**Substance Abuse**

**Terminologies related to substance abuse**

* **Substance**

Any drugs, medication or toxins that shares the potential or abuse.

* **Drug Dependence**

A state in which an individual only functions normally in the presence of substance, experiencing physical disturbance when the substance is removed.

* **Drug Addiction**

It is a common name for a severe substance use disorder associated with compulsive or uncontrolled use of one or more substances.

* **Tolerance:**

It is a state of decreased responsiveness to a drug following repeated exposure and that requires an increase in doses to produce the initial response.

It is the most common response to repetitive use of the same drug.

* **Relapse:**

It refers to the recurrence of the condition that has gone into recovery.

* **Substance intoxication:**

A reversible substance specific syndrome caused by recent ingestion of, or exposure to,

a substance resulting in maladaptive behavior or psychologic changes from effect on the CNS.

**Substance Abuse**

**Definition**

“It refers to maladaptive patterns of substance use that impair health in a board sense.”

**(Diagnostic and statistical Manual of Mental Disorder 5)**

Substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs.

**WHO**

**Impact**

It brings problems in physical, social, emotional, vocational areas of person’s life. It also includes problems associated with addictions such as tolerance, withdrawal, and unsuccessful attempts to stop using substances.

**Incidence:**

* Around 275 million people used drugs worldwide in the last year, while over **36 million** people suffered from drug use disorders, according to the 2021 World Drug Report, released by the **United Nations Office on Drugs and Crime (UNODC) (24 June,2021)**
* It is estimated that number of drug users are 1,30,424 in Nepal in 2076.
* Among them, 1,21,692(93.3 percent) are male and 8,732(6.7 percent) are female.
* Among them 76.2% drug users were below the age of 30 years.
* Cannabis (84.7 percent) was the most commonly used drug followed by tranquilizers (73.1 percent) and opiates (46.8 percent).

**(Nepal Drug User Survey 2076)**

**Etiological Factors**

* Biological factors
* Children of alcoholic parents are at 40-60% risk of developing alcoholism and drug dependence.

* Social and environmental factors:
* Cultural factors
* Peer behavior
* Interfamilial conflicts
* Availability.
* Urbanization
* Unemployment
* Effect of television and other mass media

* Psychological factors:
* Poor impulse control
* Low self esteem
* Poor stress management skills.
* Loneliness, unmet needs.
* Desire to escape from reality
* Desire to experiment, a sense of adventure
* Sense of inferiority
* Pleasure seeking

**Commonly Abuse Substance**

**1.Alcohol**

Alcohol is a **central nervous system depressant** that is rapidly absorbed into the bloodstream. Initially, the effects are relaxation, later with intoxication, there is a slurred speech, unsteady gait, lack of co-ordination and impaired attention, concentration, memory and judgment .Some people become aggressive or display inappropriate sexual behavior when intoxicated.

Heavy drinking for 5 or more drinks at one time or 15 or more drink / week. For women and adults above 65 years 4 or more drinks one occasion or 8 or more drink/week.

**(US Department of Agriculture,2020)**

**2. CNS Depressant (Sedatives, Hypnotics and Anxiolytics)**

This class includes **barbiturates, nonbarbiturate hypnotics, and anxiolytics**, particularly **benzodiazepines**. Benzodiazepines alone, taken orally in overdose are rarely fatal, but the person will be lethargic and confused.

* In case of barbiturates:

In small doses -the person feels drowsy and intoxicated.

In higher doses- slurred speech, confusion.

At even higher doses- Coma, may stop breathing and even death is possible.

**3. CNS Stimulants (Amphetamines, Cocaine)**

**It includes drugs such as amphetamines, cocaine, nicotine etc.** Effect of intoxication includes high or euphoric feeling, hyperactivity, talkativeness, anxiety, grandiosity, hallucinations, repetitive behavior, anger, fighting and impaired judgment. Overdose of stimulants can result in seizures and coma, death is rare.

**4. Cannabis(marijuana)**

It is a plant which is widely cultivated for its fiber, used to make rope and cloth and for its seeds, used to make oil. It is most often used **smoked in cigarettes** but it can be eaten. It can be used in relieving the **nausea and vomiting associated with chemotherapy**. It begins to act less than 1 minute after inhalation. Peak effects usually occur in 20 to 30 minutes and lasts at least 2-3 hours.

Symptoms intoxication includes impaired motor coordination, inappropriate laughter, impaired judgment and short-term memory as well as dysphoria.

**5. Opioids**

They are one of the **most popular** drugs of abuse because they desensitize the user to both physiologic and psychological pain and induce a sense of euphoria and well-being. Opioid substances include morphine, meperidine, codeine, methadone, propoxifen and substances such as heroin etc. Opioid intoxication develops soon after the initial euphoric feelings. Opioid overdose can lead to coma, respiratory depression, unconsciousness and death.

**6. Hallucinogens**

They are the substances that distort the user’s perception of reality and produce symptoms similar to psychosis including hallucinations and depersonalization. Example-mescaline, Dhatura, ketamine, recreational drugs -ecstasy. Intoxication symptoms are highly associated with maladaptive behaviors or psychological changes such as anxiety, depression, paranoid ideation, ideas of references and potentially dangerous behavior such as jumping out a window in a belief that one can fly.These drugs are not a direct cause of death, although fatalities have occurred from accidents, aggression and suicide.

**Signs and Symptoms of Substance Abuse**

* Opioids and narcotics
* Needle marks on the skin in some cases (called “tracks”)
* Rapid heart rate
* Pinpoint pupils
* Relaxed and/euphoric state
* Respiratory depression leading to coma, and death in high doses.
* Central nervous system stimulants
* exaggerate feeling of well-being (euphoria)
* Dilated pupils
* Increased heart rate
* Central nervous system depressants
* Slurred speech
* Lack of coordination
* Decreased attention span
* Impaired judgement

* Hallucinogens
* Anxiety
* Frightening images of things that aren’t there (hallucinations)
* Paranoid delusions
* Blurred vision
* Dilate pupils
* Tremors
* Cannabinoids
* Rapid heart beat
* Dizziness
* Depression
* Hallucination
* Low blood pressure
* Panic Attacks
* Food craving

**Withdrawal Symptoms:**

* Stimulants: Marked dysphoria is the primary symptom and is accompanied by vivid and unpleasant dreams, psychomotor retardation, increased appetite.
* Alcohol: Delirium tremens
* Elevated pulse, temperature, blood pressure and respiration
* Tremors
* Nausea
* Vomiting
* Weakness
* Irritability
* Insomnia
* Anxiety

**Diagnostic and statistical Manual of Mental Disorder (DSM) 5 Diagnostic Criteria for**

**Substance Abuse Disorder:**

1. Craving to use the substance
2. Wanting to cut down or stop but unable to manage.
3. Taking the substance in larger amounts or for longer than you’re meant to.
4. Spending a lot of time getting, using or recovering from use of substance.
5. Not managing to do what you should do at work, home or school because of substance use.
6. Continuing to use, even when it causes problems in relationships.
7. Giving up important social, occupational or recreational activities because of substance abuse.
8. Using substance again and again, even it puts you in danger
9. Continuing to use, even when you know you have a physical or psychological problem that could have been caused or made worse by the substance.
10. Needing more of substance to get the effect you want(tolerance).
11. Development of withdrawal symptoms which can be relieved by taking more of the substance.

In order to be diagnosed with a substance use disorder, a person must meet two or more of these criteria within a 12-month period. If a person meets two or three of the criteria, then that person have a mild substance use disorder. Four to five is considered moderate, and if a person meets six or more criteria, then that person have a severe substance use disorder.

**(American Psychological Association,2020)**

**Treatment Modalities/Management of Substance Abuse**

**1. First step: Emergency management:**

The patient needs surgical or medical management and after life has been saved, then assessment and specific treatment is needed.

**2. Second step: Detoxification**

The first step in a substance treatment program is often detoxification, the process of allowing the body to get rid of the substances under the supervised care. It helps the brain to adjust to the absence of abused substance. These medications act slowly to quit drug cravings and mental agitation. It allows the physician to treat the symptoms of withdrawal. For some drugs, this may require a gradual reduction in the amount of drug taken(also known as taper schedule). Example- buprenorphine marketed as suboxone can be prescribed for treating withdrawal symptoms.

3**. Third step: Psychotherapies**

Behavioral therapies can make treatment medications more effective and can help people stay in treatment longer and avoid relapse. Types of Behavioral Treatments are:

* Cognitive Behavioral Therapy:

It seeks to help people recognize, avoid and cope with situations in which they are most likely to abuse substance.

* Motivational Incentives:

It offers rewards for attending counseling sessions, taking treatment medications and not abusing substances.

* Motivational Interviewing:

It is typically conducted by a treatment counselor and occurs when a person first enters a drug treatment program. It aims to get people to recognize their need for treatment so that they can take an active role in their recovery.

* Group Therapy:

Preferably with one’s own age group and sometimes one’s gender, helps people face their substance abuse problems and the harm it causes. It teaches ways to solve personal problems without abusing medications.

**4. Fourth step: Discharge teaching**

* The patient should be educated about the risk of involving in abuse again due to re-exposure in community.
* Health education should be given regarding the importance of medicine used and the measure for solving the side effect.
* Do not ignore the warning signs of drug abuse again and connect with teen by doing things together as a family. (Eat family meals together
* Stress management skills, time management, anger control, sleep hygiene, recreation and spirituality.

**5.Fifth step: Psycho-social rehabilitation**

It is done in community setting. The patients are taught different social, vocational and occupational skills according to their needs. It also includes residential rehabilitation on rehabilitation centers.

**General management:**

* Antipsychotic for psychotic symptoms.
* Anti anxiolytics to reduce anxiety.
* Relief of symptoms such as agitation, sleep disturbances.
* Psychological support should be given to the patients having therapy.
* Withdrawal management area should be quite, calm and safe.
* Strict monitoring of vital signs, level of consciousness and orientation.
* They shouldn’t be forced for physical activities.
* Provide accurate, realistic information about drugs and withdrawal symptoms to alleviate anxiety and fears.
* Maintain fluid and electrolyte balance.
* Anticonvulsant Therapy
* Close observation should be done.

**Nursing Management:**

**Assessment**

Take detail History of patient and observe for:

* Low self esteem
* Mood alteration
* Disturbance of attention span and concentration or ability to follow direction
* Fluid and electrolyte imbalance
* Impaired nutritional state
* Hallucinations and delusions

**Nursing Diagnosis**

* Altered homeostasis related to inadequate eating patterns/fluid and electrolyte imbalance/sleep pattern disturbances.
* Risk for violence: self-directed or other directed related to mood swings/poor impulse control.
* Ineffective health maintenance related to poor communication skills and lack of interest.
* Anxiety related to difficulty in dealing with reality and feelings of failure and unworthiness.
* Ineffective coping related to inadequate support resources
* Noncompliance with treatment program related to substance abuse and dependency denial.

**Planning and Implementation**

* Obtain the client’s history including kind amount, route and time of last drug use.
* Promote homeostasis by promoting adequate hydration and nutrition, promote rest and sleep and comfort, minimize the client’s withdrawal symptoms and complications.
* Accept patient’s right to refuse procedures. Observe for suicidal tendencies.
* Provide a safe environment for the client. Protect the caretakers and others from aggressive behavior.
* Promote the client’s personal hygiene.
* Keep atmosphere pleasant and cheerful and avoid stimulants.
* Help to improve client’s self-confidence, self-respect and security in a realistic manner.
* Provide emotional support, give the client positive feedback when needed.
* Introduce the client to group activities as soon as possible.
* Counsel the client focusing on problem’s areas in their life and explore the way to reduce them.
* Teach the client different ways to reduce stress and help to cope with problems.
* Include friends and family members in care plans.
* Arrange follow-up calls and provide telephone numbers of crisis intervention lines.
* Provide education to the client and family members focusing on these areas:
  + - About the problems, it’s effect and recovery, relapse.
    - Regular treatment and follow up.
    - Don’t overprotect the client.

Help to increase the self-esteem by encouraging the positive behavior with positive reinforcement

**Prevention of Substance Abuse**

**Primary prevention**

Activities that focus on preventing drug abuse related consequences before that drug use begins.

In Family:

* Provide child a secure and stable home environment.
* Talk with children about the harmful effects of substance use and how to stay away.
* Treatment of family members who are involved in substance abuse.
* Good relationship between child and parents should be made.
* Be a good listener when the children talk about peer pressure and be supportive of their efforts to stay away from it.

In Community:

* Prohibition of smoking in schools, public areas.
* Education of target groups and awareness through TV, radio, posters.
* Health education to school, college students and the youth about the danger of drug abuse through curriculum and mass media.
* Avoidance of addictive drink during festivals.

Government Roles:

* Adopting certain legal regulations for controlling the export of narcotic drugs.
* Regulating the production and distribution of drugs.
* Establishing penalties for illegal possession or sale of dangerous drugs.

**Secondary prevention**

* Activities that focus on recognizing that early signs of drug abuse, intervention and referral to appropriate resources, example:
* Helping tobacco smokers to cease smoking,
* providing education programs for drink drivers and
* providing clean needles for people who inject,
* offering counseling for people who use substance at a risky level.

**Tertiary Prevention**

Activities that help to prevent problem from getting worse and prevent further complications.

* Prevention from relapse.
* Management of detoxification & withdrawal
* Cognitive Behavioral therapy,
* Residential rehabilitation etc.
* Pharmacotherapy.

**Question:**

**Fill in the blank**

A)Compulsive and uncontrolled use of one or more substances is known as­\_\_\_\_\_\_\_\_\_\_\_.

**True/False**

Substance abuse does not include alcohol. \_\_\_\_\_\_.

**Choose the correct one:**

Opioids substance include:

1. Codeine, morphine, methadone
2. Codeine, pantoprazole, torsemide
3. Codeine, metoprolol, omeprazole

**Summary**

Any drugs, medication or toxins that shares the potential or abuse is substance.It refers to maladaptive patterns of substance use that impair health in a broad sense. It is the harmful use of drug without prescribed by the doctors for any medical reason despite of it’s negative consequences.The majority of adults with an addiction first experimented with drugs before they turned 21. The commonly used substance abuse are alcohol, sedatives, hypnotics and anxiolytics, cannabis, opioids, hallucinogens, inhalants.Common withdrawl symptoms are nausea, vomiting, tremors, nausea, weakness, irritability, insomnia and anxiety.Treatment modalities include emergency management, detoxification, psychotherapies, discharge teaching and psychosocial rehabilitation. Prevention include-primary prevention, secondary prevention, tertiary prevention.

**Home Assignment:**

1. Define substance abuse. List any three causes of substance abuse. Explain the treatment modalities of substance abuse.

**Plan for next class:**

We will discuss about sub-fertility.

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The end

Thank you..