TOBACCO AND MENTAL HEALTH

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Quit Tobacco International, including development of the curriculum, is a team effort, in which individuals have different responsibilities as described below:

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TOBACCO AND MENTAL HEALTH

I. GOAL OF MODULE: Provide students with knowledge and skills on tobacco issues related to mental health

II. TARGET AUDIENCE

a. Level of Student/Learner: 6th Semester
b. Suggested Course or Subject: *Dept. of Psychiatry*

III. LEARNING OBJECTIVES

1. To understand the neurobiological mechanisms of nicotine addiction
2. To understand the nicotine pathway to addiction
3. To identify different treatments for nicotine addiction
4. To understand the burden of smoking in patients with anxiety and depression
5. To understand the association between smoking and anxiety and depression
6. To understand smoking cessation intervention for patients with anxiety and depression
7. To understand the burden of schizophrenia and its association with other chronic diseases
8. To understand the biological, psychological, and social factors associated with tobacco use in schizophrenia patients
9. To understand how cessation can be addressed in clinical management of schizophrenia patients

IV. CURRICULUM STANDARDS ADDRESSED:

The psychiatry department has the aim of imparting knowledge and skills to enable diagnosis and treatment of common psychiatric disorders. It has a total of 14 hours. This slot can be utilised for this module.

- The student will be able to comprehend the nature and development of different aspects of normal human behaviour and recognize differences between normal and abnormal behaviour.
- The student will be able to recognize clinical manifestations of common syndromes and plan appropriate management.

Skills:

- The student will be able to interview the patient and understand different methods of communication in patient-doctor relatioships.
- The student will be able to define, elicit, and interpret psychopathological symptoms and signs.
- The student will be able to diagnose and manage common psychiatric disorders.

V. MINI-LECTURES

MINI LECTURE 1: NICOTINE ADDICTION

CORE SLIDES

1. Definition of Addiction
2. Tobacco and Addiction
3. Treatment of Tobacco Dependence
4. Effects of Nicotine on Psychiatric Patients

OPTIONAL SLIDES

1. Nicotine Pathways to the Brain
2. Neurotransmitters and Effects of Nicotine
3. Fagerström Test of Nicotine Dependence
4. DSM-IV and ICD-10 Diagnostic Criteria for Nicotine Withdrawal

MINI LECTURE 2: TOBACCO AND DEPRESSION AND ANXIETY

CORE SLIDES

1. Anxiety and Depression: Burden
2. Anxiety and Depression and Smoking
3. Smoking and Depression: Association
4. Smoking and Anxiety: Association
5. Treatment for Anxiety and Depression and Smoking
6. Cessation Treatment: Depression and Anxiety
7. Clinical Consideration: Smoking Cessation in Anxiety and Depression

OPTIONAL SLIDES

1. Factors Associated with Smoking in Patients with Depression
2. Smoking and Anxiety Disorder
3. Why Do Patients with Anxiety Disorder Smoke?

MINI LECTURE 3: TOBACCO AND SCHIZOPHRENIA

CORE SLIDES

1. The Burden of Schizophrenia
2. Schizophrenia and Chronic Diseases
3. Smoking in Schizophrenia Patients
4. Tobacco Use and Schizophrenia
5. Tobacco Addiction in Schizophrenia: Treatment
6. Tobacco Dependence and Schizophrenia: Treatment

OPTIONAL SLIDES

1. Tobacco Use and Schizophrenia: The Biological Factor
2. Smoking and Anti-psychotic Treatments
3. Cessation Medication in Schizophrenia Patients

VI. CASE DISCUSSION / CLINICAL SCENARIO AND SKILLS CHECKLIST

Overview

In this module, students are asked to practice integrated communication with simulated patients under supervision of instructors in order to develop their smoking cessation skills. Particularly in this session, students will practice heteroanamnesis with the patient's family. Students will be trained to routinely ask about patients' smoking status. Students will learn how to deliver efficient encouragement and provide proper explanation about the harm of tobacco on health, especially the relation between tobacco and mental disorder.

Introduction

The National Comorbidity Survey in the US showed patients with psychiatric disorders smoke at a twice higher rate than those without psychiatric disorders (41% vs. 22.5%). Meanwhile, other research found that smoking prevalence is two to four times higher among people with psychiatric disorders and substance use disorders.

Chemical substances in cigarettes affect the metabolism of drugs, including psychotropic and antipsychotic drugs. The polycyclic aromatic hydrocarbons (PAHs) in cigarettes affect the metabolism of antipsychotic drugs; therefore, the medication has to be closely monitored during and after quitting. It is clear that in anamnesis about mental diseases, the doctor must also ask about patients' smoking habits and advise patients about the relationship between tobacco and mental disorders.

Learning Objectives

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

- Routinely ask all patients about their smoking status
- Assess patients' readiness to quit
- Advise patients and family about the relationship of tobacco and mental disorders
- Assist the patients to quit
- Arrange follow ups on patients' smoking cessation progress
- Explain the harm of tobacco on mental disorders

Asking the patients' smoking history

The health consequences of cigarette smoking are well known, as also is the fact that there is no part of the human body that is not affected by tobacco.

In a survey done by QTI, 77% of Indian doctors did not routinely ask patients about smoking. 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 (Fiore et al. 2000).

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

A 25 year old man came to see a doctor because of feeling weak and losing his appetite. He has lost 2 kilograms of his weight during the past two and a half months. He told the doctor he lost any interest in doing activities. He has been an active smoker since he was teenager. The patient informed the doctor that he was fired from his job three months ago.

Vital Signs
Blood Pressure: 110 / 70
Pulse: 80/min
Body Weight: 52 kgs
Temperature: 97 F
Smoking Status: 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 is a strong association between depression and smoking.
- Smoking changes pharmacokinetics of many psychotropic drugs by increasing the drug metabolism. So, if a patient quits, the doctor may need to adjust a medication dose.
- Quitting smoking may unmask an underlying depressive/anxiety disorder. Both medication and counseling are recommended for depressive patients who smoke to help them quit.

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.

1. Rates of smoking are two to four times higher among people with psychiatric disorders and substance use disorders.[1]
2. Among current smokers, the most common ever history of mental health diagnoses are: alcohol abuse, major depression, substance abuse, and anxiety disorders (simple phobias and social phobias).[2]
3. When seeking mental health treatment, heavy smokers report substantially poorer well-being, greater symptom burden, and more functional disability compared to nonsmokers.[3]
4. Public mental health clients have a higher relative risk of death than the general population, due in part, to high rates of tobacco use.[4]
5. Quit rates among smokers with a past history of major depression and simple phobias are similar to smokers without this history.[1]
6. The National Comorbidity Survey in the US showed patients with psychiatric disorders smoke at a twice higher rate than those without psychiatric disorders (41% vs. 22.5%).[5]
7. The US smoking prevalence in 1999: 23% in healthy people, 36% in patients with social phobia, 46% in generalized anxiety disorder, 37% in major depression, and 69% in bipolar disorder.[5]
8. A cross-sectional study conducted in 56,000 elderly over 65 years old in Hong Kong found out that current smokers, both men and women, were 50% more likely to suffer from depressive symptoms than never smokers.[6]
9. Students with high levels of depressive symptoms were 50% more likely to be a smoker at follow-up than those with low levels of depressive symptoms.[7]
10. Schizophrenia patients were also more likely to be heavy smokers and to be dependent on nicotine.[8]
11. Schizophrenia patients perceived a lot of positive effects of smoking, and smoking is used as self-treatment of psychological symptoms.[5]

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5. Ziedonis D, Hitsman B, Beckham JC, Zvolensky M, Adler LE, Audrain-McGovern J, et al. Tobacco use and cessation in psychiatric disorders: National Institute of Mental Health report. Nicotine Tob Res. 2008; 10:1691–715.
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8. de Leon J, Diaz FJ. A meta-analysis of worldwide studies demonstrates an association between schizophrenia and tobacco smoking behaviors. Schizophr Res. 2005; 76:135–57.

REFERENCE LIST FOR MODULE

MINI LECTURE 1 *[Nicotine Addiction]*

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2. Benowitz NL. Neurobiology of nicotine addiction: implications for smoking cessation treatment. Am J Med. 2008; 121(4 Suppl 1):S3–10.
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MINI LECTURE 2 *[Tobacco and Depression and Anxiety]*

1. Bjornson W. Bringing everyone along: resource guide. Portland, Oregon: Tobacco Cessation Leadership Network; 2008.
2. Isensee B, Wittchen HU, Stein MB, Hofler M, Lieb R. Smoking increases the risk of panic: findings from a prospective community study. Arch Gen Psychiatry. 2003; 60:692–700.
3. Kisely S, Campbell LA. Use of smoking cessation therapies in individuals with psychiatric illness: an update for prescribers. CNS Drugs. 2008; 22:263–73.
4. Kroon LA. Drug interactions and smoking: raising awareness for acute and critical care providers. Crit Care Nurs Clin North Am. 2006; 18:53–62.
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MINI LECTURE 3 ***[Tobacco and Schizophrenia]***

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11. **INSTRUCTOR KEY RESOURCES/REFERENCES**

1. Ziedonis D, Hitsman B, Beckham JC, Zvolensky M, Adler LE, Audrain-McGovern J, et al. Tobacco use and cessation in psychiatric disorders: National Institute of Mental Health report. Nicotine Tob Res. 2008; 10:1691–715.
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3. SUPPORT KEY REFERENCES

4. Ziedonis D, Hitsman B, Beckham JC, Zvolensky M, Adler LE, Audrain-McGovern J, et al. Tobacco use and cessation in psychiatric disorders: National Institute of Mental Health report. Nicotine Tob Res. 2008; 10:1691–715.
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5. SAMPLE EXAMINATION QUESTIONS

Question 1—Which of the following models describes addiction as a discrete phase of individual behavior changes that need to be assessed in deciding smoking cessation intervention?

A. Psychodynamic theories
B. Trans-theoretical theories
C. Learning theory-based model
D. None of the above

ANSWER = B

Question 2—Which target point does nicotine replacement therapy target?

A. Respiratory system
B. Cardiovascular system
C. Central nervous system
D. Brain reinforcement pathway

ANSWER = C

Question 3—Agents that enhance GABA or reduce glutamate can be used in smoking cessation because these agents can disrupt brain reinforcement pathways. True or False?

ANSWER = True

Question 4—Which of the following psychiatric patients have the lowest smoking cessation rate?

A. Bipolar disorder
B. Social phobia
C. Generalized anxiety disorder
D. Major depression

ANSWER = A

Question 5—When compared to patients who do not smoke, panic disorder patients who smoke:

1. Have more mental impairments
2. Experience more panic symptoms
3. Have more social impairments
4. Have lower levels of anxiety sensitivity
5. 1, 2 and 3 are correct
6. 1, 2 and 4 are correct

ANSWER = 5 (1, 2 and 3 are correct)

Question 6—Due to their illness, schizophrenia patients typically puff less and more shallowly when they smoke, thus they have a lower level of nicotine and cotinine. True or False?

ANSWER = False

Question 7—Uncontrolled smoking cessation in psychiatric patients under psychotropic treatment can initially lead to adverse effects of the psychotropic drug. True or False?

ANSWER = True