Management of adolescents and children who have challenges
Study objectives

- Define the term disability.
- Discuss the prevalence of disabilities in the Nigeria.
- Use appropriate terminology to describe a person who has a disability.
Study objectives - 2

- Describe the barriers to obtaining comprehensive dental care that may confront a person who has a disability.
- Discuss techniques the dental staff should use when treating the patient with visual or hearing impaired.
Study objectives - 3

• Discuss the use of physical, mechanical, and chemical restraints.
• Describe methods to enable a person with a neuromuscular disability to perform daily oral hygiene procedures for themselves.
Epidemiology

- About 10% of the world population are challenged. Also about 10 million Nigerians are disabled. 70 million of the world challenged are below 15 years of age and are found in the developing countries.
Epidemiology - 2

- In Nigeria, over 50,000 challenged children are distributed amongst 500 homes. Majority of these challenged children (about 7 million) are found in the streets with less than 1.5m in schools and 2million on the farms.
Epidemiology - 3

• About 51.2% of challenged Nigerians are blind; 7.7% are leprous; 1% are deaf and dumb; 23% are crippled; 6% mentally impaired and 10% as other forms of challenges.
Classification of disability

- The popular one is by Weyman 1971.
- He classified disability as mental, physical, medical, emotional and dental.
- There could be a combination of any of these.
Classification of disability - 2

Frank and Winter (1974) classification

- Blind or partially sighted
- Deaf or partially deaf
- Educationally subnormal
- Epileptic
- Maladjusted
- Physical handicap
- Defective of speech
- Senile
Classification of disability - 3

Agerholm (1975) classification

• Intrinsic disability in which the affected individual cannot be separated from the disability.

• Extrinsic disability in which the patient can be removed from the disability.
These classifications are based on individual definitions and perspective.

The definition of handicap or disability is however, difficult as it is a multidimensional concept with both objective and subjective characteristics.
Classification of disability - 5

- In an attempt to synchronise the various definitions and classification, the International Classification of Impairment, Disability and Handicap (ICIDH) 1980 was developed.
ICIDH concept of Challenges

• They provided a framework for defining challenges which is described as 3 dimensional namely: Impairment, Disability and Handicap
Definitions by ICIDH

- Impairment is defined as any loss or abnormality of the psychological, physiological or anatomical structure or function. This is defined within the concept of health experience.
Definitions by ICIDH - 2

• Disability is any restriction or lack of ability to perform an activity in the manner or within the range considered normal. This usually results from an impairment.
Definitions by ICIDH - 3

- Handicap is a disadvantage for a given individual resulting from an impairment or disability that prevents or limits the fulfilment of a role that is normal for the individual.
• Normal is defined within the contest of age, gender and socio-cultural factors. There is therefore no universal standard of normal.
Definitions by ICIDH - 5

- Impairment occurs at the level of organ or system function and the assessment of impairment requires judgement of mental and physical functioning of the body and its component.
Definitions by ICIDH - 6

• Disability is concerned with functional performance and ability and its limitation as it affects the whole body/person. It is a mental, physical, medical or social condition that interferes with normal functioning.
The definition of handicap focuses on the whole person as a social being and reflects on the interaction and adaptation of the person to his/her surrounding. The definition tries to capture the consequences that places the individual at a disadvantage in relation to their peers.
Definitions by ICIDH - 8

- This classification does not only classify the individual’s circumstances but also provides a framework to interrelated the concepts of impairment, disability and handicap. The classification can be used for diagnosis, rehabilitation assessment and monitoring, record keeping and a whole list of possible other function.
Management of the challenged child

• The approach to medical management of the challenged child is multidisciplinary in nature. The dentist needs to be skilled and well trained in the management of handicap children.
• It is important to become familiar with the special needs of the child and the parents’ concerns.
Management of the challenged child - 2

- Efforts should be made to ensure early diagnosis of dental lesions as well. Caries risk evaluation should be done for the child at every dental visit. As much as possible, prevention therapy must be instituted.
Management of the challenged child - 3

• During operational procedures, it is important to ensure pain control, infection control where indicated as well as basic rational treatment of disease conditions.
Management of the challenged children

Management approaches

• Plaque control
• Behaviour management
• Reduction of disruptive movement
• Management of presenting oral problems.
Plaque control devices

• Institute a plaque control program with the parent and child. This includes the regular use of toothbrush, fluoride containing dentrifices, interproximal flossing, use of interdental toothbrush, and use of antimicrobial agents where appropriate.
Plaque control devices - 2

• Toothbrush handles may need to be modified to suit the need of each child to enhance the grip. Improved grip could be achieved through the use of cold cure acrylic applied to the toothbrush handles.
Plaque control devices - 3

- Electronic toothbrushes may also be of advantage in children with poor manual dexterity.
- Toothbrushing needs to be supervised in patients with disability that affects manual dexterity eg patients with cerebral palsy.
Plaque control devices - 4

- Children with disability or who are handicapped needs to have frequent recall appointments to ensure appropriate follow-up. Patients may be recalled every 4 to 6 months depending on caries risk assessment.
Behaviour management

- Often, additional time is required with the child and parent so as to establish rapport, build confidence of the child in the dental team and address fear and anxiety of both the child and the parent.
• As much as possible, non pharmacological behaviour management techniques should be used in the management of challenged children because of the possible presence of other medical conditions that may compromise the safe use of pharmacological agents.
• However, where cooperation cannot be achieved, use relative analgesia or general anaesthesia may be indicated.
Management of movement

- To help keep the mouth open, the following restraint measures can be used: Mouth prob, Rubber bite blocks eg the McKensson’s rubber bite block, Paddled or wrapped tongue blade used to restrain tongue movement, finger guards, and or Inter occlusal thimbles
Management of movement - 2

- While the use of physical restraint is not encouraged in the normal child, this may be very important for restraining body movement in the handicap child.
Management of movement - 3

- Other tools that can be used to restrain body movement include safety belt, insertion of a bean bag in the dental chair, pedi-wrap, and papoose board. The extremities can be restrained with the use of a towel or Posey strap or the help of an assistant. A dental assistant can also help to restrain the patient in the dental chair.
Management of movement - 4

- Also, head movements need to be restrained so as to ensure head positioning. The following can be used:

- The fore-arm body support: the head of the child is restrained with the forearm of the parent against the body of the parent.

- The dental assistant can help restrain head movement.
Common dental problems in the handicap child

• Increase prevalence of dental caries due to social predisposing factors. Social predisposing factors include decreased tendency for instituting oral hygiene measures by the parents or guardian as they view oral health as a minor problem in comparison to the myriads of medical problems they have to deal with.
Common dental problems in the handicap child - 2

- Increase prevalence of dental caries due to physical predisposing factors. These children also tend to have malocclusion, especially crowding, which makes maintenance of good oral hygiene difficult and further predisposes them to caries.
Common dental problems in the handicap child - 3

• As a result of poor oral hygiene, they have **periodontal disease**. The periodontal disease may also be a complication of the medical problems which results in impaired white blood cell functions eg in Down syndrome.
• **Trauma to the anterior teeth**: Due to associated physical and possible mental disability, there is an increased tendency to fall resulting in trauma to the anterior teeth. In a number of cases, the orofacial profile further predisposes the child to oral trauma.
Common dental problems in the handicap child - 5

- Other common problems are malocclusion, delayed eruption, hypoplasia, attrition of the teeth (especially in patients with cerebral palsy), intrinsic and extrinsic stains (intrinsic stains may arise from medical complications); oral and facial mutilation (often seen in autistic children).
Management of oral problems

• It is important that even while managing oral conditions, significant cognisance is taken of the physical, medical and mental status of the child.
Management of oral problems - 2

- **Medical status** – When the patient has bleeding disorders, avoid procedures that would initiate bleeding. Where unavoidable, then manage the patient as an hospital in-patient.
Management of oral problems - 3

• **Medical status** – Where the patient has cardiac defects and renal disorders, give prophylactic antibiotic cover for any invasive procedure including scaling and polishing.
Management of oral problems - 4

• **Medical status** – Where patients has respiratory or liver disease, avoid the use of general anaesthesia as much as possible.
Management of oral problems - 5

- **Medical status** – For children with diabetes mellitus, oral hygiene prophylactic measures must be instituted.
Management of oral problems - 6

- Mentally challenged – it is important to assess the degree of mental impairment and adjudge the patient’s level of maturity. This will inform how you relate with the patient.
Management of oral problems - 7

• Also, fix all dental appointments in the morning and ensure procedures are short. Institute only the simplest procedures. Always reward positive behaviour and ignore negative behaviours.
Management of physically challenged

- **The blind**: It is important to assess the degree of impairment. Avoid references to sight. Do not show pity for the child rather, ask before offering assistance.
Management of physically challenged - 2

- **The blind**: Rather than using the tell-show-do technique for behaviour management, use the tell-touch/taste/smell-do. Describe in details all procedures. Avoid unexpected loud sound. Limit the patient’s care to a single dentist and maintain a relaxed atmosphere.
**The deaf**: it is important to determine how to communicate effectively with the child. Consult with the parent on this. Also assess the degree of impairment. When communicating with the child, face the patient and speak naturally. The child lip reads and that can facilitate communication. The child can then respond to you with the use of signs.
Management of physically challenged - 4

- **The deaf:** It is also important for the dentists to watch the patient’s expression as this may help communicate the patient’s feeling. Employ the tell-show-do always. Avoid blocking the view of the patient.
Management of physically challenged - 5

- **Cerebral palsy**: When convenient, it may be advisable to treat the patient in his/her wheelchair. It is important to stabilise the patient’s head as well as use physical restrain methods judiciously.
• **Cerebral palsy**: Avoid distractive movements, noise and extremely bright light. Ensure the placement of rubber dam for restorative procedures. This helps to reduce the possibility of aspiration of dental materials and instruments by the patient. Minimise chair side time.
Management of physically challenged - 7

• **Autistic children**: They are classified as emotionally challenged children. The use of sedation is advisable as communicating with these children is very difficult. Treat the child where the light is deem or room is dark and avoid sudden loud noises.
• **Socially maladjusted children**: They are classified as emotionally challenged children. Dental treatment may need to be initiated under general anaesthesia and then gradually graduate them to routine.
Management of physically challenged - 9

• **Psychiatric patient**: They are also classified as emotionally challenged children. Management of these patients must be in conjunction with the physician. Ensure the child is on prescribed medication and maintain a calm manner when treating.
Problems associated with cerebral palsy

- Uncontrolled muscle movement
- Visual and/or speech impairment
- Mental retardation
- Epilepsy in about a third of cases, cardiac defects, gastroesophageal reflux
- Many are mouth breathers, bruxism, drooling of saliva, delayed eruption, hypoplasia
General dental management principles

• Consultation with other medical and dental specialists is often required and helps provide insight into treatment planning and behavior management.
• Better cooperation may be elicited from some children by delaying radiography until the second visit when they are familiar with the dental office and have found it a friendly place.
Follow-up observation is essential for effective implementation of the preventive dental treatment plan.
Conclusion

• In principles of managing oral problems of challenged children is the same as that in the normal child.
• Manage all individual cases based on its merits. Ensure treatment planning is drawn up in conjunction with the child’s parent/guardian.
Conclusion - 2

- Emphasis must be placed on prevention therapy with great pain taken to educate the parent/guardian on how to institute good OH practices.
- As much as possible, simple dental procedures must be done even when managing complex cases.
• Always consult with the child’s physician to ensure the comprehensive health care of the child.
Quiz 1

Challenged child:

• Children have increased risk for dental caries due to multiple physical and social factors

• Children have increased risk to periodontal diseases due to defective glycolytic pathway

• Children have increased risk of traumatic dental injury resulting from contact sports
Emotionally challenged children:

• These include children with autism, psychiatric disorders and those socially maladjusted
• Their dental may have to be conducted under general anaesthesia
• Often need to consult their physician prior to dental management
Quiz 3

When treating a patient who is visually impaired:

• It is advisable to always use pharmacological techniques for behaviour management.

• Always assist the child with movement in the clinic to avoid bumping into things.

• The tell-show-demonstrate technique is appropriate for use.
Acknowledgement

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