODONTICS

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**Unintended Orthodontic Errors in  
Clinical Practice**

**Knowledge and Awareness about  
Cleft Lip and Palate**

**Psychological Impact of  
Malocclusions**

**Management of Class II Division 1  
Malocclusion**

**Abstract Presentation at NAO 2023  
Annual Scientific Conference**



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Abstract Presentation at NAO 2023 Annual Scientific Conference held in Lagos at the Marriott hotel Ikeja, from September 17-19, 2023.

## ORAL PRESENTATIONS

### ABSTRACT ONE

#### Unlocking the Secrets to Naturally Looking Designed Smiles

Shumbusho A\*

##### **Abstract**

In the field of dentistry, the pursuit of achieving aesthetically pleasing smiles has been an ongoing endeavor. This has led to the development of various techniques and treatments to enhance the appearance of smiles.

However, one challenge that practitioners face is maintaining a balance between a designed smile and a natural-looking result.

I will be sharing a comprehensive approach that combines Artistry, Technology, and Patient-centered care.

### ABSTRACT TWO

#### Limited Orthodontic Treatment for Severely Rotated Incisors in an Adult Female Patient with Cleft: A Case Presentation

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**Background and Aim:** Cleft lip and palate present craniofacial and occlusal anomalies that are known to impact negatively on an individual's self-esteem and overall well-being which require comprehensive multidisciplinary management.

This case presentation focuses on a young, adult female patient from a resource-poor background, with a previously repaired cleft lip, who presented for correction of a severely rotated upper right central incisor and missing upper right lateral incisor.

The aim was to achieve functional and aesthetic improvement of the incisor position while minimising treatment complexity, cost, and duration as well as preservation of the integrity of the dental arch for a future comprehensive orthodontic and implant therapy for the missing upper right lateral incisor.

**Materials and Methods:** A secondary alveolar bone graft was performed before orthodontic treatment. Derotation of the upper right central incisor was carried out using Temporary Anchorage Devices, elastic chains, and a segmental straight wire fixed appliance. Retention was provided following active orthodontics with upper Hawley's retainer to maintain the achieved results.

**Results:** Correction of the severely rotated central incisor was achieved with pleasing aesthetics.

The arch width was maintained for future rehabilitation therapy, with the patient being highly satisfied.

**Conclusions:** This presentation showcases the multi-disciplinary management of orofacial cleft and the integration of orthodontics within the broader context of cleft care. Limited orthodontic treatment was successfully performed on the patient laying a foundation for a more comprehensive treatment and tooth implant when the patient becomes financially capable.

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## ABSTRACT THREE

### Orthodontists' Clinical Appearance and the Perception of Patients

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**Background and Aim:** Orthodontists' dressing and appearance can make a non-verbal communication to the patients. This study aimed to assess patients' perception of their Orthodontists' appearance.

**Materials and Methods:** A 26-item interviewer-based questionnaire was used as a data collecting tool. Socio-demographic information of patients and their parents, their preferences for orthodontist's dress colour and style, and other elements of appearance were elicited. Pictures were included to demonstrate the questions for better understanding. SPSS version 25 was used for data analysis.

**Results:** The study involved 131 patients (82 (62.6%) females and 49 (37.4%) males); with mean age 19.20 +/- 9.43 years; age range, 7-58 years. Of these, 121 (92.4%) had treatment appointment while 7(5.3%) were for routine checkup. Seventy four (56.5%) participants had no preferred gender for their orthodontists. Majority (116, 88.5%) were interested and liked their orthodontist dressing while a few (10,12.2%) female, 3 (6.1%) male were indifferent. Seventy three (55.7%) patients preferred white to coloured clothings, (98, 74.8%) preferred pinned/parked hair while only 20 (15.3%) preferred flowing hair on female orthodontists; the difference between genders was not statistically significant. In respect of male Orthodontists, (86, 65.6%) and (59, 45.0%) participants respectively would not want them to wear dreadlocks or afro style haircut. Majority (108, 82.4%), (113,86.3%) said Orthodontist dressing does not affect their cooperation and review appointments, respectively.

**Conclusions:** Orthodontic patients have preference for the appearance of their Orthodontists, though the clothings of their Orthodontists do not affect their cooperation and review appointments.

## ABSTRACT FOUR

### The Effects of Malocclusion among Priests: A Study of an Anglican Church in Enugu, Nigeria

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**Background and Aim:** Malocclusion influences many aspects of life including academic performance, employment, choice of friends and spouse. Priests are among the class of people that mostly have social contact and interaction with other persons. Since the priests are usually either preaching or counselling, they are common targets of facial assessment. However, since their duty is thought to be mostly spiritual, priests and the congregants may often overlook issues pertaining to their facial appearance with the possible consequences of malocclusion. The purpose of this study was therefore to evaluate the effects of malocclusion and facial appearance of priests as perceived by congregants. The influence of malocclusion on some aspects of priests' ministry (counselling and sermon) was assessed among church members.

**Materials and Methods:** This was an electronic questionnaire-based cross-sectional study in which google form survey administrative software was used to collect responses from 100 registered adult members of the chapel of His Resurrection, Parklane, G.R.A Enugu, aged between 18 and 70 years old. The collected data was analysed using the Statistical Product for Service Solution (SPSS) version 25.0. Descriptive statistics and Chi-square test were used for data analysis and significance was at 0.05.

**Results:** One hundred subjects participated in the study. 44 (39.3%) were between 31-44 years with a mean age of 43.6 ± 8.8 years. Slightly more than half (52%) were females. Most were medical practitioners 22 (19.6%). Most 73(65.2%) have heard of the term, "Malocclusion". (60%) believed that the issue of facial appearance was important for a priest while about half (47%) believed that unattractive facial appearance will impact negatively on the acceptance of the priests gospel message. Most (25%) believed that the teeth were the facial components most implicated in unattractive facial looks. However, most (54%) subjects said unattractive teeth

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arrangement will not impact negatively on the acceptance of the priests gospel message. Only 24.1% said that facial appearance will influence their choice of priest to go to for counselling. Test of association between the sociodemographics and congregants perception as it concerns sermons or attendance to counselling was not significant.

**Conclusions:** Members of the church congregation are not only interested in the spirituality of their spiritual leaders but also on their physical appearance. Members of the clergy who have malocclusion (no matter how spiritual they may be), should avail themselves of orthodontic treatment to enhance the efficiency and effectiveness of their pastoral/priestly duties.

## ABSTRACT FIVE

### Assessing the Effect of Parental Factors on Gender Bias towards Orthodontic Treatment for Children

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**Background and Aim:** Cultural, socioeconomic and family backgrounds form factors that influence commencement of orthodontic treatment. In Africa, so much value is placed on the gender of a child and in some families more than one child may have malocclusion that requires orthodontic treatment. The study sought to determine if a child's gender is one of the factors that influences parent's choice in bringing their children for orthodontic treatment.

**Materials and Methods:** The study was a questionnaire-based descriptive cross-sectional study in which 85 sequential parents/guardians who brought their children to the orthodontic clinic of the University of Nigeria Teaching Hospital, Enugu were recruited into the study. Independent variables were gender, age, occupation, level of education and marital status while the dependent variable was the effect of gender on the choice of child brought to the clinic for orthodontic treatment. Descriptive statistics and Chi-square test were used for data analysis and significance was at 0.05.

**Results:** Eighty-five (85%) subjects participated in the study. 43 (50.6%) of the study subjects were between 40-49 years with a mean age of  $43.18 \pm 9.23$  years. More than half of the study subjects (60%) were females. Most were civil servants (41.2%). 73 (85.9%) believed that orthodontic treatment was necessary in both gender and being a single parent significantly ( $p$ -value 0.043) showed the necessity of treatment in both genders. However, 75 (88.2%) of subjects said they will attend to their female child first if their finances at a particular time would be sufficient to attend to only one child. The need to "look fine" topped 52 (61.2%) the reason for their decision. More female children 51 (60%) were brought to the clinic than the males 34 (40.0%).

**Conclusions:** Many subjects showed preference for the female children having orthodontic treatment than the males if their finance was sufficient to attend to only one child. With the call for equity and justice in the 21<sup>st</sup> century societies, attention therefore, should be drawn to this tendency to discriminate against the male child. Greater awareness is thus essential and governments the world over should be ready to alleviate the financial burden of healthcare so as to enable parents to show equal care to their children without the bias of gender.

## ABSTRACT SIX

### Knowledge and Practice about Oral Habits in Children by Medical Practitioners in Lagos State University Teaching Hospital

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**Background and Aim:** Oral habits have been identified as one of the major aetiological factors of malocclusion, which negatively impacts on the psychosocial well-being of a child. Medical practitioners of different specialties may be the first point of care for a growing child, therefore, the ability for them to identify these habits and refer them to the orthodontist early cannot be overemphasised. The purpose of this study was to evaluate the knowledge and perception of oral habits in children by medical practitioners in Lagos State University Teaching Hospital (LASUTH).

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**Materials and Methods:** This was a descriptive cross-sectional study among 180 resident doctors in LASUTH. Self-administered online questionnaires were used for data collection. The data was analysed using Statistical Package for Social Sciences (IBM 23).

**Results:** More than half of the respondents (57.8%) were unaware that malocclusions are more likely to develop in children with oral habits. However, 58.3% (n = 105) of them agreed that a high prevalence of oral habits is observed in children. In addition, 95.6% (n = 172) perceived that parental counselling combined with oral health education might be used as a preventive technique to reduce the occurrence of dental habits. Majority (93.3%) agreed that patients with oral habits should be referred to paediatric dentists.

**Conclusions:** The knowledge about oral habits as risk factors for malocclusion was inadequate among medical practitioners, although the majority of them had a positive perception concerning oral habits.

## ABSTRACT SEVEN

# Psychological Impact of Malocclusions of Adult Orthodontic Patients at Lagos State University Teaching Hospital - A Pilot Study.

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**Background and Aim:** There is an increased demand for adult orthodontics because adults are becoming more aware and concerned about dental aesthetics. The way most people perceive themselves is greatly linked to their facial attractiveness, and this affects their social and professional relationships. Satisfactory aesthetic appearance influences the improvement of self-esteem and the way the body image is perceived by self. The aim of this study is therefore to assess the impact of dental aesthetics on the oral health related quality of life using the psychological impact of dental aesthetic questionnaire (PIDAQ).

**Materials and Methods:** This was a descriptive cross-sectional study of adults, age 18 years and above who presented at the orthodontic clinic of Lagos State University Teaching Hospital for diagnosis. A total of 60 adults were recruited and surveyed using the PIDAQ. Data analysis was done using SPSS. To check for internal consistency, Cronbach's alpha ( $\alpha$ ) was calculated for the scale as a whole and for each individual domain Bivariate analysis was performed using ANOVA test and Pearson's correlation coefficient. Multiple linear regression analysis was used to test the influence of socio-demographic factors on the PIDAQ scale and subscales.

**Results:** There was 100% response rate. Sex distribution was 70% (n = 42) female and 30% (n = 18) male. Subjects were of 3 age groups: between 18 to 25 years (40%, n = 24), 26 to 40 years (46.7%, n = 28), and >40 years (13.3%, n = 8). The internal consistency was good (Cronbach's alpha=0.835). The overall mean score for PIDAQ was 75.4 (SD=20.5) with social impact domain having the highest rating of 23.5 (SD=7.7). There were significant negative correlations indicating inverse relationships between total PIDAQ score and age group (Pearson = -0.361), psychological impact with age (Pearson = -0.402) and marital status (Pearson = -0.321). However, a positive relationship was found between psychological impact and past dental treatment (Pearson = 0.299, p<0.05). Comparing age groups, significant differences were found in the psychological impact (p=0.003), social impact (p=0.010), aesthetic concern (p=0.044) and total PIDAQ score (p=0.027). Those with tertiary education had the highest impact in the dental self-confidence, aesthetic concern and total PIDAQ (p<0.05). The younger adult, unmarried, and subjects with no previous dental treatment had highest impact in the psychological domain (p<0.05).

**Conclusions:** Perceived dental aesthetics affect the psychological well-being of the subjects. Age, marital status, level of education, and history of past dental treatment were all factors that significantly affected self-perceived aesthetics and psychosocial well-being. The perception of patients on dental aesthetics should be put into consideration when planning dental and orthodontic services in order to achieve a higher level of satisfaction.

## ABSTRACT EIGHT

### Transmigration of Right Mandibular Canine – A Case Report

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**Introduction:** Transmigration is a rare and special phenomenon of movement of an unerupted tooth in the bone across the midline to the opposite side of the dental arch.

This unusual developmental dental anomaly, which occurs only in the permanent dentition could involve the mandibular lateral incisor, the canine, and the second premolar. The left canine has been reported to undergo transmigration more commonly than the right. These teeth usually remain impacted and asymptomatic, often diagnosed by chance during a routine radiographic examination.

The most common clinical signs announcing the presence of this anomaly are over-retention of the deciduous canine and the absence of permanent canine from the dental arch after its physiological period of eruption.

**Case Description:** This report presents a clinical case of an eleven-year-old female patient who presented at the orthodontic clinic of Lagos State University Teaching Hospital with transmigrated right mandibular canine whereas transmigration has been reported to be more frequent on the left side.

On intraoral examination, right mandibular deciduous canine was seen to be retained. Panoramic radiograph revealed a mesioangularly impacted right mandibular permanent canine migrated across the midline and located below the apices of the incisors.

**Conclusion/ Clinical Significance:** The presence of retained mandibular deciduous canine, and absence of permanent teeth which cannot be accounted for should always be investigated radiographically. Failure to detect such teeth, however, could lead to damage to adjacent teeth and surrounding bone.

## ABSTRACT NINE

### Assessment of Impact of Orthodontic Treatment On Oral Health Related Quality of Life In A Nigerian Adult Population.

Umeh OD<sup>1</sup>, Adeloye AY<sup>2\*</sup>, Utomi IL<sup>1</sup>, Saliu ZA<sup>2</sup>, Isiekwe IG<sup>1</sup>, daCosta OO<sup>1</sup>, Sanu OO<sup>1</sup>.

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**Background and Aim:** There is an increasing number of adult patients seeking orthodontic treatment. Adults generally present with different experiences such as buccal pathologies, and psychological limitations. Understanding their difficulties during treatment enables clinicians deliver more efficient treatment experiences, thus improving their oral health related quality of life. This study aims at assessing the impact of orthodontic treatment on the oral health related quality of life of adults.

**Materials and Methods:** A descriptive cross-sectional study. Self-administered OHIP-14 questionnaire through Google forms on WhatsApp data collection platform was used after obtaining consent and ethical approval. Questionnaires assessed levels of pain, discomfort, and oral functional problems using a Likert scale and OHIP.

Statistical analysis was carried out using the Statistical package for social sciences, SPSS version 23.0 with 0.05 level significance.

**Results:** A total of 83 participants responded to the survey with a mean age of 24yrs and a male to female ratio of 1;3. Physical discomfort was reported by 84.3% of respondents, experiencing occasional mouth pain, eating discomfort (60.2%) and speech affection (47%). Approximately 68.7% and 60.2% reported self-consciousness and treatment-related anxiety respectively. Only 7.4% felt embarrassed about wearing braces.

**Conclusions:** Orthodontic treatment affects oral health related quality of life in adults.

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## ABSTRACT TEN

### Geospatial Mapping of Orofacial Clefts in Northwest Nigeria.

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**Background and Aim:** Geographic information systems, GIS aids in disease mapping, pattern identification, and spatial data linkage. Grassroot Smile Initiative (GSI), a Smile Train partner in Kano since 2008, treated 2000+ cleft lip-palate (CL/P) patients. This study aims to analyze CL/P's geospatial distribution and incidence patterns in Kano, Northwestern Nigeria, as a pilot.

**Materials and Methods:** The data utilized was for in-patient CL/P cases treated at GSI. Basic information from the hospital's patients' records was retrieved. Statistics utilized included: means, percentages and frequencies. GIS analysis was done using ArcMap 10.3. A first step involved geocoding street addresses into a map coordinate system before aggregation to wards for subsequent spatial distribution analyses.

**Results:** A total of 928 cases were mapped. The analysis found that 54.4% (n=505 patients) of these cases were residents of the Kano Metropolis, a high-density area, confirming that cleft incidence patterns align with population density in Kano. Furthermore, the highest prevalence of cleft cases was observed in the Metropolis in 2008, with slight increases in the northern and southern regions by 2013. When considering age, the Metropolis had the highest cleft prevalence for children under 1 month and those over 5 years old, while the south-western part had the highest prevalence for patients over 20 years.

**Conclusions:** The GIS analysis revealed that most of the patients with CL/P who got treatment from GSI Hospital lived relatively nearby with greatest incidence of cleft in the Metropolis. The cost of travelling may explain why those further afield do not come in for treatment.

## ABSTRACT ELEVEN

### Cleidocranial Dysplasia in an Orthodontic Patient: A Case Report

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Cleidocranial dysplasia (CCD) is a rare autosomal dominant condition that affects ossification. Global prevalence is one in one million births. Mutations of the runt-related transcription factor 2 gene (*RUNX2*), located on chromosome 6p21, have been identified as the cause of CCD. *RUNX2* controls the differentiation of precursor cells into osteoblasts and is essential for intramembranous bone formation, which is associated with delayed ossification of skull, spine, legs, feet, clavicles, maxilla, and teeth. In some cases, the clavicles are absent.

Dentofacial anomalies observed in patients with cleidocranial dysplasia (CCD) include: brachycephalic skull and bossing of the parietal and frontal bones, hypoplasia of the mid-face, apparent mandibular prognathism. The skeletal relationship of the jaws tends to be in a Class III position due to the presence of a hypoplastic maxilla. Vertical facial growth is decreased due to poor development of the alveolar bone. Other oral manifestations include delayed exfoliation of deciduous teeth, delayed eruption of permanent dentition, multiple supernumerary teeth and predilection for cyst formation involving the unerupted teeth.

The dental abnormalities associated with CCD may present an obstacle to orthodontic treatment planning. Treatment for CCD will often require coordination between oral and [maxillofacial surgeons](#), [orthodontists](#), and [prosthodontists](#). The earlier the condition is recognized and properly treated, the better the chances are for a patient's favorable outcome.

In this case we report a typical case of CCD in a 20-year-old female who presented with classical diagnostic features of this condition. Patient presented at the Orthodontic unit of the Lagos University Teaching Hospital.

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## ABSTRACT TWELVE

### A Comparative Cephalometric Evaluation of Children Aged 8-12 Years with Repaired Unilateral Cleft Lip and Palate in Kano State, Nigeria

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**Background and Aim:** Cleft lip and/or cleft palate is the most common craniofacial anomaly. These patients often present with skeletal maxillary retrusion. The aim of this study was to compare the maxillomandibular cephalometric values of 8 – 12-year-old children with repaired unilateral cleft lip and palate and children without clefts.

**Materials and Methods:** This was a cross-sectional study of 30 patients with repaired unilateral clefts and 30 non-cleft controls. The patients aged 8-12 years. The radiographs were manually traced and analysed to produce values for SNA, SNB, ANB and Nasolabial angles, The WITS appraisal was also assessed.

**Results:** The mean age of the cleft group was  $9.6 \pm 1.55$  years, while that of the control was  $10.1 \pm 1.47$ . The mean SNA, SNB, and ANB for the study group were  $77.5 \pm 4$ ,  $75.4 \pm 4$ , and  $2.1 \pm 2$  degrees respectively while for the control group were  $82.3 \pm 2.77$ ,  $79.3 \pm 2.91$ ,  $2.96 \pm 3.89$  degrees respectively.

Values for SNA, SNB, and ANB, were all significantly greater in the control group than in the cleft group. Wits appraisal was significantly lower in the cleft group.

**Conclusions:** The findings from this study showed that the children with repaired clefts had significantly lower SNA, SNB, ANB angles and Wits appraisal when compared with children without clefts.

## ABSTRACT THIRTEEN

### Factors Influencing Dental Career Progression among Dental Students and Recent Graduates in Nigeria.

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**Background and Aim:** Similarities exist in the dental surgery curriculum and the basic requirements for professional qualifications all over the world. Most studies investigating the core interests of medical and dental students focused on correspondents interested in pursuing residency after graduation. This is not enough to understand what path in dentistry is most desired or if young dentists will consider clinical practice at all. Therefore, the aim of this study was to identify the future career path(s) of dental students and recent dental graduates, and to determine the factors responsible for their decision.

**Materials and Methods:** All fifth, sixth-year dental students, and recently graduated dentists in the past two years at the college of Medicine, University of Lagos were recruited. Ethical approval was obtained from the research ethics committee. A self-administered 32-item online survey was designed to identify what career path in dentistry the participants find more appealing and why they are preferred. Data analysis was done using SPSS version 27.

**Results:** A total of 58 respondents, 20 males and 38 females, with a mean age of  $27.302$  were recruited for this study. Approximately 76% of the participants intend to practice clinical dentistry, 15.52% uncertain, and 8.62% unwilling. The preferred career paths are residency in a preferred specialty (62%), postgraduate masters (41%), non-dental related businesses (36%), and private dental practice (34%). Some of the strongest reasons for their desired path were pay remuneration (63.8%), flexible work schedule (55%), predictable work hours (41%), they found it more impactful (41.4%), and the potential for job opportunities abroad (36%).

**Conclusions:** This study shows that most dental students prefer clinical practice while pursuing other personal non-dental businesses over non-clinical pathways and research.

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## ABSTRACT FOURTEEN

### Bilateral Maxillary Canine Agenesis in a Nigerian Family: A Case Report.

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<sup>1</sup>Department of Child Dental Health, Lagos University Teaching Hospital

**Background and Aim:** Tooth agenesis is one of the most commonly known dental anomalies characterized by the developmental absence of one or more teeth. Agenesis of both maxillary canines is an extremely rare condition and few cases have been reported in the literature. The prevalence of the maxillary canine agenesis varies between 0.07 and 0.13%. The aim of this study is to report a case of non-syndromic bilateral agenesis of permanent maxillary canine in three healthy members of a Nigerian family who presented to the Orthodontic clinic of the Lagos University Teaching Hospital for orthodontic treatment.

**Materials and Methods:** Intraoral clinical examination was done and radiological investigations were carried out using orthopantomograph.

**Results:** The maxillary deciduous canines were found to be present bilaterally in one of the members of the family while the others had neither the deciduous nor permanent canines present. The orthopantomograph also confirmed the absence of the permanent canines in the three members of the family.

**Conclusions:** A familial case of bilateral agenesis of permanent maxillary canine was reported in a Nigerian family. A genetic study will be carried out at a later time to detect the gene associated with tooth agenesis in this family.

## ABSTRACT FIFTEEN

### Occlusal Features and Orthodontic Treatment Needs in Cerebral Palsy Patients

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**Background and Aim:** Cerebral palsy (CP) refers to a heterogeneous group of conditions involving permanent non-progressive central motor dysfunction that affects muscle tone, posture, and movement. The aetiology is multifactorial, risk factors include maternal infections, neonatal jaundice, convulsions and infections, birth asphyxia and prematurity. The prevalence of CP is approximately 1.8–2.3/1000 children in Africa. Cerebral palsy gives rise to many functional problems, including impaired swallowing, chewing and speech.

The aim of this study was to assess the occlusal features and orthodontic treatment needs in patients with cerebral palsy.

**Materials and Methods:** A cross sectional study of patients with CP in the department of Pediatrics, Lagos University Teaching Hospital. Participants whose caregivers gave consent were recruited. Oral examinations carried out on the participants. Treatment need was assessed using Dental Aesthetic Index (DAI).

**Results:** A total of 42 CP patients aged 1.7 to 18 years with a mean age 6.51±2.1 years. There were 25(59.5%) males and 17 (40.5%) females. The Majority 39(92.6%) of the participants had Angles class I molar relationship. Eighteen (42.9%) participants had lip incompetence, 4(9.55%) had crowding, 8(19.1%) had anterior open bite, 16(38.1%) had one form of oral habit, 23(54.7%) had saliva drooling. Orthodontic treatment was not indicated in 25(59.5%) of the participants, elective in 7(16.7%) and was highly desirable in 10(23.8%) of the participants.

**Conclusions:** Lip incompetence, parafunctional habits, anterior open bite, and drooling were the most prevalent findings. Orthodontic treatment was indicated in significant proportion of the population

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## POSTER ONE

### The Practice of Medical Practitioners at Lagos State University Teaching Hospital about Oral Habits in Children

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**Background and Aim:** Oral habits existing beyond the age of 4 years are classified as anomalies and need to be intercepted at an early stage before they impact dentofacial growth. This will save patients from emotional distress and reduce financial burden while lessening treatment time and complexities. Majority of these patients present first to a physician, which makes their ability to detect these habits crucial.

The purpose of this study was to assess the practice of medical practitioners in Lagos State University Teaching Hospital (LASUTH) concerning oral habits in children.

**Materials and Methods:** A survey was conducted among medical resident doctors in LASUTH. Questionnaires were distributed through an online data collection platform. Data was collected on demographic characteristics and practices about oral habits in children. The data was analysed using SPSS IBM 2023.

**Results:** A larger proportion of the medical practitioners (66.7%, n = 120) refer their patients with oral habits to a paediatric dentist, while 30.6% (n=55) of them do not refer. Only 51.7% of respondents followed up on referrals for management of oral habits.

**Conclusions:** These results show the need for sensitization and enlightenment of medical practitioners concerning oral habits and their effects on occlusion.

## POSTER TWO

### Clinical Presentation of Malocclusions of Adult Orthodontic Patients at Lagos State University Teaching Hospital: A Retrospective Study.

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**Background and Aim:** There has been an increase in the demand for orthodontic treatment by adults over the years. The main reasons for this demand include: the increasing awareness, desire to improve facial aesthetics, and need for prosthetic replacement.

To determine the pattern of malocclusions and oral hygiene status among adult orthodontic patient.

**Materials and Methods:** A retrospective review of the hospital records of adult patients who presented at the Orthodontic unit of the Department of Child Dental Health LASUTH, Lagos State, Nigeria, from January 2020 to December 2022. The demographic and clinical data: The patient's age, gender, molar relationships, tooth-bone ratio, transverse occlusal variables, and oral hygiene status (OHS) were retrieved from the patient's records.

**Results:** Out of 208 patients who attended orthodontic clinic during the period of study, 100 were adults. The mean age of subjects was 28.46±8.4 and prevalence was 48%. The M:F= 35:65. Angles Class I (n=74), Angles Class II (n=18) and Angles Class III (n=8). Spacing was significant among 18-25years age group (p=0.027). Male had 22.9% good OHS, 71.4% fair OHS and 5.7% poor OHS while females had 22.9% good OHS, 71.4% fair OHS and 5.7% poor OHS.

**Conclusions:** Younger adults have higher demand for treatment with Angles Class I being the commonest type of malocclusion and Class III the least. Spacing was significant. Fair OHS was predominant in both genders.

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## CASE ONE: ANNE ISIEKWE

# Orthodontic-Surgical Management of Severe Skeletal Class III Malocclusion.

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**Introduction:** Orthognathic surgery in conjunction with fixed orthodontics is a common indication for interdisciplinary management of severe skeletal Class III malocclusion. A thorough analysis of pretreatment investigations and development of a surgical visual treatment objective is essential to plan the type of surgical technique required. Bimaxillary orthognathic surgery is the most common type of surgical procedure for severe skeletal discrepancies. The present case report is a combined ortho-surgical team management of a skeletally Class III patient.

**Case Description:** A 24-year-old patient attended the Orthodontics Clinic Lagos University Teaching Hospital, chief complaint was an unattractive facial appearance due to a forward position of the mandible and inability to bite with the front teeth. Upon facial examination, the lower facial height was increased. The lateral and oblique view showed a greater projection of the chin, a concave profile. Intraorally, the molar relationship was class III; a negative overjet of -5mm. The patient presented a mild discrepancy of the dental midline as well. Orthodontic treatment was carried out in three phases: presurgical, surgical and postsurgical. In the presurgical phase dental decompensation was performed and the patient was prepared for surgery. In the surgical phase a le fort osteotomy was performed to advance the maxilla by 4mm. A mandibular setback via bilateral sagittal osteotomy was also performed to push back the mandible by 6mm. In the postsurgical phase good occlusal relationships were achieved in terms of canine class, molar class, overjet, overbite, as well as a more harmonious profile.

## CASE TWO

# Management of Class II Division 1 Malocclusion with Bimaxillary Proclination of the Incisors and Fractured Incisors.

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**Background and Aim:** This case reports the orthodontic management of a 23-year-old female who presented at the Lagos University Teaching Hospital with Angle' Class II division I malocclusion on skeletal pattern II. This was complicated by increased overjet of 8.5mm, increased upper and lower incisal angles, mild upper anterior crowding of 2mm, constricted lower anterior arch, Ellis class I fracture of the upper right incisors, rotated teeth 21, 22, and 16, and upper midline shift to the right by 1mm.

To achieve full unit class II molar relationships bilaterally, level and align the upper and lower arches in order to achieve normal overjet and overbite, upright upper and lower incisors, unravel the crowding, round up the lower arch, restore the fractured tooth, derotate the rotated teeth, and achieve coincident midlines.

**Materials and Methods:** Interdisciplinary management was done with Oral/Maxillofacial Surgery and restorative units where 2-units extraction of the maxillary first premolars and composite restoration of tooth 21 was done respectively. Comprehensive upper and lower fixed orthodontic appliance, preadjusted edgewise was used using Roth 0.022 prescription brackets.

**Results:** The treatment was completed in 18 months and outlined objectives were achieved.

**Conclusions:** The objectives for the treatment were achieved and the patient had significant improvement in appearance. Fixed lingual of both arches and Hawley's were used for retention.

## Pictures from the Conference







