TOBACCO AND COMMUNITY MEDICINE AND PUBLIC HEALTH

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TOBACCO AND COMMUNITY MEDICINE AND PUBLIC HEALTH

I. GOAL OF MODULE:
Provide students with knowledge and skills related to tobacco issues in basic medical practice

II. TARGET AUDIENCE

a. Level of Student/Learner: 1st Semester
b. Suggested Course or Subject: *Dept. of Community Medicine*

III. LEARNING OBJECTIVES

- To discuss epidemiology of tobacco use burden from a global, Indian, and Kerala perspective
- To gain an overview of tobacco control laws and policies both globally and in India
- To understand the smoking epidemic and India's current status with respect to the smoking epidemic
- To understand who is at risk for workplace exposure to second-hand smoke.
- To understand green tobacco sickness and its cause.
- To understand the benefits of a smoke-free workplace.
- To understand existing laws and policies for regarding smoke-free work environments to protect employees.
- To understand four types of dependency fostered by tobacco.
- To understand the different types of costs associated with tobacco use.
- To appreciate the economic burden of tobacco use on the state and the household.
- To understand how tobacco-related health costs are far greater than tobacco related revenues.
- To understand the definition of secondhand smoke.
- To review the harmful effects of secondhand smoke to adults and children.
- To discuss the critical importance of creating smoke-free environments.
- To become familiar with existing laws and policies regarding second hand smoke.
- To provide an overview of evidence-based approaches to adult smoking cessation—brief interventions skills and strategies
- To understand the 5 As and how to use them
- To understand the importance of social support
- To understand the pharmacological preparations available to assist in smoking cessation

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 20 hours of which three hours are for Non-

Communicable diseases 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, 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.

V. MINI-LECTURES

MINI LECTURE 1: BURDEN OF TOBACCO AND GLOBAL TOBACCO CONTROL

CORE SLIDES

1. Burden: Global
2. Tobacco Burden: India
3. Tobacco Burden: Kerala
4. Global Tobacco Control
5. COTPA 2003
6. Smoking Epidemic: 4 Stages

OPTIONAL SLIDES

1. COTPA: Penalties
2. Tobacco Industry in India
3. Tobacco Use among Women
4. Tobacco Use among Men

MINI LECTURE 2: TOBACCO AND OCCUPATIONAL HEALTH

CORE SLIDES

1. Workplace Exposure to Second-hand Smoke (SHS)
2. Green Tobacco Sickness
3. Smoke-free Workplace
4. Workplace Policies: India

OPTIONAL SLIDES

1. Smoke-Free Environments (SFEs)

2. Green Tobacco Sickness

MINI LECTURE 3: IMPACT OF TOBACCO ON FAMILY AND ECONOMY

CORE SLIDES

1. Tobacco Fosters Four Types of Dependency
2. Many Costs of Tobacco Use
3. Tobacco and National Economy
4. Effective Tobacco Control
5. Tobacco Revenue vs. Expense: India

OPTIONAL SLIDES

1. Cost of Tobacco Use
2. Tobacco and Poverty: Household Level
3. What the Poor Spend on Cigarettes
4. Tobacco and Family: Impact

MINI LECTURE 4: SECONDHAND SMOKE: THE IMPORTANCE OF SMOKE-FREE ENVIRONMENTS

CORE SLIDES

1. Secondhand Smoke (SHS)
2. What is SHS?
3. SHS and Adults
4. SHS and Children
5. Global Toll of SHS
6. Global Death Toll of SHS
7. Why Go Smoke-free?
8. Reducing SHS Exposure in the Home
9. Household Survey Findings: India

OPTIONAL SLIDES

1. Smoke-Free Environments (SFEs)
2. Smoke-free Homes: India and Indonesia
3. Smoke-free Initiatives: India
4. India: Current Laws Against SHS
5. Measuring SHS Exposure
6. Smoke-free Workplaces and Public Places
7. Global Youth Tobacco Survey (GYTS): Global Data on SHS

MINI LECTURE 5: SMOKING CESSATION: SKILLS, SUPPORT, AND STRATEGIES

CORE SLIDES

1. Why Is Cessation So Important?
2. Doctors' Role in Smoking Cessation
3. Basic Approaches to Brief Interventions
4. The Five As
5. The Five Rs of Motivation
6. Role of Friends and Family
7. Pharmacotherapy

OPTIONAL SLIDES

1. The Five As
2. Five Stages of Readiness to Quit
3. The Three Ts
4. Role of Community in Place Based Cessation
5. Role of Social Support
6. Big Pharma and Cessation

VI. 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

Apart from the various health effects of tobacco (both active smoking as well as second hand smoke), it has a vicious cyclical relationship with poverty. There are several pathways to poverty through tobacco, which should be discussed as part of this case. Moreover, second hand smoke that affects non-smokers both at the workplace and at homes should also be discussed.

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

A 34-year-old lady presents with a history of chronic fatigue. She complains of feeling tired all the time. On examination she is found to be anaemic. She is also found to be underweight. She works as a daily wage labourer. She has two children less than 5 years of age. Family history: Husband is also a daily wage earner. Smokes 3–4 packets of beedies a day. He also has history of COPD for which he is on treatment whenever they can afford it.

Vital Signs
Blood Pressure: 110 / 70
Pulse: 70/min
Body Weight: 42 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

There are several ways in which tobacco impacts families. Physicians should be able to relate poverty to tobacco use and elicit history of tobacco use regularly as part of history taking. This case can be discussed using the following two arguments:

- For the poor, money spent on tobacco is money not spent on basic necessities, such as food, shelter, education, and health care. Money spent on tobacco means less security for the family with regard to food, less likelihood of seeking medical attention for a sick mother or child, less chance that children, especially girls, will be sent to school, and more likelihood that children will be required to work to contribute to family income. These decisions entrench families in an ongoing cycle of poverty, as the very investments necessary to lift family members out of poverty are foregone in favor of an addictive substance, tobacco.Tobacco users are at much higher risk of falling ill and dying prematurely of cancers, heart attacks, respiratory diseases, or other tobacco-related diseases, thus depriving families of much-needed income and imposing additional health-care costs. Poor smokers, who are at greater risk of illness, are therefore also at greater risk of not being treated or of falling into greater poverty if they seek treatment. The economic burden of tobacco is related to both direct and indirect costs of medical treatment and illness.

Case Scenario 2

A mother and her two children are waiting for a bus at the local bus stop, which is open (i.e., has no roof). A group of young men standing at the same bus stop are smoking cigarettes. The traffic police man standing nearby does not react to the situation.

Points for Discussion

- Discuss “Ban on smoking in Public Places in India.” How far is it implemented?
- Discuss definition of “public place” as per latest legislations in India.
- Discuss who is the most affected by second hand smoke.

FACT SHEET

The fact sheets are to be used by the tutor to supplement the discussion about the scenario. This fact sheet will address background information on tobacco that could be relevant to the scenario.

- 6% of all deaths and 3% of total disease burden (projected to increase to 12% and 9% respectively by 2020).[1]
- 5.4 million deaths in 2008, projected to increase to 8 million by 2030.[1]80,000–100000 youth initiated globally every year[2]Developing countries → 75% of tobacco users [2] and 80% of all tobacco-related deaths.[3]Total users in India: 240 (Men: 195, Women: 45) million.With any tobacco use among ≥ 15 yrs - 30%, 13-15 yrs - 18% and among 6th graders - 7% [5]
- Smoking among male medical fraternity in Kerala: medical students: 14%; medical teachers: 15%; government health service doctors: 13%.[6]
- Leading causal risk factor for over 25 diseases[1] and a shared risk factor for major non-communicable diseases (NCDs), accounting for around 80% of deaths from heart disease and stroke.[7]
- Global tobacco control measures include the WHO Framework Convention on Tobacco Control (FCTC)[8] (adopted by 192 nations at the World Health Assembly on 21st May 2003, including India), the WHO Code of Practice on Tobacco Control (an exhortation to health care professionals),[9] and taxation, which is the single most effective measure to reduce tobacco consumption.[10]Second hand smoke (SHS), also known as passive smoking, involuntary smoking, or environmental tobacco smoke (ETS), consists of exhaled main-stream smoke and side-stream smoke.SHS significantly increases the risk of morbidity and premature mortality from lung cancer, ischemic heart diseases,[11] chronic obstructive pulmonary diseases,[12] asthma,[13] sub-arachnoid haemorrhage, stroke,[14] atherosclerosis, and increased insulin resistance.[15]Smoke-free environments (SFEs) are the only proven way to adequately protect the health of all people from the devastating effects of SHS. Neither ventilation nor filtration, alone or in combination, can reduce tobacco smoke exposure indoors to acceptable levels.[16]
- Occupational hazards associated with tobacco: workplace exposure to SHS and green tobacco sickness among tobacco cultivatorsStrategies for tobacco cessation include: 1) Population-wide approach, which includes comprehensive smoke-free policies, regular increases in the real price, sustained public education, end exemptions for sporting events, subsidies for cessation clinics and proven drug therapies, and increasing and publicizing efforts to enforce legislation; 2) Individual approach, which includes non-pharmacological methods like the 5 A's, counseling, cognitive behavioral therapy (CBT), and pharmacological methods like nicotine replacement therapy and drug therapy (bupriopion, varenicline, etc.).Households of sick smokers lose income due to lost wages, direct and indirect costs of medical care, and opportunity costs when resources are diverted from other purposes like child's education and support of elders.Cigarettes and Other Tobacco Products Act (COTPA) 2003: Extends to whole of India & applicable to all products containing tobacco in any forms.[17]

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MINI LECTURE 1 *[Burden of Tobacco and Global Tobacco Control]*

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MINI LECTURE 5 ***[Smoking Cessation: Skills, Support, and Strategies]***

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4. INSTRUCTOR WEB-SITE RESOURCES

1. http://www.whoindia.org/LinkFiles/Tobacco_Free_Initiative_Compilation_of_tobacco_control_laws_rules_notifications.pdf]
2. http://www.arkansas.gov/ha/worksite_wellness/tobacco_free_work place.html
3. http://www.ccohs.ca/oshanswers/psychosocial/ets_health.html
4. http://www.hriday-shan.org
5. http://www.smokingcessationexchange.com/WCTOH_Summary_ Final.pdf
6. http://www.guideline.gov/summary/summary.aspx?ss=15&doc_id=9740&nbr=5214
7. http://clinicalevidence.bmj.com/downloads/smoking-cessation.pdf
8. http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1149&context=tc

5. SAMPLE EXAMINATION QUESTIONS

Short Answers

1. Describe the characteristics of Stage 3 of the Lopez smoking epidemic model. At which stage does India currently stand?

2. Give 5 reasons as to why there should be regulations against second hand smoke.

3. You are the medical officer at a primary health center in Kerala. You notice that the majority of your male patients complain of respiratory symptoms and many of them suffer from COPD. On further enquiry you also find that at least 65% of your male patients are smokers. As the medical officer, what measures can you initiate both at the community level and the individual level to increase awareness of the harmful effects of tobacco and also to decrease tobacco use?

4. A 47-year-old lawyer suffering from asthma for the past 10 years has come to your clinic. As part of your conversation with him regarding his smoking habits, he says that he has never really thought in terms of quitting as he is not addicted to tobacco and smokes only one or two cigarettes a day. Can you pinpoint which stage of the "trans-theoretical model for readiness to change" this patient would fall in? As his doctor, what can you do to get him to the next level?

5. A 47-year-old manual labourer diagnosed with have lung cancer is unwilling to go for chemo and radiation therapy, as he cannot afford the same. He was a chronic smoker (2–3 packs of beedies/day) for the past 15 years. His wife is also a daily wage earner and they have two school-going children, a 12 year old daughter and a 15 year old son. Describe in short the pathways to poverty as illustrated by this family.

Multiple Choice Questions **(Answers in blue font)**

1. Which is the single most effective measure for tobacco control?

    a. Smoke free public places
    b. Anti-smoking legislation
    c. Taxation
    d. Smoke free work places

2. Which of these is not true of stage 3 of the tobacco epidemic?

    a. Percentage of smoking population decreases to about 40%, mostly among men
    b. India and Latin American countries are at this stage
    c. 35–45% of women have started to smoke
    d. Smoking accounts for 10–30% of deaths

3. Secondhand smoke consists of:

a. Main stream smoke + side stream smoke
b. Inhaled main stream smoke + exhaled side stream smoke
c. Only side stream smoke + negligible main stream smoke
d. Exhaled main stream smoke + side stream smoke

4. No association has been found between passive smoking and _____.

a. Increased insulin resistance
b. Breast Cancer
c. Atherosclerosis
d. Sub-arachnoid hemorrhage

5. Which among these is a method used to measure second hand smoking exposure?

a. Air nicotine levels
b. Cotinine levels in hair
c. Questionnaire-based assessment
d. Cotinine levels in blood
e. All of the above

6. Which of these is not part of the '5 As' strategy?

a. 'Assess' willingness to quit
b. 'Arrange' follow-up
c. 'Advise' to quit
d. 'Alert' regarding harmful effects