

Course Objectives and Learning Outcomes for Pre-Clinic Theory and Lab

Clinical Practice of the Dental Hygienist (Wilkins) & Active Learning Workbook for Clinical Practice of the Dental Hygienist (Wilkins)

Chapter 1 The Professional Dental Hygienist

Goals of the Lesson:

- *Cognitive:* Students will be able to identify and explain components of the Dental Hygiene Process of Care and the Dental Hygiene Code of Ethics.
- *Motor:* Students will practice categorizing clinical data into the components of the Dental Hygiene Process of Care.
- *Affective:* Students will understand the scope of dental hygiene practice and how legal, ethical, and personal factors influence it.

Learning Objectives:

- Identify and define key terms and concepts related to the professional dental hygienist.
- Describe the scope of dental hygiene practice.
- Identify and define the components of the Dental Hygiene Process of Care
- Identify and apply elements of the Dental Hygiene Code of Ethics
- Explain legal, ethical, and personal factors affecting dental hygiene practice
- Apply concepts in ethical decision making

Chapter 3 — Effective Health Communication

Goals of the Lesson:

- *Cognitive:* Students will identify objectives, skills, and attributes of effective health communication relating to verbal, nonverbal, and media communication. They will be able to explain barriers to effective communication. Students will be able to define health literacy and assess and address it in patients. They will be able to identify the five key communication theories and name and list the key components and characteristics of motivational interviewing. Students will be able to list effective strategies for communicating with children, adolescents, older adults, and caregivers. They will also be able to explain the need for cross-cultural communication and identify methods for achieving it.
- *Motor:* Students will be able to demonstrate effective verbal and nonverbal communication with a diverse patient population.
- *Affective:* Students will understand the importance of effective communication, particularly adapting one's approach to communication-based on the patient's context.

Learning Objectives:

- Discuss the skills and attributes of effective health communication.

- Identify factors that influence health communication
- Explain how the patient's age, culture, and health literacy level affect health communication strategies.

Identify communication theories relevant to effective health communication and motivational interviewing

Chapter 5 — Infection Control: Transmissible Diseases

Goals of the Lesson:

- *Cognitive:* Students will recognize diseases transmissible by the oral cavity and identify ways to prevent transmission.
- *Motor:* Students will practice discussing patient histories and explaining extra precautions that must be taken with patients suffering from a transmissible disease.
- *Affective:* Students will recognize the importance of protecting themselves and their patients from transmissible diseases and interact with affected patients professionally and sensitively.

Learning Objectives:

- Apply the concept of standard precautions to the process of dental hygiene care
- Describe the infectious disease process and prevention of disease transmission
- Describe and identify transmissible diseases that may pose a risk to patients and dental healthcare personnel
- Evaluate the oral healthcare needs of each patient with a transmissible disease(s)

Chapter 6 — Exposure Control: Barriers for Patients and Clinicians

Goals of the Lesson:

- *Cognitive:* Students will define key terms and explain essential concepts related to exposure control, clinical barriers, and latex allergies.
- *Motor:* Students will practice techniques for applying and removing clinical barrier materials.
- *Affective:* Students will understand the rationale and purpose for exposure-control techniques such as hand care and the use of protective eyewear.

Learning Objectives:

- Identify and define key terms and concepts related to exposure control, clinical barriers, and latex sensitivity
- Explain the rationale and techniques for exposure control
- Identify the criteria for selecting effective barriers
- Explain the rationale, mechanics, and guidelines for hand hygiene
- Identify and describe the clinical manifestations and management of latex sensitivity

Chapter 7 — Infection Control: Clinical Procedures

Goals of the Lesson:

- Cognitive: Students will identify the procedures for infection control, focusing on sterilization techniques and methodologies.
- Motor: Students will practice disinfection procedures for instruments and optimizing the treatment room.
- Affective: Students will grasp the necessity of maintaining a standardized practice of sterilization and apply this understanding in the context of the health of their patients and themselves.

Learning Objectives:

- Describe the basic considerations for safe infection control practices
- Explain methods for cleaning and sterilizing instruments
- Describe procedures to prepare, clean, and disinfect the treatment area
- Explain process for managing hypodermic needles and occupational postexposure management
- List types of waste disposal and explain how each type is handled

Chapter 8 Patient Reception and Ergonomic Practice

Goals of the Lesson:

- *Cognitive*: Students will become familiar with the terms and concepts related to patient reception and ergonomic practice and will be able to identify relevant ergonomic risk factors.
- *Motor*: Students will practice proper body mechanics and safe patient positioning.
- *Affective*: Students will recognize the importance of proper body mechanics for the health of the hygienist and the safety of the patient.

Learning Objectives:

- Describe the rules of etiquette concerning patient reception and care
- Describe the components of ergonomic practice and their relationship to career longevity
- Identify the range of working positions for a right-handed and left-handed clinician
- Describe the elements of a neutral working position
- Explain the musculoskeletal disorders and their causes and symptoms most often associated with the clinical practice of dental hygiene
- Explain the ergonomic risk factors of clinical dental hygiene practice

Chapter 9 — Emergency Care

Goals of the Lesson:

- *Cognitive:* Students will recognize the signs and symptoms of various medical emergencies and describe the appropriate response.
- *Motor:* Students will practice identifying and defining key terms and abbreviations related to emergency care.
- *Affective:* Students will reduce any anxiety related to handling emergencies by reviewing basic life support, rescue breathing, and external chest compression procedures.

Learning Objectives:

- Develop a plan to prevent and prepare for medical emergencies
- Identify signs and symptoms related to a possible emergency
- Define key words related to emergencies
- Describe stress minimization techniques
- Identify procedures for specific emergencies
- Incorporate documentation into the emergency plan

Chapter 10 — Documentation for Dental Hygiene Care

Goals of the Lesson:

- *Cognitive:* Students will be able to describe the procedures involved in various patient examination methods and strategies for documentation.
- *Motor:* Students will practice identifying teeth by the three numbering systems.
- *Affective:* Students will understand the purposes for which patient health records are used and the importance of maintaining the records' confidentiality.

Learning Objectives:

- Identify and define key terms and concepts related to written and computerized dental records and charting.
- Describe concepts related to ensuring confidentiality and privacy of patient information.
- Compare three tooth-numbering systems.
- Discuss the various components of the patient's permanent, comprehensive dental record.
- Recognize and explain a systematic method for documenting patient visits.

Chapter 11 — Medical, Dental, and Psychosocial Histories

Goals of the Lesson:

- *Cognitive:* Students will enumerate the various methods, forms, and question types used to collect patient history data.
- *Motor:* Students will practice dealing with patient reluctance to share complete and correct historical information.
- *Affective:* Students will understand the purposes of gathering patient histories and trace various considerations for patient care to specific items recorded on patient histories.

Learning Objectives:

- Relate and define key terms and concepts utilized in the creation of patient histories
- Explain the significance and purpose of accurate and complete patient medical, dental and psychosocial histories.
- Compare and contrast the different methods available for the compilation of patient histories and the advantages and disadvantages of each
- Discuss how the components of patient histories relate directly to the application of patient care

Chapter 12 — Vital Signs

Goals of the Lesson:

- *Cognitive:* Students will be able to identify the four vital signs, name the expected values for each, and describe the procedures for determining each.
- *Motor:* Students will practice taking each other's vital signs and using role-play to discuss with a patient why it is important to do so.
- *Affective:* Students will recognize the importance of regularly determining a patient's vital signs.

Learning Objectives:

- List and explain the vital signs and why proper assessment is key to identifying the patient's health status
- Demonstrate and explain the correct procedures for assessing the vital signs: temperature, respiration, radial pulse, and blood pressure
- Recognize and explain factors that may affect temperature respiration, pulse, and blood pressure
- Recognize normal vital signs across varied age groups

Chapter 13 — Extraoral and Intraoral Examination

Goals of the Lesson:

- *Cognitive:* Students will be able to recognize deviations from the norm that appear in the oral cavity and adjacent structures and identify a variety of lesions.
- *Motor:* Students will practice performing an oral cavity examination and documenting their findings.
- *Affective:* Students will understand the necessity of early detection for the patient's health and recognize their role in meeting that goal.

Learning Objectives:

- Explain the rationale for a comprehensive extra-and intraoral examination
- Explain the systematic sequence of the extra- and intraoral examination

- Identify normal hard and soft tissue anatomy of the head, neck, and oral cavity
- Describe and document physical characteristics (size, shape, color, texture, consistency) and morphological categories (elevated, flat and depressed lesions) for notable findings
- Identify suspected conditions that require additional testing and referral for medical evaluation

Chapter 16 — Hard Tissue Examination of the Dentition

Goals of the Lesson:

- *Cognitive*: Students will identify and classify types of human dentition, dental caries, and noncarious lesions; and purposes of study models.
- *Motor*: Students will role-play interact with patients curious about dentition and caries; and use of study models.
- *Affective*: Students will understand and apply methods for recognizing dentition, dental caries, noncarious lesions, and study models in a dental examination.

Learning Objectives:

- Identify the three divisions of the human dentition: primary teeth, mixed (transitional) dentition, and permanent teeth
- Recognize and explain the various developmental and noncarious dental lesions
- Describe types of dental injuries and tooth fractures that may occur
- List the G.V. Black, American Dental Association Caries Classification, and International Caries Detection and Assessment System classification of dental carious lesions used for diagnosis, treatment planning, management, cavity preparations, and finished restorations.
- Explain the initiation and development of early childhood caries (ECC)
- Compare methods for determining the vitality of the pulp of a tooth
- Provide a list of the factors to be observed and recorded during a complete dental charting with a new patient
- Explain the basic principles of occlusion
- Classify occlusion on a patient or case study according to Angle's classification and describe the facial profile associated with each classification
- Describe functional and parafunctional contacts
- Give examples of parafunctional habits
- Discuss types of occlusal trauma and explain the effects on the oral structures
- Identify and explain the purposes and uses of study models in the clinical practice of dental hygiene

Chapter 17 — Dental Soft Deposits, Biofilm, Calculus and Stains

Goals of the Lesson:

- *Cognitive:* Students will identify and explain the various forms, causes, and effects of soft deposits, biofilm, calculus and stains.
- *Motor:* Students will practice locating biofilm, calculus and stain.
- *Affective:* Students will understand the processes that can create and counter biofilm, calculus, and stains in the context of treatment and prevention.

Learning Objectives:

- Define acquired pellicle and discuss the significance and role of the pellicle in the maintenance of oral health
- Describe the different stages in biofilm formation and identify the changes in biofilm microorganisms as biofilm matures
- Differentiate between the types of soft and hard deposits
- Recognize the factors that influence the accumulation of biofilm, calculus and stain
- Explain the location, composition, and properties of dental biofilm, calculus and stain
- Identify the modes of attachment of supra- and subgingival calculus to dental structure
- Describe the clinical and radiographic characteristics of supra- and subgingival calculus and its detection
- Educate patients regarding the etiology and prevention of dental biofilm, calculus, and stain
- Differentiate between exogenous and endogenous stains and identify extrinsic and intrinsic dental stains and discolorations
- Determine appropriate clinical approaches for stain removal and maintenance
- Design biofilm, calculus and stain management strategies to meet each patient's needs

Chapter 18 — The Periodontium

Goals of the Lesson:

- *Cognitive:* Students will be able to identify the clinical features of the periodontal tissue and recognize signs of periodontal infection.
- *Motor:* Students will practice examining a patient's periodontal tissue for gingival health and recording their findings.
- *Affective:* Students will understand the role of the gingiva in overall dental health and recognize the importance of identifying gingival problems.

Learning Objectives:

- Recognize normal tissues of the periodontium
- Know the clinical features of the periodontium
- Describe the characteristics of healthy gingiva
- Compare and contrast the characteristics of gingiva in health and disease
- Describe characteristics of healthy gingiva following periodontal surgery

Chapter 19 — Periodontal Disease Development

Goals of the Lesson:

- *Cognitive:* Students will identify and classify various periodontal diseases and their causes.
- *Motor:* Students will determine gingival involvement from dental factors.
- *Affective:* Students will understand the origins of periodontal diseases and the risk factors involved in the development of the disease.

Learning Objectives:

- List and describe the modifiable and nonmodifiable risk factors for periodontal disease
- Explain the signs and symptoms of periodontal disease
- Define the stages of development for periodontal lesions
- Compare and contrast the staging and grading of periodontal disease in the current classification system
- Describe the dental hygienist's role in educating the patient about management of modifiable risk factors for periodontal disease

Chapter 22 — Planning for Dental Hygiene Care

Goals of the Lesson:

- *Cognitive:* Students will familiarize themselves with the dental hygiene planning process.
- *Motor:* Students will practice developing a plan for a patient based on records.
- *Affective:* Students will apply their knowledge of evidence-based decision-making to recommend effective patient care.

Learning Objectives:

- Explain the significance of developing a dental hygiene diagnosis as a component of the dental hygiene process of care
- Formulate a dental hygiene diagnosis based on the assessment findings
- Identify and define key terms and concepts related to planning dental hygiene care
- Identify and explain assessment findings and individual patient factors that affect patient care
- Identify additional factors that can influence planning for dental hygiene care

Chapter 23 — The Dental Hygiene Care Plan

Goals of the Lesson:

- *Cognitive:* Students will identify and explain the components of a dental hygiene care plan.
- *Motor:* Students will practice writing out a dental hygiene care plan.
- *Affective:* Students will apply their knowledge of dental hygiene care plans to explain their efficacy and importance to patients in a clinical setting.

Learning Objectives:

- Discuss rationale and objectives for developing a dental hygiene care plan
- Identify the components of a dental hygiene care plan
- Prepare a written dental hygiene care plan from a dental hygiene diagnosis
- Apply procedures for discussing a care plan with the dentist and the patient
- Identify and apply procedures for obtaining informed consent and informed refusal

Chapter 26 Oral Infection Control: Toothbrushes and Toothbrushing

Goals of the Lesson:

- Cognitive: Students will identify various toothbrushes and toothbrushing techniques in order to best serve a patient's needs.
- Motor: Students will practice various brushing methods and evaluating toothbrushes.
- Affective: Students will learn to effectively promote and teach brushing as a vital means of dental care.

Learning Objectives:

- Identify characteristics of effective manual and power toothbrushes
- Differentiate between the different manual toothbrushing methods including limitations and benefits of each
- Describe the different motions of action for powered toothbrushes
- Identify the basis for powered toothbrush selection
- Describe tongue cleaning and its effect on reducing dental biofilm
- Identify adverse effects of improper toothbrushing on hard and soft tissues

Chapter 27 Oral Infection Control: Interdental Care

Goals of the Lesson:

- *Cognitive*: Students will identify and explain interdental care techniques and tools.
- *Motor*: Students will familiarize themselves with interdental oral care aids and practice teaching patients in their use.
- *Affective*: Students will comprehend the philosophy of interdental care and how it applies in practical clinic settings and in a patient's personalized dental care plan.

Learning Objectives:

- Review the anatomy of the interdental area and explain why toothbrushing alone cannot remove biofilm adequately for prevention of periodontal infection
- Compare types of interdental brushes and explain why they may be more effective than floss for some patients
- Describe types of dental floss and outline steps for use of floss for biofilm removal from proximal tooth surfaces

- Develop a list of the types and purposes of various floss aids and provide a rationale for the choice of the best ones to meet a specific patient's needs
- Demonstrate and recommend other devices for biofilm removal including toothpick in holder, wooden interdental cleaner, interdental rubber tip, and oral irrigation.

Chapter 28 Dentifrices and Mouthrinses

Goals of the Lesson:

- *Cognitive:* Students will identify and explain dentifrices and mouthrinse options available for both clinical settings and patient self-care.
- *Motor:* Students will familiarize themselves with over-the-counter dentifrice products and practice advising patients as to their appropriateness and proper application.
- *Affective:* Students will understand the significance of individualized patient evaluation and instruction in the use of chemotherapeutics as part of routine oral care.

Learning Objectives:

- Identify and define the active and inactive components in dentifrices and mouthrinse
- Explain the mechanism of action for preventive and therapeutic agents in dentifrices and mouthrinses
- Explain the purpose and use of dentifrices and mouthrinses
- Discuss the Food and Drug Administration (FDA) and the purpose of FDA
- Explain the American Dental Association (ADA) Seal of Acceptance program and purpose

Chapter 34 Fluorides

Goals of the Lesson:

- *Cognitive:* Students will familiarize themselves with various fluoride treatments and applications.
- *Motor:* Students will practice instructing patients on the use of fluorides.
- *Affective:* Students will demonstrate their knowledge of fluorides by explaining its benefits and use in oral health care.

Learning Objectives:

- The lesson plan for each objective starts on the page shown below.
- Describe the mechanisms of action of fluoride in the prevention of dental caries
- Explain the role of community water fluoridation on the decline of dental caries incidence in a community
- Recommend appropriate over-the-counter (OTC) and professionally applied fluoride therapies based on each patient's caries risk assessment
- Compare use of fluoride home products (OTC and prescription)

- Incorporate fluoride into individualized prevention plans for patients of various ages and risk levels

Chapter 42 — Extrinsic Stain Removal

Goals of the Lesson:

- *Cognitive:* Students will be able to identify indications and contraindications for selective dental polishing and describe polishing agents and their uses.
- *Motor:* Students will practice identifying polishing agents and instruments.
- *Affective:* Students will gain an awareness that polishing and cleaning for stain removal is a selective procedure that is not for every patient.

Learning Objectives:

- Describe the difference between a cleaning agent and a polishing agent.
- Explain the basics for selection of the grit of polishing paste for each individual patient
- Discuss the rationale for avoiding polishing procedures on areas of demineralization
- Explain the effect abrasive particle shape, size and hardness have on the abrasive qualities of a polishing paste
- Explain the types of powdered polishing agents available and their use in the removal of tooth stains
- Explain patient conditions that contraindicate the use of air-powder polishing

Module 3 (Periodontal Instrumentation) Instrument Grasp

Goals of the Lesson:

- *Cognitive:* Learn the functions of the finger positions in the performance of the modified pen grasp.
- *Motor:* Practice performing the modified pen grasp with a pencil or periodontal instrument.
- *Affective:* Appreciate the importance of a correct instrument grasp in the prevention of musculoskeletal disorders.

Learning Objectives:

- Given a variety of periodontal instruments, identify the parts of each instrument 3
- Identify the fingers of the hand as thumb, index, middle, ring, and little fingers
- Understand the relationship among correct finger position in the modified pen grasp, the prevention of musculoskeletal problems, and the control of a periodontal instrument during instrumentation
- Demonstrate the modified pen grasp using precise finger placement on the handle of a periodontal instrument
- Describe the function each finger serves in the modified pen grasp.

- Define joint hypermobility and describe how hyperextended joints in the modified pen grasp can affect periodontal instrumentation
- Recognize incorrect finger position in the modified pen grasp and describe how to correct the problem(s).
- Select the correct glove size for your own hands and explain how the glove size selected meets the criteria for proper glove fit
- Understand the relationship between proper glove fit and the prevention of musculoskeletal problems in the hands
- Perform exercises for improved hand strength

Module 4 (Periodontal Instrumentation) Use of Dental Mouth Mirror

Goals of the Lesson:

- Cognitive: Students will identify the different types of dental mirrors and be able to describe correct functions for mirror use.
- Motor: Students will be able to demonstrate correct positioning for using the dental mirror for indirect vision, retraction, indirect illumination, and transillumination.
- Affective: Students will understand the importance of proper positioning for mirror use to the safety of both the patient and the hygienist.

Learning Objectives:

- Name and describe three common types of dental mirrors.
- Demonstrate use of the mirror for indirect vision, retraction, indirect illumination, and transillumination.

Module 5 (Periodontal Instrumentation) Finger Rests in the Anterior Sextant

Goals of the Lesson:

- Cognitive: Students will be able to describe correct positioning and techniques for anterior finger rests.
- Motor: Students will be able to demonstrate correct positioning, mirror use, grasp, and finger rests in anterior sextants.
- Affective: Students will understand the importance of proper positioning, mirror use, grasp, and finger rests to the safety of both the patient and the hygienist.

Learning Objectives:

- Position equipment so that it enhances neutral positioning..
- Maintain neutral seated position while using the recommended clock position for each of the mandibular and maxillary treatment areas
- While seated in the correct clock position for the treatment area, access the anterior teeth with optimum vision while maintaining neutral positioning

- Demonstrate correct mirror use, grasp, and finger rest in each of the anterior sextants while maintaining neutral positioning of your wrist and finger joints.
- Demonstrate finger rests using precise finger placement on the handle of a periodontal instrument
- Recognize incorrect mirror use, grasp, or finger rest and describe how to correct the problem(s).
- Understand the relationship between proper stabilization of the dominant hand during instrumentation and the prevention of musculoskeletal problems in the clinician's hands and injury to the patient.
- Understand the relationship between the large motor skills, such as positioning, and small motor skills, such as finger rests. Recognize the importance of initiating these skills in a step-by-step manner.

Module 6 (Periodontal Instrumentation) Finger Rests in Mandibular Posterior Sextants

Goals of the Lesson:

- Cognitive: Students will identify correct positioning, mirror use, grasp, and finger rests in the mandibular posterior sextants.
- Motor: Students will be able to demonstrate correct positioning, mirror use, grasp, and finger rests in the mandibular posterior sextants.
- Affective: Students will understand the importance of proper positioning, mirror use, grasp, and finger rests to the safety of both patient and hygienist.

Learning Objectives:

- Position equipment so that it enhances neutral positioning.
- While seated in the correct clock position for the treatment area, access the mandibular posterior teeth with optimum vision while maintaining neutral positioning.
- Demonstrate correct mirror use, grasp, and finger rest in each of the mandibular posterior sextants while maintaining neutral positioning of your wrist.
- Demonstrate finger rests using precise finger placement on the handle of a periodontal instrument.
- Recognize incorrect mirror use, grasp, or finger rest, and describe how to correct the problem(s).
- Understand the relationship between proper stabilization of the dominant hand during instrumentation and the prevention of (1) musculoskeletal problems in the clinician's hands and (2) injury to the patient.
- Understand the relationship between the large motor skills, such as positioning, and small motor skills, such as finger rests. Recognize the importance of initiating these skills in a step-by-step manner

Module 7 (Periodontal Instrumentation) Finger Rests in Maxillary Posterior Sextants

Goals of the Lesson:

- Cognitive: Students will learn techniques for proper use of dental mirrors and finger rests in the maxillary posterior treatment areas.
- Motor: Students will demonstrate correct positioning, mirror use, grasp, and finger rests in the maxillary posterior sextants.
- Affective: Students will understand the importance of proper positioning, mirror use, grasp, and finger rests to the safety of both patient and hygienist.

Learning Objectives:

- Position equipment so that it enhances neutral positioning.
- While seated in the correct clock position for the treatment area, access the posterior maxillary teeth with optimum vision while maintaining neutral positioning.
- Demonstrate finger rests using precise finger placement on the handle of a periodontal instrument
- Recognize incorrect mirror use, grasp, or finger rest and describe how to correct the problem(s).
- Understand the relationship between proper stabilization of the dominant hand during instrumentation and the prevention of (1) musculoskeletal problems in the clinician's hands and (2) injury to the patient.
- Understand the relationship between the large motor skills, such as positioning, and small motor skills, such as finger rests. Recognize the importance of initiating these skills in a step-by-step manner.
- Demonstrate exercises that lessen muscle imbalances through chairside stretching throughout the workday

Module 12 (Periodontal Instrumentation) Periodontal Probes and Basic Probing Technique

Goals of the Lesson:

- Cognitive: Students will learn the design features and proper technique with a calibrated periodontal probe.
- Motor: Students will practice correct adaptation and probing technique.
- Affective: Students will value correct probing technique as a vital component of effective nonsurgical periodontal therapy.

Learning Objectives:

- The lesson plan for each objective starts on the page shown below.
- Identify the design characteristics of a calibrated periodontal probe.
- Identify the millimeter markings on several calibrated periodontal probes including some probe designs that are not in your school instrument kit.
- Describe the rationale and technique for periodontal probing.
- Identify factors that can affect the accuracy of periodontal probing.
- Discuss the characteristics of effective probing technique in terms of adaptation and angulation of the tip, amount of pressure needed, instrumentation stroke, and number and location of probe readings for each tooth.

- Using calibrated periodontal probe, demonstrate correct adaptation on facial, lingual, and proximal surfaces and beneath the contact area of two adjacent teeth.
- Activate a calibrated periodontal probe using a walking stroke and correct probing technique.
- While using correct positioning, mirror, grasp, and finger rests, demonstrate correct probing technique in all sextants of the dentition
- Determine the probing depth accurately to within 1 mm of an instructor's reading.
- Define the term junctional epithelium.
- Differentiate between a normal sulcus and a periodontal pocket and describe the position of the probe in each.
- Define and discuss the terms informed consent, capacity for consent, written consent, and informed refusal as these terms apply to periodontal instrumentation

Module 8 (Periodontal Instrumentation) Instrument Design and Classification

Goals of the Lesson:

- Cognitive: Students will become familiar with the main design characteristics of periodontal instruments and the functions of their various design elements.
- Affective: Students will understand the importance of design elements when selecting an instrument for the task.

Learning Objectives:

- Identify each working-end of a periodontal instrument by its design name and number.
- Recognize the design features of instrument handles and shanks, and discuss how these design features relate to the instrument's use.
- Describe the advantages and limitations of the various design features available for instrument handles and shanks
- Given a variety of periodontal instruments, demonstrate the ability to select instruments with handle design characteristics that will reduce the pinch force required to grasp the instrument
- Given a variety of periodontal instruments, sort the instruments into those with simple shank design and those with complex shank design.
- Given a variety of sickle scalers and curets, identify the face, back, lateral surfaces, cutting edges, and toe or tip on each working-end.
- Given a variety of periodontal instruments, determine the intended use of each instrument by evaluating its design features and classification.
- Given any instrument, identify where and how it may be used on the dentition (i.e., assessment or calculus removal, anterior/posterior teeth, supragingival or subgingival use).

Module 9 (Periodontal Instrumentation) Technique Essentials: Movement and Orientation to Tooth Surface

Goals of the Lesson:

- Cognitive: Students will learn how to move periodontal instruments effectively during instrumentation.
- Motor: Students will demonstrate movement and placement of instruments using correct motion activation, handle rolling, pivoting, and orientation to tooth surface.
- Affective: Students will understand the importance of practicing strategies to acquire psychomotor skills; students will understand the importance of moving the instrument using muscles of the fingers, hand, and arm to move the working-end across the tooth surface.

Learning Objectives:

- Name and define four stages of psychomotor development described in this module
- Name and apply five strategies that assist in acquiring psychomotor skill
- Define motion activation as it relates to periodontal instrumentation
- Name two types of motion activation commonly used in periodontal instrumentation
- Define and explain the uses of wrist-rocking motion during periodontal instrumentation
- Using a pencil or periodontal probe, demonstrate the correct technique for wrist-rocking motion activation
- When demonstrating wrist-rocking motion use correct instrumentation technique such as: using the fulcrum finger as a support beam, maintaining correct grasp, and maintaining neutral wrist position
- Define and explain the uses of digital motion activation during periodontal instrumentation
- Using a pencil or periodontal probe, demonstrate the correct technique for digital motion activation
- When demonstrating digital motion activation, use correct instrumentation techniques such as: using the fulcrum as a support beam, maintaining correct grasp, and maintaining neutral wrist position
- Define and explain the use of the handle roll during periodontal instrumentation
- Using a pen or pencil, demonstrate the handle roll using correct technique including correct modified pen grasp, knuckles-up position, fulcrum finger as a support beam, and neutral wrist position
- Explain how the teeth are positioned in the dental arches
- Using a periodontal probe and typodont or tooth model, correctly orient the working-end of a probe to the various tooth surfaces of the dentition

Module 10 (Periodontal Instrumentation) Technique Essentials: Adaptation

Goals of the Lesson:

- Cognitive: Students will define all the key terms in this module.
- Motor: Students will demonstrate how to identify and adapt the working-end to a tooth surface correctly.
- Affective: Students will value correct adaptation for effective instrumentation and for prevention of injury to the gingival tissue.

Learning Objectives:

- Define the term adaptation as it relates to periodontal instrumentation.
- Identify the leading-, middle-, and heel-third of the working-end of a sickle scaler and a curet
- Using a typodont and an anterior sickle scaler describe and demonstrate correct adaptation of the working-end to the midline and line angle of a mandibular anterior tooth.
- Explain problems associated with incorrect adaptation during periodontal instrumentation.
- Using Figure 10-16 and a pencil demonstrate how to maintain adaptation to curved tooth surfaces while using a correct modified pen grasp and wrist motion activation
- Given a universal curet and a typodont, explain how to use visual clues to select the correct working-end for use on the distal surface of a mandibular premolar tooth.
- Use precise finger placement on the handle of a periodontal instrument while demonstrating adaptation and selection of the correct working-end for a treatment area

Module 11 (Periodontal Instrumentation) Technique Essentials: Instrumentation Strokes**Goals of the Lesson:**

- Cognitive: Students will learn how to produce instrumentation strokes.
- Motor: Students will demonstrate how to perform different stroke directions and will demonstrate an assessment stroke.
- Affective: Students will value precise, controlled instrumentation strokes.

Learning Objectives:

- Using a sickle scaler and a periodontal typodont, demonstrate the three basic stroke directions:
- vertical, oblique, and horizontal
- Compare and contrast the functions and characteristics of three types of instrumentation strokes: assessment, calculus removal, and root debridement.
- Demonstrate how to stabilize the hand and instrument to perform an instrumentation stroke by using an appropriate intraoral fulcrum and the ring finger as a “support beam” for the hand.
- Demonstrate the elements of an assessment stroke in a step-by-step manner.
- Use precise finger placement on the handle of a periodontal instrument while demonstrating assessment strokes.

Module 14 (Periodontal Instrumentation) Technique Essentials: Supragingival Calculus Removal**Goals of the Lesson:**

- Cognitive: Students will define all the key terms in this module.

- Motor: Students will demonstrate correct technique for adaptation and angulation for supragingival calculus removal during instrumentation strokes.
- Affective: Students will value correct adaptation and angulation for instrumentation of supragingival calculus.

Learning Objectives:

- The lesson plan for each objective starts on the page shown below.
- Given a drawing of the healthy periodontium in cross section (similar to that shown in Fig. 14-1) correctly label all the structures depicted in the illustration
- Define the term angulation as it relates to the use of a sickle scaler for supragingival periodontal instrumentation.
- Explain the problems associated with using an angulation greater than 90 degrees for calculus removal.
- Explain the problems associated with using an angulation less than 45 degrees for calculus removal.
- Describe the correct approach for removing a large supragingival calculus deposit and differentiate this technique from a different approach that leads to burnishing of the deposit
- List from memory the sequence of steps used for supragingival calculus removal as outlined in Fig. 14-9

Module 26---Powered Instrument Design and Function

Goals of the Lesson:

- Cognitive: Students will learn principles of effective powered instrumentation.
- Cognitive: Students will learn designs of powered instruments.
- Affective: Students will value pretreatment considerations for use with powered instruments and employ them routinely.

Learning Objectives:

- Discuss the history and technologic advances of powered instrumentation
- Name the major types of powered instrumentation technology
- Name the two subtypes of ultrasonic powered instrumentation technology
- Describe the various modes of action of powered instrumentation devices
- Compare and contrast the advantages and limitations of powered instrumentation
- Discuss the benefits to the patient when powered instrumentation is integrated into the treatment plan
- Discuss medical and dental contraindications for powered instrumentation
- Discuss the terms “frequency” and “amplitude” and describe how these factors determine the cleaning efficiency of powered instrumentation
- Compare and contrast the design features of standard and slim perio powered working-ends

- Discuss criteria for the selection of powered working-ends in relation to the instrumentation task to be performed
- Demonstrate how to determine powered working-end wear and at what point a working-end should be discarded
- Define the term “active working-end area” as it pertains to a powered working-end. In a preclinical or clinical setting, demonstrate correct adaptation of the active portion of a powered instrument
- In a preclinical or clinical setting, demonstrate correct stroke pressure for use with a powered working-end
- In a preclinical or clinical setting, demonstrate correct working-end adaptation in a (1) transverse orientation and (2) vertical orientation in all sextants of the dentition
- Given a set of paired, curved working-ends, correctly identify the “right” and “left” working-end
- On a typodont, demonstrate an efficient sequence for use of curved working-ends in a (1) transverse orientation and (2) vertical orientation on the posterior sextants of the dentition
- Describe an effective strategy for removing tenacious calculus deposits during powered instrumentation
- On an extracted tooth, demonstrate the use of a diamond-coated working-end for smoothing a defective margin on a restoration
- On a typodont, demonstrate how to access and enter a furcation area of a multirooted tooth with a ball-tipped powered working-end
- Identify pretreatment considerations before the initiation of powered instrumentation
- Prepare (set-up) a powered instrumentation device for use
- In a clinical setting, demonstrate correct technique for use of a powered instrumentation device, including: treatment room, clinician and patient preparation; armamentarium selection/set-up and infection control; grasp, finger rest, adjustment of water flow, working-end adaptation and stroke; and fluid control
- In a clinical setting, select appropriate powered working-ends for a patient case
- In a clinical setting, use correct technique to effectively remove calculus deposits and plaque biofilm using a powered instrumentation device

Module 13 (Periodontal Instrumentation) Explorers

Goals of the Lesson:

- Cognitive: Students will learn the designs and uses of the most common types of explorers. Students will understand why new clinicians often fail to detect calculus deposits in certain locations in the mouth.
- Motor: Students will practice proper use of explorers on anterior and posterior teeth.
- Affective: Students will value correct exploring technique as a vital component of effective nonsurgical periodontal therapy.

Learning Objectives:

- Given a variety of explorer designs, identify the design characteristics of each explorer.
- Given a variety of explorer designs, identify the explorer tip

- Identify and describe the advantages and limitations of various explorer designs.
- Describe how the clinician can use visual clues to select the correct working-end of a double-ended explorer
- Demonstrate correct adaptation of the explorer tip.
- Describe and demonstrate an assessment stroke with an explorer
- Demonstrate detection of supragingival calculus deposits using compressed air.
- Demonstrate correct use of an Orban-type explorer in the anterior sextants while maintaining correct position, correct finger rests, and precise finger placement in the grasp
- Demonstrate correct use of an 11/12-type explorer in the anterior sextants while maintaining correct position, correct finger rests, and precise finger placement in the grasp
- Demonstrate correct use of an 11/12-type explorer in the posterior sextants while maintaining correct position, correct finger rests, and precise finger placement in the grasp
- Name and describe several common types of calculus deposit formations
- Explain why the forceful application of an explorer tip into a carious pit or fissure could be potentially harmful

Module 15 (Periodontal Instrumentation) Sickle Scalars

Goals of the Lesson:

- Cognitive: Students will learn the characteristics and uses of sickle scalars. Students will understand how to select the correct working-end of a posterior sickle scaler by using visual cues rather than relying on memorization.
- Motor: Students will practice correct instrumentation technique with sickle scalars on anterior and posterior teeth.
- Affective: Students will value the use of visual cues and accurate angulation during instrumentation.

Learning Objectives:

- Given a variety of sickle scaler instruments, identify the design characteristics.
- List the uses and limitations of sickle scalars.
- List characteristics of a calculus removal stroke.
- List from memory the sequence of steps used for calculus removal as outlined in Fig. 15-4
- Given a posterior sickle scaler, demonstrate how to use visual clues to identify the correct working-end
- Demonstrate correct adaptation and angulation of a sickle scaler
- Explain why the lower shank of a sickle scaler should be tilted slightly toward the tooth surface being instrumented to obtain correct angulation
- Demonstrate correct use of a sickle scaler in the anterior sextants while maintaining correct position, correct finger rests, and precise finger placement in the grasp
- Demonstrate the three skills used to maintain adaptation to the proximal surfaces

- Demonstrate correct use of a sickle scaler in the posterior sextants while maintaining correct position, correct finger rests, and precise finger placement in the grasp

Module 16 (Periodontal Instrumentation) Technique Essentials: Subgingival Calculus Removal

Goals of the Lesson:

- Cognitive: Students will define all the key terms in this module.
- Motor: Students will demonstrate the correct technique for adaptation, angulation, insertion, and calculus removal during instrumentation strokes.
- Affective: Students will value correct adaptation, angulation, and insertion for instrumentation.

Learning Objectives:

- Explain the importance of learning to rely on the sense of touch for successful performance of subgingival instrumentation
- Define the terms insertion and Get Ready Zone as they apply to periodontal instrumentation
- On a periodontal typodont, demonstrate the steps used for insertion beneath the gingival margin as outlined in Fig. 16-6
- Define and state the objectives of periodontal instrumentation. Explain why complete removal of all subgingival biofilms and calculus deposits is so important to successful periodontal instrumentation
- Explain why “tissue response” rather than “root smoothness” is the standard for successful subgingival instrumentation
- Discuss the importance of a re-evaluation appointment in the treatment of patients with subgingival calculus deposits
- Define the term nonresponsive disease sites and name signs that indicate that nonresponsive sites are present at a re-evaluation appointment
- Describe the types of healing that may result following successful instrumentation of root surfaces
- Explain the importance of instrumenting the root surfaces in the series of narrow strips, known as instrumentation zones
- Define and explain the significance of multidirectional strokes in subgingival stroke removal

Module 17 (Periodontal Instrumentation) Universal Curets

Goals of the Lesson:

- Cognitive: Students will learn the design and purpose of universal curets. Students will understand how to select the correct working-end of a universal curet using visual cues rather than relying on memorization.

- Motor: Students will practice foundational skills and instrumentation technique with universal curets.
- Affective: Students will value the use of visual cues and accurate angulation during instrumentation.

Learning Objectives:

- Given a variety of universal curets, identify the design characteristics of each instrument.
- Discuss the advantages and limitations of the design characteristics of universal curets.
- Name the uses of universal curets
- Describe how the clinician can use visual clues to select the correct working-end of a universal curet on anterior and posterior teeth
- Given a variety of universal curets to choose from and a task (location, depth, and size of calculus deposits), select the best instrument for the specified task.
- Explain why the lower shank of a universal curet should be tilted slightly toward the tooth surface being instrumented to obtain correct angulation.
- Using a universal curet, demonstrate correct adaptation and use of calculus removal strokes on the anterior teeth while maintaining correct position, correct finger rests, and precise finger placement in the grasp.
- Using a universal curet, demonstrate correct adaptation and use of calculus removal strokes on the posterior teeth while maintaining correct position, correct finger rests, and precise finger placement in the grasp.
- Using a universal curet, demonstrate horizontal calculus removal strokes at the distofacial line angles of posterior teeth.

Module 19 (Periodontal Instrumentation) Area-Specific Curets

Goals of the Lesson:

- Cognitive: Students will learn the design characteristics and uses of area-specific curets.
- Motor: Students will practice foundational skills and instrumentation technique with area-specific curets.
- Affective: Students will value correct instrumentation techniques during instrumentation.

Learning Objectives:

- Given a variety of area-specific curets, identify the design characteristics of each instrument.
- Discuss the advantages and limitations of the design characteristics of area-specific curets.
- Name the uses of area-specific curets.
- Explain why a set of area-specific curets is needed to instrument the entire dentition
- Describe how the clinician can use visual clues to select the correct working-end of an area-specific curet on anterior and posterior teeth.

- Using area-specific curets, demonstrate correct adaptation and use of calculus removal strokes on the anterior teeth while maintaining correct position, correct finger rests, and precise finger placement in the grasp
- Using area-specific curets, demonstrate correct adaptation and use of calculus removal strokes on the posterior teeth while maintaining correct position, correct finger rests, and precise finger placement in the grasp.
- Using area-specific curets, demonstrate horizontal calculus removal strokes at the distofacial line angles of posterior teeth and at the midlines on the facial and lingual surfaces of anterior teeth.
- Given any sickle scaler, universal curet, or area-specific curet, identify its function and where it should be used on the dentition. Posterior teeth and at the midlines on the facial and lingual surfaces of anterior teeth.

Module 27---Air Polishing for Biofilm Management and Stain Removal

Goals of the Lesson:

- Cognitive: Students will describe the new technology for air polishing subgingivally for biofilm management.
- Cognitive: Students will compare and contrast glycine and sodium bicarbonate powders used for air polishing.
- Motor: Students will demonstrate correct angulation, stroke, and insertion for tips used in air polishing technology.
- Affective: Students will value the importance of integrating supra- and subgingival air polishing into periodontal treatment plans.

Learning Objectives:

- Explain the importance of professional subgingival biofilm removal from root surfaces as a routine part of nonsurgical periodontal therapy
- Compare and contrast “subgingival air polishing with glycine powder for biofilm management” with “supragingival air polishing with sodium bicarbonate for stain removal”
- Compare the types of air polishing powders available and their appropriate use
- List medical and dental contraindications of subgingival air polishing for biofilm management and supragingival air polishing for stain removal
- On a typodont, demonstrate the correct angulation and instrumentation stroke with a standard nozzle for stain removal
- On a typodont, demonstrate correct insertion and use of the specialized plastic perio tip and glycine-based powder for subgingival biofilm removal
- In a preclinical or clinical setting, demonstrate correct technique for use of an air polishing device, including treatment room, clinician and patient preparation; armamentarium selection/set-up and infection control; grasp and finger rest; correct technique; and fluid control
- Discuss the benefits to the patient when supra- and subgingival air polishing is integrated into the treatment plan

Health Professional -Purtilo

Chapter 1 Respect: The Difference It Makes

- Give a brief definition of respect
- Describe why respect is so central to the success of the health professional and patient relationship
- Identify three spheres of values that constitute a person's "value system"
- Discuss some reasons why the professions today have become concerned about professionalism
- Distinguish collective professionalism from individual professionalism
- List some values that have been proposed as being shared by all people including "primary goods"
- Distinguish between the core professional value of care and caring in general
- Cite examples of when a person or group may not embrace a fully integrated value system

Chapter 2 Respect in the Institutional Settings of Health Care

- Compare the perspectives of viewing health care from each of Glaser's three main realms: individual, institutional, and societal
- List four major forces that have resulted in current structures of healthcare environments
- Compare public and private sector relationships and describe why health professionals and patient interactions are public sector relationships
- List several types of laws, regulations, and policies that influence the practice of your profession and what you should be able to expect from the institution in which you work
- Discuss the idea of patients' rights documents and the purposes they are designed to serve.

Chapter 3 Respect in a Diverse Society

- Define cultural bias and personal bias
- Identify three sources of personal bias that interfere with respect towards persons or groups
- Define prejudice and how it is related to discrimination
- List primary and secondary characteristics of culture
- Describe ways the label of "race" is problematic even though it continues to be used
- Describe how discrimination of all types affects patients and the health professions and some ways you can counter its disrespectful dimensions
- Define cultural humility and describe the process of viewing the health professional and patient relationship in this manner.

Ethical Dimensions-Purtilo

Chapter 1 Morality and Ethics What Are They and Why Do They Matter?

- Define morality and ethics and distinguish between the two.
- Describe the difference between and relationship of personal, group, and societal moralities that health professionals must integrate into their own moral life.
- Describe the function of a health professions code of ethics in terms of professional morality.
- List three ways in which ethics is useful in everyday professional practice.
- Compare the basic function of law and ethics in professional practice.
- Identify some laws and policies that protect the personal moral convictions of health professionals while upholding ethical standards of the profession.
- Delineate a basic distinction between theories of action and virtue and between approaches that emphasize individuals or communities as primary moral concerns of ethics.

Chapter 2 The Ethical Goal of Professional Practice: A Caring Response

- Identify how care is the goal of professional ethics activity.
- Describe the basic idea of “a caring response” and ways this response is expressed in a professional relationship.
- Describe what mastery entails within the health professional and patient relationship.
- List some types of claims encountered in a professional role and why the patient’s interests must take priority when conflicting claims arise.
- Describe at least two important distinctions between the caring expressed in friendships or family life and the caring expressed in a health professional and patient relationship.
- Define patient-centered care.
- Discuss the relationship between compassion and technical expertise in achieving a caring response to patient’s needs.
- Identify the two components of professional responsibility and why both are essential for a caring response.
- Describe how the concept of rights enhances the understanding of what a caring response entails.
- Discuss some burdens and benefits of caregiving as they arise in the health professional and patient relationship.