The Dental Office

Chapter 32

Learning Objectives

Lesson 32.1: The Dental Office Environment

1. Pronounce, define, and spell the key terms.
2. Describe the areas of the dental environment in a professional office, including the important qualities of the reception area and the goals involved in designing the dental treatment area.
3. Describe the qualities necessary to maintain the dental office environment.

Introduction

- First impressions are made as soon as patients walk in the door
- Patients often judge the quality of care by the appearance of the dental office
Design of the Dental Office

- There are designated rooms throughout a dental office
- The size of the office will be determined on the number of dentists and dental hygienists who are practicing within the office

Example of a Dental Office

Reception Area

- Patients are received, greeted pleasantly, and made to feel welcome
- Reception area is not a waiting room
- Things to remember:
  - Keep the area clean
  - Ensure adequate seating
  - Maintain up-to-date reading material
  - Provide place for coats and umbrellas
  - Offer a children’s corner
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Administrative Area
- Runs the management or the business side of the practice
- Equipment
  - Desk
  - A secured area for patient records and business materials
  - Telephone system
  - Computers
  - Photocopier
  - Fax machine

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Organization and Design of the Business Area

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Treatment Area
- Also referred to as the dental operatory; all clinical treatment is provided here
- Design goals
  - Provide comfort and mobility for the dental team
  - Provide privacy and comfort for the dental patient
  - Enhance use of dental equipment through time management and efficient techniques
Central Sterilization

- Specific area where instruments are maintained, cleaned, sterilized, and stored for reuse
  - Divided into a “contaminated area” and a “clean area”
  - Provides extra storage for supplies
  - Should be kept organized and clean at all times

Dental Laboratory

- Organized area away from patient care where the dentist and dental assistant perform laboratory procedures
- Specific items found:
  - Workbenches
  - Storage cabinets
  - Model trimmer
  - Dental lathe
  - Laboratory materials
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**Dentist’s Private Office**

- For personal use by the dentist
- Can also be used as a consultation room with patients
- Specific items found:
  - Desk
  - Telephone
  - Computer
  - Extra chairs

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**Dental Staff Lounge**

- Designated area for use by clinical and business staff during breaks or lunch time
- Specific items found:
  - Table and chairs
  - Small refrigerator
  - Microwave
  - Locker or locked cabinet for personal belongings
  - Coffee or food

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**Office Environment**

- Maintaining a dental office throughout the day involves providing a comfortable, organized, and clean environment
- Besides daily maintenance, the office should have décor and appearance that is up-to-date
Office Environment (Cont.)

- Temperature and air exchange
- Lighting
- Wall and floor coverings
- Traffic control
- Sound control
- Privacy

Temperature and Air Exchange

- It is important to maintain a comfortable temperature for your patients and staff
  - Reception area, 72°F
  - Clinical area, 68°F to 70°F
- Air exchange should remain constant throughout the office
  - Odors can be offensive if air circulation is not adequate

Lighting

- All areas of the office must have appropriate lighting for the task to be completed
  - Reception area: Table and floor lamps
  - Business, clinical, laboratory, and sterilization areas: Fluorescent lighting
  - Clinical area: Additional lighting for procedures
Wall and Floor Coverings

- Colors should be calming, relaxing, and not too "busy"
  - The wall covering may consist of paint, wallpaper, or both
- Floor covering
  - Durable high-traffic carpet in reception, administrative, and private office areas
  - A more suitable material for infection control, such as linoleum or tile, is more appropriate in clinical and laboratory areas

Traffic Control

- The reception area, front desk, and hallway should be arranged so that traffic flow is efficient to all areas of the office
  - Separate areas of the front desk should be available for patients to check in and check out
  - In the "back," the clinical, sterilization, and laboratory areas should be designed for easy entry into and out of areas by dental team members

Sound Control

- Specific sounds associated with a dental office can present a negative association
  - The reception area, business office, and clinical areas should be arranged so that minimal sound is carried from one room to the other
- Provide distraction from dental sounds with the use of music
Privacy

- Certain areas in the office require privacy between a patient and staff member
- Administrative area
  - Important for discussion of financial matters
- Clinical areas
  - Require privacy in order to provide an area in which to complete treatment and talk in privacy without interruption
- Dentist’s office
  - Privacy away from patient flow

Learning Objectives

Lesson 32.2: Care of Equipment and the Dental Office

4. List the clinical equipment most commonly found in the dental treatment area and their basic functions.
5. Explain the care involved with dental equipment.
6. Describe the morning and evening routines for dental assistants.

Clinical Equipment

- The basic equipment found in each operatory includes the following:
  - Patient dental chair
  - Operator’s stool
  - Dental assistant’s stool
  - Dental unit
  - Oral evacuation equipment
  - Curing light
  - Amalgamator
  - Dental radiography unit
Patient Dental Chair

- Features should be designed for patient comfort and aid in a neutral position for the operator.
- Patient chairs are designed to be seamless, with few visible mechanical parts for easy cleaning and maintenance.

Patient Dental Chair (Cont.)

- Specific features:
  - Full support for patient’s knees, bottom, lumbar region of the back, and head.
  - Headrest can be adjusted to accommodate positioning and height of the patient.
  - Comfortable, movable chair arms.
  - Either a finger- or foot-operated control system to adjust the chair for treatment.

Patient Dental Chair (Cont.)

- Controls for adjusting the patient’s position:
  - Upright position: The back of the chair is upright at a 90-degree angle.
  - Supine position: The patient is lying down and his or her head and knees are at approximately the same level.
  - Subsupine position: The patient’s head is lower than his or her feet.
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Patient Dental Chair (Cont.)

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Operator’s Stool

- Type of stool designed to support the body for a prolonged period of fixed muscular activity
- Specific features:
  - Large seat and back
  - Easy adjustment for back support
  - A seat that is easy to lower and raise
  - Casters to make it easy to move around the patient

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Operator’s Stool (Cont.)
Dental Assistant’s Stool

- Type of stool that must provide stability, mobility, and comfort, allowing a proper fatigue-reducing posture
- Specific features:
  - Twists and turns to help the assistant reach countertops and shelves
  - Provides an adjustable foot platform or foot ring
  - Firm, secure cushioning in the seat
  - Abdominal bar positioned for support of the upper body and arm
  - Casters on which the chair moves easily

Dental Assistant’s Stool (Cont.)

Dental Unit

- Provides the necessary electrical and air-operated mechanics to the hoses, attachments, and working parts of the unit
- The type of unit selected depends on:
  - The space available
  - The operator's preferred method of delivery
  - Whether the operator is left-handed or right-handed
  - Whether the operator works primarily with or without a chairside assistant
Delivery Systems

- The dental unit can be mounted on the floor, the wall, or, most often, the side of the dental chair
  - Front delivery: Positioned over the patient’s lap
  - Side delivery: Positioned at either side of the patient’s chair
  - Rear delivery: Positioned behind the dental chair

Rheostat

- A foot-controlled device placed on the floor near the operator to control the function of the dental handpieces
- With foot pressure, slow-speed and high-speed handpieces are controlled
**Waterlines**

- A dental unit is designed with waterlines that carry the water through the air-water syringe and dental handpiece.
- The use of water during a dental procedure is crucial for keeping the tooth clean and cooled against the heat caused by mechanical removal of tooth structure.
- Maintenance and cleanliness are high priorities in the use of waterlines.

**Air-Water Syringe**

- Attached to the dental unit, essential for every procedure.
- Functions in three ways:
  - Delivers a stream of water
  - Delivers a stream of air
  - Delivers a combined spray of air and water.
- The tip of the air-water syringe is classified as semicritical equipment and is to be replaced after every procedure.
- The handle and the tubing are to be covered with a plastic barrier.

**Air-Water Syringe (Cont.)**

Operating Light

- Used to illuminate the oral cavity during a dental procedure
  - Halogen bulbs are used in most operating lights
  - The light is very bright, and care is taken to avoid shining it into the patient’s eyes
  - The light is attached to a flexible arm that is track-mounted from the ceiling or attached to the wall or post-mounted on the dental chair

Operating Light (Cont.)

- Once the patient is seated and the assistant gloved, the assistant will position the light on the patient’s chest approximately 25 to 30 inches below the patient’s chin
  - The light is turned on and then is slowly adjusted upward to illuminate the oral cavity
  - The light is cleaned only when it has cooled
  - If the bulb needs to be replaced, turn off the light and allow the old bulb to cool before removing it
  - Halogen bulbs are to be replaced with a gloved hand

Oral Evacuation System

- A means of removing water, saliva, blood, and other fragments during a dental procedure
- Two types of evacuation systems
  - Saliva ejector
    - Provides removal of the patient’s excess fluids from the mouth
  - High-volume evacuator (HVE)
    - More powerful than the saliva ejector and helps to maintain a “clear field”
Curing Light

- A wandlike attachment used to “harden or cure” light-sensitive dental materials
- Components include the protective shield handle and the trigger switch
- Light-curing units can use halogen-based, light-emitting diode (LED), plasma-arc, or laser technology

Curing Light (Cont.)

- Many factors can affect the curing of a dental material:
  - Keep the light tip clean and free of scratches
  - Position the light tip at a correct distance from and the correct orientation to the material
  - Maintain the bulb and filter in good working order
  - Establish appropriate curing times for each material used in the dental office

Amalgamator

- An electrical machine used to triturate dental materials by means of vigorous shaking of the capsule that holds the ingredients
  - The amalgamator can be mounted under a countertop or the edge of a mobile cabinet or stored in the top drawer of a mobile cabinet
  - Specific settings on the amalgamator will correspond to the manufacturer’s directions regarding mixing of that specific dental material
Amalgamator (Cont.)

Dental Radiography Unit
- The master switch of the unit may be turned on safely at the beginning of the day and may be left on throughout the day
- If the radiography unit requires maintenance, it first must be disconnected from its electrical source

View Box for Radiographs
- Consists of a bright white light source with a frosted glass or plastic cover commonly attached to the dental cabinetry or mounted flush on the wall
- Radiographs are placed on the view box for evaluation
Care of Dental Equipment

- Dental equipment is expensive, complex, and delicate
  - It must be used carefully and maintained properly according to the manufacturer's instructions
  - Dental assistants who work in the clinical area share responsibility for routine care in this area of the office
  - Larger practices may contract to have maintenance personnel provide this service

Central Vacuum Compressor

- Provides the suction needed for the oral evacuation systems
- It consists of two parts:
  - The compressor, which creates the flow of air
  - The vacuum tank, which screens the flow of air to create suction

Central Air Compressor

- Provides compressed air for the air-water syringe and air-driven handpieces
  - Because of the noise level and for safety reasons, the compressor is placed away from the clinical setting
- Maintenance includes changing filters and occasionally checking for condensation in the lines
  - Disposable traps provide a filtering mechanism for the saliva ejector and HVE
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**Morning Routine for Dental Assistants**
- Arrive 30 minutes before the first scheduled patient of the day
- Turn on the master switches for the central air compressor and vacuum units
- Ensure that the dental treatment rooms are ready for patient care
- Recheck the appointment schedule
- Set up the treatment room for the first patient

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**Evening Routine for Dental Assistants**
- Complete the operatory exposure control cleanup and preparation protocols
- Wear appropriate PPE when emptying waste bins
- Turn off all equipment
- Ensure that treatment rooms are adequately stocked for the next day
- Post appointment schedules for the next day
- Ensure that instruments, patient records, and laboratory work are ready for the next day and that the sterilization center has been cleaned
- Place soiled protective clothing in appropriate container

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**Questions?**