



# ILLINOIS VALLEY COMMUNITY COLLEGE

## COURSE OUTLINE

**DIVISION:** Health Professions

**COURSE:** DLH 1205 Dental Hygiene I

Date: Spring 2024

Credit Hours: 1

*Complete all that apply or mark "None" where appropriate:*

Prerequisite(s): Successful Completion of DLH 1200 Pre-Clinic with C or better.

Enrollment by assessment or other measure?  Yes  No

If yes, please describe:

Corequisite(s): None

Pre- or Corequisite(s): DLH 1210 Clinic I

Consent of Instructor:  Yes  No

Delivery Method:	<input checked="" type="checkbox"/> <b>Lecture</b>	<b>1 Contact Hours</b> (1 contact = 1 credit hour)
	<input type="checkbox"/> <b>Seminar</b>	<b>0 Contact Hours</b> (1 contact = 1 credit hour)
	<input type="checkbox"/> <b>Lab</b>	<b>0 Contact Hours</b> (2-3 contact = 1 credit hour)
	<input type="checkbox"/> <b>Clinical</b>	<b>0 Contact Hours</b> (3 contact = 1 credit hour)

Offered:  **Fall**  **Spring**  **Summer**

**CATALOG DESCRIPTION and IAI NUMBER (if applicable):**

This course is a continuation of the Preclinic course with importance on discussion of supplemental procedures, i.e. drug investigation, instrument sharpening, significance of the oral examination, agents used to desensitize teeth, appointment sequencing, post-operative instructions, the use of ultrasonic scaling devices, and air polishing.

- **ACCREDITATION STATEMENTS AND COURSE NOTES:** Standard 2-Educational Program:

- Curriculum:

2-8 The curriculum must include content in the following four areas: general education, biomedical sciences, dental sciences, and dental hygiene science. This content must be integrated and of sufficient depth, scope, sequence of instruction, quality, and emphasis to ensure achievement of the curriculum's defined competencies. A curriculum document must be submitted for each course included in the dental hygiene program for all four content areas.

2-8a General education content must include oral and written communications, psychology, and sociology.

2-8b Biomedical science content must include content in anatomy, physiology, chemistry, biochemistry, microbiology, immunology, general pathology and/or pathophysiology, nutrition, and pharmacology.

2-8c Dental sciences content must include tooth morphology, head, neck and oral anatomy, oral embryology and histology, oral pathology, radiography, periodontology, pain management, and dental materials.

2-8d Dental hygiene science content must include oral health education and preventive counseling, health promotion, patient management, clinical dental hygiene, provision of services for and management of patients with special needs, community dental/oral health, medical and dental emergencies, legal and ethical aspects of dental hygiene practice, infection and hazard control management, and the provision of oral health care services to patients with bloodborne infectious diseases.

2-9 The basic clinical education aspect of the curriculum must include a formal course sequence in scientific principles of dental hygiene practice, which extends throughout the curriculum and is coordinated and integrated with clinical experience in providing dental hygiene services.

2-10 The number of hours of clinical practice scheduled must ensure that students attain clinical competence and develop appropriate judgment. Clinical practice must be distributed throughout the curriculum.

2-11 The dental hygiene program must have established mechanisms to ensure a sufficient number of patient experiences that afford all students the opportunity to achieve stated competencies.

Patient Care Competencies:

2-12 Graduates must be competent in providing dental hygiene care for the child, adolescent, adult, and geriatric patient. Graduates must be competent in assessing the treatment needs of patients with special needs.

2-13 Graduates must be competent in providing the dental hygiene process of care which includes:

a) Comprehensive collection of patient data to identify the physical and oral health status.

b) Analysis of assessment findings and use of critical thinking in order to address the patient's dental hygiene treatment needs.

c) Establishment of a dental hygiene care plan that reflects the realistic goals and treatment strategies to facilitate optimal oral health.

d) Provision of patient-centered treatment and evidence-based care in a manner minimizing risk and optimizing oral health.

e) Measurement of the extent to which goals identified in the dental hygiene care plan are achieved.

f) Complete and accurate recording of all documentation relevant to patient care.

2-14 Graduates must be competent in providing dental hygiene care for all types of classifications of periodontal disease including patients who exhibit moderate to severe periodontal disease.

2-15 Graduates must be competent in interpersonal and communication skills to effectively interact with diverse population groups and other members of the health care team.

2-16 Graduates must demonstrate competence in:

a) Assessing the oral health needs of community-based programs

b) Planning an oral health program to include health promotion and disease prevention activities

c) Implementing the planned program, and,

d) Evaluating the effectiveness of the implemented program.

2-17 Graduates must be competent in providing appropriate life support measures for medical emergencies that may be encountered in dental hygiene practice.

2-18 Where graduates of a CODA accredited dental hygiene program are authorized to perform additional functions required for initial dental hygiene licensure as defined by the program's state specific dental board or regulatory agency, program curriculum must include content at the level, depth, and scope required by the state. Further, curriculum content must include didactic and laboratory/preclinical/clinical objectives for the additional dental hygiene skills and functions. Students must demonstrate laboratory/preclinical/clinical competence in performing these skills.

Ethics and Professionalism:

2-19 Graduates must be competent in the application of the principles of ethical reasoning, ethical decision making and professional responsibility as they pertain to the academic environment, research, patient care and practice management.

2-20 Graduates must be competent in applying legal and regulatory concepts to the provision and/or support of oral health care services.

• Critical Thinking:

2-21 Graduates must be competent in the application of self-assessment skills to prepare them for life-long learning.

2-22 Graduates must be competent in the evaluation of current scientific literature.

2-23 Graduates must be competent in problem solving strategies related to comprehensive patient care and management of patients.

## **COURSE TOPICS AND CONTENT REQUIREMENTS:**

### **I. Dental Hygiene Diagnosis**

#### **a. Definition**

i. Dental hygiene

ii. Dental

b. Dental hygiene diagnostic process

c. Human needs theory to diagnostic decision making

- d. Formulate and validate dental hygiene diagnoses
  - e. Dental hygiene diagnostic statements
    - i. Statement of problem
    - ii. Statement of cause/etiology
    - iii. Statement of signs and symptoms
  - f. Validate a dental hygiene diagnosis
  - g. Outcomes of dental hygiene diagnoses
- II. Dental Hygiene Care Plan, Evaluation, and Documentation
- a. Planning phase
    - i. Client's role in care plan development
  - b. Sequence for developing a dental hygiene care plan
    - i. Link dental hygiene diagnoses to the care plan
    - ii. Establish priorities
    - iii. Set client-oriented goals and evaluative measures
    - iv. Select evidence-base dental hygiene interventions
    - v. Establish an appointment schedule
  - c. Evaluation phase
    - i. Significance to the process of care
  - d. Client-centered care plan from a dental hygiene diagnosis
  - e. Documentation
    - i. Informed consent
    - ii. Informed consent
- III. Health conditions that influence dental procedures
- a. Implications of client health status for dental hygiene care
    - i. ASA classification system
  - b. rationale and indications for preprocedure prophylactic antibiotics
    - i. Infective endocarditis
    - ii. Prosthetic joint infections
    - iii. Dosage regimen guidelines
  - c. Consultation and collaboration with other healthcare professionals in order to develop an individualized dental hygiene care plan.
- IV. Appropriate information about the patients' pharmacologic history
- a. Comprehensive pharmacologic history
    - i. Medication list
  - b. Fundamental questions to gather a comprehensive pharmacologic history
    - i. Why is the client taking medication?
    - ii. What are the adverse effects of this drug?
    - iii. Are there potential drug interactions?
    - iv. Is there a problem with drug dosage?
    - v. How is the client managing his/her medications?
    - vi. Will any oral side effects of this medication require intervention?
    - vii. Are the client's symptoms caused by a known or unknown condition, or are the symptoms possible side effects of a drug that the client is taking?
    - viii. Given the pharmacologic history and other assessment data, what are the risks of treating this client?

V. Significance of oral conditions found during an extra- and intra-oral inspection

- a. Document significant findings in the client's record using precise descriptive terms, including appropriate follow-up and referral when atypical or abnormal tissue changes warrant further medical or dental evaluation
  - i. Location and distribution
  - ii. Size and shape
  - iii. Color
  - iv. Texture
  - v. Attachment and depth
  - vi. Consistency
  - vii. Mobility
  - viii. Symptomatology
- b. Cancers affecting the head and neck
  - i. Skin cancer
  - ii. Oral and oropharyngeal cancer
- c. Oral self-examination techniques to the client
  - i. Early detection discussion
- d. Biopsy use as well as other methods for early detection of oral cancer
  - i. Oral and Transepithelial Cytology
  - ii. Tissue Reflectance and Autofluorescence for Identification of Abnormal Oral Tissue
  - iii. Toluidine Blue Dye
  - iv. Biopsy

VI. Dental caries management by risk assessment (CAMBRA)

- a. Team approach in integrating CAMBRA into an oral healthcare practice.
- b. Disease of dental caries.
  - i. Definition
- c. Dental caries process
  - i. Demineralization
  - ii. Remineralization
  - iii. White spot lesion
- d. Saliva beneficial actions.
- e. Dental caries balance
  - i. pathologic factors
  - ii. protective factors
- f. Dental caries risk assessment for clients age 6 through adult
- g. Dental caries risk assessment for children 0 to 5 years of age
- h. Clinical guidelines for caries management by risk assessment by age.
- i. Professionally applied and self-applied topical fluorides
- j. Antimicrobial therapy
  - i. Chlorhexidine,
  - ii. Xylitol
  - iii. Iodine
- k. Buffering products
  - i. Sodium bicarbonate
- l. Calcium and phosphate products

## VII. Whitening agents and patient education

- a. Methods of whitening
  - i. Over-the-counter whitening products
    - 1. Advantages
    - 2. Disadvantages
  - ii. Professional dispensed whitening systems for home use
    - 1. Advantages
    - 2. Disadvantages
- b. Side effects of tooth whitening
  - i. Contraindications
- c. In-office bleaching procedures for vital teeth
  - i. Laser-assisted bleaching
  - ii. Power and combination bleaching
  - iii. Intracoronary bleaching
  - iv. Microabrasion
- d. Restorative procedures to manage stained teeth
  - i. Veneers
  - ii. Full-coverage crowns
- e. Ethical and legal aspects of tooth whitening.

## VIII. Tobacco cessation and patient education

- a. Systemic effects
- b. Oral health effects
- c. Challenges to successful tobacco cessation.
- d. Helping clients to become tobacco-free
  - i. National Cancer Institute's Five A's
  - ii. Tobacco cessation based on their readiness to quit.
  - iii. Three characteristics of patient-centered communication
    - 1. Collaborating, not persuading
    - 2. Eliciting information, not imparting information
    - 3. Emphasizing the client's autonomy, not the authority of the expert
- e. For clients who are not ready to quit
  - i. The brief intervention.
  - ii. Motivational interviewing and its four "opening strategies" to elicit change talk.
- f. For clients who are ready to quit
  - i. The initial Elicit-Provide-Elicit Model for brief assistance.
  - ii. The Ask, Advise, Refer (AAR) approach to tobacco cessation.
- g. Intensive tobacco cessation treatment programs
  - i. Key elements
  - ii. Coping strategies to prevent relapse
- h. U.S. Food and Drug Administration–approved pharmacologic products to facilitate tobacco cessation
  - i. Nicotine replacement therapy
  - ii. Transdermal Nicotine Replacement Therapy (Patch)
  - iii. Nicotine Polacrilex (Gum)

- iv. Nicotine lozenge
- v. Nicotine spray
- vi. Nicotine oral inhaler
- vii. Combination Nicotine Replacement Therapy
- viii. Sustained-Release Bupropion (Zyban)
- ix. Varenicline (Chantix)
- i. Dental hygienist's role related to tobacco in the community.

#### IX. Dentinal hypersensitivity management

- a. Definition
- b. Etiology
- c. Hydrodynamic theory
- d. Prevalence of dentinal hypersensitivity
  - i. Buccal cervical regions
- e. Dentinal hypersensitivity and other sources of tooth pain
- f. Management
  - i. Risk factors
  - ii. Factors that reduce dentinal hypersensitivity
  - iii. Active ingredients available
  - iv. Self-applied and professional (in-office) interventions f

#### X. Ultrasonic instrumentation

- a. Periodontal debridement
  - i. Ultrasonic instruments
    - 1. Manual and autotuned units
    - 2. Magnetostrictive units
      - a. Insert selection
      - b. Insert design
      - c. Functions of inserts
      - d. Care and maintenance
    - 3. Piezoelectric units
- b. Health-related outcomes
- c. Ultrasonic instruments in practice
  - i. Advantages
  - ii. Disadvantages
  - iii. Indications
  - iv. Precautions
  - v. Contraindications
- d. Instrumentation technique
  - i. Positioning
  - ii. Suctions and retracting
  - iii. Gasp
  - iv. Fulcrum
  - v. Dental mirror use
  - vi. Adaption
  - vii. Activation

#### XI. Decision Making Related to Nonsurgical Periodontal Therapy

- a. Define nonsurgical periodontal therapy

- i. Disease activity
      - ii. Disease severity
    - b. Nonsurgical periodontal therapy purpose
    - c. Oral prophylaxis
    - d. Periodontal maintenance therapy
    - e. Implementation of nonsurgical periodontal therapy
      - i. Mechanical nonsurgical pocket therapy
      - ii. Chemotherapy for periodontal disease
    - f. Clinical outcomes of periodontal debridement
    - g. Clinical and therapeutic endpoints
    - h. Evaluation
    - i. Dental benefit plans and nonsurgical periodontal therapy
    - j. Rationale for periodontal maintenance therapy
      - i. Appropriate intervals based on individual client needs
    - k. Dental hygienist's role after periodontal surgery
- XII. Air polishing
- a. Effects on oral and dental tissues
  - b. Effects on restorations and titanium implants
  - c. Safety issues
  - d. Indications and contraindications
  - e. Precautions
  - f. Techniques
  - g. Procedure
    - i. Selection
    - ii. Maintenance
    - iii. Infection control for instruments, devices, and armamentaria
- XIII. Instrument sharpening concepts
- a. Benefits of using instruments with sharp cutting edges
  - b. Compare sharp cutting edges and those with dull cutting edges
  - c. Two methods for determining if a cutting edge is sharp
    - i. Visual
    - ii. Tactile
  - d. Important design characteristics to be maintained when sickle scalers and universal and are-specific curets are sharpened
  - e. Different sharpening stones
  - f. Care of a sharpening stone
  - g. Common sharpening errors
  - h. Proper relationship of the instruments working end to the sharpening stone
  - i. Describe the methods, techniques, and importance of instrument sharpening.
  - j. Prevention and management instrument tip breakage
- XIV. Sutures and dressings
- a. Functions
  - b. Purposes
  - c. Differences between absorbable and nonabsorbable sutures
  - d. Suture removal procedure
  - e. Periodontal dressing placement procedure



- f. Periodontal dressing removal procedure
  - g. Management of biofilm upon placement and removal
- XV. Dental hygiene appointment sequencing
- a. Appointment intervals
    - i. patient's risk factors
    - ii. Compliance
    - iii. Oral health history
  - b. Steps in a continuing care appointment
    - i. Assessment
    - ii. Care plan
    - iii. Therapy

#### **INSTRUCTIONAL METHODS:**

- Lecture
- Flipped Classroom
- Slide Presentations
- Class discussion
- Demonstration
- Visual aids - videos, models, slides
- Exams and quizzes
- Problem solving exercises

#### **EVALUATION OF STUDENT ACHIEVEMENT:**

A grade of "C" is required for graduation from the Dental Hygiene Program. The following grading scale will be used as a guide in determining the final grade in this course.

A= 92-100  
B= 83-91  
C= 75-82  
D= 68-74  
F= 67 and below

#### **INSTRUCTIONAL MATERIALS:**

##### **Textbooks**

Bowen, D. M., & Pieren, J. A. (2019). *Darby and Walsh Dental Hygiene: Theory and Practice*, (5th ed.). Elsevier Inc.

Gehrig, J. (2019). *Fundamentals of Periodontal Instrumentation & Advanced Root Instrumentation* (8th ed.). Jones & Bartlett Learning.

Blue, C. M. (2017). *Darby's Comprehensive Review of Dental Hygiene* (8th ed.). Elsevier Inc.

##### **Resources**

Navigate 2 Advantage Fundamentals of Periodontal Instrumentation & Advanced Root Instrumentation, Enhanced 8e

## **LEARNING OUTCOMES AND GOALS:**

### **Institutional Learning Outcomes**

- 1) Communication – to communicate effectively;
- 2) Inquiry – to apply critical, logical, creative, aesthetic, or quantitative analytical reasoning to formulate a judgement or conclusion;
- 3) Social Consciousness – to understand what it means to be a socially conscious person, locally and globally;
- 4) Responsibility – to recognize how personal choices affect self and society.

### **Course Outcomes and Competencies**

#### **Upon completion of the course, the student will be able to:**

1. Explain Dental Hygiene Diagnosis
  - a. Define diagnosis and differentiate between a dental hygiene diagnosis and a dental diagnosis.
  - b. Explain the dental hygiene diagnostic process
  - c. Identify interventions that support various dental hygiene diagnoses.
  - d. Apply human needs theory to diagnostic decision making.
  - e. Discuss formulating and validating dental hygiene diagnoses,
  - f. Write dental hygiene diagnostic statements.
  - g. Explain how to validate a dental hygiene diagnosis.
  - h. Discuss the outcomes of dental hygiene diagnoses.
2. Explain Dental Hygiene Care Plan, Evaluation, and Documentation
  - a. Explain the purpose of the planning phase and the client's role in care plan development.
  - b. Identify the sequence for developing a dental hygiene care plan and how each step relates to the dental hygiene diagnosis.
  - c. Explain the purpose of the evaluation phase and its significance to the process of care.
  - d. Formulate a client-centered care plan from a dental hygiene diagnosis.
  - e. Discuss documentation, including its significance to the process of care and practitioner liability.
3. Identify health conditions that influence dental procedures
  - a. Recognize implications of client health status for dental hygiene care.
  - b. Understand the rationale and indications for preprocedure prophylactic antibiotics.
  - c. Identify the need for consultation and collaboration with other healthcare professionals in order to develop an individualized dental hygiene care plan.
4. Obtain appropriate information about the patients' pharmacologic history
  - a. Discuss the importance of taking a comprehensive pharmacologic history and explain the first step of compiling the medication list.
  - b. Identify fundamental questions to gather a comprehensive pharmacologic history
5. Explain the significance of oral conditions found during an extra- and intra-oral inspection

- a. Describe and document significant findings in the client's record using precise descriptive terms, including appropriate follow-up and referral when atypical or abnormal tissue changes warrant further medical or dental evaluation.
  - b. Discuss cancers affecting the head and neck
  - c. Explain oral self-examination techniques to the client.
  - d. Explain the use of biopsy as well as other methods for early detection of oral cancer.
6. Discuss dental caries management by risk assessment (CAMBRA)
- a. Explain the team approach in integrating CAMBRA into an oral healthcare practice.
  - b. Define the disease of dental caries.
  - c. Explain the dental caries process
  - d. Explain the process of demineralization and remineralization that occurs in the oral environment.
  - e. List saliva's beneficial actions.
  - f. Explain the dental caries balance.
  - g. Discuss dental caries risk assessment for clients age 6 through adult
  - h. Discuss dental caries risk assessment for children 0 to 5 years of age
  - i. Discuss caries management and identify clinical guidelines for caries management by risk assessment by age.
  - j. Explain, based on level of dental caries risk, when the following are indicated:
    - i. Professionally applied and self-applied topical fluorides, which are used to enhance remineralization.
    - ii. Antimicrobial therapy (e.g., chlorhexidine, xylitol, iodine), which is used to reduce levels of pathogenic organisms.
    - iii. Buffering products (e.g., sodium bicarbonate), which are needed to neutralize acid attacks.
    - iv. Calcium and phosphate products, which are needed to replace minerals missing in saliva.
7. Discuss whitening agents and patient education
- a. Identify the advantages and disadvantages of each method of whitening.
  - b. Describe side effects of tooth whitening.
  - c. Explain restorative procedures to manage stained teeth.
  - d. Discuss ethical and legal aspects of tooth whitening.
8. Discuss tobacco cessation and patient education
- a. Describe systemic effects and oral health effects of tobacco use.
  - b. Explain the challenges to successful tobacco cessation.
  - c. Discuss how to help clients to become tobacco-free, including:
    - i. Apply the National Cancer Institute's Five A's approach to tobacco cessation.
    - ii. Assist clients with tobacco cessation based on their readiness to quit.
    - iii. Describe three characteristics of patient-centered communication.
  - d. For clients who are not ready to quit, describe the following:
    - i. The brief intervention.
    - ii. Motivational interviewing and its four "opening strategies" to elicit change talk.

- e. For clients who are ready to quit, describe the following:
    - i. The initial Elicit-Provide-Elicit Model for brief assistance.
    - ii. The Ask, Advise, Refer (AAR) approach to tobacco cessation.
  - f. Discuss the key elements of intensive tobacco cessation treatment programs, including coping strategies to prevent relapse.
  - g. Name the U.S. Food and Drug Administration–approved pharmacologic products to facilitate tobacco cessation.
  - h. Explain the key elements of an intensive, multiple-session tobacco cessation program.
  - i. Explain the dental hygienist's role related to tobacco in the community.
9. Discuss dentinal hypersensitivity management
- a. Describe dentinal hypersensitivity and its etiology.
  - b. Explain the hydrodynamic theory.
  - c. Explain the prevalence of dentinal hypersensitivity and list teeth most likely to experience it.
  - d. Distinguish between dentinal hypersensitivity and other sources of tooth pain.
  - e. Discuss the management of dentinal hypersensitivity
  - f. Identify risk factors contributing to dentinal hypersensitivity.
  - g. Explain factors that reduce dentinal hypersensitivity.
  - h. Describe active ingredients available to treat hypersensitivity and mechanisms of action.
  - i. Identify self-applied and professional (in-office) interventions for dentinal hypersensitivity.
10. Discuss Ultrasonic instrumentation
- a. Discuss power-driven instrumentation used in oral prophylaxis, nonsurgical periodontal therapy, and periodontal maintenance therapy
  - b. Discuss strategies for appropriate insert or tip selection based on client needs.
  - c. Apply correct procedures for ultrasonic instrumentation using standard and thin designs.
  - d. Compare and contrast magnetostrictive and piezoelectric instrumentation.
  - e. Explain health-related outcomes of using ultrasonic instrumentation.
  - f. Discuss ultrasonic instrumentation in practice, including indications, precautions, and contraindications for ultrasonic instrumentation.
  - g. Demonstrate proper instrumentation technique.
11. Discuss Decision Making Related to Nonsurgical Periodontal Therapy
- a. Discuss basic concepts of nonsurgical periodontal therapy, including:
  - b. Explain similarities and differences between disease activity and disease severity.
  - c. Differentiate among nonsurgical periodontal therapy, oral prophylaxis, and periodontal maintenance therapy.
  - d. Discuss implementation of nonsurgical periodontal therapy.
  - e. Describe optimal clinical and therapeutic outcomes from nonsurgical periodontal therapy.
  - f. Explain how dental benefit plans influence nonsurgical periodontal therapy.
  - g. Explain the rationale for periodontal maintenance therapy and suggest appropriate intervals based on individual client needs.

- h. Explain the dental hygienist's role after periodontal surgery.
12. Discuss Air polishing
- a. Describe effects of air polishing on teeth, gingiva, restorative materials, and implants.
  - b. Describe indications, contraindications, precautions, and techniques for air polishing.
  - c. Describe selection, maintenance, and infection control for instruments, devices, and armamentaria used for air polishing.
13. Explain instrument sharpening concepts
- a. Discuss the benefits of using instruments with sharp cutting edges
  - b. Distinguish between those with sharp cutting edges and those with dull cutting edges
  - c. Demonstrate two methods for determining if a cutting edge is sharp
  - d. Describe important design characteristics to be maintained when sickle scalers and universal and are-specific curets are sharpened
  - e. Discuss different sharpening stones
  - f. Demonstrate the correct care of a sharpening stone
  - g. Describe common sharpening errors
  - h. Describe and demonstrate the proper relationship of the instruments working end to the sharpening stone
  - i. Describe the methods, techniques, and importance of instrument sharpening.
  - j. Discuss how to prevent and manage instrument tip breakage.
14. Explain sutures and dressings
- a. State the functions and purposes for sutures and periodontal dressings
  - b. Describe the differences between absorbable and nonabsorbable sutures
  - c. Describe the procedure for suture removal
  - d. Describe the procedure for periodontal dressing placement and periodontal dressing removal
  - e. Explain approaches for managing biofilm with the periodontal dressing in place and upon removal
15. Explain dental hygiene appointment sequencing
- a. Determine appointment intervals based on an individual patient's risk factors, compliance, and oral health history
  - b. List steps in a continuing care appointment including assessment, care plan, and therapy