

MODULE B8 Substance use and substance use disorders

Entry scenario: The entry scenario addresses a variety of issues and problems associated with the module topic. It may be used at the beginning of the course to stimulate the students to identify their own needs and interests. The results may be utilized by the individual to assess own learning process, or be integrated with class objectives.

A fifteen year-old boy is brought to your clinic by his mother who says that her son is becoming more and more withdrawn at home. The parents are divorced and there are two younger siblings. The boy's teachers complain that his schoolwork is growing worse, that he does not bother to do his homework, and he is absent from school more frequently. He stays out late in the evenings and does not want to go to school in the mornings. The mother does not like her son's group of friends because they are known to be "into" drugs. You take a routine history with the mother present and there appear to be no specific health problems although the boy is reluctant to say much and the 'history' is mainly obtained from the mother. You arrange for his mother to leave the room and, after having discussed promised confidentiality, you question him about his use of substances. He gradually admits that he is smoking cannabis on a fairly regular basis (1-2 times a day) and sometimes takes other drugs such as speed; he has never injected any drug; he smokes half a pack of cigarettes a day and occasionally tries alcohol (during the week-end) and has been high several times but never totally drunk; he makes you promise you won't tell any of this to his parents. He realizes that his school attendance and work are declining, but he does not want to give up his present group of friends. He has already been questioned informally once by the police about drug taking, although his parents do not know.

General goals: for learners. By completing the module the participant will be able to:

- I.** Define the terminologies of adolescent Alcohol, Tobacco, and Other Drug (ATOD) use; access to and utilize the related epidemiological data
- II.** Understand the value of substance use from an adolescent's viewpoint, and describe the range of consequences of ATOD misuse
- III.** Communicate effectively with an adolescent about substance use and implement an appropriate intervention plan as needed
- IV.** Define the health professionals' role in preventing adolescent substance misuse at the individual and community levels

Goal I: Define the terminologies of adolescent alcohol, tobacco, and other drug (ATOD) use; access to and utilize the related epidemiological data

Training objectives Priority content	Educational methodology	Activities, questions, and issues
<p>Explain the commonly used terms for ATOD use, and place the definitions in the legal and social context of the individual's country</p> <ul style="list-style-type: none"> - Continuum of use from experimentation to misuse, abuse, and dependency - Developmental patterns of use - Historical trends, prevalence - Associated sociodemographic factors - Legal context 	<p>Mini-lecture with group discussion (buzz)</p>	<p>Discuss conceptual issues related to definitions for patterns of substance use, and the importance of a standard 'use' terminology when discussing problematic drug use.</p> <p>Participants estimate current trends in consumption of alcohol, nicotine, and cannabis in 12- to 17-year-old teenagers in their own countries. Compare with data from cross-national surveys like HBSC and ESPAD (European School Survey Project on Alcohol and Other Drugs) or others.</p> <p>What are the differing trends in the countries or cultures represented by the participants? Is multidrug use increasing?</p> <p>How do changing legal structures, social inequalities, and culture influence substance use?</p>
<p>Define different types of substance use, including de DSM V criteria for substance use disorders (see appendix)</p> <ol style="list-style-type: none"> 1. Impaired control 2. Social impairment 3. Risky use 4. Pharmacological indicators (tolerance and withdrawal) 	<p>Mini-lecture with group discussion (buzz)</p>	<p>Use the entry scenario to estimate the type of substance use of the boy:</p> <p>mild :2-3 symptoms Moderate: 4-5 symptoms Severe: > 5 symptoms</p> <p><i>NB: most adolescents fall in the first category, which was previously considered as substance "misuse"</i></p>

<p>Identify and apply the basic elements of motivational interviewing</p>	<p>Interactive minilecture on M. I.</p> <p>Role play</p>	<p><u>See:</u> http://pubs.niaaa.nih.gov/publications/Practitioner/YouthGuide/AAPAdolescentHealthUpdateBMI.pdf http://www.motivationalinterviewing.org/</p> <p><u>Role play</u> After spending 3 days in hospital with severe alcohol intoxication, a 14 year-old boy has been referred to his family physician. Role-play the first encounter and identify effective techniques of communication with the boy and his family.</p>
<p>Assess ATOD related problems in the individual adolescent</p> <ul style="list-style-type: none"> - questions on substance use as a routine during check-up - red flags in the area of substance use - history taking specific to substance use - patient's awareness of own situation - criteria for referral 	<p>Readings Mini-lecture Observation of a consultation or case video Role play</p>	<p>Trainer provides some visual example of handling an interview with an adolescent using substances.</p> <ol style="list-style-type: none"> 1) Evaluate the extent and pattern of substance use 2) Assess short and middle-term impact of substance use 3) Investigate mental health, focusing on co-morbidity <i>(Look at the mental health module)</i> 4) Identify criteria for referral to a child and adolescent psychiatrist or a drug counselling agency? 5) Review available screening instruments, and have class debate the use of urine and hair tests. <p><u>Case study 1</u> The mother of a 16 year-old male teenager asks physician to do urine screening for drugs because of a marked change for the worse in her son's behaviour at home and at school. What is the physician's likely next step? How would you promote a family discussion without making lab tests?</p> <p><u>Case study 2</u> A 14 year-old male comes to consultation suffering from frequent headaches and several asthma attacks per month. You suspect cigarette or cannabis use. How will you ask him about self-medication and smoking?</p>

<p>Clarify own opinion on one's personal role in ATOD prevention, keeping in mind one's possibilities for action in different settings like primary care office, hospital, public health agency, family, school, community, and the political arena (especially regarding drug policy).</p> <p>Identify the opportunities available to engage in ATOD prevention at an Individual level</p>	<p>Group discussion</p>	<p>What does the role of provider as health advocate mean about one's engagement in ATOD prevention? What is the goal of your advocacy?</p> <p>Discuss the barriers encountered, e.g. time constraints, lack of training in communication skills and/or addiction medicine, lack of studies showing effectiveness of interventions, discomfort with following policies you don't agree with.</p>
<ul style="list-style-type: none"> - Personal, family & environmental factors impacting on substance use - Evidence-based prevention message design and delivery in one's medical practice 	<p>Group discussion based on participants' experience</p>	<p>Facilitator summarizes current knowledge on risk and protective factors for ATOD use, with special attention to those that can be influenced. How can 'youth at risk' be supported effectively, e.g. boys with conduct disorder. Does prevention work? What outcome from ATOD prevention is desired? How reasonable are 'sensible risk-taking' and 'harm-reduction' as strategies?</p> <p>Class review how messages are most effectively targeted to youth. Discuss the limitations of fear-based messages.</p> <p>Participants discuss how their clinical setting could be modified to incorporate strategies to promote ATOD prevention.</p> <p>Share ideas of potential activities in their communities in which they could become involved.</p>
<p>Review evidence-based effective preventive interventions within the school setting, the level of the community or at the environmental and policy level <i>See module C4</i></p>	<p>Interactive lecture Invite a specialist of prevention & health promotion Group discussion</p>	<p>Consider that you are asked to participate in a school-based drug prevention project. What are the arguments for or against a drug-specific life skills training or a project to enhance the school 'climate' and the students' general well-being (i.e. project to promote personal change versus a project to promote structural change)?</p>



Resources

Adolescent Substance Abuse Prevention (Health Canada)

<http://www.hc-sc.gc.ca/hc-ps/pubs/adp-apd/prevent/index-eng.php>

Management of substance abuse (WHO)

http://www.who.int/substance_abuse/en/

Centre for Mental Health and Addiction

http://www.camh.net/Publications/CAMH_Publications/substance_use_pubsindex.html

Teen Health Freak

<http://www.teenagehealthfreak.org>

Appendix 1 : classification of substance use

DSM-V Diagnostic Criteria for Substance Use Disorders (<http://www.amhc.org/1408-addictions/article/48502-the-diagnostic-criteria-for-substance-use-disorders-addiction>)

(adapted from American Psychiatric Association "Diagnostic and Statistical Manual of Mental Disorders. 4th ed." Washington D.C.: American Psychiatric Association 2000)

1.A. Impaired control:

1) Using for longer periods of time than intended, or using larger amounts than intended; 2) Wanting to reduce use, yet being unsuccessful doing so; 3) Spending excessive time getting/using/recovering from the drug use; 4) Cravings that are so intense it is difficult to think about anything else.



2.B. Social impairment

5) People may continue to use despite problems with work, school or family/social obligations. This might include repeated work absences, poor school performance, neglect of children, or failure to meet household responsibilities.

6) Addiction may also be indicated when someone continues substance use despite having interpersonal problems because of the substance use. This could include arguments with family members about the substance use; or, losing important friendships because of continued use.

7) Important and meaningful social and recreational activities may be given up or reduced because of substance use. A person may spend less time with their family, or they may stop playing golf with their friends.

3.C. Risky Use

8) Addiction may be indicated when someone repeatedly uses substances in physically dangerous situations. For instance, using alcohol or other drugs while operating machinery or driving a car.

9) Some people continue to use addictive substances even though they are aware it is causing or worsening physical and psychological problems. An example is the person who continues to smoke cigarettes despite having a respiratory disorder such as asthma or COPD.

4.D. Pharmacological indicators: Tolerance and Withdrawal

10) Tolerance occurs when people need to increase the amount of a substance to achieve the same desired effect. Stated differently, it is when someone experiences less of an effect using the same amount. The "desired effect" might be the desire to avoid withdrawal symptoms. On the other hand, it may be the desire to get high. People experience tolerance differently; i.e., people vary in their sensitivities to different substances. Specific drugs will vary in terms of how quickly tolerance develops and the dose needed for tolerance to develop.

11) Withdrawal is the body's response to the abrupt cessation of a drug, once the body has developed a tolerance to it. The resulting cluster of (very unpleasant and sometimes fatal) symptoms is specific to each drug. We discuss these specific symptoms in each substance category. Although withdrawal is very unpleasant, it does not usually require medical assistance. However, withdrawal from some drugs can be fatal. Therefore, consult with a medical professional before attempting to stop drug use after a period of heavy and continuous use. This will ensure that quitting is as safe and comfortable as possible.

If a person is experiencing withdrawal symptoms at the time they are being evaluated for treatment, they will be diagnosed with both substance use and substance withdrawal.

A person needs to meet at least 2 of these criteria to be diagnosed with a substance-use disorder.

WHO International Classification of Diseases

(downloaded from www.who.int/substance_abuse/terminology/who_lexicon/en/print.html)

A shortened version of the term used in ICD-10: Mental and behavioural disorders associated with psychoactive substance use. The term encompasses

- **acute intoxication** (F1x.0)
- **harmful use/problematic use/misuse** (F1x.1): A pattern of psychoactive substance use that is causing damage to health. The damage may be physical (e.g. hepatitis following injection of drugs) or mental (e.g. depressive episodes secondary to heavy alcohol intake). Harmful use commonly, but not invariably, has adverse social consequences; social consequences in themselves, however, are not sufficient to justify a diagnosis of harmful use. The term was introduced in ICD-10 and supplanted "non-dependent use" as a diagnostic term. **The closest equivalent in other diagnostic systems (e.g. DSM-III-R) is substance abuse, which usually includes social consequences.**
- **dependence syndrome** (F1x.2): A cluster of behavioral, cognitive, and physiological phenomena that may develop after repeated substance use. Typically, these phenomena include a strong desire to take the drug, impaired control over its use, persistent use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and a physical withdrawal reaction when drug use is

discontinued. In ICD-10, the diagnosis of dependence syndrome is made if three or more of six specified criteria were experienced within a year. The dependence syndrome may relate to a specific substance (e.g. tobacco, alcohol, or diazepam), a class of substances (e.g. opioids), or a wider range of pharmacologically different substances.

- **withdrawal state** (F1x.3),
- **withdrawal state with delirium** (F1x.4),
- **psychotic disorder** (F1x.5) and
- **amnesic syndrome** (F1x.6).

For a particular substance these conditions may be grouped together as, for example, alcohol use disorders, cannabis use disorders, stimulant use disorders. Psychoactive substance use disorders are defined as being of clinical relevance; the term "psychoactive substance use problems" is a broader one, which includes conditions and events not necessarily of clinical relevance.

Misuse, drug or alcohol: use of a substance for a purpose not consistent with legal or medical guidelines, as in the non-medical use of prescription medications. **The term misuse is preferred by some to abuse in the belief that it is less judgmental.**

Other useful headwords to be looked up in the WHO Substance Use Lexicon (also available in French and Spanish): abstinence, abuse, addiction, drug, dual diagnosis, multiple drug use (in French: polytoxicomanie), overdose, psychoactive drug or substance

Appendix 2

'Functions' of substance use in light of adolescent developmental tasks

Adapted from Silbereisen RK and Reese A. Substanzgebrauch: Illegale Drogen und Alkohol.

In: Raithel J. Risikoverhaltensweisen Jugendlicher: Formen, Erklärung und Prävention. Opladen, Leske + Budrich 2001; 131-151.

Developmental task	Function of substance use
Identity formation : know who you are and what you want	<ul style="list-style-type: none"> - display personal style - test own limits - widen scope of conscious experience
Intimacy : build friendships and intimate relationships	<ul style="list-style-type: none"> - ease entry to peer groups - contact with opposite sex peers - excessive ritualistic behaviour
Separation from parents	<ul style="list-style-type: none"> - Demonstrate independence from parents - Knowingly oppose parental control
Shape and plan one's life	<ul style="list-style-type: none"> - join a subculture life style - have fun and enjoyment
Develop value system	<ul style="list-style-type: none"> - Challenge usual norms - Manifest social protest
Cope with development problems	<ul style="list-style-type: none"> - substitute goals - combat stress and emotional upheaval