

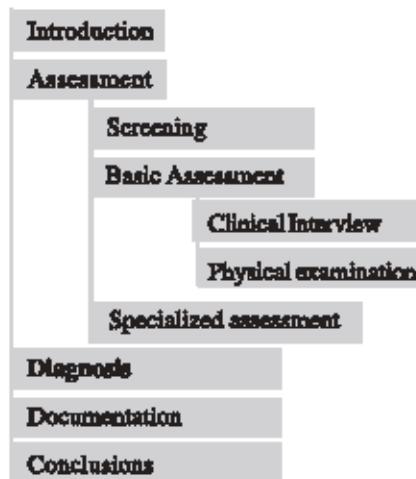
Assessment and Diagnosis in Substance Abuse Disorder



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Summary: *Certain psychoactive substances are known to cause adverse health effects and their use is a cause of concern. Appropriate assessment through clinical interview and physical examination helps in identifying the substance(s) of abuse and planning appropriate treatment for the same.*

This chapter is organized as shown here:



Introduction:

People have been using many substances for deriving pleasure, for relief of mental tension and tiredness, for getting sleep, for sexual energy enhancement and for increasing physical

strength. Such drugs alter brain chemicals and are known as 'psychoactive substances'. They cause various adverse effects on long continued use. Substance use can be categorized as experimental use; harmful use and dependent use based on pattern of use.

<i>Experimental use</i>	<i>Harmful use/abuse</i>	<i>Dependent use</i>
Occasional use	Frequent use	Regular use
Mostly to experience pleasure	Seeks to re-experience pleasure	Increasing quantity and frequent use
No discomfort on stopping	Mild discomfort on stopping	Craving and withdrawal on stopping
Minimal or no physical or psychological harm	Evidence of physical or psychological harm	Clear evidence of physical and psychological harm

Certain other problems can also arise due to drug effect per se like intoxication and withdrawal, mood changes, sleep and sexual problems. It becomes the duty of health care providers to identify persons using these substances early and intervene. Identification of such individuals and further exploration of the extent of use and damage caused by various substances in these requires clinical skill. This is necessary to formulate a treatment plan. This chapter discusses these issues.

Assessment: Assessment is a process of gathering information about a person's substance use status and health, and is an ongoing process. Among substance users, assessment would include current and past substance use, treatment sought, outcome following treatment and current treatment need.

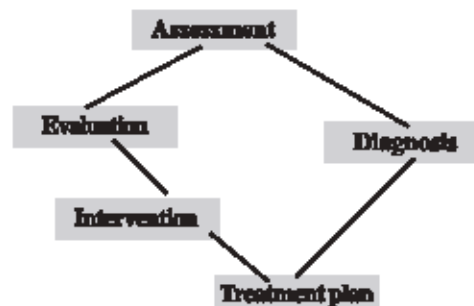
Types of assessment: Based on preciseness of the skill required, assessment can be done at three levels:

1. Screening
2. Basic assessment
3. Specialized assessment

A proper assessment is helpful in numerous ways:

- It identifies substance use in persons with physical problems.
- It identifies substance use in those who deny usage.
- It helps to establish a diagnosis
- It helps to plan treatment
- It helps in referral to a specialist for further treatment.
- It can motivate the patient to seek treatment

Figure 1: Assessment as an ongoing process



Barriers in Assessment

- Denial of substance use by the person
- Guilt about the substance use & related behaviour
- Fear of stigmatization
- Fear of evoking bad reaction from health professionals
- Lacks of knowledge on treatment of addictive diseases
- Apprehension about possible legal and other punitive consequences

Basic assessment: This includes clinical interview and physical examination supported with or without laboratory investigations to arrive at a diagnosis.

Clinical interview: This is a specific way of conversing with the patient in order to collect relevant clinical material. It involves eliciting answers by enquiring into specific issues regarding substance use i.e. initiation, progression, complications associated with its use and motivation to undergo treatment for the same. Main aim is to identify 'harmful use' or 'dependent use' (known as 'substance dependence syndromes') as per accepted international criteria. (Table 1).

Structured clinical interview: To avoid haphazard way of asking questions and to avoid personal bias in making diagnosis, health professionals have come out with booklets containing readymade questions arranged in particular order and choices of answers given for each question from which the patient has to choose. These are mostly used for research purposes.

Table 1

Dependence syndrome- as per ICD-10 requires at least 3 criteria out of following 6

1. Craving or compulsion to take the substance
2. Tolerance-need to increase the amount to experience desired effect
3. Withdrawal signs and symptoms appears on decreasing or sudden stopping of substance
4. Neglect of other activities due to involvement in substance use
5. Difficulty in controlling substance-using behaviour
6. Continues to use despite awareness of harm caused by substance

Out of six criteria at least three need to be present concurrently for one month over last one-year period

Harmful use of substance as per ICD-10 requires following two Criteria:

1. Substance use not fulfilling criteria for dependence
2. Persistent use despite evidence of physical or mental health damage

Specialized assessment: This is done by a specialist to assess personality, coping skills, social supports, risk factors for relapse, presence of concurrent physical illness and psychiatric illness in-depth. Sometimes this is carried out to identify suitability of patient for starting certain kind of treatment.

HINTS

For successful clinical interview

- Introduce yourself
- Tell the purpose of interview
- Follow a format
- Do not judge the patient at first instance
- Listen to him for few minutes then ask questions
- Observe patient and look for signs

Key features of a successful interview:

- Establish rapport
- Explain purpose of treatment
- Collect subjective and objective data
- Avoid using medical terms

Following interview:

- Summarize information gathered
- Analyze to arrive at possible diagnosis

Clinical history is obtained under the following heads:

A. Socio-demographic data

Begins with knowing the patient's name, age, educational status, gender, marital status, current living arrangement and occupation. Patient's residential address is also recorded.

Illustrative Case: Mr. A is a 35-year male, educated till 12th class, married and an electrician by occupation but not working since 5 months. He belongs to middle socio-economic status. He is a resident of Janakpuri, New Delhi that is about 30km distance from this hospital. He is from a nuclear family, staying with his wife and two children. He has come with his wife; information given by him appears reliable and adequate.

HINTS

If patient changes his information frequently then note that information is unreliable. If information taken from the patient or family member helps us to reach diagnosis then the information is said to be adequate.

Such comment should be made only after the proper interview is over

B. Details of substance use

Here the following issues are looked into: age and reasons of initiation of substance use, details of various substances used and route of taking substance, reasons for continued substance use and presence of 'craving'. Other issues are presence of 'tolerance', loss of control and withdrawal symptoms. If a patient is taking more than one substance, then above questions need to be asked for each substance. For each substance ask current pattern of substance use over last one month which include frequency of use, usual amount consumed in a typical day, the maximum amount of substance consumed in a day and the last time substance was used.

Rationale:

- To identify intoxication and withdrawal symptoms.
- To elicit criteria for 'harmful use' or 'dependence syndrome' for each substance.
- To identify factors leading to initiation and maintaining the substance use.
- Route of use helps in anticipating related health problems.
- Amount and dose in current pattern identify degree of dependence and helps in planning treatment.

Illustrative Case: Mr. B, comes with chief complaint of using heroin since 4 years. He was introduced to a 'special' cigarette at the age of 31 years in a marriage ceremony. He tried a few puffs and had cough, intense nausea, light headedness, itching sensation over the skin and felt drowsy for a considerable time.

Thus, he could not enjoy it at first instance; he tried it again and subsequently enjoyed its (pleasurable) effects. His consumptions gradually *escalated* to 6-8 cigarettes per day, which his friend would sell him.

On a subsequent day he went to a nearby village where he could not procure the substance and started *experiencing body ache, weakness, repeated yawning, running nose and watering from the eyes* which was embarrassing for him.

Due to unbearable body pain and experiencing feverishness and loose motions, he went to local physician who prescribed painkillers, which did not help much.

He came back to his friend told him about the problems and patient felt instant relief from all the problems after smoking those cigarettes. His friend told him that this was 'smack' being mixed with tobacco and filled in cigarette.

Following its regular use he started losing weight and developed cough and breathing difficulty and financial difficulty. He now does not find time and interest in previous pleasurable recreational activities like listening songs, chatting with friends or taking family to holiday trips.

He spends most of day in activities involved in possessing and chasing smack. Currently he spends about rupees 300 per day on (smack) heroin.

C. Complications associated with substance:

It includes various problems faced by the patients in various domains due to his continued substance use. Denial of any problems due to their substance use is commonly seen. It is a form of coping method to avoid putting themselves to embarrassment and this is not considered as lying.

Common complications associated with continued substance use are:

1. **Physical** - viz. Breathing difficulty on exertion, repeated cough/chest infection, loss of weight, ulcers with oozing pus in areas of injections, early loss of teeth, appearing older than ones age.
2. **Psychological**- Guilt feeling, feels depressed and worthless, decreased self -confidence.
3. **Financial**-loss of money, debts, no savings.
4. **Social**-locked down in the society, not invited by the neighbours for ceremonies.
5. **Familial**-loss of respect in the family, frequent quarrels at home due to substance use.
6. **Occupational**-repeated sick leave, deterioration of job performance and even loss of job.
7. **Legal**-drunken driving, arrests, involvement in illegal activities to sustain substance use, charges on account of substance possession (booked under NDPS act).

D. High risk of behaviour

Usually substance use goes hand in hand with other risk taking behaviour like having unprotected sex with multiple partners, sex with commercial sex worker or involvement in substance use in the form of injections, where there is sharing of needle, syringes or cleaning needle from common water container. Consequently, there is a high risk for transmission of blood borne infections like hepatitis virus, HIV and various other sexually transmitted diseases.

E. Past abstinence attempt

Under this, various information collected includes number of attempts made, when and under what circumstances these attempts were made, whether sought treatment elsewhere, duration of abstinence, reasons for return to previous pattern of dependent use. Enquiry should focus on use of any substances (substitute) during the abstinence period.

HINTS

- Abstinence—staying off the substance of dependence for considerable period usually for a month or more.
- Lapse—few events of substance use after a period of abstinence and not showing dependence characteristics
- Relapse—return to previous pattern of dependent use after a period of abstinence

Illustrative Case: Mr. C made his first attempt 3 years back when he stopped heroin on his own and after going through withdrawal symptoms for 1- 2 weeks staying at home, he remained abstinent for next 6 month subsequently he was tempted to use heroin after seeing an old friend chasing it. He made yet another attempt 1-year

back when he was admitted for 2 weeks for treatment of his substance problem. He was given some medications. After discharge he remained abstinent for a total period of 5 months and relapsed after he had a fight with brother over property dispute.

F. Reasons for seeking treatment and motivation of the patient

These are assessed by noting as to why the patient has reported to the treatment centre currently.

Factors that determine good motivation are:

- Seeking treatment on his own
- Accepting substance use related problems
- Past history of abstinence
- Willingness to take treatment
- Adherence with the treatment plan

G. Presence of psychiatric illness

Psychiatric disorders are sometimes seen among substance users. They might precede substance use or start after continued use of substance. Ask the patient or family members of any major abnormality in behaviour.

H. Family history

This information is related to patient's parents and his brother and sisters. Enquire about any history of substance use in family members and any psychiatric illness or suicide.

Rationale: Psychiatric illness and substance abuse tendency are inherited partly through genes. Presence in the family of such history also predisposes person for substance use at an early age and leads frequently to relapse after repeated abstinence attempts.

I. Personal history

This includes behaviour from childhood to adulthood. Some characteristics present in the childhood period makes them more prone to developing substance use, like repeated lying, stealing, cruelty to animals, bullying other children, absconding from home for days, absenteeism from school without parents knowledge and involvement in gang activities. Other details to be obtained are: marital history, current living arrangements, occupation and financial status.

J. Physical examination

General physical examination would include comment on physical appearance, signs and symptoms of intoxication or withdrawal, nicotine stains on fingers and teeth in tobacco users, needle marks, hardened veins on forearms and multiple ulcers on skin with hardened skin in injecting substance users, rash around the nose in inhalant users. Other measures to be recorded are:

- Weight
- Pulse
- Temperature
- Respiratory rate
- Blood pressure
- Systemic examination- involves examination of respiratory, cardiovascular, abdominal and nervous system.

Rationale: To assess the nutritional status and general health, signs of intoxication or withdrawal and observation of his co-operativeness and behavior. Vital signs are abnormal in patients with substance use. Systemic examination abnormalities found will guide further evaluations required.

Illustrative Case: Patient appears thin due to poor muscle mass and older than his stated age. Pallor was noticed in conjunctiva and delayed capillary refilling was noticed in nail beds. There was clubbing of nails. No swellings noticed or felt. He weighs 56kg.

He was found sweating while rest in the room were not, his pupils were mildly dilated bilaterally, occasional yawning noticed, he would frequently clear his nose-obviously experiencing opioid (heroin) withdrawal syndrome. His fingers on the right hand showed burn marks, indicative of his chasing smack practice. There were a few injection marks. Systemic examination reveals no abnormality.

K. Mental status examination

Among certain patients where psychiatric illness is being suspected, a thorough mental examination may be needed.

L. Laboratory evaluation

These include urine testing for presence of substances, haemogram, liver function tests and kidney function tests. Some of the abnormalities are caused by a particular substance and these are known as biological markers which help in identifying heavy use.

Diagnosis: In the end, the collected information is to be analyzed to identify the problem and arrive at a diagnosis. Following this, treatment plan is made and favourable and unfavourable factors for success of the treatment should be enlisted.

Documentation: This involves writing the history and physical examination findings, summary and diagnosis and treatment plan. This is for record keeping as required by the clinic. This information about acts as baseline for further review.

Conclusion: History taking remains the most important task in assessment of substance abuse disorders. With only repeated practice one can become fully conversant with the issues in collecting information with ease. Assessment is not just about establishing diagnosis but also have holistic approach and to identify other ongoing stressors, positive and negative factors that help the patient in his attempt to abstain from substances. Substance abuse disorders cause immense hazard to the patient, family and society at large. A good treatment plan depends on good assessment.

Suggested reading material:

1. Galanter M, Kleber HD, eds. *The American Psychiatric Press Textbook of Substance Abuse Treatment*, American Psychiatric Press, Washington D.C.; 1999.
2. Lowinson J, Ruiz P, Millman R, Langrod J, eds. *Sub-stance abuse, A comprehensive textbook*, 4th ed. Baltimore: Lippincott Williams and Wilkins; 2005.
3. *The ICD-10 Classification of mental and behavioral disorders (Clinical descriptions and diagnostic guidelines)*. WHO, Geneva. A.I.T.B.S Publishers; Indian Edition 2007.

Suggested slide material

Slide 1

Introduction

- Experimental use
- Harmful use
- Dependent use
- ICD-10 Criteria

Slide 2

- Screening
- Basic assessment
- Specialized assessment

Slide 3

- Clinical history of substance use details
- Common complications of substance use
- Presence of psychiatric illness
- Physical examination
- Mental status examination
- Laboratory investigations

Slide 4

Factors that determine good motivation are

- Seeking treatment on his own
- Accepting substance use related problems
- Past history of abstinence
- Willingness to take treatment
- Adherence with the treatment plan

Slide 5

Interview schedule—(key data items)

A. Socio-demographic profile

Name, age, sex, marital status, qualification, occupation, type of family and place of residence.

B. Details of substance use

1. Age of initiation
2. Various substances
3. Frequency of substances used
4. Quantity of substance taken usually (usual dose)
5. Time lag since the dose last used (last dose)
6. Need to increase the quantity of substance consumed in order to produce the same effect (tolerance)
7. Effects and signs and symptoms of intoxication
8. Presence/absence of physiological/psychological symptoms and signs when the particular substance is not taken/ less than the usual amount of substance is being taken (withdrawals)
9. Compelling need/urges to take the substance

Slide 6

C. Complications associated with substance use

1. Physical: long term health hazards associated with substance use
2. Psychological: chronic mental effects of continuous use of substance
3. Financial: losses suffered/debts incurred
4. Occupational: frequent absenteeism at work, constant change of job, memos issued, periods of unemployment

5. **Familial– social:** frequent fight with spouse/ other family members, neglect of responsibility at home, social outcast
6. **Legal:** involvement in illegal activities to sustain substance use, arrests/ charges on account of substance use, caught driving under intoxicated state, drinking brawl.

Slide 7

- D. High risk behaviours: presence of injection use/ unsafe sexual practices**
- 1) **Injection risk:** sharing of needles/ sharing syringes/ water used for rinsing
 - 2) **Sexual risk:** contact with commercial sex workers, unprotected sexual intercourse

Slide 8

- E. Past abstinence attempts:**
1. Number of attempts made
 2. Duration of each attempt
 3. Reasons for abstinence
 4. Nature of treatment sought: pharmacological, psychological or combined
 6. Reasons for relapse

Slide 9

- F. Level of motivation**
- Whether seeking treatment by self or brought forcibly by family member;
- G. Presence of co-morbid psychiatric illness**
- Affective disorder, psychotic disorder and personality disorder/ traits.
- H. Presence of family history of substance use disorder**
- I. Personal history:**
- Education level, marriage, children, occupation, hobbies

Slide 10

- J. Physical examination**
- Vital signs – Pulse, Blood pressure, Respiratory rate
 - Systemic examination – Cardiovascular, Respiratory, Abdominal and Nervous system
- K. Mental status examination**
- L. Laboratory investigations**