

Tobacco 101

Summary

This lesson will help students understand the short and long term effects of using tobacco as well as why it is addictive.

Main Core Tie

Health Education II (9-12)

[Strand 4: SUBSTANCE ABUSE PREVENTION \(SAP\) Standard HII.SAP.4](#)

Materials

- One wide-mouth, two quart, plastic jar
- One quart of dark molasses or dark Karo syrup
- [Handout: "What's in Cigarette Smoke"](#)
- [Worksheet: "What Have You Learned"](#)
- [Worksheet: "Benefits of Quitting"](#)
- [Diagram: "Cycle of Addiction"](#)
- A pair of gloves (such as gardening gloves)
- A roll of sewing thread
- One wooden clothespin (or medium binder clip) for each student

Intended Learning Outcomes

- List both short and long term health effects of using tobacco.
- Understand why tobacco is addictive and describe the cycle of addiction.
- Verbalize the benefits of a tobacco-free lifestyle.
- Practice effective refusal techniques.

Instructional Procedures

Readiness or Getting the Lesson Started

Explain that this lesson reviews and refreshes concepts that students have learned over the years about tobacco. Encourage students to use these past lessons to contribute to the discussion.

Ask the following questions and play an informal game of "Did You Know." The idea is not to grade the answers or play "what am I thinking" with the students but to give them a chance to start thinking about tobacco use. Have the students jot the answers on any piece of scratch paper or the class may respond as a group. Notice that the last three questions can have many answers and require a personal opinion.

What % age of Utah youth, ages 12-18, do not use tobacco?

What %age of Utah youth, ages 12-18, have used tobacco in the past 30 days?

How many chemicals are found in a common cigarette?

What quantity of tar is annually deposited into the lungs of a pack-a-day smoker?

How many Utah people die each year from tobacco related diseases?

What are two benefits of being tobacco free?

What is the best way for you to "Refuse to Use."

What is a short-term effect of tobacco use?

Tar Jar Activity (Pendell 1996:82)

(Directions for Making a Tar Jar)

Fill the plastic jar with the molasses or dark Karo syrup and close the lid tightly You may want to

glue the lid down so students cannot open it.

Pass around Tar Jar. Encourage participants to slowly turn it around to see the tar "goop" off the sides and top of the bottle.

Ask students to share what they know about the tars in tobacco. (See American Cancer Society/CIBA-GEIGY Corp for more detailed information.)

The Tar Jar contains one quart of "tar," the amount of tar that accumulates in the lungs after only one year of smoking a pack of cigarettes per day.

Cigarette smoke contains over 4,000 chemicals, including at least 50 that are known to cause cancer. In addition, many of these substances, such as carbon monoxide, tar, arsenic, and lead, are poisonous and toxic to the human body.

Tar affects the lungs by damaging cilia.

Cilia are tiny hairs in the lungs that move in a wave-like motion and help clean the lungs of mucus and smoke-borne chemicals.

When cilia don't work, mucus that carries dust, chemical particles and bacteria is no longer cleansed from the lungs.

When mucus cannot be removed from the lungs, it results in an overload of mucus and results in "Smoker's Cough." With "Smoker's Cough," large amounts of mucus are coughed up, however not enough to completely and properly clean the lungs.

Excess mucus constantly in the lungs results in increased infections, such as colds, pneumonia, and chronic irritation that can lead to cancer, emphysema, chronic bronchitis and chronic lung obstructions.

Fortunately, when a person quits smoking, the cilia begin to re-grow within nine months.

Handout: "What's in Cigarette Smoke"

Read over and discuss the list of chemicals with the group.

Explain to the group that, although some people think that switching from high-tar and high-nicotine cigarettes to those with low tar and nicotine makes smoking safer, this is not true. When people switch to brands with lower tar and nicotine, they often end up smoking more cigarettes, or more of each cigarette, to get the same nicotine dose as before. A low-tar cigarette is just as harmful as a high-tar cigarette.

Discuss why smokeless tobacco is not harmless tobacco. (It contains the same ingredients as other tobacco products.)

Strategies and activities

As a group, discuss the short term, long-term and social consequences of tobacco use. Use a whiteboard list and process students' ideas. The following ideas may help with the discussion. It is not necessary to use every example.

Short-term health consequences include:

Increased blood pressure

Decreased temperature in hands and feet

Increased likelihood to get colds and lung infections

Increased heart rate

Cavities

Gum disease

Decreased sense of taste and smell

Coughing from irritated mouth and throat

Shortness of breath

Irritates eyes

Loss of stamina (athletic ability)

Leukoplakia -- thickened, wrinkled white patch on the inside of the mouth (smokeless

tobacco)

Abrasion -- a wearing away of the enamel on the teeth (smokeless tobacco)

Effects on your body immediately after use

Heart rate goes up 10-20 beats per minute

Blood pressure goes up 10-20 points

Temperature in toes and fingers drops because of decreased blood flow

Long-term health consequences

Personal Appearance

Causes skin to age and wrinkle prematurely

Bad breath

Smelly skin, hair and clothes

Yellow teeth

Causes changes in voice (women's voices tend to get deeper)

Your Body

A one pack a day smoker shortens his/her life by about five years

A two pack a day smoker shortens his/her life by about eight to ten years

Risk of all cancers increases with tobacco use. Lung (ten times more likely in smokers than non-smokers), mouth, pharynx, larynx, esophagus, pancreas, bladder, kidney, and stomach cancer.

Cardiovascular

Smoking is the principal cause of heart disease, the most common cause of death in the U.S.

Arteriosclerosis -- hardening of the arteries

Stroke

Respiratory

Emphysema

Chronic bronchitis

Asthma

Chronic Obstructive Pulmonary Disease (COPD -- a combination of chronic bronchitis and emphysema)

Increased risk of Sudden Infant Death Syndrome (SIDS) for babies of smokers

Alters hormone concentrations in both men and women which can affect reproduction

Social consequences

Presents a financial burden

Exposure to second hand smoke is harmful to others

Indoor Clean Air Act (finding a place to smoke can be inconvenient)

Social unacceptability of putting fingers in the mouth and spitting (smokeless tobacco)

Addiction consequences

Nicotine is an addictive drug and most smokers become addicts and so cannot easily break the habit

It only takes three to five cigarettes to become addicted to tobacco

Although only five percent of daily smokers surveyed in high school said they would definitely be smoking five years later, close to 75 percent were smoking seven to nine years later. (U.S. Dept. of Health and Human Services, 1996)

NOTE: It is important to emphasize to youth that smokeless tobacco, pipe tobacco, cigars and other delivery systems are NOT safe alternatives to cigarette use. They also contain cancer causing chemicals. Smokeless is not harmless.

Cycle of Addiction ("All Tied Up") (Compliments of the Bear River Health Department)

IDEA: Forming habits and addiction are usually slow processes that build up over time. They sneak up without us even realizing what we are getting into. The first time we do something we may not even think much about it, but as that activity is repeated over and over again our body and mind become used to it. The problems associated with habits and addictions are usually not ones that occur overnight, but rather one small step at a time.

WHAT TO DO: Have one student come up to the front of the room. Have him or her put on the gloves. These will protect his or her hands against small cuts. Then have him/her put his/her hands out in front, about stomach level, ten inches apart. The palms should be facing each other.

Explain to the class that you want to show how habits and most addictions are formed.

Take the string and wrap it one time around the volunteer's hands and then tie it so that a circle around his/her hands is formed. Ask him/her to try and break the string. This should be very easy. Explain to the class that this is just like the first time you do something. It is not hard for you to stop that activity.

Now wrap the string around the volunteer's hands two times. Have him/her try to break the strings. He/she should still be able to break them. Explain to the class that it may be harder, but he could still stop the activity if he/she wanted to. Keep wrapping the string around the volunteer's hands and having him/her break it until he/she no longer can do so. This is showing that habits and most addictions do not occur all at once. They sneak up on you one repeated behavior at a time until you have no control over the behavior, but rather it has control over you.

PROCESS THE ACTIVITY:

What happened when there was just one string around his/her hands?

What happened when there were two strings?

What happened as I added strings around his/her hands?

What was the final result of adding the strings?

What can this activity tell us about habits and addictions?

What are some habits that we have?

Are all habits bad for us?

What are some of the things we can become addicted to?

What is the difference between a habit and an addiction?

Habit -- an acquired mode of behavior that has become nearly or completely involuntary.

Addiction -- a compulsive physiological or psychological need or dependence on a substance or behavior.

How can this information influence your choice to use addictive products?

Display "Cycle of Addiction" diagram and review the addiction process as it relates to tobacco. (See also the lessons entitled "Uppers, Downers, All Arounders; Pornography; Energy Drinks)

Define nicotine addiction.

Nicotine addiction occurs when you cannot control your body's urge to have another cigarette or dip. (Loma Linda University 1993)

Discuss how the cycle of nicotine addiction works.

When a cigarette is smoked or dip is used, nicotine enters the blood in a matter of seconds. Nicotine levels in the blood rise sharply and cause a stimulating feeling, or a "buzz".

Over time, a tolerance to nicotine develops. It takes more and more nicotine to get the same effects or feelings.

In order to overcome nicotine tolerance, tobacco users must increase their dose of nicotine by smoking or chewing more. For example, instead of having ten cigarettes per day, after

time passes, a person may feel a need to increase the amount they smoke by five or ten cigarettes.

The brain gets used to having nicotine. When nicotine levels drop, the body experiences withdrawal symptoms including restlessness, anxiety, impatience and extreme cravings. Withdrawal symptoms are often painful to the person experiencing them. To relieve the pain of withdrawal symptoms, the person smokes a cigarette or takes a dip, and the cycle repeats itself.

Physical addiction is when a person's body becomes dependent on a particular substance such as nicotine. It also means that a person builds tolerance to that substance, so that person needs a larger dose than ever before to get the same effects. For example, you need to smoke more cigarettes/chew more tobacco to get the same feeling as you used to get with less.

Discuss the benefits of a tobacco-free lifestyle

Discuss the benefits of never using tobacco products.

Distribute the handout, "Benefits of Quitting." (Burnside et al.)

Discuss the facts on the handout.

Although there are numerous negative physical side-effects to using tobacco, quitting is the best way to stop the progression of these side-effects, and in many ways, reverse them. For example, the lungs can be severely affected by smoking. However, if you quit now, your lungs will begin to heal and your risk of lung cancer will drop.

Discuss the additional information on the handout.

Peer Pressure ("Pressure Point") (from "Activities that Teach" pg. 185)

IDEA: The longer you are exposed to peer pressure, the harder it is to resist. The best thing to do when you encounter a situation that is harmful, is to remove yourself right away.

WHAT TO DO: Give each student a clothespin (or medium office binder clip). Tell them to hold it between their thumb and index finger. Have them use the hand that they do not write with. The clothespin should be held so that it is pointing away from the fingers holding it and only with the very tip of the thumb and index finger. They are to hold the clothespin away from their body and not use any other part of their body to help with this activity. Have them open and close the clothespin as many times as they can in sixty seconds. The facilitator can keep track to see who can do this the most times.

Next, have them open the clothespin and keep it held open. The object is to see who can hold their clothespin open for the longest time. Their fingers, hand and arm start to hurt after a period of time. Read the time out loud as they are doing this activity. This is best done with the youth standing up. When they can no longer hold their clothespin open, then they are to sit back down in their seats.

NOTE: This activity can also be done without student participation, by having the facilitator demonstrate in front of the class rather than having every student try it.

FACILITATOR: To relate this to peer pressure, talk about how the opening of the clothespin represents entering a questionable situation and the closing of the clothespin represents removing yourself from that situation. The opening and immediate closing of the clothespin doesn't cause the same pain as holding the clothespin open. Holding it open shows how much harder and more painful it is to stay in a questionable situation and try to resist the pressure to engage in an activity that might be harmful.

Point out to them that people did not sit down at the same time. It is true that some people can resist pressure better than others. Also point out that with practice you can hold out against pressure for a longer period of time, but even with practice you might still give in at some point. The bottom line is to say "no" to the pressure and remove you from the situation as soon as possible. Or better yet, don't even put yourself in a questionable situation in the first place.

PROCESS THE ACTIVITY:

How did you feel when you opened and closed the clothespin for sixty seconds?

How much did it hurt?

How did you feel when you had to hold the clothespin open for as long as possible?

How much did it hurt?

Did everyone sit down at the same time? Why not?

Could you have held on for longer if you practiced a few times?

List situations where these types of peer pressure problems might occur.

Is it easy to withstand peer pressure?

Who applies the most peer pressure to you, a stranger or your friends? Explain.

What is the best way to avoid peer pressure?

How should you deal with a situation where you are being peer pressured?

Process peer pressure activity (ask the following questions)

Have you ever agreed to do something you really didn't want to do? (provide and solicit examples)

Do you sometimes get talked into doing things that you'd rather not? (provide and solicit examples)

Do you sometimes say "yes" to keep friends?

Have group members write down scenarios of experiences they have had where they had to say no to something or someone, or one that they can imagine happening to them.

Read and select a few that are appropriate and have the class discuss what would be a good way to deal with the situation. Role-play, if it seems appropriate.

Self-empowerment is the recognition that each individual must take responsibility for their own life. This means making your own decisions and knowing that, no matter what you decide, you must take full responsibility for your decisions and actions as well as the consequences.

Process with the group what this means and why it is important.

Self-empowered individuals do not give away their power and allow others to control them. The self-empowered person views him or herself as an equal to others and not in a powerless position simply because he or she is not exactly like everyone else.

Part of being self-empowered is accepting yourself for who you are.

Being a self-empowered person can also help you to say "no" to tobacco through realizing that you don't have to do what others are doing in order to fit in. You can be your own person.

Review the refusal skill techniques students have learned over the years. Use some of the following ideas to assist the discussion.

Learning to say "no" can help you avoid things that are harmful, like tobacco, and limit some of the stress in your life. Knowing how to say no to someone is something to think about now, before you have to say "no". Knowing who you are, what you want and don't want, as well as what your choices are, is important.

On the chalk board write down "The Goals of Saying 'No'" and "How to Say 'No'"

The goals of say "No!"

To control what you want to do

To keep your friends

To stay out of trouble

To have fun

How to say no

a. "No thanks" Technique: "Would you like a cigarette?" "No thanks."

Broken Record: Repeat the same phrase over and over. "Would you like a smoke?"

"No, thanks." "Come on!" "No, thanks." "Just try it, chicken!" "No, thanks."
Giving a Reason or Excuse: "How about a cigar?" "No thanks. I don't smoke" or "No, thanks. I'm going to play ball in a little while."
Walk Away: "Would you like to smoke a cigar?" Say "no" and walk away while you say it.
Cold Shoulder: "Hey! Do you want one of these?" Just ignore the person.
Changing the Subject: Start talking about something else. "Do you want to smoke a cigarette?" "Come on. Let's get started with baseball practice."
Reversing the Pressure or putting the pressure back on the person offering you the tobacco. "Do you want to smoke with me?" "No, thanks. I thought you were my friend."
Avoiding the Situation: If you see or know of places where people often use tobacco, stay away from those places.
Strength in Numbers: Hang around with non-users, especially where tobacco is expected.

Evaluation and checking for understanding

Distribute and complete the handout "What Have You Learned."

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Authors

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