Lesson 5.7: Is addiction a chronic disease?

1. Do now (5-7 min):
Define the term disease, and categorize a list of diseases, including addiction, as either acute or chronic.

2. Discussion (7-10 min):
Socratic discussion of the Do Now.

3. Activity (10-15 min):
Jigsaw readings on case studies of chronic diseases (addiction, hypertension, diabetes).

4. Wrap Up (10-15 min):
Teach-back during which the similarities and differences between the case studies are highlighted, especially in terms of how each disease treatment involved behavioral modification.

5. Homework:
Act as an advisor to government agency – Help agency decide whether insurance should cover treatment for addiction.

6. Materials:
1. Printed materials
   • Do Now worksheet
   • Jigsaw readings
   • Jigsaw worksheet
Lesson 5.7

1. DO NOW

Give each student a copy of the Do Now worksheet for this lesson and have them complete it with a partner. This worksheet asks student to define the term disease, as well as categorize a list of sixteen diseases as either acute or chronic. Allow the students 5 minutes to complete this task.

**Do Now:**
- Define the term disease.
- Categorize the following diseases as acute or chronic.
  - High blood pressure
  - Type 1 diabetes
  - Strep throat
  - Common cold
  - Chickenpox
  - HIV
  - Depression
  - Meningitis
  - Pneumonia
  - Asthma
  - Arthritis
  - Cancer
  - Ear infection
  - Epilepsy
  - Multiple sclerosis
  - Addiction

2. Discussion

**What is a disease?**

- Abnormal condition affecting the body

**Ask the students – what is disease?**

- Students will likely say that disease is a problem with the body that makes a person feel badly. They may also respond that a disease is something for which you see a doctor or for which you take a medicine.
- Animate the slide, and tell the students that for the purposes of our class, we will define disease as an abnormal condition affecting the body.

**Acute vs Chronic**

- How would you describe acute diseases?
  - Short duration but may be very intense and have a rapid onset.
- How would you describe chronic diseases?
  - Persist over a long period of time.

**Ask the students – what is the difference between an acute disease and a chronic disease?**

- Students will likely say that an acute disease is a disease that can be healed in a short amount of time, whereas a chronic disease lasts forever.
- Animate the slide and tell the students that acute refers to conditions that have a short duration but may be very intense and have a rapid onset.
- Animate the slide and tell the students that chronic refers to conditions that persist over a long period of time.
2. Discussion

Ask the students, can chronic diseases be treated?

- Students will likely say no, thinking that treatment is equivalent to cure.
- Emphasize that while chronic diseases will never be cured, they can be treated to reduce symptoms and improve outcome.

Acute Conditions

Use this slide to review the Do Now with the students.

- Which of the “Do Now” diseases are acute?
  - Short duration.
  - Strep throat
  - Common cold
  - Chickenpox
  - Meningitis
  - Pneumonia
  - Ear infection

Ask the students – what diseases on your Do Now worksheet are acute (have short duration)?

- The students will likely be able to list most of the acute diseases including, strep throat, common cold, chickenpox, meningitis, pneumonia, and ear infection.
- After the students have named several, animate the slide to show the students the entire list.
- Emphasize the point that acute diseases have a short duration.

Chronic Conditions

Use this slide to review the Do Now with the students.

- Which of the “Do Now” disease are chronic?
  - Persist for a long period of time.
  - High blood pressure
  - Type 1 diabetes
  - HIV
  - Depression
  - Asthma
  - Arthritis
  - Cancer
  - Epilepsy
  - Multiple sclerosis
  - Addiction

Ask the students – what disease on your Do Now worksheet are chronic, meaning that they persist for a long period of time?

- The students will likely be able to list most of the chronic diseases, including high blood pressure, type 1 diabetes, HIV, depression, asthma, arthritis, cancer, epilepsy, multiple sclerosis, addiction.
- After the students have named several, animate the slide to show the students the entire list.
- Emphasize the point that chronic diseases persist for a long time.

After giving the students about 10 minutes to analyze their case study, have each student group briefly present their case study. Allow each group to use the slides prepared for their case study (9-14) to present their study to the class.

Make sure that each group presents:

- What disease the individual had
- What the treatment was
- Whether or not the individual stuck to the treatment
- What the final outcome was

The Case Studies
2. Discussion

Why is addiction considered to be a chronic disease?

Use this slide to facilitate a brief discussion about the fact that addiction is not only considered a disease, but that it is chronic.

<table>
<thead>
<tr>
<th>Why is addiction considered to be a chronic disease?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Addiction causes changes in the brain.</td>
</tr>
<tr>
<td>• Addiction is the compulsive, non-voluntary use of drugs.</td>
</tr>
<tr>
<td>• People are never completely cured of their addictions.</td>
</tr>
</tbody>
</table>

Ask the students – why is addiction considered to be a chronic disease? Lead the students through this concept by first asking what happens to the brain in response to drug use?

- The students will likely be able to describe that drug use changes the way the brain functions.
- Animate the slide to show students that addiction causes changes in the brain.

Ask the students – is addiction a voluntary behavior?

- The students should remember from the first activity in this unit that while the initial use of a drug is voluntary, addiction is the compulsive, non-voluntary use of drugs.
- Animate the slide to show students that addiction is a compulsive, non-voluntary use of drugs.

Ask the students – are people ever cured of their addictions?

- This question is the focus of the lesson today, and because we have yet to address whether or not people can be cured of their addictions, let the students debate this question for just a few minutes.
- Then animate the slide to show students that because people are never completely cured of their addictions, it is considered to be a chronic disease.

Tell the students that while people might be able to stop abusing drugs, the changes that drug addiction caused to their brains will be present for the remainder of life. Also, addicted individuals will to some extent battle their drug cravings throughout their lives.

3. Activity

Dealing with Chronic Disease

Prepare the students for the Jigsaw Activity. Tell the students that they will be working in groups to analyze case studies of patients with different chronic diseases.

Divide the students into six groups. Give each group a case study and a jigsaw worksheet.
3. Activity

The Case studies

After giving the students about 10 minutes to analyze their case study, have each student group briefly present their case study. Allow each group to use the slide prepared on their case study to present their study to the class.

Make sure that each group presents:

- What disease the individual had
- What the treatment was
- Whether or not the individual stuck to the treatment
- What the final outcome was

Completing the cases

Comparing the Cases

- Who was cured of their disease? What is the difference between treatment and cure?
- How are the treatments for the different diseases similar? How are they different?
- How were the actions and strategies that the individuals took to deal with their diseases similar? How were they different?

Ask the students – Who was cured of their disease? What is the difference between treatment and cure?

- While some of the individuals were more successful at treating their disease than others, none of these individuals were cured of his or her disease.

- Treatment eliminates or reduces the effects of the disease, but it does not eliminate the disease. If a disease is cured, the problem is fixed and requires no additional treatment.

Ask the students – How are the treatments for the different diseases similar? How are they different?

- In most cases, the prescribed treatment included both medication and behavioral treatments. In each case, treatment is a long-term process.

- Different medications are used to treat different diseases. And in the case of inhalant abuse, there are no medical treatments to help beat the addiction.
3.

Ask the students – How were the actions and strategies that the individuals took to deal with their diseases similar? How were they different? All the individuals initially complied with the prescribed treatment. All the individuals experienced a time when they ignored the treatment plan and had recurring problems with the disease.

- Some of the individuals were more successful at completing treatment and improving the symptoms of their disease, while others found it more difficult to comply with treatment.

4.

Wrap Up

Addiction is a Chronic Disease

Use this slide to wrap up the idea that addiction is a chronic disease.

Tell the students that drug addiction is considered a chronic disease because it has long term effects on brain function, just as heart disease has long term effects on heart function.

Ask the students to compare the PET scans of the healthy and addicted brain.

- The addicted brain has decreased activity compared to the healthy brain, evident by less yellow coloration.

Ask the students to compare the PET scans of the healthy and diseased heart.

- The diseased heart has decreased activity compared to the healthy heart, evident by less red coloration.

Homework: Insurance advisor

- Have the students write a paragraph to advise a government agency on whether or not insurance companies should be required to cover the cost of treatment for addiction. Instruct the students to include evidence that they have learned in class.