

LESSON PLAN #2 (TEMPLATE)

Course: Community Health 401	Topic: Sleep Apnea	Audience: Adult Learners (Senior Level Dental Hygiene Students)
Needed Materials: PowerPoint and Handout	Needed Personnel: None needed	Total Time: 50 minutes

OBJECTIVES: Upon completion of the lecture, the student should be able to:

(#1-4 cognitive; #5 affective)

1. Define the terms sleep apnea, obstructive sleep apnea, central sleep apnea, and complex sleep apnea.
2. Discuss how is sleep apnea diagnosed.
3. Describe the signs and symptoms seen in patients with sleep apnea.
4. Evaluate the risk factors of sleep apnea.
5. Indicate the role of dental hygienists in providing care for patients with sleep apnea.

INSTRUCTIONAL SET:

Give a brief description of what you will do (1-3 sentences for each white sections).

TOTAL TIME FOR INSTRUCTIONAL SET: __4__ minutes

Introduce Topic:

Sleep apnea has become a significant health issue in the United States. It is very common, as common as type 2 diabetes. It affects more than 18 million Americans, according to the National Sleep Foundation.

Establish Mood:

By attending today's lecture, you are taking initiative to learn more about sleep apnea while learning about its main categories and risk factors. Today we will learn about the common signs and symptoms of sleep apnea and how is it diagnosed. We will also learn about your role as a dental hygienist in providing care for patients.

Gain Attention/Motivate:

If you knew of a friend or family member who snores loudly and feels tired even after a full night's sleep, would you know whether they have sleep apnea or not? If so, would you know how to diagnosis and educate the patient on risk factors, symptoms, and treatment options?

Establish Rationale:

By understanding what sleep apnea is and understanding its signs and symptoms, healthcare providers can play a vital role in providing care for patients.

Establish Knowledge Base:

Has anyone heard of the term sleep apnea?

Sleep apnea is a potentially serious sleep disorder in which breathing repeatedly stops and starts.

LESSON CONTENT:

Use outline to give a sample of main lecture points (no sentences for this). Roman numerals **I-V** will correspond to the 5 objectives and serve as major headings (DO NOT re-write objectives). **A-C** will be sub-headings that list important supporting details. Give a brief summary/closure and include an assignment (use sentences for this).

TOTAL TIME FOR LESSON CONTENT: __41__ minutes

What I Do (Lecture):

I. Sleep Apnea

- A. Definition: An involuntary cessation of breathing that occurs while the patient is asleep.
- B. Pathophysiology
- C. Main Categories

III. Diagnosis

- A. Physical Exam
- B. Sleep Apnea Tests
- C. Dangers of Undiagnosed Sleep Apnea

II. Signs and Symptoms

- A. Common Signs and Symptoms
- B. Symptoms in Children
- C. Related Health Conditions

IV. Risk Factors

- A. Prevalence
- B. Changeable Risk Factors
- C. Unchangeable Risk Factors

V. Dental Hygienist Role

- A. Detection
- B. Educating Patients
- C. Medical Referral

SUMMARY/CLOSURE: I hope that you now have a better understanding of what sleep apnea is. I hope that through today's information you have learned what the signs and symptoms of sleep apnea are, its risk factors, how to diagnose it, and be able to provide care for patients. Keep in mind how sleep apnea is diagnosed, and it can have serious and life-shortening consequences if left undiagnosed. Remember that you have a critical role in detection, referral, and educating patients about health risks, symptoms and treatment options.

ASSIGNMENT: For a better understanding of our topic today you should:

1. Explore websites listed on your handout
2. Search magazines for current articles in various journals

3. Research sleep apnea treatment offered in dental offices in your local area

What We Will Do (Critical Thinking Activity):

Choose 1 option from the list and give a brief description of what the class will do for this high-level critical thinking activity.

TOTAL TIME FOR CRITICAL THINKING ACTIVITY: 5 minutes

CHOOSE ONE OPTION:

1. Case Study: You have a patient who is a 55-year-old male who has been using alcohol and smoking for 20 years and recently tells you he is complaining of shortness of breath. He has gained 10 lbs over the past 6 months and feels that his breathing has become more difficult. His wife mentions that he has been more tired lately and has trouble concentrating on tasks. He has restless sleep during the night, and she is getting tired of having her own sleep disrupted with his loud snores. Now that you are aware of the signs and symptoms of sleep apnea, its risk factors, how it is diagnosed and how to provide patient care; how will you assess this case, how would you evaluate his risk factors and what information could you tell him about health risks and treatment options?

1. How do you assess this patient for sleep apnea?

Answer: You will perform a comprehensive assessment, review medical history and asking questions related to risk factors, symptoms and concomitant conditions to identify if this patient is affected by, or at risk for sleep apnea. You will also perform a thorough extraoral and intraoral examinations to note any clinical features associated with sleep apnea.

2. What are the signs and symptoms do you notice in this patient?

Answer: Signs and symptoms include, loud snores, shortness of breath and difficulty in breathing. Patient feels tired and experience difficulty in focusing and concentrating on tasks from restlessness and interrupted sleep during the night.

3. The patient says he feels healthy overall besides the recent sleep disruption and believes he will be back to normal soon, with your knowledge, what would you tell your patient to encourage him to manage his risk factors for sleep apnea?

Answer: You may feel healthy now but by changing your unhealthy lifestyle you will feel even better and healthier. Drinking alcohol, smoking, and being overweight can increase the severity of sleep apnea. Alcohol and smoking can affect how the brain controls sleep or the muscles involved in breathing. Exercise and a healthy diet are encouraged for weight loss; similarly, tobacco cessation and reduced alcohol intake can decrease symptom severity, help you have better breathing and improve your quality of sleep.

4. What are the treatment options you would recommend for this patient?

Answer: You will make recommendations to help the patient maintain an open airway during sleep. These could include healthy lifestyle changes or a breathing device such as a positive airway pressure (PAP) machine, mouthpiece, or implant. You should advise your patient to go to his doctor or dentist and tell him that depending on the type and severity of his sleep apnea and his needs and preferences, other treatments may be possible.

ASSESSMENT:

What Students Will Do (Independent Assessment):

List objectives in order and a corresponding test item for each. #1-3 should be multiple choice questions, #4-5 should be short answer questions. Include answer key.

1. **Objective #1:** Define the terms sleep apnea, obstructive sleep apnea, central sleep apnea, and complex sleep apnea.

Test Item: Sleep apnea types may involve all the following **EXCEPT** one. Which is the **EXCEPTION**?

- a. Obstructive
- b. Central
- c. Recurrent
- d. Complex

2. **Objective #2:** Discuss how is sleep apnea diagnosed.

Test Item: Diagnostic tests commonly used to diagnose Sleep Apnea may include the following **EXCEPT** one. Which is the **EXCEPTION**?

- a. Random plasma glucose test
- b. Home sleep test
- c. Nocturnal polysomnography test
- d. Electroencephalogram test

3. **Objective #3:** Describe the signs and symptoms seen in patients with sleep apnea.

Test Item: Signs and symptoms of sleep apnea may include the following **EXCEPT** one. Which is the **EXCEPTION**?

- a. Loud snoring
- b. Gasping for air during sleep
- c. Morning headache
- d. Facial swelling

4. **Objective #4:** Evaluate the risk factors of sleep apnea.

Test Item: 61-year old Frank presents for his routine dental hygiene exam. He mentions that he frequently experienced daytime sleepiness and restless sleep during the night. He also mentions that his wife complained of his loud snoring and gasping throughout the night. He is overweight and drinks alcohol. He has a history of childhood asthma and he has family members with sleep apnea. His past medical history is also relevant for hypertension, and recently diagnosed non-insulin-dependent diabetes. Evaluate the factors that increase the risk of sleep apnea for this patient?

5. **Objective #5:** Indicate the role of the dental hygienist in providing care for patients with sleep apnea.

Test Item: In one paragraph (3-4 sentences), suggest how dental hygienists can provide care for patients with sleep apnea.

ANSWER KEY:

- 1. C
- 2. A

3. D

4. Risk factors include being male and older as sleep apnea occurs significantly more often in older and male adults. Also using alcohol can increase relaxation of the muscles in the mouth and throat, closing the upper airway and lead to sleep apnea. While obesity greatly increases the risk of sleep apnea as fat deposits around upper airway can obstruct breathing. Having family history and some medical conditions such as high blood pressure, type-2 diabetes and asthma might increase the risk of sleep apnea.

5. As a dental hygienist, I will perform a comprehensive assessment, review medical history and ask questions related to risk factors, symptoms and medical conditions. I will also Perform thorough extraoral and intraoral examinations and identify patients who should be referred to a physician for further evaluation. In addition, I will Educate the patient about the health risks, symptoms, and treatment options associated with this condition and advise them on lifestyle modifications, such as smoking cessation and nutritional counseling.

REFLECTION:

Briefly answer each of the items with 1-2 sentences:

1. What went well? I think covering the topic and following the outline at the same time went very well.
2. What do I need to improve upon? I need to improve my skills in writing test questions.
3. Did they get it? Yes, they did.

REFERENCES:

In the white space below, list at least 5 references from the last 5 years from a variety of sources using APA style.

American Dental Association. (2020). *Sleep apnea*. <https://www.ada.org/en/member-center/oral-health-topics/sleep-apnea-obstructive>

American Sleep Apnea Association. (n.d.). *Sleep apnea information for clinicians*. <https://www.sleepapnea.org/learn/sleep-apnea-information-clinicians/>

Casa-Levine, C. R. (2018). How to screen for obstructive sleep apnea. *Dimensions of Dental Hygiene*, 16(12), 30, 33–35.
<https://dimensionsofdentalhygiene.com/article/screen-obstructive-sleep-apnea/>

Kornegay, E. C., & Brame, J. L. (2015). Obstructive sleep apnea and the role of dental hygienists. *Journal of dental hygiene*, 89(5), 286–292.

Mayo Clinic. (2020, July 28). *Sleep apnea - Symptoms and causes*. <https://www.mayoclinic.org/diseases-conditions/sleep-apnea/symptoms-causes/syc-20377631>

National Heart, Lung, and Blood Institute. (2020). *Sleep apnea*. U.S. Department of Health and Human Services, National Institute of Health.

<https://www.nhlbi.nih.gov/health-topics/sleep-apnea>

***This lesson plan template is a brief overview of a whole lesson plan. It should provide a good understanding of an entire instructional set.