INTERPROFESSIONAL COLLABORATIONS FOR MANAGEMENT OF CRANIOFACIAL ABNORMALITIES

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OUTLINE

• Craniofacial Abnormalities
• Interprofessional Collaboration
• Brief review of the Embryology of the head and neck
• Features of some Craniofacial abnormalities
• Interprofessional Collaborations in Management
• Team Members
• Elements of Collaboration
• Benefits of collaboration
• Conclusion
CRANIOFACIAL ABNORMALITIES

• Congenital musculoskeletal disorders which primarily affect the cranium and facial bones (WHO, 2010)

• Craniofacial abnormalities are a group of defects caused by abnormal growth and/or development of the head and facial soft-tissue structures and/or bones. (Boyd, 2018)

• These conditions are typically present at birth (congenital) and may range from mild to severe.
INTRODUCTION

• Congenital abnormalities may be classified as deformities or malformations.

• A deformity is an alteration in shape due to unusual pressure and/or positioning in utero during late pregnancy. Deformities are present in about 2% of births.

• A malformation is an error in normal organ or tissue development. Congenital malformations are present in about 3 to 5% of births. (Boyd, 2018)
INTRODUCTION

• They affect the physical appearance of the head and face. This may affect a patient’s social integration and ultimately health-related quality of life.
TYPES OF CRANIOFACIAL ABNORMALITIES

• Cleft lip and palate
• Craniosynostosis syndromes
• Branchial arch disorders (Al-Tarawneh et al., 2016)

• Cleft Lip and Cleft Palate
• Congenital Ear Abnormalities
• Congenital Eye Abnormalities
• Congenital Jaw Abnormalities
• Craniosynostosis
• Macrocephaly
• Microcephaly (Boyd, 2018)
AETIOLOGY

• Sometimes no single cause may be identified but many factors may contribute to the development such as

• Genetics
• chromosomal abnormalities, single-gene defects,
• Environmental
• Folic acid deficiency
• teratogenic agents
• Use of vitamin A, Valproic acid
• Metabolic diseases (Rickets, hyperthyroidism)
• a decreasing number of cases are idiopathic
DIAGNOSIS

- Prenatal ultrasound
- Birth
- First few months of life
• They have complex health challenges, management often extends throughout the entire lifespan and are best managed by an Inter-professional Collaborative Team.
• As defined by the World Health Organization, collaborative practice in health-care occurs when multiple health workers from different professional backgrounds provide comprehensive services by working with patients, their families, caregivers and communities to deliver the highest quality of care across settings. (WHO, 2010)
INTERPROFESSIONAL COLLABORATION

• Collaborations occur in almost every aspect of health
• Patient advocacy and Health care
• Clinical Practice
• Learning
• Research
• Education
INTERPROFESSIONAL COLLABORATION

- In healthcare today professionals are being encouraged to work in collaborative, integrated teams to achieve the goal of delivering patient-centered, safe and effective care that meets the growing and complex needs of the population. (Elsevier 2013)

- The premise behind this team-based approach to medical education and practice is that healthcare delivered by well-functioning coordinated teams leads to better patient and family outcomes, more efficient healthcare services and higher levels of satisfaction among healthcare providers. (Elsevier 2013)
INTERPROFESSIONAL EDUCATION AND COLLABORATIVE PRACTICE

• Interprofessional Education occurs when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes. (WHO, 2010)

• Receiving formal training in IPE has benefits

• The WHO has made it an essential component of Health Professionals education

• Skills acquired during training with the Interprofessional Education model are useful for working as part of an Interprofessional team.
THE LINK BETWEEN INTERPROFESSIONAL EDUCATION AND COLLABORATIVE PRACTICE
CRANIOFACIAL ABNORMALITIES

• The knowledge of embryology is critical to understanding normal growth and the development of various craniofacial abnormalities

• Prenatal human development
  • Embryonic period: fertilization to 8th week
  • Fetal period: from 9 weeks to term

• Weeks 4 to 8 are important because the tissue and organ systems are developing rapidly from the original three germ layers
EMBRYOLOGY OF THE HEAD AND NECK

• The Pharyngeal (Branchial) arches begin to develop during the 4th week

• Give rise to a significant number of structures in the head and neck

• Understanding the development and derivatives of the pharyngeal apparatus is important for understanding normal head and neck development and abnormalities
The pharyngeal apparatus consist of series of bilaterally paired arches, pouches(clefts), grooves and membranes.

Numbered sequentially
EMBRYOLOGY OF THE HEAD AND NECK

• The pharyngeal arches begin development during the fourth week as a result of migration of neural crest cells into the head and neck region.
• The neural crest cells arise from the neural folds of the neural plate which is a derivative of ectoderm.
• They are important for providing mesenchyme needed for craniofacial development.
• Those needed for development of the face and first branchial arch structures originate from the midbrain and the first two of the eight rhombomeres of the hindbrain.
MIGRATION OF NEURAL CREST CELLS
EMBRYOLOGY OF THE HEAD AND NECK

• Four distinct pairs of arches are seen on the external surface of the embryo at the end of the 4th week

• Arches I to IV

• Arches V and VI are poorly developed in humans and arch V completely regresses and does not give rise to structures in the adult

• Arch IV is the result of fusion of IV and VI
EMBRYOLOGY OF THE HEAD AND NECK

• Pharyngeal arches are separated on the external surface of the embryo by fissures called pharyngeal grooves or clefts.

• Pharyngeal pouches partially separate the arches on the internal aspect.

• The pharyngeal membranes represent the tissues interposed between pouches and clefts and connect adjacent arches.
<table>
<thead>
<tr>
<th>Arch</th>
<th>Nerve</th>
<th>Artery</th>
<th>Neural Crest (Skeletal Structures)</th>
<th>Muscles</th>
<th>Ligaments</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>trigeminal (V)</td>
<td>maxillary artery (terminal branches)</td>
<td>mandible, maxilla, malleus, incus</td>
<td>muscles of mastication, mylohyoid, tensor tympanic, ant. belly digastric</td>
<td>ant lig of malleus, sphenomandibular ligament</td>
</tr>
<tr>
<td>II</td>
<td>facial (VII)</td>
<td>stapedial (embryonic)</td>
<td>stapes, styloid process, lesser cornu of hyoid, upper part of body of hyoid bone</td>
<td>muscles of facial expression, stapedius, stylohyoid, post. belly digastric</td>
<td>stylohyoid ligament</td>
</tr>
<tr>
<td>III</td>
<td>glossopharyngeal (IX)</td>
<td>common carotid, internal carotid arteries</td>
<td>greater cornu of hyoid, lower part of body of hyoid bone</td>
<td>stylopharyngeus</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>vagus (X) superior laryngeal branch</td>
<td>part of aortic arch (left), part right subclavian artery (right)</td>
<td>thyroid, cricoid, arytenoid, corniculate and cuneiform cartilages</td>
<td>crycothyroid, soft palate levator veli palatini (not tensor veli palatini)</td>
<td></td>
</tr>
<tr>
<td>VI</td>
<td>vagus (X) recurrent laryngeal branch</td>
<td>part of left pulmonary artery (left), part of right pulmonary artery (right)</td>
<td>thyroid, cricoid, arytenoid, corniculate and cuneiform cartilages</td>
<td>larynx intrinsic muscles (not cricothyroid muscle)</td>
<td></td>
</tr>
<tr>
<td>Derivatives of the Pharyngeal Pouches, Grooves and Membranes</td>
<td></td>
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</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pouch 1</strong></td>
<td>Tympanic cavity, Auditory tube, Mastoid antrum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pouch 2</strong></td>
<td>Crypt lining of tonsils</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pouch 3</strong></td>
<td>Inferior parathyroid glands, Thymus</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Pouch 4</strong></td>
<td>Superior parathyroid glands, Ultimobranchial body = Parafollicular cells</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Groove 1</strong></td>
<td>External auditory meatus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grooves 2 to 4</strong></td>
<td>Cervical sinus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Membrane 1</strong></td>
<td>Tympanic membrane</td>
<td></td>
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</tbody>
</table>
DEVELOPMENT OF THE FACE
DEVELOPMENT OF THE SKULL

• The skull forms from mesenchymal connective tissue around the developing brain

• Development is considered to have two components

• **Neurocranium**: Calvaria and Base of the skull derived from occipital somites and somitomeres

• **Viscerocranium**: Skeleton of the face and associated structures derived from neural crest ectoderm
DEVELOPMENT OF THE SKULL

• Each has some parts that form by endochondral ossification and intramembranous ossification
  • Neurocranium
  • Cartilaginous neurocranium (chondrocranium)
  • Membranous neurocranium

• Viscerocranium
  • Cartilaginous Viscerocranium
  • Membranous Viscerocranium
CARTILAGINOUS NEUROCRANIUM (CHONDROCHRANIUM)

• Consists of several cartilages that fuse to form the base of the skull
• Synchondroses cartilaginous part between 2 bones
• Occipital bone is formed first
• Body of sphenoid bone
• Ethmoid bone
• Others are vomer bone of nasal septum
• Petrous and mastoid parts of the Temporal bone
MEMBRANOUS NEUROCRANIUM

• This gives rise to the flat bones of the calvaria
• The superior portion of the frontal, parietal and occipital bones
• Sutures (syndesmoses) and fontanelles are present during fetal and early neonatal life
• Sutures are fibrous joints comprised of sheets of dense connective tissue that separate the bones of the calvaria.
• Fontanelles are regions of dense connective tissue where sutures come together.
VISCEROCRANION

- Which includes the facial skeleton that arises from the pharyngeal arches
- Cartilaginous Viscerocranium
- Membranous Viscerocranium
CARTILAGINOUS VISCEROOCRANIUM

- The middle ear ossicles
- The styloid process of the temporal bone
- Hyoid bone
- Laryngeal cartilages
MEMBRANOUS VISCEROCRANIUM

- Maxilla
- Zygomatic bones
- Squamous temporal bone
- Mandible
DISTURBANCES IN EMBRYOLOGIC DEVELOPMENT

• There are different stages in craniofacial development and specific abnormalities in facial form and jaw relationships can be traced to different stages.

• These abnormalities may be due to genetic disturbances or specific environmental insults

• Teratogens: chemicals and other agents capable of causing embryologic defects or malformations if given at the critical time.
### Teratogens causing embryologic defects or malformations

<table>
<thead>
<tr>
<th>Teratogen</th>
<th>Embryologic defect/malformations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asprin</td>
<td>CLP</td>
</tr>
<tr>
<td>Cigarette smoke</td>
<td>CLP</td>
</tr>
<tr>
<td>Dilantin</td>
<td>CLP</td>
</tr>
<tr>
<td>6 Mercaptopurine</td>
<td>CLP</td>
</tr>
<tr>
<td>Valium</td>
<td>CLP</td>
</tr>
<tr>
<td>CMV</td>
<td>microcephaly hydrocephaly</td>
</tr>
<tr>
<td>Toxoplasma:</td>
<td>microcephaly, hydrocephaly, microphthalmia</td>
</tr>
<tr>
<td>X radiation:</td>
<td>microcephaly</td>
</tr>
<tr>
<td>Thalidomide:</td>
<td>Hemifacial microsomia Treacher Collins syndrome.</td>
</tr>
<tr>
<td>Accutane:</td>
<td>Hemifacial microsomia Treacher Collins syndrome.</td>
</tr>
<tr>
<td>Rubella virus</td>
<td>microphthalmia, cataract, deafness.</td>
</tr>
</tbody>
</table>
THE FIVE PRINCIPAL STAGES IN CRANIOFACIAL DEVELOPMENT

• 1. Germ layer formation and initial organization of craniofacial structures.
   Fetal alcohol syndrome.
• 2. Neural tube formation and initial formation of the oropharynx
   Anencephaly
• 3. Origin, migration and interaction of cell populations especially neural crest cells.
   Hemifacial microsomia,
   Mandibulofacial dysostosis (Treacher Collins syndrome)
   Limb abnormalities.
THE FIVE PRINCIPAL STAGES IN CRANIOFACIAL DEVELOPMENT

• 4. Formation of organ systems especially the pharyngeal arches and the primary and secondary palates.
   CL and/or palate
   Other facial clefts

• 5. Final differentiation of tissues: (Skeletal, muscular and nervous elements).
   Achondroplasia
   Synostosis syndromes (Crouzons, Aperts etc)
CRANIOFACIAL ABNORMALITIES

- STAGE 3: Branchial arch disorders
- STAGE 4: Cleft lip and palate
- STAGE 5: Craniosynostosis syndromes
BRANCHIAL ARCH DISORDERS

- Treacher-Collins syndrome
- Hemifacial Microsomia
- Goldenhar syndrome
MANDIBULAR DYSOSTOSIS (TREACHER COLLINS SYNDROME)

• Both maxilla and mandible are underdeveloped as a result of generalized lack of mesenchymal tissue.

• Convex facial profile

• Malar and mandibular defects

• Macrostomia due to lateral clefting

• Cleft palate with/without cleft lip
MANDIBULAR DYSOSTOSIS
(TREACHER COLLINS SYNDROME)
HEMIFACIAL MICROsomia

• Originally thought to be from haemorrhage from stapedial artery, now known to be due to loss of neural crest cells.

• There is lack of tissue on the affected side of the face

• The external ear is deformed

• The ramus and associated soft tissues are deficient or missing.

• Unilateral assymetric problem
HEMIFACIAL MICROsomia
HEMIFACIAL MICROsomia

- AFFECTED STRUCTURES
  - Ears
  - Mouth
  - Mandible
  - Eye
  - Cheek
  - Neck
  - Parts of skull
  - Nerve
  - Soft tissue
HEMIFACIAL MICROSomIA
HEMIFACIAL MICROsomia

• Midface hypoplasia
• Mandibular hypoplasia
• TMJ ankylosis
• Macrostomia
• Cleft lip and/or palate
GOLDENHAR SYNDROME: OCULO-AURICULO-VERTEBRAL SYNDROME

- Incomplete development of ear, nose, soft palate, lip, mandible
- V shaped palate
- Severe class II malocclusion - mandibular retrognathism
- Cleft lip/cleft palate
GOLDENHAR SYNDROME:
OCULO-AURICULO-VERTEBRAL SYNDROME
CRANIOSYNOSTOSIS

• Craniosynostosis occur as a result of premature fusion of one or more cranial sutures
• First described by Otto in 1830

• **Aetiology**
  • Cretinism
  • Inflammation of meninges
  • Abnormalities in suture mesenchyme
  • Aberrations in the basi-cranium
  • Genetic
CRANIOSYNOSTOSIS

• Isolated craniosynostosis
  single
  multiple
• Syndromic Craniosynostosis
SUTURES IN THE SKULL OF THE NEWBORN
CRANIOSYNOSTOSIS

• Sagittal synostosis: Scaphocephalic deformity
• Metopic synostosis: Trigonocephaly
• Unilateral coronal synostosis: Plagiocephaly deformity
• Bilateral coronal synostosis: Turribrachycephalic deformity
• Lambdoid synostosis: Plagiocephaly deformity
SCAPHOCEPHALY

- Scaphocephaly is caused by the fusion of the sagittal suture which runs from front to back down the middle of the top of the skull.
- This is the most common type of Craniosynostosis.
- Characteristics include:
  - a long narrow shaped head from front to back
  - narrow from ear to ear
  - the head appears boat-shaped
TRIGONOCEPHALY

• Trigonocephaly is the fusion of the metopic suture, which runs from the top of the head, down the middle of the forehead, towards the nose.

• Characteristics include:
  • triangular shaped forehead
  • eyes are closer together than usual
PLAGIOCEPHALY

• Plagiocephaly is the premature fusion of one of the coronal sutures, which extend from ear to ear over the top of the head.

• Characteristics include:
  • fusion of either the right or left side
  • the forehead and brow look like they are pushed backwards
  • the eye on the affected side has a different shape than the one on the unaffected side
BRACHYCEPHALY

• Brachycephaly results when both sides of the coronal sutures fuse prematurely.
• Characteristics include:
  • wide-shaped head, with short skull
  • fusion prevents the entire forehead from growing in a forward direction, causing a tall, flattened forehead
OTHER ABNORMALITIES

• Morphologic abnormalities of the calvarial vault and craniofacial skeleton

• may also be associated with multiple craniofacial deformities
  • Hypertelorism
  • Downward slanting lateral canthi
  • Palpebral fissure widening
  • Displacement of orbital rim or ear
  • Deviation of nasal bone
OTHER ABNORMALITIES

• Functional aspects of premature suture closure
• Increase in intracranial pressure
• Hydrocephalus
• Mental retardation
• Visual impairment
• Exorbitism
• Optic nerve atrophy
• Compression of carotid vessels
SYNDROMIC CRANIOSYNOSTOSIS

• Less common
• Over 150 syndromes with craniosynostosis have been identified
• Apert syndrome
• Crouzon syndrome
• Pfeiffer syndrome
• Saethre-Chotzen syndrome
• Carpenter syndrome
• Antley Bixler syndrome
APERT SYNDROME

- Craniosynostosis involving coronal suture
- Brachysphenocephalic acrocephaly
- Midface malformations
- Syndactyly of limbs
- Mutations in Fibroblast Growth Factor Receptor 2 (FGFR2)
- Most mutations of Paternal origin
- Magaloencephaly - large brain
- Low IQ
- CNS abnormalities
APERT SYNDROME
APERT SYNDROME: SYNDACTYLY OF LIMBS
APERT SYNDROME

• Ocular proptosis
• Oral features
• Maxillofacial abnormalities
• Cleft of soft palate or uvula
• Dental crowding
• Delayed dental development
• Delayed eruption and Ectopic eruption
APERT SYNDROME

- Limb abnormalities
- Abnormalities of skin
- Muscle
- Tendons
- Aponeurosis
- Vessels
- Nerves of the hands and feet
- Abnormal trachea and airway problems and respiratory distress
CROUZON SYNDROME

- Craniosynostosis affecting the coronal, sagittal and or lambdoid sutures
- Midface malformations
- Ocular proptosis
- No limb abnormalities
- Mutations in Fibroblast Growth Factor Receptor 2 (FGFR2)
- Acanthosis nigricans FGFR3
CROUZON SYNDROME
CROUZON SYNDROME
CROUZON SYNDROME

• New mutation of Paternal origin

• Craniosynostosis may be present at birth but usually develops in first year of life

• Scaphocephalic
• Trigonocephalic
• Cloverleaf trilobed depending on time and order of fusion of different sutures and compensatory growth
CROUZON SYNDROME

• Thin calvarial bones with pronounced digital markings
• Premature fusion of sphenoid-occipital and petro-occipital synchondroses in the cranial base
• Symmetrical ocular proptosis
• High vaulted narrow palate
• maxillary hypoplasia
• Dental crowding
• Ectopic eruption of first permanent molar
CROUZON SYNDROME

- Conductive hearing problems
- Atresia of external auditory meatus
- CNS abnormalities
- Tracheal abnormalities which may extend to bronchi
INTERPROFESSIONAL COLLABORATIONS IN MANAGEMENT

• Patients with craniofacial abnormalities have complex health issues which are best addressed by interprofessional teams

• Practical protocols to treat the patients over their lifetime
INTERPROFESSIONAL COLLABORATIVE PRACTICE

• IPC Team approach to evaluation, diagnosis and treatment of individuals with craniofacial abnormalities

• Multidiciplinary
  • Interdisciplinary
  • Transdisciplinary

• Integration
  • Community of patients
INTERPROFESSIONAL COLLABORATIONS IN MANAGEMENT

• Interprofessional education is a necessary step in preparing a “collaborative practice-ready” health workforce that is better prepared to respond to health needs.
CORE COMPETENCIES IN INTERPROFESSIONAL EDUCATION

• Core Competencies were established by the Interprofessional Education Collaborative in May of 2011.

• They are organized within four domains:

• **Competency Domain 1**: Values/Ethics for the Interprofessional Practice
  
  • Work with individuals of other professions to maintain a climate of mutual respect and shared values.
COMPETENCY DOMAIN 2: ROLES/RESPONSIBILITIES

• Use the knowledge of one’s own role and those of other professions to appropriately assess and address the healthcare needs of the patients and populations served.
• Communicate with patients, families, communities and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease.
COMPETENCY DOMAIN 4: TEAMS AND TEAMWORK

• Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient/population-centred care that is safe, timely, efficient, effective and equitable.
INTERPROFESSIONAL EDUCATION

• The College of Health Sciences Obafemi Awolowo University started in 1974 as a Faculty of Health Sciences with an Integrated curriculum and community orientation years before it was adopted by the WHO

• Medicine
• Dentistry
• Medical Rehabilitation
• Nursing
• Environmental Health
• Occupational therapy
MECHANISMS THAT SHAPE INTERPROFESSIONAL EDUCATION

• A number of mechanisms shape how interprofessional education is developed and delivered.
• These mechanisms have been divided into two themes:
  • Educator Mechanisms
    • Academic staff training
    • Champions
    • Institutional support
    • Managerial commitment
    • Learning outcomes
MECHANISMS THAT SHAPE INTERPROFESSIONAL EDUCATION

• Curricular mechanisms
• Logistics and scheduling
• Programme content
• Compulsory attendance
• Shared objectives
• Adult learning principles
• Contextual learning
• Assessment.
MECHANISMS THAT SHAPE INTERPROFESSIONAL COLLABORATIVE PRACTICE

• Mechanisms that shape how collaborative practice is introduced and executed.
• Divided into three themes:
  • Institutional support mechanisms
  • Governance models
  • Structured protocols
  • Shared operating resources
  • Personnel policies
  • Supportive management practices
MECHANISMS THAT SHAPE INTERPROFESSIONAL COLLABORATIVE PRACTICE

• **Working Culture Mechanisms**
• Communications strategies
• Conflict resolution policies
• Shared decision-making processes

• **Environmental Mechanisms**
• Built environment
• Facilities
• Space design
TEAM MEMBERS

- Geneticists
- Surgeons
- Anaesthesiologist
- Paediatrician
- Neurosurgeon
- Nurse
- ENT
- Paediatric Dentist
TEAM MEMBERS

- Orthodontist
- Ophthalmologist
- Speech therapist
- Psychologist
- Restorative Dentist
- Oral hygienist
- Dental technologist
- Parent/Patient
ELEMENTS OF COLLABORATION

• Responsibility
• Accountability
• Coordination
• Communication
• Cooperation
• Assertiveness
• Autonomy
• Mutual trust and respect
• Key concepts
• Sharing
• Partnership
• Interdependency
• Power
• Interprofessional Collaboration includes
• a commitment to a definition of mutual relationships and goals,
• Jointly developed structure
• Shared responsibility
• Mutual authority and accountability for success
• Sharing of resources and rewards

• No mean task but possible
INTERPROFESSIONAL COLLABORATIONS IN MANAGEMENT

• Interprofessional health-care teams understand how to optimize the skills of their members, share case management and provide better health-services to patients and the community.

• The resulting strengthened health system leads to improved health outcomes.

• The Goal of IPC is always to produce a desired and shared outcome.
BENEFITS OF INTERPROFESSIONAL COLLABORATIONS IN MANAGEMENT OF CRANIOFACIAL ABNORMALITIES

- WHO 2010, Green and Johnson 2015
- Can achieve more than they can individually
- Share costs
- Spread risks
- Collaboration reduces self-sufficiency
- Better health services and outcomes for the population that is served
- Improved efficiency
- Improved skills mix
- Greater levels of responsiveness
- More holistic services
- Innovation and creativity
- A more patient centred practice
BENEFITS

- Improvements in access to care
- Improvements in coordination of services
- Appropriate use of specialty care
- A way to promote efficient and effective operations,
- Optimized reimbursements
- Improved access to funding
- Development of lifelong relationships which may be beneficial in future
BENEFITS

• Indicators of patient care
• Complications and error rates
• Length of hospital stay
• Conflict among caregivers
• Staff turnover
• Mortality rates
• Have all been shown to decrease in collaborative care of patients
CHALLENGES/ BARRIERS TO COLLABORATION

• Conflicts
• Several Professions each with its unique history, culture, attitudes, values, beliefs.
• Boundary disputes
• Status issues
• Language barriers
• Customer service orientations
• Reporting structures
• Communication
• Lack of trust: secrecy, withholding of ideas
CHALLENGES/ BARRIERS TO COLLABORATION

• Physical space
• Territorialism
• Loss of uniqueness of a Profession/ Professional identity
• Competitiveness
CONCLUSIONS

• Patients with craniofacial abnormalities have complex health issues

• Many professionals have roles in their management: evaluation, diagnosis, treatment plan and treatment.

• The value of interprofessional collaborations in management.
CONCLUSIONS

• The need to move towards optimal health-services and better health outcomes

• Examine our local context to determine our needs and capabilities.

• Make commitments to build interprofessional collaboration into new and existing programmes. (IPR, IPE & IPC)

• Champion Successful initiatives and teams.
CONCLUSIONS

• Boundaries are being removed, lines are being erased and rulebooks rewritten.

• Patients interest first, organisation second, self last and prejudices aside.

• The ultimate goal is still the highest pursuit of the healthcare mission and Professionals must be equipped with tools and resources to handle the challenges of patients with craniofacial abnormalities.
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Aerial view of the main entrance into OAU ILE-IFE
Thank you for your attention