



TOBACCO AND ADOLESCENT HEALTH

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TOBACCO AND ADOLESCENT HEALTH

I. GOAL OF MODULE: Provide students with an overview of smoking among adolescents, knowledge about the vulnerability of adolescents to tobacco use and its potential impact on their developmental trajectory, knowledge about risk factors that influence the uptake of smoking among adolescents, information about tobacco advertising and marketing to youth, and knowledge about effective prevention and cessation strategies.

II. TARGET AUDIENCE

- a. Level of Student/Learner: Undergraduate MBBS students
- b. Suggested Course or Subject: Community Medicine Course

III. LEARNING OBJECTIVES

- To have familiarity with the global prevalence of smoking among adolescents.
- To gain understanding of why tobacco use among adolescents is a serious concern.
- To understand why adolescents are particularly vulnerable to tobacco use.
- To be able to list at least two effects of nicotine on adolescent brain development.
- To understand the effect of nicotine on bone growth and lung growth.
- To understand how family and peer influences affect youth smoking behavior.
- To describe the relationship between alcohol consumption and tobacco use.
- To describe how the tobacco industry targets youth.
- To understand how smoking is portrayed in popular culture and how it is marketed to appeal to youth.
- To identify effective school-based prevention strategies and understand the role of parents in prevention.
- To understand how doctors can facilitate cessation among youth.

IV CURRICULUM STANDARDS ADDRESSED:

The Community Medicine department has the broad goal of teaching students and preparing them to function as community and first level physicians in accordance with the institutional goals. It has total of 110 hours of which 1hr is for adolescents under maternal an child health and five hours are for Social Sciences. Time from these two slots can be used for this module.

- It provides knowledge of the demographic pattern of the country and helps students appreciate the role of the individual including adolescents, family, community and socio-cultural mileu in health and disease.
- It also helps in identifying the environmental and occupational hazards and their control and understand the principles of health economics, health administration and health education in relation to the community.

Skills:

- The students can use epidemiology as a scientific tool to make rational decisions relevant to community and individual patient intervention.
- Students develop capabilities of synthesis between cause of illness in the environment or community and individual health and respond with leadership qualities to institute remedial measures for this.
- Students can also plan, implement and evaluate a health education programme with skill to use simple audio-visual aids.

IV. MINI-LECTURES**MINI LECTURE 1: TOBACCO USE AMONG ADOLESCENTS****CORE SLIDES**

1. Tobacco Use among Adolescents
2. Prevalence of Youth Smoking
3. Increased Vulnerability
4. Progressive Stages of Adolescent Smoking
5. Patterns of Smoking among Youth
6. India: Youth Tobacco Use (1)
7. India: Youth Tobacco Use (2)

MINI LECTURE 2: EFFECTS OF TOBACCO USE ON ADOLESCENT GROWTH AND DEVELOPMENT**CORE SLIDES**

1. Adolescent Development
2. Adolescence as a Time of Greater Risk Taking
3. Smoking as a “Problem Behavior”
4. Effects of Nicotine on the Brain
5. Tobacco and Lung Growth and Development
6. Tobacco and Bone Growth

MINI LECTURE 3: RISK FACTORS FOR TOBACCO INITIATION**CORE SLIDES**

1. Familial Influences
2. Peer Influences
3. Peer and Parental Influences
4. Tobacco and Alcohol
5. Why Do Tobacco and Alcohol Use Co-occur So Frequently?

MINI LECTURE 4: TOBACCO ADVERTISING AND MARKETING TO YOUTH**CORE SLIDES**

1. Advertising and the Media
2. Psychological Impacts of Tobacco Advertisements on Youth
3. Selling Cigarettes as Masculine
4. Women and Tobacco Advertising
5. Smoking Advertisements: Indonesia
6. Marketing of “Starter” Products
7. Women in Advertising: Indonesia
8. L.A. Light Cigarettes: Indonesia
9. Media Presentations of Smoking
10. Anti Smoking Messages

MINI LECTURE 5: TOBACCO PREVENTION AND CESSATION FOR ADOLESCENTS

CORE SLIDES

1. Effective Prevention in Schools
2. School-based Prevention
3. Parental Role in Youth Prevention and Cessation
4. Strategies for Smoking Prevention
5. Cessation among Adolescents
6. Ways to Engage Youth to Quit Smoking
7. Doctor’s Role in Youth Cessation

V. CASE DISCUSSION / CLINICAL SCENARIO AND SKILLS CHECKLIST

CASE SCENARIO: Asking patient about tobacco use

Overview

In this module, students are asked to practice integrated communication during case discussion under supervision of instructors, in order to develop their smoking cessation skills. Students will be trained to routinely ask about patients’ smoking status in every case. After obtaining patients’ current smoking status, students will then practice how to assess patients’ readiness to quit, advise and assist patients to quit smoking, and also arrange follow ups to monitor patients’ smoking cessation progress. Therefore students will also learn how to deliver efficient encouragement and provide proper explanation about the harm of tobacco on health and to help patients in their smoking cessation attempts.

Introduction

Tobacco use is a particular concern for adolescents, and globally increasing numbers of young people are beginning to smoke and becoming addicted. Of the 100,000 youth who become addicted each day, approximately two thirds are in low and middle income countries. Several studies have found nicotine to be addictive in ways similar to heroin and cocaine. Of all addictive behaviors, cigarette smoking is the one most likely to become established during adolescence. Both the number of cigarettes that a youth smokes per day and how many years he

smokes are related to eventual chronic health problems. The processes of nicotine addiction ensure that many of today's adolescent smokers will regularly use tobacco when they are adults.

Learning Objectives

Upon the completion of this skills laboratory practice, students are expected to be able to:

- Routinely ask all the patients about their smoking status
- Assess patients' readiness to quit
- Advise all patients to quit smoking
- Assist the patients to quit
- Arrange follow ups on patients' smoking cessation progress
- Explain the harm of tobacco on all parts of the body

Asking the patients' smoking history

The health consequences of cigarette smoking are well known, as they are an important cause of increased mortality and morbidity in developed countries and the prevalence is increasing in the developing world as well.

Research studies show that if doctors have a reminder to ask about smoking, e.g. smoking status is part of the vital signs, doctors are three times more likely to advise patients to quit. Simple advice from a physician has been shown to increase abstinence rates significantly (by 30%) compared to no advice.

There are several important factors that should be considered when we are asking the patients' smoking history, i.e. 1) ask the smoking status of all patients (including women and teenagers); 2) if a patient does not smoke, they should be asked if they have ever smoked (because even after quitting, a smoker can start again); 3) questions should be delivered in a non-critical manner; 4) evaluate the patients' smoking history as to how many cigarettes they smoke daily, do they use any other forms of tobacco; and 5) make a note of the patients' smoking status in the medical record (maybe you can indicate patients' smoking status in your patients' card). Women and children should not be excluded and they should also be asked about passive smoking.

Case Scenario 1

An eighteen year old male approached the out-patient dept of a teaching hospital. He complained of recent weight loss, loss of appetite, recurrent episodes of burning pain in the abdomen, and bad breath. Of late he was feeling tired most of the time and was unable to do any active physical work (He was a manual labourer and high school dropout). Physical examination revealed unhealthy looking pigmented skin, yellowing of teeth, darkening of gums and an ulcer over inner part of lower gums. The medical student who interviewed him asked for history of tobacco use. The patient admitted that he had been a smoker for over five years, and was regularly using *Gutka* for about three years now. Currently he was smoking about ten to twelve cigarettes a day.

Vital Signs

Blood Pressure : 130/90

Pulse : 84/min

Body Weight : 64 kgs

Temperature : 97 F

Smoking Status : Smoker Ex-Smokers Never Smoke (Circle one)

Smoking Status of spouse: Smoker Ex-Smokers Never Smoke (Circle one)

Checklist for Case Scenario

S.No.	Aspects	Please tick if student has covered this aspect
	Ask	
1.	• Ask patient whether he/she smokes or not	
2.	• If the patient doesn't smoke, ask whether he/she ever smoked before	
3.	• If the patient smokes, ask how many cigarettes he/she takes per day	
	Assess	
4.	• Assess patient's readiness to quit.	
	Advise	
5.	• Advise patient to quit smoking	
6.	• Personalize advice by using the tobacco user's health status/disease	
	Assist	
7.	• Assist the patient to quit by giving him/her pamphlets, brochures	
	Arrange for Follow-up	
8.	• Arrange to follow up on tobacco use	

Points for Discussion

- **No 'Safe' Cigarette:** Every cigarette smoked harms the person. Most adult smokers begin smoking as teenagers.
- **Harm of Gutkha:** Numerous studies have shown that gutkha is extremely harmful and can lead to precancerous lesions called sub mucous fibrosis which can lead to oral cancer even in adolescence. Early diagnosis of these lesions can help you but there are certain lesions which are irreversible.
- **Tobacco use makes you unattractive:** Smoking could be smelly and unattractive. It gives you bad breath and accelerates the process of aging. Smoking makes one's clothes and hair smell, turns the teeth yellow and the lips darken. Smoking can leave him or her with a chronic cough and less energy for sports and other enjoyable activities. All said, smokers appear less attractive to the opposite sex.
- **Parental & Elders Support:** The patient should be made to understand that he should stop smoking and chewing. Make clear that avoiding or stopping smoking is one of the best things a person can do for a lifetime of good health. Try to involve relevant adults

within the teen's family and community, such as parents, teachers, doctors etc. Persuade them to quit smoking and act as role models.

- **Peer Pressure:** Questions should be asked about smoking behaviour amongst friends, and any group norms that glorify smoking. Adolescents are particularly vulnerable to peer pressure.
- **Smoking in Movies:** Discuss how the portrayal of smoking in movies and television makes it appear glamorous and stylish. Do you agree or disagree?

FACT SHEET: TOBACCO AND ADOLESCENT HEALTH

- Adolescence is a time of major social change: smoking occurs in a social context where identity is being established.
- Teens are attracted to behaviors and images associated with risk, excitement, and intensity. Smoking is an attractive and risky behaviour.
- Smokeless tobacco use and incidence of oral cancer are increasing among the younger population.
- There is a recent downward shift in age at uptake of tobacco habit among children.
- Smoking rates are linked to socioeconomic class, further differentiated by gender.
- 250 million children and adolescents will die prematurely from tobacco use, the majority of these from low and middle income countries.
- Of all addictive behaviors, cigarette smoking is the one most likely to become established during adolescence.
- Social smoking among peers is particularly common among teens. There is no safe level of smoking as even people who smoke at low levels (< 5 cigarettes a day) have an increased risk of adverse health effects.
- The neural connections needed to create a new addiction may develop more easily in a young, growing teen as compared with an adult brain.
- The processes of nicotine addiction ensures that many of today's adolescent smokers will regularly use tobacco when they are adults.
- 5,500 youth start using tobacco every day in India. The most popular product among youth is gutkha, followed by cigarette and beedie.
- Cigarette smoking is associated with mild airway obstruction and slowed growth of lung function in adolescents. Adolescent girls may be more vulnerable than boys to the effects of smoking on the growth of lung function.
- Neurotoxic effects of nicotine are more severe when exposure to nicotine occurs at earlier periods in development.

- Nicotine may interfere with normal bone growth by suppressing bone formation and increasing bone resorption. Smoking by healthy young males is associated with decreased bone mass.
- Smoking is a risk factor associated with development of low back pain among adolescents.

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2. INSTRUCTOR KEY RESOURCES/REFERENCES

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3. SAMPLE EXAMINATION QUESTIONS

Short notes

1. Why is smoking or tobacco use important issue in adolescence?
2. What are the progressive stages of adolescent smoking?
3. How does smoking affect the different organ systems of an adolescent?
4. What different factors influence adolescent smoking behaviour?
5. Why do smoking and alcohol consumption co occur?
6. What programmes would be most effective for prevention and cessation of tobacco use among adolescents?

Multiple Choice Questions: (Answers in Blue font)

1. The following are related to smoking initiation:
a. ADHD b. Depression c. Anxiety d. all
2. Smoking behaviour in adolescents is influenced by
a. Parents b. Peers c. alcohol consumption d. all of the above
3. Smoking prevention in adolescents by:
a. Parental role b. Reduce access c. Tax regulations d. all of the above