VOLUME C
Pharmacological Treatment for Drug Use Disorders
Drug Treatment for Special Populations
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MODULE 3
SPECIAL POPULATIONS: CO-OCCURRING DISORDERS, WOMEN AND YOUNG PEOPLE
Training goals

► Learn about the extent and nature of co-occurring psychiatric and substance use disorders (SUD) and their treatment methods

► Understand the critical aspects of women’s addiction and treatment

► Get familiar with the critical aspects of young peoples’ addiction and treatment
Module 3

Special Populations: Co-Occurring Disorders, Women and Young People

1. Co-occurring psychiatric and substance use disorders
2. Women: substance use disorders and treatment issues
3. Young people: substance use disorders and treatment issues
Pre-assessment
Icebreaker
Workshop 1

Co-occurring psychiatric and substance use disorders
At the end of this workshop you will:

► Understand how psychiatric and substance use disorders interact

► Understand the key issues in identifying and diagnosing these interacting disorders

► Understand the importance of and the methods for integrating treatment for individuals who have co-occurring disorders

► Know about promising practices for treating individuals with these disorders
Co-morbid psychiatric disorders: What are they and why is it important?
What are co-morbid disorders?

The term “Co-morbid disorders” (COD) refers to substance use (abuse or dependence) and mental disorders occurring together in one person.

Clients said to have co-morbid disorders have:

- one or more disorders relating to the use of alcohol and/or drugs of abuse
- one or more mental disorders

At least one disorder of each type must be established independently of the other and is not simply a cluster of symptoms resulting from one disorder (or one type of disorder).
How serious are co-morbid disorders?

- Patients with co-morbid disorders require more complex and expensive care.
- Patients with co-occurring disorders tend to have more problems of all kinds and more contacts with agencies and providers.
- Patients with co-occurring disorders tend to “fall through the cracks” of the traditional treatment system and develop even worse and more expensive problems.
The relationship between mental illness and substance abuse

- Substance use or withdrawal can produce psychiatric symptoms or illness
- Dependence, intoxication or withdrawal can produce psychological symptoms
- Psychiatric disorder can lead to substance use disorder
- Substance misuse may exacerbate a pre-existing mental disorder
Consequences of co-morbidity

When compared to people who have mental health problems alone, they are more likely to have:

- Increased likelihood of suicide
- More severe mental health problems
- Homelessness and unstable housing
- Increased risk of being violent
- Increased risk of victimisation
- More contact with the criminal justice system
- Family problems
- History of childhood abuse (sexual/physical)
- More likely to slip through the net of care
- Less likely to be compliant with medication and other treatment
Consequences of co-morbidity

- A worse prognosis
- High levels of service use
- Heavy use of expensive resources
Individuals with COD have higher rates of treatment utilization and poorer treatment outcomes

- Psychiatric symptoms
- Hospitalization
- Relapse to substance use
- Housing stability
- Psychosocial functioning
- Arrest and incarceration
Individuals with co-morbidity seek treatment in both SUD and mental health (MH) programs

- Over half of SUD outpatients had “probable MH disorder”
- Clients with COD in SUD and MH settings showed “minimal differences” in severity and type of disorders
- National data in U.S. show that 30% of individuals with SUD disorders either used or perceived an unmet need for MH services in past year
Comorbid disorders: Extent of the problem
What’s the extent of the problem?

- Estimates of psychiatric co-morbidity among clinical populations in substance abuse treatment settings range from 20% - 80%

- Estimates of substance use co-morbidity among clinical populations in mental health treatment settings range from 10% - 35%

- Differences in incidence due to:
  - Nature of population served
  - Sophistication of psychiatric diagnostic methods used
  - Severity of diagnoses included
During 1980’s and 1990’s substance SUD treatment programs typically reported that 50 to 75% of clients had co-occurring mental disorders.

Clinicians in mental health settings reported that between 20% and 50% of their clients had co-occurring substance use disorders.

21.3% of those with serious mental illness had past year substance dependence or abuse of alcohol or any illicit drug.
What’s the extent of the problem?

Most people entering drug treatment have additional mental health problems.

- In 77 studies that included 4930 adolescents and 1956 adults, two-thirds of patients entering substance treatment have additional mental health problems.
Dual disorders

People who suffer from both drug use disorders and mental health disorders are diagnosed as having co-occurring disorders, or dual disorders.

The most common co-occurring mental health disorders are:

- Mood-related disorders
- Anxiety-related disorders
- Personality disorders
- Severe mental illness
Common characteristics

- Overlapping genetic vulnerabilities
- Involvement of similar brain regions
- Adolescence – a vulnerable time
- Early occurrence increases later risk
Mood-related disorders

► Major depression and bipolar disorder

► Common symptoms
  – Slowness in motor behaviour
  – Slowed thought processes
  – Blunted emotions
  – Weight gain/loss
  – Early morning awakening
  – Excessive sleeping
  – Poor grooming
  – Social withdrawal
Anxiety-related disorders

Post-traumatic stress disorder (PTSD)

► Traumatic event

► Re-experiencing the event in intense dreams, flashbacks or upset feelings when triggered

► Avoidance of people, places and things reminiscent of trauma; numbing; detachment

► Increased arousal of anxiety, constant fear or tension, restlessness, poor concentration, exaggerated startle response
Personality disorders

► Antisocial personality disorder
  - Pattern of disregard for, or violation of, the rights of others

► Borderline personality disorder
  - Unstable relationships
  - Intense, unregulated emotions
  - Idealization and devaluation of others
Severe mental illness

- Long duration, major disability
- Psychotic symptoms
  - Schizophrenia
  - Schizoaffective disorder
- Severe forms of other disorders
  - Major depression
  - Severe bipolar disorder
How many?

Among people who have had…

- Anxiety disorder → 24%
- Major depression → 27%
- Schizophrenia → 47%
- Bipolar disorder → 56%

…will have a substance use disorder in their lifetime.

*(Skinner, O’Grady, Bartha & Parker, 2004)*
AUDADIS (NIAAA) alcohol use disorder and associated disabilities interview schedule, (N=43,093)

Main outcome measures:

- 12 Month and lifetime prevalence of drug abuse and dependence
- Associated correlates, treatment rates, disability, and co morbidity with other Axis I and II disorders
(NIAAA) Alcohol Use Disorder and Associated Disabilities Interview Schedule, (N=43,093)

- 12 month (1.4%) and lifetime (7.7) drug abuse
- 12 month (0.6%) and lifetime (2.6%) drug dependence
- Strong association:
  - with other substance use disorders, antisocial personality disorder
- Significant association:
  - with mood disorders, generalized anxiety disorder
AUDADIS

(NIAAA) Alcohol Use Disorder and Associated Disabilities Interview Schedule, (N=43,093)

- 12-month (4.7%) and lifetime (17.8%) alcohol abuse
- 12-month (3.8%) and lifetime 12.5%) alcohol dependence

Significant association between:
- other substance use disorders and alcohol use disorder
- mood, anxiety and personality disorders
AUDADIS (NIAAA), US adults (N=43,093)  
Co-morbidity / treatment

Drug Use Disorders

▶ Lifetime treatment or help-seeking uncommon, 8.1%, for abuse; 37.9% for dependence

▶ Treatment was associated with psychiatric co-morbidity characteristics (not demographic morbidity)

Alcohol Use Disorders

▶ Lifetime treatment rate for alcohol dependence 24.1% (less than rate found 10 years earlier)
78% of alcohol-dependent men and 86% of alcohol-dependent women met criteria for another psychiatric disorder, including drug dependence and antisocial personality disorder.
Co-morbid disorders: Reasons
Self medication hypotheses:

► For psychiatric symptoms (e.g. use of amphetamines to alleviate low mood as a result of negative symptoms of psychosis)

► To counter side effects of medication (e.g. cannabis as a way of combating muscle stiffness caused by antipsychotic medication; stimulants (caffeine, nicotine, to counteract sedation caused by antipsychotic medication)
Reasons for substance misuse

► Social vulnerability: indirect consequences of experiencing mental health problems could lead to substance use

► Coping strategy: drugs and alcohol used as a way of coping with experiences of mental disorder or its consequences
Co-morbid disorders: Assessment and diagnosis
Assessment for substance misuse

Key components of a comprehensive assessment:

- Current and recent use
- Past use
- Physical health (including sexual health)
- Mental health
- Social situation
- Legal situation
- Personal and family history
- Risk assessment
- Patients perception of situation, reasons for using and motivation to change
DSM and ICD: The “Bibles”
Why is diagnosis difficult?

- Alcohol/drugs can cause psychiatric symptoms in anyone (acute toxicity)
- Prolonged A/D use can cause short or long-term psychiatric illness
- A/D use can escalate in episodes of psychiatric illness
- Psychiatric symptoms and A/D use can occur in other psychiatric disorders
- Independent addiction and psychiatric illness
Red Flags for co-occurring psychiatric illness include:

- Family history of psychiatric illness
- Onset of psychiatric symptoms before the onset of substance use disorder
- Psychiatric symptoms during lengthy periods of abstinence in the past
Diagnostic and treatment considerations / symptom severity

► Ability to participate in treatment or recovery process compromised by symptom severity?

► Apathy, anxiety with distractibility and sleep disturbance can constitute barriers to recovery

► Despite no clear diagnosis early on, can target a symptom complex to treat and follow, i.e. irritability
Where are we so far?

► What are co-morbid disorders?
► Why it is important to address them?
► What are the consequences of co-morbidity?
► What are the reasons for people with mental disorders to use drugs?
► What tools are available for assessment of co-morbid disorders?
Break
Specific mental health issues as comorbidity
### Categories of mental health and substance use disorders (SUD)

<table>
<thead>
<tr>
<th>Mental Disorders</th>
<th>SUD</th>
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<tbody>
<tr>
<td>• Major depression</td>
<td>• Alcohol abuse/dependency</td>
</tr>
<tr>
<td>• Anxiety disorders</td>
<td>• Cocaine/amphetamines</td>
</tr>
<tr>
<td>• Antisocial personality</td>
<td>• Opiates</td>
</tr>
<tr>
<td>• Borderline personality</td>
<td>• Volatile chemicals</td>
</tr>
<tr>
<td>• Bipolar illness</td>
<td>• Marijuana</td>
</tr>
<tr>
<td>• Schizoaffective</td>
<td>• Polysubstance combinations</td>
</tr>
<tr>
<td>• Schizophrenia</td>
<td>• Prescription drugs</td>
</tr>
<tr>
<td>• Posttraumatic stress</td>
<td></td>
</tr>
<tr>
<td>• Social phobia</td>
<td></td>
</tr>
<tr>
<td>• Others</td>
<td></td>
</tr>
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## Drug-induced psychopathology

<table>
<thead>
<tr>
<th>Drug states</th>
<th>Symptom groups</th>
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<tbody>
<tr>
<td>• Withdrawal</td>
<td>• Depression</td>
</tr>
<tr>
<td>• acute</td>
<td>• Anxiety</td>
</tr>
<tr>
<td>• protracted</td>
<td>• Psychosis</td>
</tr>
<tr>
<td>• Intoxication</td>
<td>• Mania</td>
</tr>
<tr>
<td>• Chronic use</td>
<td></td>
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</tbody>
</table>
## Psychological presentations commonly associated with specific substance groups

<table>
<thead>
<tr>
<th>DRUG</th>
<th>Psychological presentations commonly associated with use (likely to resolve on cessation of substance use)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabis</td>
<td>Depression, anxiety, precipitation of psychotic symptoms</td>
</tr>
<tr>
<td>LSD</td>
<td>Precipitation of psychosis</td>
</tr>
<tr>
<td>Alcohol</td>
<td>Depression and anxiety</td>
</tr>
<tr>
<td>Opioids</td>
<td>Depression and anxiety</td>
</tr>
<tr>
<td>Stimulants</td>
<td>Psychosis, depression and anxiety</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Depression and rebound anxiety</td>
</tr>
<tr>
<td>Inhalant/solvents</td>
<td>Paranoia, psychosis &amp; depression</td>
</tr>
<tr>
<td>Tobacco</td>
<td>Not currently described</td>
</tr>
</tbody>
</table>
Mood and anxiety disorders
Comorbid mood & anxiety disorder

Compared with the general population:

- Patients with mood or anxiety disorders are about twice as likely to also suffer from a drug disorder.
- Patients with drug disorders are roughly twice as likely to be diagnosed with mood or anxiety disorders.
Drug use disorders and mental health

Prevalence of drug disorders in those with mood & anxiety disorder

![Graph showing lifetime prevalence of drug disorders among persons with mood and anxiety disorders.](image-url)
Comorbidity of depression and anxiety disorders

50% to 65% of panic disorder patients have depression

70% of social anxiety disorder patients have depression

67% of OCD patients have depression

49% of social anxiety disorder patients have panic disorder

11% of social anxiety disorder patients have OCD

Depression

Panic Disorder

Social Anxiety Disorder

OCD

HIGHLY COMMON...

HIGHLY COMORBID
Major depression or substance-induced mood disorder

Is it major depression or “just” substance-induced mood disorder?

► Does it matter?
► Comparative lethality
► Can clinicians tell the difference?
► Assessment methods
► Different treatment approaches
Substance-induced mood disorder

DSM-IV / DSM-V

- Prominent/persistent mood disturbance
- Develops within 1 month of intoxication or withdrawal or medication use is causative
- Not better accounted for by other axis I d/o
- Symptom not exclusively during delirium
- Symptom cause significant distress or impairment
Substance induced mood symptoms

- Most drugs of abuse have dopaminergic and serotonergic effects = mood effects
- Depression is most common symptom during any substance withdrawal followed by anxiety and irritable mood
- Withdrawal-related mood symptoms may last several weeks to months depending on the substance
Substance induced mood symptoms

191 male alcoholics, none with prior major psychiatric Hx.

► 42% Had moderate-severe depressive Sx (Ham D >19) within 48 hrs. of admission

► At 2 weeks, only 12% with Ham D score >19

► At 4 weeks, only 6% with Ham D score > 19

► Rapid decline in Sx intensity over first 4 weeks of Tx., largest reduction at 2 weeks

► Recommend: defer starting antidepressant Rx prior to first 4 weeks of abstinence
Since cannabis use appears to be a predictor of depression, cessation of cannabis use is important as a first step so that depressive symptoms can be better evaluated.

However, abstinence from cannabis is a difficult goal to achieve in cannabis dependent people.

In the absence of other proven forms of treatment, CBT is, at present, the most widely employed form of treatment for cannabis use.
Alcohol in large quantities has mood-depressant effects.

A depression-like set of symptoms may emerge during or after alcohol withdrawal.

In ideal circumstances, a period of abstinence should be trialled.

Antidepressants are effective for the treatment of depression in those with alcohol-use disorders and have shown improvement in both depression and alcohol consumption.
Major clinical issues with depression and alcohol use

- However, antidepressants are less effective in situations of continued heavy drinking or where depression is mainly alcohol induced.
- CBT in depressed alcohol dependent people is associated with decreased post-treatment alcohol use.
- Naltrexone or Acamprosate can be used in combination with antidepressant medications and CBT.
Rates of depression decrease once people enter treatment for opioid dependence, in particular, maintenance pharmacotherapies.

Fluvoxamine, fluoxetine, norfluoxetine and paroxetine can inhibit buprenorphine and methadone metabolism through inhibition of the CYPs involved in their metabolism.
Carbamazepine is a potent CYP inducer and will introduce the metabolism of methadone and buprenorphine as well as reduce plasma concentrations.

If antidepressant medications are to be used, the non-sedating antidepressants (such as SSRIs) are preferable due to the risk of overdose mentioned above with tricyclic antidepressants.

CBT provides additional benefit in combination with a maintenance therapy program in the treatment of depression in opioid users.
Major clinical issues with depression and stimulant use

- Depression is common amongst stimulant users, both in the days following heavy use and during withdrawal.

- Tolerance develops quickly to the positive effects of stimulant drugs when used to self medicate for depression, leaving the person at risk of dose escalation and dependence.
Major clinical issues with depression and stimulant use

- Stimulant effects on sleep may worsen sleep-wake cycle disturbances associated with depression
- Monoamine Oxidase Inhibitors (MAO-I) (either irreversible or reversible) are contraindicated in people using amphetamines or MDMA
Sedative and depressive actions as well as long-term use of benzodiazepines exacerbate the negative symptoms of depression such as lack of energy, negative cognitions and anhedonia.

Benzodiazepine use should be restricted to a few days with a long acting benzodiazepine.
Major clinical issues with depression and benzodiazepine use

▶ Psychological and behavioural treatment can be effective in treating insomnia

▶ CBT for depression is more effective in there is minimal sedation and anxiolysis die to the benzodiazepine use

▶ If long-term benzodiazepine use is being considered, the this should ne administrated under close supervision
Major clinical issues with depression and inhalant / solvent use

- Depression and inhalant use often co-exist and both increase suicide risk.
- Inhalants can exacerbate the sedative effects of some antidepressants.
- Most antidepressants reduce seizure threshold and tricyclic antidepressants can cause cardiac arrhythmias – both complications of inhalant use.
- As with most other substances, inhalant users should be encouraged to try and reduce or cease use to observe whether depressive symptomatology resolves.
Comorbidity: Anxiety disorders
Cannabis can induce anxiety or panic attacks especially in naïve users.

In chronic users, cannabis tends to have the opposite effect and act more as an anxiolytic at the time of use.

Individuals should be encouraged to reduce or cease using so that anxiety symptoms can be better evaluated. In many cases this will result in an overall reduction in anxiety symptoms once withdrawal has passed.
Major clinical issues with anxiety disorders and cannabis / hallucinogen use

- Cannabis withdrawal commonly includes insomnia which can be prolonged. The longer term use of hypnotics to assist with sleeping is problematic due to tolerance development.

- In the absence of other proven forms of treatment, CBT is, at present, the most widely employed form of treatment for cannabis use.
Major clinical issues with anxiety disorders and alcohol use

- Alcohol use and anxiety disorders frequently co-occur and exacerbate each other.

- Individuals should be encouraged to reduce or cease alcohol use so that anxiety symptoms can be better evaluated.

- Anxiety associated with alcohol withdrawal should be allowed to subside, before making a diagnosis of anxiety disorder.

- However, anxiety may be a feature of the post-withdrawal state lasting for several months (up to 12 months).
Major clinical issues with anxiety disorders and alcohol use

- SSRIs are also effective in alcohol dependent people with anxiety
- CBT should be given prior consideration over benzodiazepine therapy
- Disulfiram, Naltrexone and Acamprosate used to treat alcohol dependence are unlikely to interact with antidepressants of these are being used
Major clinical issues with anxiety disorders and alcohol use

► Acamprosate, Naltrexone and benzodiazepines do not appear to interact with one another

► Successful treatment of either anxiety or alcohol use disorder with CBT does not necessarily result in a positive outcome for the accompanying comorbid disorder

► Pharmacotherapies such as naltrexone, Acamprosate and Disulfiram are effective in the management of alcohol dependence and maintaining abstinence and are effective in individuals with comorbid anxiety
While opioids do not possess anxiolytic effects in the manner that benzodiazepines do, they do have the ability to enable the person to forget about the issues that may be causing them to feel anxious. An indirect short-term reduction in symptoms of anxiety may be a strong motivator for opioid use in those with anxiety disorders.
Major clinical issues with anxiety disorders and opioid use

- Methadone itself has been shown to inhibit CYP3A4 which also metabolises many benzodiazepines, This has the potential to increase plasma concentrations of benzodiazepine and increase their sedative effects

- Several deaths have been reported due to benzodiazepine use in conjunction with high dose buprenorphine and may be a result of similar metabolic interactions
Major clinical issues with anxiety disorders and opioid use

- Fluvoxamine, fluoxetine, norfluoxetine and paroxetine can inhibit buprenorphine and methadone metabolism though inhibition of the CYPs involved in their metabolism.

- Citalopram and sertraline are the least likely SSRIs to have cytochrome mediated drug interactions.

- If long-term benzodiazepine use is unable to be avoided, this should be monitored very closely.
Major clinical issues with anxiety disorders and opioid use

► Acute opioid withdrawal is best managed using buprenorphine

► If treatment of anxiety with antidepressants is required, this should involve non-sedating antidepressants such as SSRIIs, taking into consideration their interaction effects

► Longer acting maintenance pharmacotherapies such as methadone and buprenorphine potentially stabilise opioid plasma concentrations and reduce fluctuations in plasma concentration and levels of anxiety
Anxiety is common amongst stimulant users

MAO-Is (either irreversible or reversible) are contraindicated in people using amphetamines or MDMA due to risk of serotonin syndrome. Deaths have been associated with concurrent use of moclobemide and MDMA.
Major clinical issues with anxiety disorders and stimulant use

- Individuals should be encouraged to reduce or cease stimulant use so that anxiety symptoms can be better evaluated. In many cases this will result in an overall reduction in anxiety symptoms.

- CBT is also effective in reducing general symptoms of anxiety.

- CBT that focuses on coping mechanisms will be most effective in situations where the individual has been using stimulants to self-medicate and cope with social anxiety situations.
Major clinical issues with anxiety disorders and benzodiazepine use

- Tolerance to the sedative effects of benzodiazepines and dependence develops within a short period of time.
- It would appear that tolerance to the anxiolytic effects of benzodiazepines does not develop.
Major clinical issues with anxiety disorders and benzodiazepine use

- Graded exposure is a highly effective component in the treatment of anxiety disorders. Patients taking benzodiazepines are unable to benefit from this approach if taking doses greater than 10mg diazepam equivalence and doses below this level may interfere with the person’s ability to habituate.

- Benzodiazepine use should be discouraged and reduced, with cessation being a long-term goal, and alternative management strategies introduced.

- CBT is effective in reducing symptoms of anxiety and will be more effective if there is minimal sedation and anxiolysis due to benzodiazepine use.
Where are we so far?

► How do drug use disorders and mood disorders relate to each other?

► What are some major clinical issues with depression and use of different drugs?

► What are some major clinical issues with anxiety and use of different drugs?
Break
Bipolar affective disorder
Bipolar disorder (BPD)

- Large amounts of alcohol and other substance use frequently occur during the manic phase of bipolar illness.
- Manic symptoms are likely to be exacerbated by concurrent substance use, particularly stimulant and cannabis use.
- During the depressed phase of the illness period, there is also increased substance use with alcohol exacerbating depression, and the use of stimulants and cannabis having the risk of precipitating a manic swing or mixed symptoms.
Comorbidity: Bipolar disorder

- During periods of recovery, the person typically returns to limited use. Care is needed not to misdiagnose and attribute all problems to the substance intake.

- They are at a greater risk of contracting blood borne viruses due to increased risk taking and are more likely to consume large quantities of alcohol. Therefore, liver function should be assessed in these patients.

- Challenges often occur in diagnosis e.g. cocaine/methamphetamine use disorders often mimic BPD.

- Medications for BPD often essential to stabilize patients to allow treatment for Substance Misuse to be effective.
Comorbidity: Psychosis / schizophrenia
Early phase psychosis with co-morbid substance use vs. substance induced psychosis?

- N=386 (acute care urban setting, NYC), 44% substance-induced psychosis, 56% primary psychosis
- Parental substance abuse, a diagnosis of any drug dependence, and visual hallucinations
- Predicted a diagnosis of substance-induced psychosis vs. primary psychosis
Comorbidity: Schizophrenia

- There are few differences in acute symptoms between schizophrenia with substance use and substance-induced psychosis.

- Distinction is primarily made on the basis of resolution of symptoms after withdrawal from the substance.

- Prodromal symptoms of schizophrenia such as subtle personality changes, social withdrawal, odd thinking etc., prior to the start of substance use and psychotic symptoms, may help make the distinction between a functional illness such as schizophrenia and substance-induced psychotic symptoms.
Comorbidity: Schizophrenia

- Comorbid substance-use disorders are more common in people with psychosis than the general population.
- Problematic substance use has been associated with earlier onset of psychosis.
- Even moderate use of substances can exacerbate psychotic symptoms which can make motivation for reduction of substance use difficult.
Comorbidity: Schizophrenia

_reasons for increased substance use in schizophrenia are dominated by self-medication hypotheses

- The hypothesis is that people use substances in an effort to deal with their symptoms
- Those with substance-use disorders and schizophrenia report fewer negative symptoms
- Self medication does explain some but not all of the reasons for comorbid substance use and schizophrenia
Comorbidity: Schizophrenia

- Comorbid substance use and schizophrenia are associated with increased morbidity and poorer outcome and, in the past, people with this combination have generally not responded as well to treatment as those without substance-use disorders.

- Substance use is highly associated with treatment non-compliance and longer duration of untreated schizophrenia.

- Decreases in substance use due to treatment retention is associated with reduced overall symptoms in people with psychosis.
Comorbid psychotic disorder

- Differential diagnosis with methamphetamine psychosis can be difficult
- Medication treatments frequently essential
- Knowledge about medication side effects and the possibility that these side effects can trigger drug use is important
Cannabis can induce or cause a temporary psychotic state that clears within several days in individuals with no prior diagnosis of psychosis.

Cannabis can trigger psychosis in individuals who are at risk of psychosis.

Cannabis can worsen psychotic symptoms in those individuals who have a current diagnosis of psychosis.

People with psychotic disorders should avoid cannabis and be counselled against its use. Brief interventions should be delivered for people with psychosis who may be using even small amounts of cannabis.
In an acute psychotic episode caused by cannabis use, cessation of use will result in resolution if the episode.

Psychoeducation and CBT oriented programs have shown promise in reducing cannabis use in first-episode psychosis patients.

In the absence of other proven forms of treatment, CBT is, at present, the most widely employed form of treatment for cannabis use.
Major clinical issues with psychosis and alcohol use

► People with psychosis have high rates of alcohol use disorders

► As alcohol has several negative effects on psychosis and interacts with mediations used for the treatment of psychosis, its use should be minimised.

► There is evidence suggesting that clozapine is effective in reducing alcohol consumption as well as controlling psychosis in those with comorbid alcohol use and psychosis.

► Individuals with psychosis also respond well to adjunctive treatment for alcohol dependence.
Major clinical issues with psychosis and opioid use

- Concurrent opioid dependence and psychotic disorders are often associated with high levels of dysfunction
- Opioids (including methadone and buprenorphine) will exacerbate the sedative effects of antipsychotics
Major clinical issues with psychosis and opioid use

- Carbamazepine is a potent CYP inducer and will induce the metabolism of methadone and buprenorphine as well as reduce plasma concentrations.

- Early studies show olanzapine, in combination with opioid maintenance pharmacotherapies, to be effective in controlling illicit opioid use and symptoms of psychosis.

- Combined daily dispensing of psychotropic medication at the same time as daily dispensing of opioid maintenance pharmacotherapy may improve treatment compliance for the psychotic disorder.
Psychostimulants can induce or precipitate psychotic states.

Stimulant-induced psychosis can often be indistinguishable from acute or chronic schizophrenia.

Longer and heavier use of stimulants delays recovery and worsens the prognosis for stimulant-induced psychosis.
Major clinical issues with psychosis and stimulant use

► In an acute psychotic episode caused by a substance, treatment should involve efforts to encourage abstinence from stimulants which should result in the resolution of psychotic symptoms

► Benzodiazepines (preferably oral but parental, if necessary) should be first-line agents in acute stimulant induced psychosis

► Antipsychotics are useful second-line agents if benzodiazepines do not settle the agitation sufficiently

► Limited ongoing antipsychotic use is justified if psychotic symptoms persist
Comorbid disorders: Eating disorders
Eating disorders are a group of disorders that include anorexia nervosa (AN), bulimia nervosa (BN) and eating disorders (ED) not otherwise specified.

People with bulimia or bingeing/purging behaviours are more likely to use substances/have a SUD than people with anorexia (in particular the restricting type) or the general population.
50% Of persons with an eating disorder also have problematic drug or alcohol use (compared with 9% of the general population)

Approx. 35% of females with a substance use disorder report having an eating disorder (compared with 1–3% of the general population)
Eating disorders and substance use

- Alcohol and drug abuse or dependence is more common with both mixed binge/purging and purging only eating behaviours than in restrictive only eating behaviours.

- Treatment outcomes poor unless both conditions addressed.
Eating disorder: Comorbidity with substance use

► SUD more common in BN and BED than AN
► Those who use pharmacological methods of weight control (laxatives, diet pills, diuretics) are more likely to use more traditional substances such as stimulants
► A variant of Eating disorder (ED) has been described where people have difficulty with ‘multi-impulse control.’ These people are more prone to problems in a variety of areas of impulse control in the setting of their bulimic illness, including substance use
Eating disorder: 
Comorbidity with substance use

- People with comorbid bulimia and substance use problems are more likely to attempt suicide, be impulsive and have personality disorders
- The risk of SUD in people with ED continues over time and should be an on going part of assessment of these people
- However, age-related tapering of substance use may decrease the incidence, as does retention in treatment
- Drug use may assist with weight control and may be a part of impulsiveness and loss of control. It may also be a part of a risk taking or self harming pattern of behaviour
Other psychiatric comorbidities in ED

▶ People with eating disorders across all types have higher rates of mental disorders in general (up to 97% comorbidity), in particular, mood and anxiety disorders

▶ These other mental disorders increase the severity and chronicity of the eating disorder as well as impact on the willingness to accept treatment
Eating disorder and substance use disorder

General management approaches to comorbidity

► Always anticipate mental disorders and substance use comorbidity in people with ED, particularly those with binge/purging types

► Treatment and prevention should be directed towards assisting individuals at risk in understanding the nature of their emotions and subsequently developing positive coping strategies to handle them

► The disruptive symptoms of ED can interfere with therapy for SUD and vice versa

► When assessing people with ED, a detailed drug history should be elicited and should include specific inquiry about alcohol and stimulants as well as diuretics, laxatives and thyroxin
Major clinical issues with eating disorders and cannabis / hallucinogen use

► Cannabis has been shown to be one of the most commonly used substances across eating disorders and its frequency of use has been correlated with the frequency of bulimia

► Management of cannabis use should be determined by the level of impact associated with its use

► In the absence of other proven forms of treatment, CBT, at present, is the most widely employed form of treatment for cannabis use
Major clinical issues with eating disorders and alcohol use

- Alcohol is one of the most commonly used substances amongst people with eating disorders, in particular, those with purging behaviours.

- Alcohol can exacerbate the sedative effects of some antidepressants such as tricyclics and mirtazapine, which may be used in the management of some eating disorders.

- CBT is effective for treatment of eating disorders (in particular bulimia) and there is no evidence that alcohol dependence affects the efficacy of CBT negatively.

- Assistance with stress management (structures problem solving, coping skills therapy) has been found effective in the treatment of alcohol use and is useful for people with eating disorders.
Major clinical issues with eating disorders and opioid use

- People with eating disorders do not commonly use opioids
- Fluvoxamine, fluoxetine, norfluoxetine and paroxetine can inhibit buprenorphine and methadone metabolism though inhabitation of the CYPs involved in their metabolism
- If the person is opioid dependent, stabilise the use of opioids preferably using opioid pharmacotherapy such as buprenorphine or methadone
- Where possible, it is important to avoid the use of opioid antagonists due to their appetite suppressing effects
People with eating disorders may use stimulants to control appetite and to provide energy for exercise.

MAO-Is (either irreversible or reversible) are contraindicated in people using amphetamines or MDMA. Deaths have been associated with concurrent use of moclobemide and MDMA.

The use of stimulants at any level should be discouraged.

CBT can be used to address stimulant use and the eating disorder.

In particular, assistance with coping skills may assist with impulsive use of stimulants and bingeing behaviours.
Where are we so far?

► What are the two most important books/guidelines for the diagnosis of co-morbid disorders?
► What symptom groups go along with drug states (withdrawal, intoxication, chronic use)?
► What is the most common symptom during any substance withdrawal?
► What are the most common mental disorders, co-morbid with substance use?
Break
Post-traumatic stress disorder (PTSD)
Post-traumatic stress disorder (PTSD)

- A disorder that develops after exposure to a highly stressful event (e.g., wartime combat, physical violence, or natural disaster)

- Symptoms include sleeping difficulties, hypervigilance, avoiding reminders of the event, and re-experiencing the trauma through flashbacks or recurrent nightmares
Substance use disorders and trauma

► 60% to 90% of a treatment-seeking sample of people affected by SUD also had a history of victimization

► More than 80% of women seeking treatment for a substance use disorder reported experiencing physical/sexual abuse during their lifetime

► Between 44% and 56% of women seeking treatment for a substance use disorder had a lifetime history of PTSD
Let’s think!

How do you think trauma relates to substance use?
► 98% reported exposure to at least one traumatic event in their lifetime

► 43% of sample received a current diagnosis of Post Traumatic Stress Disorder (PTSD), but only 2% had PTSD diagnosis in their charts

► Sexual abuse in childhood is related to PTSD for both men and women

► Sexual abuse in childhood may increase vulnerability to trauma in adulthood
10.3% of the men and 26.2% of the women with a lifetime diagnosis of alcohol dependence also had a history of PTSD

Severely mentally ill patients who were exposed to traumatic events tended to have been multiply traumatized, with exposure to an average of 3.5 different types of trauma
Substance use disorders and trauma

Despite the prevalence of PTSD in patients, it is rarely diagnosed:
only 3 out of 119 identified patients in one study received a chart diagnosis of PTSD
Definition of PTSD

Exposure to a traumatic event in which the person:

- Experienced, witnessed, or was confronted by death or serious injury to self or others

AND

- Responded with intense fear, helplessness, or horror
Symptoms of PTSD

► Appear in 3 symptom clusters: re-experiencing, avoidance/numbing, hyperarousal

► Last for > 1 month

► Cause clinically significant distress or impairment in functioning
Persistent re-experiencing of $\geq 1$ of the following:

- Recurrent distressing recollections of event
- Recurrent distressing dreams of event
- Acting or feeling event was recurring
- Psychological distress at cues resembling event
- Physiological reactivity to cues resembling event
PTSD

Avoidance of stimuli and numbing of general responsiveness indicated by 3 or more of the following:

- Avoid thoughts, feelings, or conversations
- Avoid activities, places, or people
- Inability to recall part of trauma
- ↓ Interest in activities
- Estrangement from others
- Restricted range of affect
- Sense of foreshortened future
PTSD

2 or more persistent symptoms of increased arousal:

- Difficulty sleeping
- Irritability or outbursts of anger
- Difficulty concentrating
- Hypervigilance
- Exaggerated startle response
Guidelines for clinicians

► Take the trauma into account

► Avoid triggering trauma reactions and/or re-traumatizing the individual

► Adjust the behaviour of counsellors, other staff and the organisation to support the individual’s coping capacity

► Allow survivors to manage their trauma symptoms successfully so that they are able to access, retain, and benefit from the services
Guidelines for clinicians

► Provide services designed specifically to address violence, trauma, and related symptoms and reactions

- The intent of the activities is to increase skills and strategies that allow survivors to manage their symptoms and reactions with minimal disruption to their daily obligations and to their quality of their life, and eventually to reduce or eliminate debilitating symptoms and to prevent further traumatization and violence.
PTSD and substance misuse: Finding from NIDA study 2010

- In a 2010 study*, women responded better to the treatment of SUD after their PTSD symptoms improved, but reductions in substance abuse did not ease PTSD severity.

- The study had 353 participants, all women and was a 6-week treatment programme.

- Women received standard drug treatments, plus 12 group sessions of CBT with components for both trauma and substance abuse – or Women’s Health Education, which does not specifically address either problem.
The study found that the two added therapies had similar effects.

Reductions in the severity of PTSD tended to presage improvements in substance abuse disorder, but there was minimal evidence that reducing substance use improved PTSD symptoms.
PTSD and substance misuse: Conclusion from study

“People with trauma self-medicate with substances of abuse. Clinicians are to reconsider the common practice of requiring patients to attain abstinence before treating their trauma symptoms.”

Dr. Denise Hien, 2010
Comorbid disorders: Personality disorders
A personality disorder is an enduring pattern of inner experience, of seeing the world and relating to others in a manner that markedly deviates from cultural expectations and includes, and results in problematic and habitual behaviours that are pervasive and inflexible.
Comorbid personality disorder

- Substance use is common in people with personality disorders

- Substance use is most common in those with Cluster B type personality disorder, in particular, borderline and antisocial personality disorder
Personality disorder and substance misuse

► Have more problematic symptoms of SU
► More likely to participate in risky injecting drug practices that predispose them to BBV
► Are more likely to engage in risky sex practices
► May have difficulty in staying in treatment programmes and complying with treatment plans
Comorbid personality disorder

► Treatment for substance use in people with personality disorders is associated with a reduction in substance use.

► Treatment for substance use is also associated with a reduction in the likelihood of being arrested, suggesting a reduction in criminal activity.
Major clinical issues with personality disorders and cannabis / hallucinogen use

► People with personality disorders display more symptoms of cannabis use disorders than those who do not have a personality disorder

► Advice regarding cannabis usage in these disorders depends on the degree of dysfunction associated with use

► In the absence of other proven forms of treatment, CBT is, at present, the most widely employed form of treatment for cannabis use
Major clinical issues with personality disorders and alcohol use

- Personality disorders (in particular antisocial and borderline) and alcohol use disorders frequently co-exist
- Alcohol can exacerbate the sedative effects of some antidepressants such as tricyclics and mirtazepine
- Alcohol can exacerbate the sedative effects of carbamazepine, lithium and sodium valproate
- Acamprosate or naltrexone can be considered for long-term abstinence with naltrexone showing effectiveness in moderating drinking in those with antisocial personality traits
A significant number of people with opioid dependence also have personality disorders.

Particularly in the opioid dependent population, it is important to try to determine whether the behaviours are due to the opioid dependence or due to antisocial personality disorder.
Major clinical issues with personality disorders and opioid use

- The presence of a personality disorder does not appear to impact on the effectiveness of opioid treatment
- Methadone maintenance appears to be effective in the people with personality disorders
- Carbamazepine is a potent CYR inducer and will induce the metabolism of methadone and buprenorphine
- Opioids can increase the sedative effects of carbamazepine, lithium and sodium valproate
Major clinical issues with personality disorders and stimulant use

► Personality disorders are frequently observed in stimulant users

► Use of stimulants may exacerbate impulsivity, mood disturbance and anger in people with Cluster B type personality disorders

► MAO-Is (either irreversible or reversible) are contraindicated in patients using amphetamines or MDMA. Deaths have been associated with concurrent use of moclobemide and MDMA

► CBT can be used to address stimulant use and is effective

► Assistance with coping skills may assist with impulsive use of stimulants
Major clinical issues with personality disorders and benzodiazepine use

- Benzodiazepines have been associated with reduced impulse control, disinhibition and increased levels of violence, particularly in people with Cluster B type personality disorders.

- There is an increased risk of sedation and overdose with the combination of benzodiazepines and sedative antidepressants.

- Benzodiazepines can increase the sedative effects of carbamazepine, lithium and sodium valproate.
Comorbid disorders: ADHD
Approx. 30% of individuals with ADHD continue the diagnosis into adulthood.

Summary data for adults and adolescents with substance use disorders found a mean rate of 23% of subjects with ADHD.

Summary data for adults with ADHD estimate rates of alcohol use disorders between 17% and 45% and rates of drug abuse or dependence to be between 9% and 50%.
Comorbidity: ADHD

- Half of adolescents & quarter of adults with SUD will have ADHD. Large epidemiological study: 6 fold increase in substance misuse by adolescent girls and boys reporting ADHD symptoms
- Polysubstance use was linearly and incrementally related to ADHD symptoms with a large effect size
- Significantly greater history of drug dependence reported by offenders with ADHD symptoms compared with non ADHD offenders.
Comorbidity: ADHD

- Findings from non-clinical samples suggest young people & adults with undiagnosed ADHD may be attempting to self medicate in the community.

- In clinical samples, significantly higher rates of SU found in those whose ADHD symptoms persisted over time & also in those in partial remission. In contrast those whose symptoms were fully remitted showed SU rates similar to normal controls.
Treatment of ADHD in SUD

► Poor engagement in treatment and poor compliance: major stumbling blocks

► Increased potential for misuse of prescribed medications

► Treatment of ADHD in childhood is likely to be neutral or reduce later SUD

► Use of Stimulants in high doses can lead to tolerance or sensitization
ADHD and SUD: Pharmacotherapy

► RCTs point to low efficacy of methylphenidate in treating ADHD in population affected by SUD. Atomoxetine is recommended as first choice – lack of abuse potential.

► However, evidence of efficacy is limited.
Recommendations for treatment of ADHD with active substance abuse

► Refer and liaise with drug and alcohol services for abstinence and substitution therapy

► Consider stabilisation of ADHD with atomoxetine as the first line drug treatment

► If poor compliance with atomoxetine, consider treatment with extended release methylphenidate or lisdexamfetamine. If risk of stimulant abuse high, consider bupropion

► Combine medication with psycho-education, relapse prevention and CBT
Comorbid disorders: Substance misuse and suicide
# Likelihood of a suicide attempt

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Increased Odds of Attempting Suicide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocaine use</td>
<td>62 times more likely</td>
</tr>
<tr>
<td>Major depression</td>
<td>41 times more likely</td>
</tr>
<tr>
<td>Alcohol use</td>
<td>8 times more likely</td>
</tr>
<tr>
<td>Separation or divorce</td>
<td>11 times more likely</td>
</tr>
</tbody>
</table>
Suicide rates among those with addiction are 5-10 times higher than for those without addiction…

Certain populations are at higher risk!
4.5% of alcohol-dependent people attempted suicide within 5 years of detoxification
- mean age 40, n = 1,237

0.8% in non-alcoholic comparison group
- mean age 42, n = 2,000

P < .001 .......... 7X increased risk
Alcohol strongest predictor of completed suicide over 5-10 years after attempt, OR = 5.18

40% - 60% Of completed suicides across USA/Europe are alcohol/drug affected

Higher suicide rates (+8%) in 18- vs 21-year-old legal drinking age states for those 18-21
What do SUD treatment centers need to do?

► Acknowledge that about half of their patients have been or are suicidal

► Be aware that these patients are at just as high a risk for suicide than most “mental health” (MH) patients

► Educate staff on recognizing suicidal risk and have clear procedures for intervening

► Deliver assessment and emergency treatment on site or have close working relationship with MH agency and emergency service
What do SUD treatment centers need to do?

► Know that individuals with suicidal risk can be managed in substance abuse treatment. Much of the suicidal ideation and connected feelings will remit as withdrawal symptoms reduce in early treatment.

► Continue monitoring for suicidal risk throughout treatment, knowing that individuals who continue to use drugs while receiving services (e.g., those in minimizing health and social consequences) are at high ongoing risk of suicide.
Sleep disorder in patients with SUD
Insomnia and substance use disorder

- Insomnia is commonly seen in people who misuse substances and can occur during intoxication, withdrawal or become more evident during abstinence.

- Alcohol: sleep problems can be reason they individual began to drink heavily or relapse and poor sleep has been shown to be associated with poorer outcomes.
Insomnia and substance use disorder

- **Opioids**: sleep dysregulation is commonplace in opioid addicts. While clinically sleep problems are more recognised during withdrawal, and are often protracted, especially from methadone, they may also be present during maintenance or substitute therapy.

- **Stimulants**: stimulant withdrawal may be associated with hypersomnia, with insomnia more likely seen during abstinence.
Co-morbid disorders: Treatment systems
Historically, individuals with co-morbidity have encountered a treatment system that is disjointed and unwelcoming

- **Sequential Treatment:** Patients frequently experienced a “ping pong” effect of moving between components of the system that are unconnected and uncoordinated

- **Parallel Treatment:** Simultaneous treatment occurring without consultation or collaboration resulting in high potential for conflicting treatment plans, over-servicing while under-providing
STIGMA relates to a reluctance to seek treatment, increased depression, suicide, relationship difficulties, homelessness, underemployment, poverty, social isolation and loss of hope.

Closed doors due to Stigma associated with substance use issues and mental illness and misperception regarding interrelatedness of CD.
Treatment of co-occurring disorders

Treatment system paradigms

- Independent, disconnected
- Sequential, disconnected
- Parallel, connected
- Integrated
Independent, disconnected “model”

► Result of very different and somewhat antagonistic systems
► Contributed to by different funding streams
► Fragmented, inappropriate and ineffective care
Treatment of co-occurring Disorders

Sequential Model

► Treat SA disorder, then MH disorder
  OR
► Treat MH disorder, then SA disorder

► Urgency of needs often makes this approach inadequate
► Disorders are not completely independent
► Diagnoses are often unclear and complex
Treatment of co-occurring disorders

Parallel model

- Treat SA disorder in SA system, while concurrently treating MH disorder in MH system. Connect treatments with ongoing communication.

- Easier said than done.

- Languages, cultures, training differences between systems.

- Compliance problems with patients.
Integrated model

- Model with best conceptual rationale
- Treatment coordinated best

Challenges
  - Funding streams
  - Staff integration
  - Threatens existing system
  - Short-term cost increases (but better long-term cost outcomes)
Elements of an integrated model: Staffing

A true team approach including:

- Psychiatrist (trained in addiction medicine/psychiatry)
- Nursing support
- Psychologist
- Social worker
- Marriage and family counsellor
- Counsellor with familiarity with self-help programs
- Other possibilities: vocational, recreational, educational specialists
Elements of an integrated model: Preliminary assessment

Preliminary assessment of mental health and substance use urgent conditions:

- Suicidality
- Risk to self or others
- Withdrawal potential
- Medical risks associated with alcohol/drug use
Elements of an integrated model: Diagnostic process

Diagnostic process that produces provisional diagnosis of psychiatric and substance use disorders using:

- Urine and breath alcohol tests
- Review of signs and symptoms (psychiatric and substance use)
- Personal history timeline of symptom emergence (What started when?)
- Family history of psychiatric/substance use disorders
- Psychiatric/substance use treatment history
Elements of an integrated model: Initial treatment plan

Initial treatment plan (minimum 1 day; maximum 10 days) that includes:

► Choice of a treatment setting appropriate to initially stabilise medical conditions, psychiatric symptoms and drug/alcohol withdrawal symptoms
► Initiation of medications to control urgent psychiatric symptoms (psychotic, severe anxiety, etc.)
► Implementation of medication protocol appropriate for treating withdrawal syndrome(s)
► Ongoing assessment and monitoring for safety, stabilization and withdrawal
Elements of an integrated model: Early stage treatment plan

Early stage treatment plan (minimum 2 days; maximum 10 days) that includes:

► Selection of treatment setting/housing with adequate supervision
► Completion of withdrawal medication
► Review of psychiatric medications
► Completion of assessment in all domains (psychological, family, educational, legal, vocational, recreational)
► Initiation of individual therapy and counselling (extensive use of motivational strategies and other techniques to reduce attrition)
► Introduction to behavioral skills group and educational groups
► Introduction to self-help programs
► Urine testing and breath alcohol testing
Intermediate treatment plan (up to six weeks) that includes:

- Housing plan that addresses psychiatric and substance use needs
- Plan of ongoing medication for psychiatric and substance use treatment with strategies to enhance compliance
- Plan of individual and group therapies and psychoeducation, with attention to both psychiatric and substance use needs
Elements of an integrated model: Intermediate treatment plan

Intermediate treatment plan (up to six weeks) that includes:

- Skills training for successful community participation and relapse prevention
- Family involvement in treatment processes
- Self-help program participation
- Process of monitoring treatment participation (attendance and goal attainment)
- Urine and breath alcohol testing
Elements of an integrated model:
Extended treatment plan

Extended treatment plan (up to 6 months) that includes:

- Housing plan
- Ongoing medication for psychiatric and substance use treatment
- Plan of individual and group therapies and psychoeducation, with attention to both psychiatric and substance use needs
- Ongoing participation in relapse prevention groups and appropriate behavioral skills groups and family involvement
- Initiation of new skill groups (e.g., education, vocational, recreational skills)
- Self-help involvement and ongoing testing
- Monitoring attendance and goal attainment
Elements of an integrated model: Ongoing plan

Ongoing plan of visits for review of:

- Medication needs
- Individual therapies
- Support groups for psychiatric and substance use conditions
- Self-help involvement
- Instructions to family on how to recognize psychiatric problems and relapse to substance use

In short, a chronic care model is used to reduce relapse, and if/when relapse (psychiatric or substance use) occurs, treatment intensity can be intensified.
Challenges of building integrated models

- Cost of staffing
- Training of staff
- Resistance from existing system
- Providing comprehensive, integrated care with efficient protocols
- Providing full integration of the treatment team at the same site, which is optimal
Moving towards integration

The most likely strategy for moving towards this system is in increments

► Psychiatrist attends at SUD centers
► Relapse prevention groups introduced to mental health centers
► Staff exchanges, attending case conferences, joint trainings
► Gradual shifting of funding
Evidence based practices for co-morbid disorders

- The most consistent finding across recent studies is that integrated treatment programs are highly effective.

- Ideally, integrated treatment means that the clinician weaves the treatment interventions into one coherent package.

- Several outpatient and residential studies also support the use of Stage-Wise treatments (based on the Transtheoretical Model of Change – Prochaska & DiClemente 1984), engagement techniques and motivational counselling techniques.
Approaches to services integration

► Incorporate MH services into SUD treatment programs
  – assessment and diagnosis
  – pharmacotherapy, medical management
  – psychotherapy

► Incorporate SUD services into MH programs
  – psychoeducation
  – contingency management
  – motivational interviewing
  – relapse prevention
  – 12-step groups

► Develop “specialized” programs for COD that are fully integrated
Where are we so far?

► How do substance use and the following relate?
  — Trauma
  — Personality disorders
  — Attention deficit disorder
  — Suicide
  — Sleep disorders

► What treatment system paradigms do you know?

► What are the elements of integrated model?

► What steps towards integrated model can be taken, despite challenges?
Break
Treatment of comorbidity: The Minkoff quadrant model
The four quadrant framework for co-occurring disorders

A four-quadrant conceptual framework to guide systems integration and resource allocation in treating individuals with co-occurring disorders.
Service delivery for COD

**LOW - HIGH**

*Collaboration between systems*

Eligible for public alcohol/drug services but not mental health services

**Low to Moderate Psychiatric Symptoms/Disorders**

And

**High Severity Substance Issues/Disorders**

Services provided in outpatient and inpatient drug dependency system

**HIGH - HIGH**

*Integration of services*

Eligible for public alcohol/drug and mental health services

**High Severity Psychiatric Symptoms/Disorders**

And

**High Severity Substance Issues/Disorders**

Services provided in specialized treatment programs with cross-trained staff or multidisciplinary teams

**LOW - LOW**

*Consultation between systems*

Generally not eligible for public alcohol/drug or mental health services

**Low to Moderate Psychiatric Symptoms/Disorders**

And

**Low to Moderate Severity Substance Issues/Disorders**

Services provided in primary care health system

**HIGH - LOW**

*Collaboration between systems*

Eligible for public mental health services but not alcohol/drug services

**High Severity Psychiatric Symptoms/Disorders**

And

**Low to Moderate Severity Substance Issues/Disorders**

Services provided in outpatient and inpatient mental health system
The Eight Practice Standards

1. Welcoming Expectation
   – Expect comorbidity and engage clients in an empathic, hopeful, welcoming manner

2. Access to Assessment
   – Access to services should not require clients to self-define as MH or SUD before arrival; eliminate barriers; deny no client treatment based on disorders

3. Access to Continuing Relationships
   – Initiate and maintain empathic, hopeful, continuous treatment relationships – even if treatment recommendations are not followed

4. Balance case management and care with expectation, empowerment, and empathic confrontation
5. Integrated Dual primary treatment
   - Each disorder receives appropriate diagnosis-specific and stage-specific treatment, regardless of the status of the comorbid condition

6. Stage-wise treatment:
   - Acute stabilization
   - Motivational enhancement
   - Active treatment
   - Relapse prevention
   - Rehabilitation and recovery
7. Early Access to rehabilitation
   - Clients who request assistance with housing, jobs, socialization, and meaningful activity are provided access even if they are not initially adherent to MH or SUD treatment recommendations

8. Coordination and Collaboration
   - Consistent collaboration between all treating agencies, family caregivers, and external systems is required
   - Collaboration with families should be considered an expectation for all individuals at all stages of change
Co-morbid disorders: Treatments
Avoid the trap of reacting to symptoms with polypharmacy

Many substance-use patients like taking drugs, any drugs

Decision to medicate should always be with clear rationale and consideration of alternatives including psychosocial and behavioral interventions
Abstinence is necessary but doesn’t equal recovery

Addictive disorders are frequently accompanied by:

- The formation of cognitive distortions and maladaptive patterns of behaviour
- Resulting in disturbances of mood and function
Remember

► Simple abstinence does not address these complex issues

► Psychosocial interventions are necessary therapeutic elements in the process of recovery

► Not only are psychosocial interventions potent, they are the mainstay of addiction treatment

► Medications are unlikely to work without psychosocial therapy and in the presence of ongoing substance use
Where are we so far?

► What is quadrant framework for co-occurring disorders and what is it used for?

► What are the Eight Practice Standards?

► What is important to remember about treatment?
Pharmacology for addiction with co-morbid psychiatric illnesses: Summary of current evidence base
Let's think!

Why is it important to understand the interactions between substances in the treatment of co-morbid psychiatric and SUD?
Summary of evidence

Opioids and depression: effect of opioid treatment on psychiatric symptoms

► Treatment for opioid use beneficial, in depressed patients
► Higher doses of methadone may be needed in patients with depression
► Buprenorphine may have advantages over methadone in treating depressed opioid addicts
► Naltrexone maintenance may improve mood
► Antidepressants can improve depressive symptoms but robust effects are not usual, NO evidence for improvements in opioid or other drug use
Summary of evidence

- Antidepressants may improve mood, but not necessarily substance use
- Antidepressants only effective and therefore, to be restricted to those with significant depressive disorder
- Tricyclic antidepressants are not recommended due to potentially serious interactions with substances (e.g., cardiotoxicity) and death in overdose
- SNRIs may be better in improving mood in contrast to SSRIs
Medications for treating individuals with bipolar disorders

- Atypical neuroleptics for acute mania: Olanzapine, Risperidone, Quetiapine, Ziprasidone, Aripiprazole
- Atypical for bipolar depression: Quetiapine
- Atypical for bipolar maintenance treatment: Olanzapine, Aripiprazole
- Mood stabilizers include: Lithium, Divalproex, and Carbamazepine for acute mania/maintenance, and Lamotrigine for bipolar depression and maintenance
Pharmacological treatment of substance use and bipolar disorder: Summary of evidence

- Existing standard pharmacological approaches effective in comorbid bipolar disorder
- No robust evidence for better efficacy of any one particular pharmacological approach
- Carbamazepine, Valproate and Antipsychotics can improve alcohol-related outcomes
- Naltrexone can help Bipolar Disorder patients to reduce their alcohol consumption. Evidence for effectiveness of Acamprosate and Disulfiram too
Medications for treating schizophrenia:

- **Atypical (or "second generation") neuroleptics:** risperidone, aripiprazole, olanzapine, quetiapine, ziprasidone, clozapine

- **Typical (or "first generation") neuroleptics:** haloperidol, fluphenazine, chlorpromazine, perphenazine, trifluoperazine, thiothixene, pimozide
Medications for sleep problems in substance use disorders

- A comprehensive assessment is key to inform a management plan
- Review of existing pharmacotherapy with advice about ‘sleep hygiene’ is likely to be the best approach

Stimulants

- Modafinil has shown some promise in treating cocaine dependence and also improved diurnal sleep rhythm and sleep architecture.
Medications for sleep problems in substance use disorders

Alcohol

- Adequate doses of benzodiazepines should minimise sleep problems during alcohol detoxification
- Medications shown to improve sleep during withdrawal: Acamprosate and Carbamazepine
- Medications with potential to improve sleep during abstinence: gabapentin and quetiapine. Some but not all studies of Acamprosate in relapse prevention have reported beneficial effects on sleep. Acamprosate does not appear to adversely affect sleep
- Trazodone, improved sleep quality in alcohol-dependent patients with insomnia. However, the improvement disappeared once they stopped taking trazodone after 12 weeks, and they drank more than the placebo group in the follow-up period
Pharmacological treatment of substance use and schizophrenia: Summary of evidence

- There is currently insufficient evidence to recommend one antipsychotic over another or FGA versus SGA
- Clozapine has been reported to reduce substance use and improve psychosis (data are still preliminary)
- Use Naltrexone or Acamprosate for alcohol relapse prevention, and smoking cessation using bupropion or varenicline recommended
Comorbid disorders: Summary

- As many as 6 in 10 substance abusers also have at least one other mental disorder.
- Patients with co-occurring disorders tend to have more problems of all kinds and require more complex and expensive care.
- They tend to “fall through the cracks” of the traditional treatment system and may benefit from a Quadrant model of treatment system.
Effective, research-based interventions with both medication and behavioural therapies are available and benefits this highly vulnerable group.

Further studies on causes, risk factors, and interventions will enable us to treat more effectively, this large population for whom substance abuse is only part of the problem.
How do psychiatric and substance use disorders interact?

What are the key issues in identifying and diagnosing these interacting disorders?

Why is it important to provide integrated treatment for individuals who have co-occurring disorders?

Which promising practices for treating individuals with these disorders do you know?
Thank you for your time!
End of workshop 1