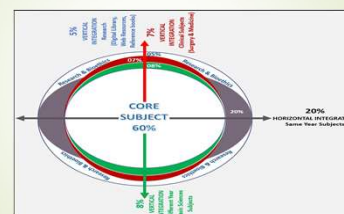




Prof Umer's Integration Model



SHORT GROUP DISCUSSION TOPIC

DRUG ABUSE

CNS MODULE

Teaching strategy of SGD

S.No	Headings	Approximate %
1	Title Of SGD	
2	Learning Objectives from Study Guides	
3	Horizontal Integration	5%+5%=10%
4	Core Concepts of the topic	60%
5	Vertical Integration	20%
6	Related Advance Research points	3%
7	Related Ethical points	2%

Vision & Mission of RMU



VISION

Highly recognized and accredited center of excellence in medical education, using evidence based training techniques for development of highly competent health professionals, who are lifelong experiential learner and are socially accountable.

MISSION STATEMENT

To impart evidence based research oriented health professional education in order to provide best possible patient care and inculcate the values of mutual respect, ethical practice of healthcare and social accountability.

Sequence of Lecture:

- Learning objectives(01 slides)
- Core subject (25 slides)
- Horizontal & vertical Integration(08 slides)
- Digital Library References(02 slides)
(Research, Bioethics)
- Family medicine(01 slide)
- End of Lecture Assessment (EOLA)(02 slides)

Learning Outcomes

At the end of SGD ,students will be able to comprehend :

- Definition of Drug Abuse
- Over the counter medication use and its side effects
- Dependence Producing Drugs
- Environmental and Host Factors responsible for Drug Abuse
- Symptoms of Drug Abuse
- Prevention and Rehabilitation Strategies for Drug Addicts

WHAT IS OTC MEDICATION USE?

Core subject

Over-the-counter (**OTC**) medications are those that can be sold directly to people without a doctor's prescription. OTC medicines treat various diseases and their symptoms, including

- Pain
- Coughs and colds
- Diarrhea
- Constipation
- Acne

DRUG ABUSE

Core subject

Drug Abuse is defined as self-administration of a drug for non-medical reasons, in quantities and frequencies which may impair an individual's ability to function effectively , and which may result in social , physical and emotional harm.

DRUG DEPENDENCE

A state psychic and sometimes, physical resulting from interaction between a living organism and a drug that always include a compulsion to take the drug on periodic basis to experience its psychic effects and sometimes, to avoid discomfort of its absence.

10 most common over-the-counter medicines used worldwide :

Core subject

- Acetaminophen
- Ibuprofen
- Fexofenadine
- Loratadine
- Hydrocortisone creams
- Dextromethorphan
- Pseudoephedrine
- Bismuth subsalicylate
- Diphenhydramine
- Pseudoephedrine

PROBLEM STATEMENT

Core subject

- Substance abuse and cigarette smoking are now regarded as major public health problem. According to the 2017 status report, the globally estimated prevalence of episodic alcohol use and daily tobacco smoking among the adult population was 18.4% and 15.2%, respectively. Pakistan has 6.7 million drug users. Almost 2 million of these are addicts, amongst the highest numbers for any country in the world.

SIDE EFFECTS OF ABUSE OF SOME OVER-THE-COUNTER DRUGS

Core subject + HJ

ACETAMINOPHEN :

Used as **pain killer** and can cause Liver problems causing stomach pain (upper right side), loss of appetite, tiredness, itching, dark urine, clay-colored stools, jaundice (yellowing of the skin or eyes)

PSEUDOEPHEDRINE :

Used in **cold medicines** and can cause Dilated pupils, Hallucinations, Hypertension, Heart arrhythmias, Seizures, Skin reactions



SIDE EFFECTS OF ABUSE OF SOME OVER-THE-COUNTER DRUGS

Core
subject
+ HI

DEXTROMETHORPHAN

Used as **cough suppressant** and can cause Lack of energy, Hyperexcitability, Poor motor control, Stomach pain, Increased blood pressure, Vision changes, Slurred speech, Sweating

IBUPROFEN

Used as **pain killer** and can cause Heart attack, Hole in the stomach or intestine, kidney damage, Liver damage, Stroke, Ulcers



Environmental Factors responsible for Drug Abuse

Core
subject

- Unemployment
- Migration to cities
- Living away from home
- Early exposure to drugs
- Leaving school early
- Broken families
- Areas with high rates of crime
- Areas where delinquency is common

AGENT FACTORS (Dependence Producing Drugs)

Core
subject

- Alcohol
- Opioids
- Cannabinoids
- Sedatives and Hypnotics
- Cocaine
- Other stimulants eg coffee
- Hallucinogens
- Tobacco
- Volatile solvents
- Drugs from different classes

Criteria to declare a person Drug Addict

Core
subject

- **Psychological dependence :**
Overpowering desire to take drug.
- **Physical dependence :**
When drug is withdrawn ,patients shows withdrawal symptoms.
- **Development of tolerance :**
There is a tendency to increase the dose.

Host Factors responsible for Drug Abuse

Core
subject

Some host factors responsible are :

- Pleasure
- Desire to experiment
- Adventure
- Desire to escape from tensions and frustrations
- Fantasy of disco culture
- Peer pressure

TOBACCO

Core
subject

- There are almost 1.1 billion smokers and among them 80% belong to low-middle-income countries. Tobacco epidemic is one of the biggest public health threats the world has faced.
- Factors associated with young people smoking are :
 - Peer pressure
 - Following siblings and parents
 - Employment outside homes

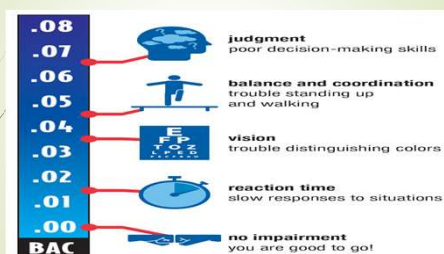
Common Adverse health effects of smoking

Core
subject
+ H1

- Chronic obstructive pulmonary disease
- Myocardial infarction
- Cardiomyopathy
- Buerger's disease
- Cancer of oral cavity, larynx, esophagus, lung, bladder, kidney, pancreatic, cervical and colorectal cancer
- Infertility
- Prematurity and stillbirth
- Stroke



Blood alcohol concentration(%) and effects



Withdrawal symptoms of smoking

Core
subject
+ H1

- Irritability
- Anxiety
- Craving
- Sleep problems
- Headache
- Tremors
- Lethargy

Adverse effects of Alcoholism

Core
subject
+ H1

- Cirrhosis of liver
- Toxic psychosis
- Gastritis
- Pancreatitis
- Cardiomyopathy
- Peripheral Neuropathy
- Cancer of mouth, pharynx, larynx and esophagus
- Suicide, automobile and other accidents
- Family disorganization, crime and loss of productivity



ALCOHOL

Core
subject

- Alcohol is a sedative, tranquilizer, hypnotic and anaesthetic depending on quantity of dose.
- Over the past 30-40 years increasing percentages of young people have started to drink alcoholic beverages. Mortality resulting from alcohol consumption is higher than TB HIV/AIDS and diabetes.
- Blood alcohol concentration and effects

Withdrawal symptoms of Alcoholism

Core
subject
+ H1

- Depression
- Anxiety
- Reduced motivation
- Difficulties experiencing pleasure
- Apathy
- The development of hallucinations and delusions.

Most common dependence producing drugs used today are :

Core subject +H1

- **Amphetamines** : similar in structure to adrenaline , act on central nervous system .They produce mood elevation and increase alertness level. They produce psychic dependence.
- **Cocaine** : It is used in medical practice as potent anaesthetic. It is CNS stimulant and causes distorted awareness and hallucinations.
- **Barbiturates** : They are sedatives and cause both physical and psychic dependence.one of the worst forms of suffering.
- **Cannabis** : also known as charas/bhang causes development of altered consciousness, relaxation, euphoria, altered sense of perception and paranoia. It is responsible for psychic dependence.

Treatment of Drug Addict

Core subject

- Unfortunately drug users have little or no motivation to undergo treatment and needs cooperation of psychologists and sociologists.

First step in its management is medical care which includes :

- Identification of drug addicts and their motivation for detoxication
- Detoxication which requires hospitalization
- Post-detoxication counselling and follow-up based on clinic and home visits.

Most common dependence producing drugs used today are :

Core subject +H1

- **Heroin** : It is narcotic analgesic. It causes worst type of addiction. Tolerance also occurs rapidly. psychic dependence is strong
- **LSD** : lysergic acid diethylamide is potent psychotogenic agent and causes intense depersonalization. There is intensification of color perception and auditory acuity .Visual illusions and pseudohallucinations are common.
- **Caffeine** : Most commonly used drug. Symptoms of caffeinism include anxiety, agitation, restlessness, insomnia and somatic symptoms. Withdrawal causes headache ,irritability and lethargy

Prevention of Drug Abuse

Core subject



Common Symptoms Seen in A Drug Addict

Core subject

- Loss of interest in sports and daily routine
- Loss of appetite and body weight
- Unsteady gait and clumsy movements, tremors
- Reddening and puffiness of eyes
- Slurring of speech
- Nausea, vomiting and body pain
- Drowsiness ,lethargy and passivity
- Acute anxiety , depression tantrums
- Depersonalization ,impaired memory and concentration
- Presence of needles , syringes and strange packets at home

Prevention of Drug Abuse

Core subject

LEGAL APPROACH

- Impose partial or complete restriction
- Controlling manufacture ,distribution , prescription , price, time of sale
- Prohibiting advertisements on electronic media
- Prohibition of smoking in schools and public places
- Mandatory health warning on cigarette packets
- Establishment of mandatory public health education

Prevention of Drug Abuse

Core
subject

EDUCATIONAL APPROACH

- Educational programs for school children
- Public information campaigns on electronic media
- Message should be clear and unambiguous to targeted audience
- Message should come from credible source of information
- Message should provide specific advice not general
- Information should be capable of provoking discussion or action

FAMILY MEDICINE

With increasing pressure on general physicians by managed care organizations and the public to treat and advocate for drug and alcohol addicted patients, it is more necessary than ever that physicians have the knowledge and skills to appropriately address this segment of the population. Specifically, physicians need a better understanding of the prevalence of alcohol and drug dependence in a variety of populations, along with increased awareness of the economic impact of addictive illnesses on our society.

<https://pubmed.ncbi.nlm.nih.gov/10385946/>

Prevention of Drug Abuse

Core
subject

COMMUNITY APPROACH

- There should be strong emphasis on action at community level to prevent drug abuse. Some activities include :
- Teen centers providing activities attractive to adolescents
- Establishment of organizations interested in athletics , sports, public policy , religion , artistic activities, and improvement of environment through prevention of population

DIGITAL LIBRARY

- Excessive alcohol consumption has been associated with different components of the metabolic syndrome (MetS) such as arterial hypertension, dyslipidemia, type 2 diabetes or obesity. MetS in heavy drinkers is independently associated with reduced kidney function and metabolic risk factors including hyperuricemia and elevated serum GGT.

▪ <https://www.nature.com/articles/s41598-022-06010-3>

Rehabilitation Strategies for Drug Addicts

Core
subject

- It is the most long and difficult process and relapses are frequent.
- Adoption of mature and realistic attitude by local community and avoidance of panic , moral condemnation and discrimination is required.
- Facilities for vocational training and provision of sheltered work are useful activities to prevent relapse.
- Facilities for registration , diagnosis ,treatment ,after-care etc of drug-dependent individuals should be regarded as indispensable integrated parts of health and social services structure.

BIOETHICS

- Transparency and fairness, openness, non-judgmental approach and patient participation in the decision-making process demonstrates respect and caring. If the patient feels unheard and powerless, stigmatized, ashamed and disrespected, it becomes difficult for them to leave addiction. All health professionals' codes of ethics specify a duty to care and an obligation not to abandon a person in need.

▪ <https://wrha.mb.ca/files/ethics-caring-for-people-who-use-drugs.pdf>

MCQ 1

In substance abuse, the term self-medication refers to?

- a) Amelioration of psychological distress through substance use
- b) Doctors prescribing their own drugs
- c) Motive for using a substance
- d) Deciding the drug of choice
- e) Use of drugs for common diseases

MCQ2

With Barbiturate and Benzodiazepine Abuse and Dependency, sedative intoxication is generally associated with:

- a) Social phobia
- b) Eating disorders
- c) Impairment in attention and memory
- d) Exhibit apathy
- e) Exhibit loss of ambition

Thank You