US DENTAL LITERACY

Dr. Andrew Beshay BDS, DMD
DO YOU SPEAK DENTAL ?!!!

DO YOU SEE THE NEED ?
• WHAT IS THE “AVERAGELY LITERATE” INDIVIDUAL KNOWLEDGE OF DENTAL TERMINOLOGY?

SO IF I TOLD YOU THAT:

• TOOTH NUMBER 11 NEEDS A PULPOTOMY TO TAKE OUT THE PAIN FOLLOWED BY A ROOT CANAL TREATMENT THEN A CROWN LENGTHENING PROCEDURE TO OPTIMIZE PROPER CROWN PREP. AND SEATING.

DO YOU UNDERSTAND WHAT YOU HAVE BEEN TOLD VERBALLY?

YES OR NO
WHERE IS THIS KNOWLEDGE COMING FROM?

OR
• SPEAKING ABOUT THE AVERAGE LITERATE INDIVIDUAL, BUT WHAT ABOUT THE SUB-AVERAGE NEEDY PEOPLE WHO MOSTLY SEEK THE SERVICE AT FEDERALLY FUNDED ORGANIZATIONS LIKE HOSPITALS AND CHC.

NOW DO YOU SEE THE NEED?
First of all:
What is the Dental practice concerned with?

- IT’S EVERYTHING CONCERNING THE ORAL CAVITY SUBDIVIDED INTO:
  1- HARD TISSUES    2- SOFT TISSUES
ORAL CAVITY AKA MOUTH 😊
SOFT TISSUES

• 1- Lips: consists basically of muscles and minor salivary glands.

Fact #1:
People look old when they loose their teeth.
SOFT TISSUE

2- TONGUE: A VERY INTERESTING ORGAN WITH ENDLESS USES...

FACT #2:
- THE ONLY MUSCLE IN THE BODY WHICH HAS AN ORIGIN BUT NO INSERTION.

FACT #3:
- THE 2ND FASTEST ROUTE OF MEDICINE DELIVERY AFTER THE IV INJECTION.
3- CHEEKS:
HOSTS ALMOST ALL THE MUSCLES OF MASTICATION AND ONE OF THE MAJOR SALIVARY GLANDS AKA PAROTID SALIVARY GLAND.
SOFT TISSUES

4- SUBLINGUAL AREA... AKA FLOOR OF THE MOUTH, WHICH HAS THE 2\textsuperscript{ND} MAJOR SALIVARY GLAND.

AND

SUBMANDIBULAR AREA: SHELTERS THE 3\textsuperscript{RD} MAJOR SALIVARY GLAND. STARTS TYPICALLY FROM BENEATH THE CHIN UNTIL THE BEGINNING OF THE NECK AKA ADAM’S APPLE AKA HYOID BONE.
SOFT TISSUES

5- GINGIVAL TISSUES:
ALONG WITH THE PERIODONTAL LIGAMENTS (PDL), THEY HAVE A VERY ESSENTIAL FUNCTION, WHEN BEING HEALTHY; IN SUPPORTING THE TEETH AKA THE ATTACHMENT SYSTEM.

FACT # 4:
TEETH ARE NOT EMBEDDED IN THE BONE THEY ARE ATTACHED TO THE BONES BY PDL FIBERS.
KEEP THE HYGIENE BIANNUAL VISITS.
SOFT TISSUES

6- SOFT PALATE + HARD PALATE:
AKA ROOF OF THE MOUTH WHICH IS BASICALLY CONSTITUTES OF SOME MUSCLES AND MINOR SALIVARY GLANDS.

FACT #5:
ORAL SOFT TISSUES ARE HIGHLY REACTIVE, SO IT IS HIGHLY ADVISED TO ADDRESS ANY ROUGHNESS OR SHARPNESS WHETHER IN THE TEETH DUE TO LESIONS OR IN PROSTHETIC APPLIANCES; AS ANY CHRONIC IRRITATION TO SOFT TISSUES MIGHT INDUCE PRECANCEROUS OR EVEN CANCEROUS LESIONS.
HIGH RISK INTRAORAL AREA FOR CANCERS

- Lateral Tongue
- Ventral Tongue
- Floor of mouth
- Retromolar trigone
- Soft Palate
HARD TISSUES

1- JAW BONES AKA MAXILLA (UPPER) & MANDIBLE (LOWER), AND BOTH ARE ARTICULATING THROUGH THE TEMPOROMANDIBULAR JOINT AKA TMJ.

TMJ: IS THE JOINT THAT ALLOWS YOU TO EAT AND SPEAK. 1-2 CM IN FRONT OF THE EAR TRAGUS.

• THIS JOINT ASSEMBLY IS VERY SENSITIVE TO ANY ALTERATION IN THE TEETH, SO IT MIGHT UNDERGOES MANY COMPLICATION DUE TO PROLONGED TEETH ABSENCE OR DEFECTIVE RESTORATIONS/REPLACEMENTS, SO YOU HAVE TO KEEP THEM ALL.

• ALSO IT’S PRONE TO MANY DEGENERATIVE CHANGES DUE TO AGING PROCESS AS WELL AS MANY SYSTEMIC DISEASES. 1RY INDICATION IS LIMITATION AND PAIN IN MOVEMENT!!
HARD TISSUES

TEETH

COMPRISÉ MORE THAN 95 % OF THE DENTAL OFFICE ENCOUNTERS.

HUMANS REPLACE TWO SETS OF TEETH THROUGH A PROCESS TERMED (SHEDDING).

I. PRIMARY AKA DECIDUOUS AKA MILKY TEETH.
II. PERMANENT AKA ADULT TEETH.
TO SPEAK ABOUT THE TEETH WE HAVE TO NAME EACH TOOTH

• MANY SYSTEMS ARE EMPLOYED TO NAME THE TEETH, HERE WE FOLLOW THE AMERICAN SYSTEM!!! REALLLLLLLY 😊 THE AMERICAN SYSTEM USES LETTERS FOR THE PRIMARY TEETH AND NUMBERS FOR PERMANENT TEETH.

• WE START BY THE LAST TOOTH IN THE UPPER RIGHT QUADRANT THEN KEEP GOING UNTIL THE LAST TOOTH IN THE UPPER LEFT QUADRANT THEN GO DOWN TO THE LAST ONE IN THE LOWER LEFT QUADRANT AND KEEP GOING TO THE LAST TOOTH IN THE LOWER RIGHT QUADRANT.
QUIZZZZZZZZZZZZZZZZZZZZZZZZZ:

1- HOW MANY TEETH IN THE PRIMARY HUMAN DENTITION?
2- HOW MANY TEETH IN THE PERMANENT HUMAN DENTITION?
32 – 20 = 12

FACT #6:
12 HUMAN PERMANENT TEETH DON’T HAVE A PRIMARY PREDECESSOR.

THOSE ARE THE 3 PERMANENT MOLARS IN EACH QUADRANT.
PRIMARY TEETH

• 20 IN TOTAL.
• 8 INCISORS 4 CANINES 8 MOLARS.

FACT #7:
NO PREMOLARS IN PRIMARY TEETH.

* UNLIKE PERMANT TEETH HAVE TWO EXTRA MAIN FUNCTIONS BESIDE EATING AND ESTHETICS.

FACT #8:
THEY SERVE AS SPACE MAINTAINERS FOR PERMANENT SUCCESSORS.

FACT #9:
THE JAW GROWTH CENTERS ARE PRIMARILY STIMULATED BY THE CHEWING ACTION OF THE PRIMARY TEETH.
PRIMARY TEETH:

SO FAILURE OF IMPLYING ORAL HEALTH CONCEPTS DURING EARLY STAGES OF CHILD DEVELOPMENT WILL LEAD TO PREMATURE LOSS OF PRIMARY DENTITION WHICH WILL RESULT IN:
PRIMARY TEETH

1- MAL NUTRITION AND FAILURE TO THRIVE.
2- POOR ESTHETICS.
PRIMARY TEETH

3- LOSS OF JAW SPACE NEEDED TO ACCOMMODATE PERMANENT SUCCESSORS.

Dental crowding
4. DEFECTIVE MAXILLARY / MANDIBULAR GROWTH, WHICH RESULTS IN SEVERE FACIAL DEFORMATION.
PRIMARY TEETH

UNLIKE THE PERMANENT DENTISTRY, PEDIATRIC DENTISTRY IS FOCUSED ON **BUYING TIME** RATHER THAN DEFINITIVE SOLUTIONS. OUT OF THAT CONCEPT POPS UP THE ONLY DISTINCTIVE PRIMARY TEETH PROCEDURE WHICH IS PULPOTOMY.

- **PULPOTOMY**: IS THE PRIMARY TEETH ROOT CANAL TREATMENT.

OTHER THAN THAT ALMOST ALL THE PROCEDURES ARE SIMILAR IN PURPOSE AS WELL AS MATERIALS.
PERMANENT TEETH

• 32 IN NUMBER.
• 8 INCISORS, 4 CANINES, 8 PREMOLARS AND 12 MOLARS.
• SEQUENCE OF SHEDDING/ERUPTION IS OF MORE SIGNIFICANCE THAN THE CHRONOLOGICAL TIME.
PERMANENT TEETH
AFTER EACH MEAL YOU WASH YOU TABLEWARE, RIGHT?
TREAT YOUR TEETH THE SAME WAY PLEASE 😊
PERMANENT TEETH

QUES.:
WHEN DO WE HAVE TO BRUSH OUR TEETH?

ANS.:
RIGHT AFTER EACH MEAL. BY THE WAY BREAKFAST IS CONSIDERED A MEAL... WAKING UP IN THE MORNING ISN’T A MEAL...

SO BRUSH YOUR TEETH AFTER BREAKFAST NOT WHEN YOU WAKE UP OR DO BOTH.
PERMANENT TEETH

QUES.: DO I HAVE TO BRUSH ALL MY TEETH?
ANS.: NOOOOOOOOOOOOOOO
BRUSH ONLY THE ONES YOU PLAN TO KEEP!!!!!!!!!!!!!!!
SEQUENTIAL TASKS IN BRUSHING TEETH

1. Identifies own brush
2. Approaches sink
3. Turns on water
4. Wets toothbrush
5. Locates toothpaste
6. Removes toothpaste cap
7. Spreads paste on brush
8. Puts down tube
9. Brushes all areas

10. Removes brush from mouth
11. Spits out excess paste
12. Rinses brush
13. Puts down brush
14. Locates cup
15. Fills cup with water
16. Rinses mouth
17. Stores/throws cup away
18. Rinses sink
19. Turns off water
20. Locates towel
21. Wipes mouth and hands
22. Replaces/discards towel
23. Replaces toothpaste cap
24. Puts away toothpaste
25. Puts away toothbrush
PERMANENT TEETH

QUES.: DO I HAVE TO FLOSS ALL MY TEETH?
ANS.: YES.. EACH TOOTH HAS 3D HAVING AT LEAST 5 SURFACES; BRUSHING IS CLEANING ONLY 3 OUT OF 5 SURFACES SO WE HAVE TO FLOSS TO CLEAN THE OTHER 2.

You forgot to floss.
PERMANENT TEETH
I BRUSH AND FLOSS AND STILL GET CAVITIES....
NOW YOU COME TO THE REAL ZZZZZZZZZZZZ
AND
DENTAL MATERIALS

THE INTERPRETER SCOPE TO THE DENTAL MATERIAL SHALL BE AS EXTENDED AS POSSIBLE. HOWEVER IT SHOULD INCLUDE BUT NOT LIMITED TO ALLERGIES DUE TO DENTAL MATERIALS, MATERIAL COLOR AND BIOCOMPATIBILITY AND TO KNOW THAT EACH AND EVERY MATERIAL USED IS ADA APPROVED.
TREATMENT PLAN/TIME FRAME

ORAL HEALTH MAINTENANCE ALWAYS REQUIRE A MULTI-VISIT PLAN. THIS SHALL BE EMPHASIZED CLEARLY AND COHERENTLY TO THE PATIENT. THE PATIENT MUST UNDERSTAND THE TREATMENT PLAN, AND TO KNOW EXACTLY HOW LONG THIS PROCESS WILL TAKE. THIS UNDERSTANDING IS THE CORNER STONE OF THE WHOLE PROCESS. THEY HAVE TO KNOW “WHAT” AS WELL AS “WHEN” TO EXPECT THE OUTCOME OF THE TREATMENT!!
FACT #12: THE SOONER YOU START THE FASTER TO GET DONE, THE LOWER COST AND ABOVE ALL THE BEST PROGNOSIS.
DOCUMENTATION AKA INFORMED CONSENTS

THE PATIENTS GENERALLY MUST UNDERSTAND WHAT FORMS ARE THEY SIGNING, AND HOW THESE FORMS ARE USED. THE LANGUAGE OF THE DOCUMENT SHALL BE UNDERSTANDABLE TO THE PATIENT WITH AVERAGE LITERACY, OTHERWISE IT WILL CONVEY TO THE PATIENT A FEELING OF BEING REJECTED OR IN OTHER WORDS “THEY DON’T CARE”.
INSURANCE COVERAGE / LIMITATIONS

THIS COMPRISNES AN ESSENTIAL PART OF THE DECISION PROCESS. FOR EXAMPLE WHAT TEETH ARE COVERED FOR ROOT CANAL TREATMENT AND WHAT ARE NOT, SO THE PATIENT GOT TO DECIDE EITHER TO PAY OUT OF POCKET OR CONSIDER OTHER TREATMENT OPTIONS THAT MIGHT BE COVERED.
WHAT SHALL I EXPECT TO SEE IN A DENTAL SETTING?!

• The first visit will be the most important among all:
  - Establish a dual *rapport* between you the interpreter with both the dentist (practice!!) and the patient.
  - Behavior management strategy outlined if needed.
  - Patient must understand what are his/her rights as well as responsibilities.
## OFFICE VISIT (MED. HX.) MODIFYING FACTORS

<table>
<thead>
<tr>
<th>Pathology</th>
<th>Drug interactions</th>
</tr>
</thead>
</table>
| Hypertension, Clotting tendency                                           | B blockers, Blood thinners  
| Diabetes, Pregnancy, Heart conditions (Surgeries, CHF, prosthetic valves, Rheumatic fever) | Antidiabetic medication/food  
| Asthma, Osteoporosis, Allergies,                                          | Contraceptive pills, Prophylactic Antibiotics,  
|                                                                            | Anti-asthmatic agents, Emergency aerosols.  
|                                                                            | Bisphosphonates  
|                                                                            | Reaction to medications  
| Substance/opioids Abuse                                                   | Opioids/paracetamol combinations  

First visit in a practice always includes collecting of several database components of a new patient. Those components are mandated by the state jurisdiction as:

- **Patient Information:** Name, address and date of birth of the patient; if a minor parent or legal representative. Telephone #, email and an emergency contact.

- **Past medical Hx, Past dental Hx,** Previous clinical progress notes from the previous practice as well as previous x-rays if possible.

- **Standard of care** mandates a Full Mouth X-ray series to be attached to every pt. of records in the practice if the pt. can’t provide a recent FMX, S/he has to have an updated set of 16-18 images captured.
CLINICAL PROCEDURES (FMX)

- Some facts regarding dental Radiographs:
- Of the average annual effective dose of ionizing radiation from medical and consumer products in the U.S., what percent do dental x-rays make up? <1%.
- Doesn’t cause congenital defects in human embryos.
<table>
<thead>
<tr>
<th>Radiation source</th>
<th>Effective dose in μSv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eating one banana (BED)</td>
<td>0.1</td>
</tr>
<tr>
<td>Natural Background dose</td>
<td>8/day</td>
</tr>
<tr>
<td>Natural background</td>
<td>3,000/yr</td>
</tr>
<tr>
<td>Extra Cosmic radiation (Colorado)</td>
<td>1.2/day</td>
</tr>
<tr>
<td>Air travel (cosmic)</td>
<td>3-6/hr</td>
</tr>
<tr>
<td>LA to NY flight</td>
<td>40</td>
</tr>
<tr>
<td>Dental panoramic radiograph</td>
<td>9-24 (15)</td>
</tr>
<tr>
<td>Dental peri-apical/BW radiograph</td>
<td>1-22 (5)</td>
</tr>
<tr>
<td>Dental CBCT</td>
<td>19-1073 (100)</td>
</tr>
</tbody>
</table>
CLINICAL PROCEDURES HYGIENE VISIT

• Review the medical Hx. and chart components.
• Cleaning teeth and gums periodontal probing charting.
• Can take up to 4 visits.
• Upon completion the dentist sees the pt. to evaluate his needs.
• I want VS You NEED!!!
Orthodontic treatment:
More often than not, involves extraction of some teeth movement of others for a better alignment due to lack of space.

Usually long term treatment → months or years → Biweekly or monthly visits.
ALL AGES!!!
Vital Teeth Filling:
Usually treats a decay process that involves one or more surfaces of a tooth.

Three major categories:

i- Direct metal restoration

ii- Direct tooth colored adhesive restoration

iii- Indirect ceramic/composite restoration.
CLINICAL PROCEDURES

i- Direct metal restoration: Gold or Amalgam

Gold foil fillings used to the standard of care for a long time and still proves to be the most durable and biocompatible BUT!!! Ugly and expensive.

Amalgam alloys mixed with mercury followed gold in being the standard of care but Ugly though NON expensive.

One Limitation → Esthetics

ADA recommendations: Unethical to advise pts to replace Amalgam for esthetic purpose.
CLINICAL PROCEDURES

ii- **Direct** tooth colored adhesive restoration:

- Composites and compomers, usually light cured, less durability but esthetic restorations!! Recently showed enhanced mechanical properties though still have considerable functional limitations!!
iii- **Indirect** ceramic/composite restoration.

- Any Indirect restoration means that the restoration is built up outside the pt. mouth, then either cemented or bonded to the tooth.

- Either **inlays** (intracoronal) or **onlays** (provides cuspal coverage), Usually tooth colored with better mechanical properties.
- Moving a bit deeper into decayed tooth structure we will encounter the tooth **PULP** (nerve + blood supply and lymph drainage).

- **Root canal treatment**: includes removal of the pulp tissue, cleaning and shaping of the canal walls and eventual filling of the root canal system. An antibiotic and/or analgesic prescriptions are often needed.

- More likely than not the restorative component includes a post & core followed by a crown.
CLINICAL PROCEDURES

CROWNS ARE GENERALLY CLASSIFIED ACCORDING TO THE MATERIAL:

- GOLD CROWN STILL PROVES TO BE THE MOST DURABLE, NO WONDER WHY DENTISTS ARE KEEPING IT FOR THEMSELVES.

- PORCELAIN FUSED TO METAL CROWNS: PREMIUM ESTHETICS BUT REQUIRES A SKILLFUL LAB. TECH. AS WELL AS TIME CONSUMING.

- ALL CERAMIC CROWNS: EVOLVING ESTHETICS ENHANCING MECHANICAL PROPERTIES AND ABOVE ALL SINGLE VISIT, MILLED ONSITE. BONDED!!
If root canal treatment isn’t feasible for any reason, the tooth must be **EXTRACTED**:

- Postoperative instructions have to be explained very clearly to enhance pt. compliance.
- Failure to adhere to these instructions will lead to serious complications:
- Postoperative instructions:
1. No hot drinks or food, no smoking for the day.
2. Intentional cold drinks for the day.
3. No M.W. or rinse for the day, starting from the next day do warm water/salt MW.
4. Drink !!!!!!!!!! Your medication
CLINICAL PROCEDURES

• NO SPACE SHALL BE LEFT UNRESTORED, DIRECT CONSEQUENCE ➔ BONE LOSS!!
CLINICAL PROCEDURES

• Replacement modalities:
  1- Implant
  2- Fixed Bridge work
  3- Removable partial or complete dentures.
• In 1960 Invented by Dr. Branemark a Swedish Engineer who was studying blood flow around various metal pins embedded in bone, then he soon appreciated that it’s almost impossible to retrieve Titanium screws embedded in bone after 6 month.

• Ostiointegration: in 1970 Was introduced as a concept upon which Implants were designed.
CLINICAL PROCEDURES (IMPLANTS)

• One stage Implants: rare isolated cases.
• Two stages Implants: Most common.
• Could be used as single tooth restoration (crown), or multiple teeth (fixed bridge), or for either removable appliance anchorage or attachment (standard of care for lower complete denture!!!).
• Applications and enhancements are endless and still evolving as we speak.
CLINICAL PROCEDURES (FIXED PARTIAL DENTURE FPD)

• Includes the usage of either natural teeth (1.5-2mm reduction) or Implants as abutments to provide anchorage for the prospective prosthesis.

• Durability is inversely proportional to span = The shorter span the better longevity.
REMOVABLE COMPLETE AND PARTIAL DENTURES

DENTURE WHETHER COMPLETE OR PARTIAL ARE REMOVABLE BY NAME, SO HAVE TO BE REMOVED AND CLEANED AFTER EACH MEAL WITH A TOOTH BRUSH.

IT MIGHT BE METAL FRAMEWORK, COVERED BY PINK ACRYLIC OR WHOLE ACRYLIC AND TEETH ARE ALWAYS ACRYLIC.
METAL FRAMEWORK

RIGID ACRYLIC

FLEXIBLE ACRYLIC (AKA FLEX BASE)
REMOVABLE COMPLETE AND PARTIAL DENTURES WELL BRUSHED AND SOAKED BY NIGHT SHALL BE KEPT WET ALL THE TIME.
BEHAVIORAL MANAGEMENT

• What is the main drive of dental patients???
BEHAVIORAL MANAGEMENT

Pain Scale

0  2  4  6  8  10
BEHAVIORAL MANAGEMENT

• IS pain good or bad?! 

• Are patients under pain behaviorally stable?
BEHAVIORAL MANAGEMENT

• Factors affecting patient’s behavior:
- Beliefs  - Biologic factors
- Attitudes  - Personality
- Interests  - Motives
- Priorities  - Expectations
- Values  - Peer/Family influences
- Needs  - Socio-demographics
- Perceptions

(Occupation, education, media)
BEHAVIORAL MANAGEMENT

AT THE **POPULATION** & THE **INDIVIDUAL** LEVELS CERTAIN SOCIO-DEMOGRAPHIC FACTORS SHALL BE EVALUATED:

- Age
- Gender
- Education
- Race or culture
- Occupation
- Income
BEHAVIORAL MANAGEMENT (APPROACH MODELS)

• Bio-medical Model:
  Patient suffers dental pain.
  The focus is on oral disease. The provider will ask a few questions on recent diet, pain history, and familial incidence.
  Diagnosis: The provider will carry on objective tests and monitor vital signs (i.e. temperature, pulse, and blood pressure) that would form the sole basis of any finding.
  Treatment: The doctor will prescribe a "medicinal/procedural" plan for the patient based on biological etiology and pathogenesis.

• Bio-psychosocial Model:
  Patient suffers Dental pain.
  The aim to ascertain psychosocial and physical processes that may cause the chief complaint; dental pain. The provider may ask for a history of recent life stressors and behaviors.
  Diagnosis: Based on a combination of psychological factors and standard lab tests, the MD will form a diagnosis.
  Treatment: The doctor discusses the available interventions with special attention to "behaviors and lifestyles" that could influence her pain and adherence to the treatment plan. The patient is involved in formulating and implementing the plan, and maintains a supportive relationship with the provider.
Behavioral management (Approach models)

BIO-PSYCHOSOCIAL MODEL:
TERMINOLOGY

• “Biological” - the biology, physiology or chemistry of the person or disease.

• “Psychological” – the behavior or psyche of the person(s) who are directly or indirectly affected by the identified problem.

• “Social” – in the larger context, the background influencing the person(s) affected by the identified problem.
BEHAVIOR MODIFICATION

• Is a slow and deliberate process engineered to alter the behavior of the patient.

• There are many techniques which attempt to teach a patient what behavior is expected to improve upon their current condition and/or behavior.
1. COGNITIVE MODEL

- Defined as the ability to “know” or “understand”
- Assumes the following sequence:
  \[ \text{Knowledge} \rightarrow \text{Attitude} \rightarrow \text{Behavior change} \]

If this were true then:

- Every patient encounter should result in favorable behavior development which would improve oral health status over time.....
2. SOCIAL COGNITIVE THEORY.

3. THEORY OF REASONED ACTION.

4. HEALTH BELIEF MODEL.

5. CONTEMPORARY COMMUNITY HEALTH MODEL: COST EFFECTIVE.
6. STAGES OF CHANGE MODEL
(TRANSTHEORETICAL MODEL OF BEHAVIOR CHANGE - TTM)

- Broken down into common stages of health related behavior changes
  - Pre-contemplation
  - Contemplation
  - Action
  - Maintenance
  - Relapse

Emerged from addiction (smoking) treatment approaches:
7. BIO-PSYCHOSOCIAL MODEL OF ILLNESS:

- Very good “chair-side” model but difficult to master
- Dentists who integrate the psychosocial variables of their patients’ illnesses generally develop more effective clinical interventions
- Emotional, behavioral, social experiences are implicated in the development, course and outcome of patient illness

"The need for a new medical model: A challenge for biomedicine". Science
George L. Engel (1977) 196:129–136
STRESS, FEAR AND ANXIETY

• Stress is the common factor
• Fear refers to the anticipation of threat elicited by an object that is perceived to be harmful
• Fear is a very real experience which moves a person to action
• “Double-dosage” for the dentist (to manage the patient’s stress and manage the stress that the patient causes on the dentist)
Fear

- Fear of being run over by an automobile, makes people refrain from indiscriminately running into traffic.
- Fear of fire (or being burned), makes people avoid flames.
- Fear of being hurt, keeps people (children and adults) from going to the dentist.
FEAR

• In each instance the object / event which is potentially harmful is easily identifiable as the consequences are real ex. speeding cars, flames, dental needles or drills
• Emphasis:
  
  *Fear is related to a REAL threatening object or event.*
THERE ARE TIMES WHEN PATIENTS USE THE EXPRESSION:

• “I am afraid...” or “I fear...” with no ability to identify the source.
• usually what they are really trying to articulate are the issues surrounding other factors such as the “finances” of the proposed treatment but they use other terms to express their concerns with the longevity or prognosis of the treatment.
ANXIETY

• In that case, the patient’s aversive behavior would be described as “highly anxious”

• Anxiety is a fearful & apprehensive emotional state, usually in response to unreal or anticipated dangers that interfere with favorable & effective solutions to real problems...aka “fear of unknown”
ANXIETY

• An anxious person reacts to an anxiety producing situation by avoiding it, or once in it, attempts to flee it, HOWEVER:

• The dental patient does not act on the emotion (i.e. can not flee), because of the social constraints...so more anxiety develops in the chair

Even though it is considered a “coping mechanism”, anxiety is more crippling than fear to a dental patient because the symptoms are difficult to manage
SYMPTOMS OF ANXIETY

• **Behavioral symptoms:**
  - tension & alertness
  - Irritability
  - Grave apprehensions & avoidances
  - Gloominess

• **Physical symptoms:**
  - exhaustion
  - GI disturbances
  - Insomnia
  - Fatigue
  - Migraines
  - CVS disorders & renal Disease
DENTAL PATIENT ANXIETY

- Pain: anticipation of pain, fear that anesthetic will not be profound so during the procedure patient may feel pain.

- Gagging, panic attacks, fainting: different reactions (over-thinking) to anxiety and loss of control during the dental procedure.

- Costs: due to their anxiety, patient may feel that their oral health is poor and therefore the cost of care will be unfeasable.

- Needles, drills equipment: smell, sound, sight of office, needle, equipment trigger anxiety.

- Loss of control: doctor “takes over” and won’t stop even if procedure is unpleasant.

- Reactions to anesthetics: not understanding the difference between an “allergic rxns” vs. epinephrine effects on the body systems. Belief that loss of sensation is permanent in that area of the mouth (especially in pediatrics).

- Embarrassment / crying: due to poor oral care patient feels ashamed and embarrassed.
MANAGEMENT MODALITIES

1. Interview the patient to elicit your understanding of their fears, anxieties, phobias.
2. Provide an accurate description of what they will experience
3. Rely some control (hand sign to “turn off” the procedure)
4. Always acknowledge what the patient is telling you (i.e. their fear, anxiety)
PHOBIA

• When anxieties and fears turns exaggerated & their causes aren’t recognized, the individual enters into a phobic state.
• A phobia is a prolonged and exaggerated dread of the experience.
• Hematophobia, claustrophobia, algophobia (pain), pathophobia (suffering)
HEALTH RELATED DEFINITIONS

• **Disease** – “disturbance in the physiological function of an organ which can occur **without** the person’s awareness”

• **Illness** – “state of poor health **ACKNOWLEDGED** by the person and usually seeking treatment”

• **Illness behavior** – “indications, perceptions, values, attitudes and interpretations → an individual to behave in particular ways in reference to their body functions (interpretation of disease)”
THANK YOU!!
ANDREW BESHAY