Training Frontline Workers
Young People, Alcohol & Other Drugs

How Drugs Work
Project Outline

This project, an initiative of the National Illicit Drug Strategy, has developed teaching and learning resources to assist frontline workers address the need of young people on issues relating to illicit drugs. They will support a training organisation in the delivery of training. The modules explore work with young people, drug use and suitable intervention approaches.

Project Management

The development of the resources has been managed by:

- New South Wales Technical and Further Education Commission (TAFE NSW) through the Community Services, Health, Tourism and Hospitality Educational Services Division
- Drug and Alcohol Office (Western Australia)
- The Northern Territory Health Service.

Acknowledgements

The original consultations, writing, practitioner review and revision of the materials has involved a large number of services including:

- Alison Bell Consultancy
- Centre for Community Work Training, Association of Children’s Welfare Agencies (NSW)
- Community and Health Services (Tas)
- Community Education and Training (ACT)
- Curtin University
- Department of Community Services (NSW)
- Department of Juvenile Justice (NSW)
- Drug and Alcohol Office (WA)
- Health Department of NSW
- National Centre for Education and Training in Addictions
- New England Institute of TAFE, Tamworth Campus
- Northern Territory Health Service
- NSW Association for Adolescent Health
- Ted Noff’s Foundation (NSW)
- The Gap Youth Centre (NT)
- Turning Point (Vic)
- Youth Substance Abuse Service
- Youth Action Policy Association (Vic)

This project was funded and supported by the National Illicit Drugs Strategy through the Australian Government Department of Health and Ageing.
The Materials

The final product, provided for distribution on CD-Rom, consists of:

- a facilitator and learner guide for 12 modules,
- a support text for workplace learning.
- Overhead transparencies using Microsoft PowerPoint for each module to support facilitators who choose face-to-face delivery.

Each document has been provided in

- Acrobat (pdf) format to ensure stability
- A Microsoft Word version to enable organisations to amend, add and customise for local needs

The primary user would be a facilitator/trainer/training organisation that would distribute the learning materials to the learners. They can be used in traditional face to face or through a supported distance mode.

Materials have been prepared to allow direct colour laser printing or photocopying depending on the size and resources of the organisation. It is not envisaged that learners would be asked to print materials.

Assessment

Where assessment of competence is implemented training organisations are reminded of the basis principles upon which assessment should be based:

Assessment is an integral part of learning. Participants, through assessment, learn what constitutes effective practice.

Assessment must be reliable, flexible, fair and valid.

- To be reliable, the assessment methods and procedures must ensure that the units of competence are applied consistently.
- To be flexible, assessment should be able to take place on-the-job, off-the-job or in a combination of both. They should be suitable for a variety of learning pathways including work-based learning and classroom based learning.
- To be fair, the assessment must not disadvantage particular learners
- To be valid, the assessment has to assess what it claims to assess.
Training Frontline Workers
Young People, Alcohol & Other Drugs

Section A
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Training Frontline Workers: Young People, Alcohol and Other Drugs

Background

The project Training Frontline Workers – Young People, Alcohol and Other Drugs is part of a broad strategy to support the educational and training needs of frontline workers. The training and support needs of frontline workers not designated as alcohol and other drug workers to enable them to work confidently with young people on illicit drugs is well recognised. This project attempts to meet this need. It was funded by the Australian Government Department of Health and Ageing under the National Illicit Drug Strategy (NIDS).

Target occupational groups

This training resource has been developed specifically for the following groups of frontline workers:

- Youth workers
- Accommodation and crisis workers
- Counsellors (including school-based)
- Primary and community health and welfare workers
- Juvenile justice workers
- Teachers
- Police
Approaches to service delivery

The development of the resources brings together two approaches to service delivery:

- work with young people
- alcohol and other drug work

The two approaches which underpin these resources are summarised as follows:

Working with young people

A **systems approach** is the most appropriate model to understand and work with young people. A systems approach assumes that no aspect of behaviour occurs in isolation, rather it occurs within a wider context. In other words, to understand young people we need to consider the individual, their family, the wider community and society as a whole as well as how they interact with each other.

The systemic youth-focused approach assumes that:

- Young people deal with challenges in ways similar to other people in society (some well, others not so well). Young people develop their coping strategies and skills by learning from others around them, through their own personalities and through trial and error.

- The term ‘youth’ is a social construction. Societal values and beliefs about young people determine the way in which they are treated within society (for example, young people are viewed differently in different cultures).

- Young people are not an homogenous group. Although young people share some common developmental issues, their backgrounds, experiences and cultures are as diverse as the rest of the population.

- Young people participate actively in their lives, make choices, interact with others, initiate changes and participate in our society. They are not passive victims of a dysfunctional society, family or peer group.
The following **social justice principles** guide work with young people:

- **Access** - equality of access to goods and services
- **Equity** - overcoming unfairness caused by unequal access to economic resources and power
- **Rights** - equal effective legal, industrial and political rights
- **Participation** - expanded opportunities for real participation in the decisions which govern their lives.
Alcohol and other drug work

Harm minimisation is the most appropriate approach for working with alcohol and illicit drug issues. The goal of harm minimisation is to reduce the harmful effects of drugs on individuals and on society. Harm minimisation assumes that while we cannot stop drug use in society, we can aim to reduce the harm related to using drugs. Harm minimisation has three components: harm reduction, supply reduction and demand reduction.

A variety of drugs, both legal and illegal, are used in society. There are different patterns of use for drugs and not all drug use is problematical.

Large proportions of young people try alcohol or other drugs, including illicit drugs, without becoming regular or problem drug users.

Drug use is a complex behaviour. Interventions that try to deal with single-risk factors or single-risk behaviours are ineffective.

Drug use represents functional behaviour for both young people and adults. This means that drug use can best be understood in the broader context of the lives of the young people using them. Any interventions need to take the broader context into account.

Training approach

These training resources are based on the following principles:

- Training is consistent, supports a national qualification and provides a pathway to a qualification.
- Training is based on adult learning principles. It should:
  - build on learners’ existing knowledge, skills and experience
  - utilise problem-based learning and skills practice, and
  - develop critical thinking and reflection.
- Training is to be flexible and available through a variety of methods. Examples include workshops, self-directed learning, distance learning supported by a mentor/facilitator and work-based learning.
- Work-based learning provides participants with the opportunity to reflect on current work practices, apply their learning to the work situation and to identify opportunities for organisational change and development in their workplaces.

- A key learning strategy of the resources, supported by individual, group and work-based activities, is reflection: alone and with peers and supervision. To reflect upon and evaluate one’s own work, the types of intervention used and the assumptions they are based on is crucial to working more effectively.

Project resources

The Young People, Alcohol and Other Drugs program aims to provide the core skills and knowledge that frontline workers need to respond to the needs of young people with alcohol and drug issues, particularly illicit drugs.

This training resource, which comprises 12 modules, has been developed to provide a qualification and/or specific units of competence. The resource can also be used as a test or reference document to support the development of a specific knowledge or skill.

Each module (except Module 1) comprises a Learner Workbook and a Facilitator Guide. Each Learner Workbook is a self-contained resource that can be used for both distance and work-based learning or to support face-to-face learning (including workshops).

Relationship to the Community Services Training Package (CHC02)

The training modules were initially developed to support four units of competence from the Community Services Training Package (CHC99). These were:

- CHCYTHA Work effectively with young people
- CHCAOD2A Orientation to the alcohol and other drugs sector
- CHCAOD5A Provide support services to clients with alcohol and other drugs issues
- CHCAOD6A Work with clients who are intoxicated.
Following the release of the revised Community Services Training Package (CHC02) in April 2003, the modules were revised to support the following units of competence from the revised Training Package:

<table>
<thead>
<tr>
<th>Unit of Competence</th>
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<tr>
<td>CHCYTH1C Work effectively with young people</td>
<td>• Perspectives on Working with Young People</td>
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<td>• Young People, Risk and Resilience</td>
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<td>• Working with Young People</td>
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<tr>
<td>CHCAOD2B Orientation to the alcohol and other drugs sector</td>
<td>• Young People, Society and AOD</td>
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<td>• How Drugs Work</td>
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<td>• Frameworks for AOD Work</td>
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<tr>
<td>CHCCS9A Provide support services to clients</td>
<td>• Helping Young People Identify their Needs</td>
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<td>• Working with Young People on AOD Issues</td>
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<td></td>
<td>• Working with Families, Peers and Communities</td>
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<tr>
<td></td>
<td>• Young People and Drugs – Issues for Workers</td>
</tr>
<tr>
<td>CHCAOD6B Work with clients who are intoxicated</td>
<td>• Working with Intoxicated Young People</td>
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The twelfth module **Planning for Learning at Work** is designed to support participants in their learning.

The four units of competence listed above contribute to national qualifications in both Youth Work and Alcohol and Other Drug Work and are electives in a range of other qualifications. Since these units by themselves will not deliver a qualification, the additional units listed in the Community Services Training Package Qualification Framework would need to be completed.

To achieve any of the above units a learner must complete all the modules comprising that unit and be assessed by a qualified assessor from a registered Training Organisation. While it is possible to complete individual modules, this will not enable you to achieve a unit of competence. Individual modules will contribute towards gaining the unit of competence and over a period of time all modules needed for the unit could be completed.
Each of the units of competence has a different focus and has been customised within national guidelines to meet the needs of frontline workers in working with young people with illicit drug issues. The modules each provide a learning pathway with stated learning outcomes to help achieve each particular unit of competence.

Since the modules associated with each unit of competence progressively build on each other, they can be delivered and assessed in an integrated manner. This provides learners with a ‘total view’ of the essential theory and required skills for their work roles.
Using the Facilitator Guide

Each Facilitator Guide is a comprehensive teaching tool that contains the information, resources and activities required to meet the learning outcomes of a particular module. It is designed to be used in conjunction with the Learner Workbook for that module which contains detailed information that facilitators may wish to refer to. The Facilitator Guide and the Learner Workbook are suitable for a variety of delivery modes, including face-to-face learning, distance and work-based learning.

The Facilitator Guide is divided into two sections.

**Section A** provides general information about the training resources and guidelines on how to support learners and assist them in developing a learning pathway and plan.

**Section B** provides the facilitator instructions for the module.

The Facilitator Guide provides an overview of the module, the learning outcomes and any links to other modules. It provides a summary of the Learner Workbook content topic by topic and suggested facilitator-led discussions and learning exercises. While an approximate timing of activities is suggested, facilitators are encouraged to use their judgement, taking into account the knowledge and skill level of the learners. Each Guide contains overheads, a glossary and a list of references and resources. Icons are used in both the Facilitator Guide and the Learner Workbook to highlight instructions and activities suitable for work-based learning, application and reflection.

It is recommended that facilitators read both the Facilitator Guide, the Learner Workbook and key references.

Prior to commencing the module with learners, facilitators should be familiar with the:

- Learning outcomes
- Module content by topic area
- Learning activities within each topic
- Structure and flow of the module
- Learner workbook
- References and resources listed
Supporting distance learners

These training resources have been developed with the understanding that learners should not undertake these modules without the support of an appropriately qualified facilitator. This is especially the case for distance learners who undertake their learning outside of a classroom or workshop setting.

Distance learners have specific needs in relation to:

- Isolation
- Conflicting priorities and time pressures.

A variety of strategies may be used to accommodate learner needs and support learning. These include:

- providing alternative activities or additional tasks to achieve the learning outcomes. Some activities may be unrealistic in some locations (e.g. asking learners to visit other agencies when they are in a remote location)
- developing a learning plan to clarify what topics are to be completed, by when and how
- maintaining contact with learners to monitor their progress and assist with learning
- establishing a learning community through group teleconferences, e-mail or list servers to help learners process issues through discussions and ideas/feedback from other learners.
Contact with distance learners

It is important for facilitators to establish and maintain contact with distance learners.

The amount of contact will depend on:

- nature of the topic being undertaken
- learner’s available resources including availability of other learners, mentors or colleagues
- learner’s desire for interactivity
- learner’s motivation and other learning needs.

Developing a learning plan

In order to develop a learning plan with a learner you will first need to identify their learning needs. From these needs you will be able to formulate learning goals and develop a plan to meet these goals. The learning plan should contain details on what will be learned, how it will be learned, by when, what criteria will be used to evaluate the learning and how the learning will be validated. A learning plan is best prepared by the learner with the guidance and support of a mentor or facilitator. Topic 4 in the module Planning for Learning at Work contains detailed information on preparing a learning plan.

Once learner needs have been identified they can be matched up with the units of competence and the resources available.

The following steps will assist you to develop a learning plan with a learner:

3. Assessment of learning needs

This may include analysis of:

- learner’s values
- skills
- strengths and weaknesses
- preferred learning style
- suitability of learner’s work situation as a work-based learning environment (Is there a quiet place to read/write/consider? Are study leave provisions available? Is management supportive of work-based learning?).
4. Identification of learning goals

It is important to identify learning objectives both from a learner’s perspective and from an organisational perspective. Those learners who are undertaking learning as part of a process initiated by their organisation may well have different needs and motivations to those learners who have elected or volunteered to undertake further learning. Once established, learning goals can be reviewed against the learning outcomes of the module/s in this resource. This will assist the selection of appropriate modules.

3. Identify learning resources, supports and strategies.
Evaluate the availability of the following resources and the learner’s confidence in accessing them.

- people (facilitator, other learners, mentors, supervisors etc)
- resources (e.g. texts/libraries)
- technology (e.g. phones, Internet/e-mail, video-conferencing)

4. Specify what constitutes evidence of learning

How will you and the learner know that learning has occurred? Assessment of learning could include a portfolio, case notes, role plays and/or case studies.

5. Specify target dates

Specify dates for progress reviews and for module/task completion. Agree on how this will occur.

Target dates for contact with facilitators should specify:

- Informal query or concerns (How can a learner access you if they have a query or concern? For example, e-mail, telephone etc)
- Progress review dates (When will formal contact be initiated to check on progress and how will this be done? For example, by telephone, face-to-face meeting etc.)
- Assessment event due dates (When are assessment events due and how will they be submitted? (For example, by post, e-mail etc)
- Feedback. When will feedback be available on assessment performance and how will that be delivered?
Many learners will want to develop knowledge and skills in a number of areas. Overlapping content across the units has been identified in the individual modules.

**NOTE:** CHCAOD2B provides key underpinning knowledge on AOD work and reflection on personal values and attitudes to alcohol and other drugs. It is recommended that this unit be completed before undertaking the other units in alcohol and other drug work. In particular, the module *How Drugs Work* provides underpinning knowledge about the action of a drug on the individual. It is recommended that learners completing CHCCS9A and CHCAOD6B also complete this module.
DEVELOPING A LEARNING PATHWAY

When you have worked with your learners to identify their skill/knowledge gaps, the following guide may assist you in developing a learning pathway for each learner or group of learners. Learners’ may choose to do one, several or all of the units, depending on their needs.

<table>
<thead>
<tr>
<th>If learners want information about young people and ways of working with young people.</th>
<th>If learners want information about the alcohol and other drug sector and a greater understanding of drug use in society.</th>
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**Perspectives on Working with Young People**
Explores the stage of adolescence and a range of factors that impact on the development of young people.

**Young People, Risk and Resilience**
Provides a framework for understanding and working with young people.

**Working with Young People**
Provides a broad framework for understanding and working with young people, explores goals of working with young people and the development of specific skills.

**Young People, Society and AOD**
Looks at ways of understanding drug use in society and by young people in particular and presents an overview of patterns and trends of AOD use by young people. Broad societal factors that influence work on AOD issues are also explored.

**How Drugs Work**
Provides information about drugs and how they act on the body.

**Frameworks for AOD Work**
Provides an overview of the range of AOD interventions, from prevention through to treatment and explores their relevance to work with young people on AOD issues.

**Helping Young People Identify their Needs**
Develops skills in identifying alcohol and other drug issues for young people at an individual, group and community level.

**Working with Young People on AOD Issues**
Provides skills in working with young people with AOD issues on a one-to-one basis. The emphasis is on young people who are experiencing problems because of their AOD use.

**Working with Families, Peers and Communities**
Provides a framework and skills for working with young people on AOD issues at a community and family level.

**Young People and Drugs - Issues for Workers**
Explores a range of issues that workers may encounter when working with young people on AOD issues. These include personal values, ethical issues and issues surrounding confidentiality and accountability.

**Working with Intoxicated Young People**
Provides information and skills in working with intoxicated young people.

**Planning for Learning at Work**
If learners want advice about planning learning and how to learn.
Supporting Distance Learners in Developing a Learning Plan

1. Assessment of learning needs

Learners should be assisted to assess their:
- Values
- Skills
- Strengths and weaknesses
- Learning style
- Learning environment
- Reason for attending
- (e.g. compulsory - organisation initiated or voluntary – individually initiated)

2. Identification of learning goals

- Learners goals (SMART)
- Organisational goals (if applicable)
- Module learning outcomes

3. Identification of learning resources, supports and strategies

Includes availability and confidence to access:
- **People** (facilitator, other learners, mentors, supervisors, colleagues, other professional and services etc)
- **Resources** (texts/references, libraries etc)
- **Technology** (Internet/websites, e-mail, video-conferencing etc)

4. Identification of forms of evidence of learning

NOTE:
Remember that learning is part of a cyclical process and the development and implementation of the learning plan will form the basis of analysis, reflection and further planning.

5. Specify timeframes and mode of contact

Includes time frames for:
- Informal contact (e.g. if the learner has a query)
- Review of progress
- Assessment events
- Finalising module requirements

Mode of contact could include:
- Telephone call
- E-mail
- Group teleconference (e.g. with other learners)
- Face-to-face meetings
Assessment

Example assessments are provided for these resources. However, individual Registered Training Organisations (RTOs) will determine assessments for the modules/units offered. Assessments will be responsive to learner needs and resources available and comply with Australian Quality Training Framework (AQTF) 2001 requirements.

Assessment Principles

Principles upon which assessment should be based include:

- Assessment is an integral part of learning and developing an understanding of what constitutes effective practice
- Assessment must be reliable, flexible, fair and valid
  - To be reliable, the assessment methods and procedures must ensure that the units of competence are applied consistently.
  - To be flexible, assessment should be able to take place on-the-job, off-the-job or a combination of both. It should be suitable for a variety of learning pathways including work-based learning and classroom-based learning.
  - To be fair, assessment must not disadvantage particular learners
  - To be valid, assessment has to assess what it claims to assess.

Facilitator qualifications and knowledge

It is recommended that the facilitator possesses at least:

- the unit of competence or a qualification containing the topic area being taught
- Certificate IV in Workplace Assessment and Training
- experience in the delivery of services to young people

Ideally, a facilitator should also have tertiary qualifications relating to the module being taught.

Under the AQTF (2001) Registered Training Organisations are required to provide appropriately qualified facilitators/trainers.
Resource requirements

Minimum resources required for the different modes of delivery are outlined below. Details of specific resources are contained in each topic.

Face-to-face training requirements

One large room (preferably with break out rooms for small group work) with the following resources:

- Whiteboard and markers
- Overhead projector and screen
- Butchers paper and markers
- Learner Workbook
- Blu tak

Distance learning requirements

- Learner Workbook

Mixed mode delivery requirements

One large room (preferably with break-out rooms for group work) with the following resources:

- Whiteboard and markers
- Overhead projector and screen
- Butchers paper and markers
- Learner Workbook
- Blu tak
The following icons are used in the Learner Workbook and Facilitator Guide to assist you in using the resources.

<table>
<thead>
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<th>Icon</th>
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<td>FAC</td>
<td>Facilitator direction</td>
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<td>WPL</td>
<td>Workplace learning activity</td>
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<td>Case Study</td>
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<td>A good point for student to contact facilitator</td>
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<td>Brainstorm</td>
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<td>Suggested time</td>
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<td>OHT</td>
<td>Overhead transparency</td>
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Training Frontline Workers
Young People, Alcohol & Other Drugs

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Topic 1

Introduction

Overview

In this module learners will be introduced to key issues in pharmacology. They will explore how the action of mind-altering drugs affects young people and how to apply this knowledge to achieve an effective working relationship with them.
1.2 Learning outcomes

- When learners have completed this module they will be able to:
  - LO Classify common psycho-active drugs according to their effect on the central nervous system (CNS)
  - LO Outline the major short and long-term effects of psycho-active drugs
  - LO Discuss key issues in pharmacology such as tolerance, withdrawal, overdose, dependence and interaction
  - LO Describe the harmful effects on young people resulting from AOD use.

- It is suggested that you remind learners of these learning outcomes as they work through the module and at different stages ask whether they think they have achieved each of the learning outcomes. This will help them keep track of their progress, and what they still need to learn to successfully complete the module.
1.3 Assessment events

- Provide all learners with information on any assessment activities they might be required to undertake. Ensure that contact is made with distance learners as soon as possible.

- Discuss these with learners and provide time for questions, feedback and examples.

- Reflect on assessment events throughout training sessions to enhance learners’ understanding of what is required. All assessments match Learning Outcomes competencies.

- Suggested assessment events are provided after Topic 12.
Introduction to how drugs work

Overview

In this topic learners will be introduced to the subject of pharmacology, the study of how drugs work in the body. In addition, they will learn how to relate a basic knowledge of how drugs work to their work with young people. They will also be referred to sources of drug information.

Key Issues

- What is pharmacology?
- Why is pharmacology important?
- The limitations of pharmacological knowledge
- Finding more information about how drugs work

Resources

Adhikari, P, & Summerill, A (2000)
2.1 What is pharmacology?

Pharmacology is a branch of science that deals with the study of drugs and their actions on living systems.

To understand how drugs work in the body we need to consider:

- type of drug
- quantity of drug used
- time taken to consume the drug
- tolerance
- gender, size and amount of muscle
- other psycho-active drugs used
- mood or attitude
- expectation
- setting or environment.

This module will briefly explore each of these factors.

Psycho-active drugs are substances that alter mood, thoughts, or behaviour as a result of changes in the functioning of the brain.

In this module, the term ‘drug’ will be used to include all psycho-active drugs including alcohol and other psycho-active substances (e.g. petrol).

Give three examples of psycho-active drugs and three examples of non-psycho-active drugs? (Hint: Think about medication that affects parts of the body other than the brain.)

Since alcohol and other drug (AOD) use is a part of youth culture, it is important to understand how drugs work if you work with young people.
2.2 Why is pharmacology important?

Case studies

**William** is a 19-year-old student at a TAFE college. He was driving home the morning after a Bachelor and Spinster’s Ball, where he drank about 12 cans of beer. When he arrived back in town, 50km away, he was tested by police with a random breath testing unit. His blood alcohol reading was 0.09 percent, although he had slept in his car for eight hours before driving home.

**Uma,** 15, was arrested for stealing a handbag. Twelve hours after her arrest, while still in custody, she begins to shiver and complains of feeling sick.

**Matthew** is a 16-year-old Aboriginal boy attending school near Broome in Western Australia. His teacher has noticed a rapid deterioration in the quality of his school work. His memory is much worse than it used to be and he often complains of headaches.

**Emily,** 17, is a regular resident of an accommodation service for young people in the inner city. Following a six-week break from heroin while on a rehabilitation program, she returned to the refuge, and that evening used heroin. She collapsed outside the house and was taken by ambulance to hospital.

**Kayla,** 18, is a student at university. She lives with a couple of other friends in the city. Last week she went out with her friends for lunch and drove her car to the pub where they had a counter meal. On the way home she was involved in a minor car crash as she failed to give way at an intersection. When the police attended the scene Kayla was pale, shaking, with slurred speech and disorientated.
Do you think all the young people in the case studies are experiencing AOD-related problems?

Kayla was the one exception to the rule. Her presentation after the accident seems to be consistent with being substance-affected. In reality, Kayla was suffering from diabetes and consumed too much sugar at lunchtime.

While it is important to recognise the effects of drug use on young people’s behaviour, it is also important not to assume that they are under the influence of drugs without first gathering all the facts first.

How do you think some knowledge of how drugs work could assist a police officer, teacher or youth worker to help young people like William, Uma, Matthew, Emily or Kayla?

How might one of these young people experience more harm from their drug use if the staff and/or police working with them had no such knowledge?
An understanding of how drugs can affect a young person enables workers to:

- provide accurate information
- build a better rapport and have more confidence when dealing with young people
- develop a better understanding of factors influencing the young person
- take appropriate action in critical situations
- provide emergency service workers with accurate information about the state of a young person
- meet their obligations in regard to duty of care
- meet Occupational Health and Safety legislation requirements.
2.3 The limitations of pharmacological knowledge

Understanding youth drug use requires more than just knowledge about how drugs act on the body.

What other knowledge and skills might assist you to understand and work with young AOD users?

- Knowledge of the developmental processes that occur during adolescence
- Skills in communicating with young people
- Alcohol and other drug (AOD) intervention skills and knowledge
- An understanding of the social context of drug use, such as the influence of peers etc.
- An understanding of street terms and slang language associated with young people and AOD use
2.4 Finding more information about how drugs work

You can find more information about how drugs work from the following:

- Posters
- Brochures
- Books, journals and other publications
- Internet sites such as:
  - www.mentalhealth.com
  - www.ceida.net.au
  - www.connexions.com.au
  - www.ndarc.com.au
  - www.adin.com.au
  - www.adf.org.au
  - www.health.usyd.edu.au
  - www.druginfo.nsw.gov.au
- Client and personal experience
- Colleagues
- Libraries
- Hospitals and other health services
- Young people
- Youth centres and youth services
- Schools, TAFE colleges and universities

This list is not exhaustive. Find out which agency/ies in your local area provide information about how drugs work.
Pharmacology is the study of how drugs work in the body.

Psycho-active drugs commonly affect a person’s mood, behaviour or thinking ability and act upon the brain.

There are other drugs such that are purely medicinal and do not have a psycho-active effect (e.g. cholesterol-lowering medication).

Young people are the largest consumers of drugs in our community so it is necessary for frontline workers to understand how drugs work.
Topic 3

Classifying drugs

Key Issues

- Classifying drugs by their effect on the central nervous system
- Naming drugs
- The legality of drugs

Overview

In this topic learners will review the different ways of classifying and naming drugs. Emphasis should be placed on classification by effect on the central nervous system (CNS).
3.1 Classifying drugs by their effect on the central nervous system

Drugs can be classified in many ways including:
- uses (medicinal or recreational)
- effect on the body (i.e. CNS)
- source (synthetic or plant)
- legal status (legal/illegal)
- risk status (dangerous-safe)

One of the most common and useful ways of classifying a drug is by the effect that it has on a person’s central nervous system (CNS).

The brain is the major part of the CNS, and this is where psycho-active drugs have their main effect.

Classifying drugs by their effect on CNS

**STIMULANTS**
speed up the activity of a CNS which often results in the user feeling more alert and more energetic (e.g. amphetamines, cocaine).

**DEPRESSANTS**
slow down the activity of the CNS, which often results in the user feeling less pain, more relaxed and sleepy (e.g. alcohol, major tranquillisers).

**HALLUCINOGENS**
have the ability to alter a user’s sensory perceptions by distorting the messages carried in the CNS (e.g. LSD and kava).

**OTHERS**
include psycho-active drugs that do not fit neatly into one of the other categories (e.g. anti-depressants such as Zoloft and mood stabilisers such as Lithium).
3.2 Naming drugs

- This table shows how the same drug can be named in different ways.

- Young people often have their own names (sometimes called street names) for particular drugs which can differ from area to area.

<table>
<thead>
<tr>
<th>Generic name</th>
<th>Chemical name</th>
<th>Brand name</th>
<th>Common term</th>
<th>Street name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANNABIS</td>
<td>Delta 9 - tetra hydro cannabinol (THC)</td>
<td>N/A</td>
<td>Marijuana</td>
<td>Pot/mull</td>
</tr>
<tr>
<td>ALCOHOL</td>
<td>Ethanol</td>
<td>Victoria Bitter</td>
<td>Beer</td>
<td>Grog</td>
</tr>
<tr>
<td>TEMAZEPAM</td>
<td>7- chloro-1,3-dihydro-1-methyl-5-phenyl-2H-1,4-benzodiazepin-2-1</td>
<td>Normison</td>
<td>Sedatives</td>
<td>Pills</td>
</tr>
</tbody>
</table>
Street names for drugs

What are street names in your local area for:

- Cannabis  
- Inhalants  
- Benzodiazepines  
- Ecstasy  
- Amphetamines  
- Hallucinogens  
- Opioids  
- Cocaine  

How Drugs Work - Facilitator’s Guide
<table>
<thead>
<tr>
<th>Drug</th>
<th>Possible street names</th>
<th>Names in my area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabis</td>
<td>Pot, grass, weed, reefer, joint, spliff, Mary-Jane, Acapulco Gold, rope, Mull, cone, dope, skunk, bhang, ganja, hash, chronic, wacky tobacky</td>
<td></td>
</tr>
<tr>
<td>Inhalants</td>
<td>Nitrous Oxide: laughing gas, whippits, nitrous Amyl Nitrate: snappers, poppers, pearlers, rushamies Butyl Nitrate: locker room, bolt, bullet, rush, climax, red gold</td>
<td></td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Pills, downers, benzos, rohies, normies, vals, serries</td>
<td></td>
</tr>
<tr>
<td>Ecstasy</td>
<td>E, eccy, love drug, eggs, point, paste base, zip</td>
<td></td>
</tr>
<tr>
<td>Amphetamines</td>
<td>Speed, uppers, ice, crank, meth, crystal, whiz, snow, goee, shabu</td>
<td></td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>LSD: acid, trips, wedges, windowpane, blotter, microdot Psilocybin: mushies, blue meanies, magic mushrooms, gold tops PCP: angel dust, hog, loveboat</td>
<td></td>
</tr>
<tr>
<td>Opioids</td>
<td>Heroin: horse, hammer, H, dope, smack, junk, gear, boy Methadone: done (‘doan’)</td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td>Cocaine: coke, flake, snow, happy dust, Charlie, gold dust, Cecil, C, freebase, toot, white girl, Scotty, white lady Crack: rock, base, sugar block</td>
<td></td>
</tr>
</tbody>
</table>

It can be very helpful to become familiar with some of the commonly used street names but it is also important to clarify which drug a young person is referring to by using universally understood names for drugs like heroin, marijuana and ecstasy.
3.3 The legality of drugs

- Drugs can also be classified in terms of their legal status.

- The legal status of drugs is often due to historical and political factors rather than how harmful the drug is.

- Formal sanctions such as laws that prohibit the use of certain substances can deter people from using those drugs but they do not necessarily stop use altogether.

- Prescriptions are another way of influencing the use and availability of drugs.

Q What are two or more other psycho-active drugs in each of these categories?

<table>
<thead>
<tr>
<th>Legally available to adults</th>
<th>Legal with prescription</th>
<th>Illegal to use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over the counter painkillers</td>
<td>Ritalin</td>
<td>Cocaine</td>
</tr>
</tbody>
</table>
Distance learners have been advised to make contact with you, the facilitator, to check their learning progress.

- The most useful system of classifying drugs is by their effect on the central nervous system
  - Stimulants *speed up* the CNS
  - Depressants *slow down* the CNS
  - Hallucinogens *distort* the message carried in the CNS
  - Other - those drugs that *do not easily* fit into the other groups.

- Some drugs such as cannabis and ecstasy can fit into more than one category.
Topic 4

How psycho-active drugs act on the body

Overview

This brief topic provides an overview of the effect of the chemical properties of a drug on the CNS. This process is called pharmacodynamics.

Key Issues

The effect of drugs on the central nervous system (CNS)

Resources

www.wnet.org/closetohome describes the biology of drug effects and dependence with easy-to-understand animations of the brain.
Drugs produce their effect on the body by two major processes:

- the effect of the chemical properties of the drug on the central nervous system (CNS). This process is called pharmacodynamics.

- how the drugs enter, are metabolised, and absorbed by the body. This process is known as pharmacokinetics.

These two processes work together to produce a certain effect on an individual.
Pharmacodynamic processes

Neurons

Once the drug reaches the brain, it can lodge onto specific receptor sites on the neurons which are sensitive to particular types of drugs. Each drug affects specific neurons in a number of parts of the brain. There are 13 billion neurons or nerve cells in each person’s brain.

Neurotransmitters

Many drugs seem to imitate neurotransmitters, the natural chemicals that facilitate or inhibit the transfer of electrical impulses between neurons. For example, opiate drugs such as heroin are thought to exert their drug action by mimicking endorphins which are naturally occurring proteins that reduce pain.

Drug action

Like neurotransmitters, drugs can speed up (CNS stimulants) or slow down (CNS depressants) the transfer of electro-chemical messages between neurons in the brain. Messages between neurons can also be distorted when hallucinogenic drugs are taken.

Pleasure centres

In addition, to affect the transfer of messages between neurons, drugs appear to act directly on ‘pleasure centres’ in the brain, which may explain the euphoria experienced by the user. It is believed that the effect on the pleasure centre is highly rewarding for many young people and is crucial to the development of drug dependence.
Review Quiz
(Optional small group exercise or personal reflection)

► Ask learners to complete the following quick quiz which reflects their learning so far.

A. Pharmacology is:
   a) a branch of science that deals with emotions
   b) the study of how drugs work
   c) the study of living things

B. Circle the drug that is not psycho-active.
   a) alcohol
   b) petrol
   c) antibiotic

C. A neuron is a:
   a) chemical in the brain
   b) gap between nerve cells
   c) nerve cell

D. Drugs work by:
   a) imitating neurotransmitters
   b) destroying brain cells
   c) creating dysfunctional neural pathways

E. The euphoria (good feeling) that drug use promote is caused by:
   a) the distortion of electrochemical messages between neurons
   b) stimulation of pleasure centres in the brain
   c) elimination of withdrawal symptoms

F. Drugs can be classified by their effect on the CNS. What are the three major groups called? Provide two examples of drugs that fit in each of these categories.

   **Group 1**
   Group Name .................................................................
   Example 1 .................................................................
   Example 2 .................................................................

   **Group 2**
   Group name .................................................................
   Example 1 .................................................................
   Example 2 .................................................................

   **Group 3**
   Group name
   Example 1 .................................................................
   Example 2 .................................................................

G. Why is it necessary to have a fourth group called ‘others’?
A. (b)  B. (c)  C. (c)  D. (a)

E. (b)

F. Group 1  Group Name: Depressant
   Examples: Alcohol
              Heroin

   Group 2  Group Name: Stimulant
   Examples: Tobacco
             Cocaine

   Group 3  Group Name: Hallucinogens
   Examples: LSD
             Magic Mushrooms

G. Drugs classified as ‘others’ may not fit neatly into any one category. For example marijuana can be classified as a hallucinogen and/or a depressant. Ecstasy can be classified as either an hallucinogen or stimulant because of their properties and their effect on neurotransmitters.
In this topic learners will explore methods of drug administration, the speed of drug effect and how drugs are eliminated from the body. This process is called pharmacokinetics.
5.1 Methods of drug administration

- Drug administration refers to how a drug enters the body.

- The most common methods include:
  - injecting
  - smoking
  - inhaling
  - snorting
  - swallowing

What are three of the most popular methods of administering drugs for young people you work with?

What could be some of the advantages and disadvantages that young people might perceive for each of these three methods of administration?
<table>
<thead>
<tr>
<th>Method of Administration</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swallowing</td>
<td>Easy</td>
<td>Effects can be slow</td>
</tr>
<tr>
<td>Smoking</td>
<td>Familiar, can have rapid effect</td>
<td>Can be detected easily</td>
</tr>
<tr>
<td>Snorting</td>
<td>Rapid effect</td>
<td>Can damage nostrils</td>
</tr>
</tbody>
</table>
### 5.2 Speed of drug effect

- The method of drug administration affects how quickly the drug begins to affect the young person.

- Methods of drug administration in order of fastest to slowest CNS response.

#### FASTEST

<table>
<thead>
<tr>
<th>Drug Administration</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTRAVENOUS</strong> (IV) drug use in which the drug is injected directly into a vein and enters the bloodstream to reach the brain. This is the quickest way of achieving a psycho-active drug effect. The drug effect is experienced in less than one minute.</td>
<td></td>
</tr>
<tr>
<td><strong>INHALING</strong> or breathing a volatile substance such as petrol or nitrous oxide (also known as laughing gas) is almost as fast as IV drug use, because the gaseous molecules travel easily and quickly through the cell walls from the lungs into the bloodstream.</td>
<td></td>
</tr>
<tr>
<td><strong>SNORTING</strong> or sniffing a powdered drug such as cocaine or amphetamine (speed) also results in rapid drug effect, as the drug is absorbed quickly through the mucous membranes inside the nose into the bloodstream; the effects can be felt in two minutes.</td>
<td></td>
</tr>
<tr>
<td><strong>SMOKING</strong> a burnt substance such as cannabis or tobacco also results in a rapid onset of a drug effect. However it is not as fast-acting as volatile substances (e.g. petrol), as the tiny particles in the smoke do not pass from the lungs into the bloodstream with the ease of inhalants.</td>
<td></td>
</tr>
<tr>
<td><strong>SWALLOWING</strong> a drug is a relatively slow method of taking a drug. After the drug is swallowed, it is dissolved in the stomach and then absorbed into the bloodstream from the linings of the stomach and later, the small intestine. Alcohol produces drug effects in five/ten minutes, as it is already in liquid form and passes from the stomach into the bloodstream. Drugs in tablet form can take over an hour for the onset of the drug effect.</td>
<td></td>
</tr>
<tr>
<td><strong>RECTAL</strong> use of a drug involves the insertion of the drug into the rectum, where it can dissolve and be absorbed into the bloodstream via the linings of the rectum. In medical use, drugs are sometimes administered this way to patients who cannot swallow. Recreational use of this type of administration is not widespread. Absorption is usually relatively slow.</td>
<td></td>
</tr>
</tbody>
</table>
5.3 Elimination of drugs from the body and drug half-life

Once drugs enter the body, the process of leaving the body or elimination begins. In order for drugs to leave the body, most drugs need to be metabolised.

This is a chemical process in which the liver transforms the drug into a substance called a metabolite that can be passed out of the body.

While drugs and their metabolites are mostly excreted by the kidneys into urine, drugs can also leave the body in other methods, such as breath and sweat, hence the noticeable smell of alcohol on someone who has been drinking very heavily.

Drugs can also leave the body in very small quantities via saliva and breast milk.

Drug testing often detects the metabolites of specific drugs in the urine of a person, rather than the drug itself.

- Various methods of drug administration including:
  - Injecting
  - Smoking
  - Inhaling
  - Snorting
  - Swallowing

- Intravenous drug use and inhaling the fumes of a substance are the two fastest methods of achieving psycho-active drug effect.

Distance learners have been advised to make contact with you, the facilitator, to check their learning progress.
Topic 6

Drug effects

Overview

Learners will be introduced to the major factors that influence the effect of psycho-active drugs. (Emphasis should be placed on the specific issues for young people.)

Key Issues

- Factors influencing drug effects
- How drugs affect young people differently
6.1 Factors influencing drug effects

- The effect of any drug on an individual is the result of three interacting factors:
  - the drug itself
  - the individual user
  - the environment in which drug use occurs.

- The effect that a drug has on a person is determined by many factors. The primary factors that influence drug effect are the type of drug and the quantity used.

- Other factors include:

  - **time taken to consume** the drug (10 minutes vs 10 hours)
  - **tolerance** (e.g. regular cannabis smoker vs naïve smoker)
  - **gender, size and amount of muscle**
  - **other psycho-active drugs** in the person’s bloodstream (poly-drug use)
  - **mood or attitude** of the user (e.g. angry vs calm, confident vs fearful)
  - **expectation** of the drug effect (e.g. expecting a powerful drug effect vs expecting a modest drug effect)
  - **setting or environment** in which the drug was consumed (e.g. wild party vs quiet night at home).
Unexpected drug effect

Recall a time when a drug (psycho-active or not) had an unexpected effect on you or someone you know. Briefly outline the situation, and identify which of the above factors may have contributed to the drug effect. Discuss with group.
6.2 How drugs affect young people differently

Age is one of the factors that determine how a drug will affect a user.

What are some possible reasons why drugs might affect young people differently to adults?

- Smaller body size
- Placebo effect
- Poor judgement due to immaturity.

Drugs can affect young people differently for many reasons including:

- having less experience with the drug means they are less likely to have developed a tolerance for the drug. This means that the drugs will have more effect
- the social context (e.g. excitement at party) in which young people take drugs
- the development of the brain continues until a young person reaches approximately 18 years of age and can therefore be more vulnerable to the harmful effects of drugs
- personal context (e.g. emotional)
- smaller body size
- placebo effect
- less experience in making judgements.
Natasha and Samantha go to a party

▶ Read the case study (optional small group exercise)

**Natasha** is a 16-year-old girl, slightly built and 150cm tall. She went to a party that a friend was hosting and was very excited because Jay, a boy she liked, was going to be there too. She did not have much experience in drinking alcohol and her parents never allowed her to drink alcohol at home.

Arriving at the party at 7 pm, she drank five vodka drinks in the first hour. Later in the evening, Jay turned up to the party with his arm around another girl. Natasha continued to drink three more vodka drinks and by 10 pm she became tearful and verbally abusive towards Jay and others at the party. After vomiting, she fell asleep around 11.30 pm.

One of Natasha’s friends is 16-year-old **Samantha** with an average build and 170cm tall. She had been to a few parties where alcohol was available and had been tipsy on several occasions. Her parents allow her to drink a glass of wine at dinner time. While she was looking forward to the party, she was quite relaxed about it. Samantha arrived with Natasha and drank three vodka drinks in the first hour, and then slowed down to one drink per hour. By midnight, when people started to leave the party, Samantha was tipsy, but felt good, having danced most of the night.

**Q** Using the table below specify which factors led Natasha to get very drunk and Samantha to just feel tipsy?

**A**

<table>
<thead>
<tr>
<th></th>
<th>Natasha</th>
<th>Samantha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total amount of alcohol used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average drinks per hour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other factors</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Drugs affect young people in ways that may be different from adults. This may be due to:

- smaller body size
- placebo effect
- lack of experience and judgement
- lowered tolerance
- personal context (e.g. emotional)
- social context (excitement of the party)
- the brain is still developing
- peer influence
- strong expectations.
Topic 7

Effects of specific psycho-active drugs

Overview

This topic provides learners with an opportunity to review the effects of different classifications of drugs. The placebo effect and its relevance for understanding young people’s experience of drug effects is also explored.

Key Issues

- Short-term and long-term drug effects
- The placebo effect

Resources

www.ceida.net.au
7.1 Short-term and long-term drug effects

- The effect of a drug is determined by many factors in addition to the type and amount of the drug taken.

- However, each psycho-active drug does have specific and often predictable effects on the user's behaviour, mood and thoughts and often bodily functioning.

**Short-term and long-term drug effects**

- Divide learners into three smaller groups (Stimulants, Depressants and Hallucinogens). Each group is to list short-term effects (both harmless and harmful) and harmful long-term effects for the drug in their allocated category. They then complete Drugs Effects table in the Learner’s Workbook and report back to whole group.

**Group 1: CNS Stimulants**
- nicotine
- amphetamines
- ecstasy* (can also be considered as ‘other’)
- cocaine
- caffeine

**Group 2: CNS Depressants**
- cannabis* (can also be considered as ‘other’)
- alcohol
- heroin
- petrol (a volatile substance)
- benzodiazepines
- Gamma - Hydroxy - Butyrate (GHB, also known as Fantasy)

**Group 3: Hallucinogens**
- LSD
- magic mushrooms
- kava

* Both ecstasy and cannabis can produce hallucinations, especially in cases of heavy use, or inexperienced users. However they are usually considered primarily as CNS stimulants and depressants respectively, as these effects are almost always present.
CASE STUDY

**SANDY**

*Sandy* is a 14-year-old female who attends your service. She has been drinking and smoking cannabis just prior to her arrival.

1. **What are the likely effects of this drug use on Sandy’s behaviour?**

2. **How would you determine whether Sandy had been drinking and smoking cannabis?**

3. **Which other drugs could possibly lead to similar effects and symptoms?**
Think of a young person you have worked with whom you believed was affected by drugs.

With reference to the table on Drug Effects Table state:

1) What indicators you noticed that led you to believe they were affected by the drug/s?

2) Which drugs could possibly produce similar types of effects?

► You may have noticed that some drugs can lead to similar effects.
7.2 The placebo effect

- The placebo effect is the well-known phenomenon in which a person takes a substance which has no pharmacological or psycho-active properties (usually a sugar pill) yet claims to experience a drug effect. This effect is based on the expectations of the person.

- Doctors have sometimes used a placebo drug with some patients claiming excellent results from their placebo medication, or alternatively intolerable side effects! (Of course the patients did not realise the medication was merely a sugar pill.)

- The placebo effect can have a powerful influence when people use psycho-active drugs.

Q Why might young people be particularly influenced by the placebo effect when they use psycho-active drugs?

A Many young people are inexperienced users and therefore their expectations can influence the effect of psycho-active drugs.

- The effect of a drug is determined by many factors (not just type and amount of drug)
- Drugs can have short-term and long-term effects
- The placebo effect can have a powerful influence when young people use psycho-active drugs.

Distance learners have been advised to make contact with you, the facilitator, to check their learning progress.
Topic 8

Key issues in pharmacology

Overview

In this topic learners will explore the major impacts of drug use on a young person.

Key Issues

- Intoxication
- Tolerance
- Physical and psychological dependence
- Drug interactions

Resources

www.ceida.net.au
A number of key terms are used in pharmacology to describe and explain the range of effects that drugs can have on the body. Intoxication is the first of those terms.

**How would you define the term ‘intoxication’?**

**Intoxication** is the term used to describe any change in perception, mood, thinking processes and motor skills that results from the effect of a drug(s) on our central nervous system.

Workers are in a better position to assess the impact of drug use for the individual if they understand these processes.

Often intoxication is thought of in extreme terms, when someone is ‘drunk’ or ‘off their head’ with drugs. In fact, some degree of intoxication occurs with any single dose of alcohol or other drugs. Risky activities of all sorts increase, even with low levels of intoxication.

Whatever problems and risks are associated with being intoxicated, there is also much pleasure to be gained. This is an important principle to remember in our work with young people, as it will help us to understand their motivation for drug use and intoxication.
What are some of the changes in behavior you might notice in a young person who is intoxicated with cannabis?

- Placid
- Talkative
- Hungry

What are some of the changes in behavior you might notice in a young person who is intoxicated with alcohol?

- Loud
- Boisterous
- Sleepy
What is your understanding of the term ‘tolerance’ in relation to AOD issues?

Tolerance occurs when a regular user of a drug gradually becomes less responsive to the drug. This can often lead to the person taking larger amounts of the drug to achieve the same effect.

Tolerance develops via two main mechanisms:

1. The liver increases the level of enzymes to metabolise the drug, so it becomes more effective at eliminating the drug.

2. The brain’s receptors respond to the regular presence of the drug by becoming less sensitive to the drug’s effects.

A new user of a drug has no tolerance to it, and will be affected more than an experienced user. For example while a young person who has never consumed alcohol may become quite intoxicated from having one standard drink, another person of the same age and gender may require three or more drinks to experience the same effect.
Is the concept of tolerance relevant to young people. If so, how?

Many young people will have little tolerance to drugs and alcohol. However, young people will become tolerant to most drugs with regular use. Tolerance can develop rapidly with regular use of some drugs including amphetamines, ecstasy, heroin and benzodiazepines. Other drugs such as nicotine do not appear to demonstrate tolerance, except for the initial effects for naïve users such as nausea and headache.

JOHN

John is a 17-year-old young man who was arrested for theft and was sent to a juvenile correctional facility. At the time of his arrest, he was using two to three $50 shots of heroin per day, and his tolerance to heroin was quite high.

John spent three months in the juvenile facility, during which time he did not use heroin. He ingested rohypnol tablets on three occasions during his first week there, but since then, has not used any other drugs.

John was released from the juvenile facility, and went to the refuge accommodation that a social worker had arranged for him. He wasn’t happy there and went out to find some of the friends he used to hang out with prior to his arrest.

What might happen to John if he used a $50 shot of heroin again that evening? Why?
What factors might make a difference as to whether John experienced an overdose or not? (Hint: See topic on Drug Effects).
8.3 Physical and psychological dependence

- Dependence on a drug can be physical, psychological or both. Many daily drug users demonstrate signs of both.

- The physical and psychological aspects of drug dependence are closely related and can be difficult to separate (often workers in the AOD field talk only of dependence). However, there are some differences.

**Task**

*What do you understand by the term ‘physical dependence’?*

**A**

- **Physical dependence** to a drug can be demonstrated by the presence of withdrawal symptoms when the drug is not taken.

- That is, the person depends on the drug to avoid withdrawal symptoms and to function normally. This is also known as ‘addiction’, a term not so widely used in recent times. Physical dependence on a drug often follows heavy daily use over several weeks or longer.
GEMMA

- Gemma uses about $100 worth of heroin per day, in two to four injections, four to twelve hours apart. When she goes for longer than twelve hours without the drug, she feels sick in the stomach, anxious, and has very strong cravings for the drug.

Consider a young person physically dependent on alcohol, sedatives or cannabis. What sort of physical symptoms might they demonstrate if they go without that substance for a significant period of time?

What do you understand by the term ‘psychological dependence’?

Psychological dependence occurs when a drug becomes central to a person’s thoughts, emotions and activities. It can be demonstrated by a strong urge to use the drug, despite being aware of its harmful effects.

While not all drugs are considered capable of leading to physical dependence, it is possible for any drug to lead to psychological dependence.

THOMAS

- Thomas sniffs petrol with his friends. He often goes without sniffing for a few days, with no withdrawal symptoms. However, when he has not sniffed for a week or more, he can feel a strong urge to sniff, despite knowing the dangers of petrol sniffing. The urges to sniff can be very strong if he feels depressed or bored.
Psychological dependence

Q
Describe another example of a young person psychologically dependent on amphetamines, ecstasy or alcohol.

Q
From your experience, what sort of physical symptoms might a physically dependent person demonstrate if they go without that substance for a significant period of time?

Q
What sort of symptoms might a psychologically dependent person demonstrate if they go without that substance for a significant period of time?
8.4 Drug interactions

- Drug interaction occurs when one drug acts on the body along with another drug. This interaction can change the effect of one or both drugs on the body.

- The simultaneous use of two or more drugs is often referred to as poly-drug use.

**Q**

What is the relevance of knowing about drug interactions for workers?

**A**

- When two drugs of a similar type interact, the overall effect of one or both of the drugs can increase. Mixing drugs can be a very risky activity.

- Some drug interactions can be very dangerous, especially when any combination of the following drugs are taken together:
  - alcohol
  - heroin
  - benzodiazepines

- It is interesting to note that many heroin users who have died of drug overdoses had also consumed alcohol and/or prescription drugs in addition to heroin.

- Drugs can act together so that the overall effect is far greater than the two added together which is called potentiation.
Some of the key issues in pharmacology include:

- intoxication
- tolerance
- dependence (both physical and psychological)
- drug interaction
- potentiation.
This topic provides an opportunity for the learner to understand the nature of overdose and develop strategies to respond appropriately. Heroin overdose is considered as a special case.
9.1 Overdose and identifying those who are at high risk

List all the words that come to mind when you think of the term ‘overdose’.

The term ‘overdose’ is often associated with the fatal or life-threatening effect of using too much of a drug. However, overdose refers to any unpleasant and unintended effect of a drug.

The amount needed to reach an overdose depends on the tolerance of the person as well as the amount and type of drug. For example, while a 13-year-old can overdose on drawing back her first puff of a cigarette (causing her to cough and feel unwell), it might require two bottles of bourbon consumed over 24 hours for a heavy drinker to overdose (vomiting or falling unconscious). An overdose can thus be viewed as short-term unpleasant or harmful effects.

Overdoses are more likely to occur in some environments than others but there is always a possibility that a young person may have a serious drug overdose while they are in your care. All workers with young people should be prepared to deal with such an emergency as this preparation could help to save someone’s life.
What should you do if you suspect an overdose has occurred?

Seek medical assistance, then monitor the following indicators:

- decreasing levels of consciousness
- breathing difficulties
- abnormal pulse (irregular or below 60 bpm, or above 120 bpm)
- convulsions
- increasing agitation
- changing mental state – hallucinations, panic or deep depression.

Some people are at higher risk of experiencing overdose than others. Some risk factors related to overdose include:

- heroin use
- poly-drug use (mixing drugs)
- past overdoses
- recent release from a correctional centre
- age
- using drugs alone.

Being aware of these risk factors can help identify those people who may be at highest risk so that risk management strategies might be implemented. While there may be a risk of overdose with the presence of one or more of these factors it cannot be assumed that everyone who is a poly-drug user, for example, will necessarily experience an overdose.
What factors might affect the seriousness of an overdose?

- type of drug
- amount used
- how administered
- poly-drug use
- time consumed
- tolerance level
- mood
- physical/psychological status
- gender
- age
- weight
- expectations.
9.2 Management of overdose

Many media reports focus on fatal overdoses. However, it is important to note that not all overdoses are fatal or life-threatening. However, you should always seek medical advice if you suspect an overdose has occurred. You should also know your agency’s policy regarding the management of overdose and/or critical situations.

Overdose types

Overdose can be divided into two main types.

Potentially life-threatening overdose – suggested response

When a young person’s life seems in danger as a result of an overdose (e.g., when the person has collapsed or stopped breathing), the following steps are recommended:

- call an ambulance
- ensure the safety of yourself and others in your care or supervision
- administer first aid
- take young person to the emergency department of the nearest Medical Centre
- thoroughly document the incident and your involvement.
Non life-threatening – suggested response

► If you are experienced in dealing with overdose management and feel confident that the overdose is not life-threatening, the following strategies are recommended:

- make contact with a health professional and seek a second opinion

- observe young person – don’t let them go home until they are OK

- if young person goes home, try to have a someone stay with them

- thoroughly document the incident and your involvement.

► Remember that while you are working with young people you will always be subject to legal obligations that relate to young people and their drug use while they are in your care or supervision.
9.3 Heroin overdose – a special case

The vast majority of illegal drug overdoses involve the use of heroin. This is because:

- Heroin is usually injected which results in a quick and intense effect.

- Large enough amounts of heroin will not only cause the user to lose consciousness (pass out), but will act on the brain stem to stop the person from breathing.

- The dangerous effects of heroin can be exaggerated by the taking of other CNS depressant drugs, such as alcohol or benzodiazepines in conjunction with heroin.

- One of the common interventions used for heroin and other opiate overdose is the intravenous use of Naloxone.

- **Naloxone** (Narcan) is an opiate antagonist, which reverses the effect of heroin and other opiates within seconds. The person will wake up immediately and often experience withdrawal symptoms. Naloxone works by dislodging the opiates from the receptor sites in the brain. It has a short half-life, and wears off quickly. This means that if a person who has overdosed and given naloxone has another shot of heroin, the first shot of heroin can ‘kick in’ again, leading to another overdose.
Planning for the management of overdose

Does your organisation have any policy or procedure documents relating to how you might manage a young person’s overdose or a policy relating to critical incidents? (If so, obtain a copy and use it to assist you in completing the following questions. If not, complete the questions, and then discuss with your manager or supervisor).

Are there any work situations that you can think of where you might come across a young person who has overdosed (either life-threatening or non-life threatening)? (e.g. streetwork, residential care setting, courthouse etc.)

Are there likely to be other workers or young people present at that work situation? If so, what occupational groups might be present? (e.g. police at a courthouse or young people together in a streetwork setting?)
What would be your role in managing such a situation?

If there are likely to be other workers there, what would their role be in managing such a situation?

What sort of issues might arise if there are other young people present and how might you assist in managing them?
Review the general steps for managing overdose outlined earlier in this module. Would they assist you in managing that situation? If not, what else might you be required to do?

Are your colleagues (both in your own agency and other relevant agencies) aware of how to manage overdose?

What are some ways that you could encourage other workers to consider and plan for managing an overdose situation?

Distance learners have been advised to make contact with you, the facilitator, to check their learning progress.
Topic 10

Management of withdrawal

Key Issues

- Withdrawal symptoms and the rebound effect
- Assisting young people withdrawing from drugs

Overview

In this topic learners are introduced to the major issues and responses to young people experiencing withdrawal.
10.1 Withdrawal symptoms and the rebound effect

Withdrawal symptoms

- Withdrawal from any drug is almost always an unpleasant experience. The person’s body has developed a physical dependence and now needs the drug to function normally. However, many young people can successfully withdraw from alcohol or other drugs without formalised treatment such as hospitalisation or medication.

- **Withdrawal symptoms** can occur when a person who has used a drug over a prolonged period of time reduces or stops using altogether.

- Symptoms, severity and duration of withdrawal from a drug are difficult to predict.

- However there are factors – apart from the amount and duration of the drug used – that can affect the severity and duration of withdrawal.

- Even a substance as common as coffee can produce withdrawal symptoms in certain circumstances. If you are usually a heavy coffee drinker and then go away camping for a week (without taking coffee with you!) you might well experience headaches and other unpleasant symptoms which are the result of withdrawal from caffeine.

- Withdrawal symptoms for most drugs last for less than two weeks.

- Some drugs are likely to produce more severe withdrawal symptoms.
Withdrawal

Heroin

Branco used $100 heroin per day for four years and experienced quite mild withdrawal symptoms when he went through detoxification. He did not require medication or an in-patient stay. In comparison, Robbie had very severe withdrawal symptoms after ceasing a $50-a-day heroin habit which had continued over a six-month period.

Cannabis

Tara and Rebecca had both been smoking five to ten cones of hydro cannabis (a more potent form than leaf) daily for about a year. As a New Year’s resolution, the girls agreed to give up cannabis for at least a month. While Tara coped relatively well, and did not experience any serious withdrawal symptoms, Rebecca had ten days of ‘hell’ experiencing insomnia, depression, irritability, anxiety and sweating.

What are some reasons that might explain the differences in the withdrawal symptoms experienced by Branco and Robbie and Tara and Rebecca?

Some possible reasons for the differences in withdrawal might include:

- expectation of what withdrawal will be like. If someone expects to have a very severe withdrawal, it is more likely they will have one.
- general physical health – A person who is less healthy is more likely to experience serious withdrawal symptoms.
- general psychological health – Someone prone to anxiety or depression is more likely to experience serious withdrawal symptoms.
- social supports that the person is able to rely upon.
Specific drug withdrawal symptoms

Withdrawal symptoms for most drugs last for less than two weeks and there are general guidelines for the effects of withdrawal. Complete the table below using the resources in Topic 7.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Health risk of withdrawal</th>
<th>Usual withdrawal symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>high</td>
<td></td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>high</td>
<td></td>
</tr>
<tr>
<td>Heroin</td>
<td>moderate</td>
<td></td>
</tr>
<tr>
<td>Petrol</td>
<td>moderate</td>
<td></td>
</tr>
<tr>
<td>Cannabis</td>
<td>low</td>
<td></td>
</tr>
<tr>
<td>Amphetamines</td>
<td>low</td>
<td></td>
</tr>
<tr>
<td>Ecstasy</td>
<td>low</td>
<td></td>
</tr>
<tr>
<td>Nicotine</td>
<td>low</td>
<td></td>
</tr>
</tbody>
</table>
Rebound effect

- Rebound effect is an interesting phenomenon in which the withdrawal effects are often opposite to the effect of the drug that had been used.

- For example, people in heroin withdrawal often feel restless, depressed, sensitive to pain, and have diarrhoea. All of these effects are exactly opposite to the effects of heroin intoxication.

*Using drug information sheets (e.g. ADF or CEIDA resources), complete the table below.*

<table>
<thead>
<tr>
<th>Drug</th>
<th>Effects of intoxication</th>
<th>Rebound effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin</td>
<td>Euphoria (feeling very happy)</td>
<td>Depressed</td>
</tr>
<tr>
<td></td>
<td>Relaxed</td>
<td>Restless</td>
</tr>
<tr>
<td></td>
<td>No sensation of pain</td>
<td>Sensitive to pain</td>
</tr>
<tr>
<td></td>
<td>Constipation</td>
<td>Diarrhoea</td>
</tr>
<tr>
<td></td>
<td>Pupils constricted ('pinned')</td>
<td>Pupils dilated (large)</td>
</tr>
<tr>
<td>Petrol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphetamines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(speed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10.2 Assisting young people withdrawing from drugs

Managing withdrawal symptoms

► As with the management of overdose, many frontline workers will not be required to assist someone withdrawing from drugs. For example, youth workers in a residential facility may come across this issue and be required to provide care for a young person, but for other frontline workers this may not be the case.

► Even so, in your work you may come across someone who is withdrawing from drugs and so you should be able to both recognise possible withdrawal symptoms and have some strategies to assist that person that are appropriate to your work role. You may need to work with an AOD worker to help the young person through this experience.

► While withdrawal from most drugs can often be managed without the need for medication, it is sometimes required to reduce the most uncomfortable symptoms and assist people to sleep.

► Alcohol can produce life threatening withdrawal symptoms known as delirium tremens (DTs), which can require urgent hospital treatment, including medication.

► Medical professionals should provide details of any medication that may be required for a young person undergoing detoxification. If unclear, you should always consult a medical professional before dispensing medications to a young person.

► Check your organisational policies and procedures regarding what is expected of you in regard to your job role, managing withdrawal and the dispensing of medication to young people.
Medications used to relieve withdrawal symptoms

The following table outlines some of the medications that may be prescribed by a medical practitioner for the management of withdrawal symptoms.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Medications often used to relieve withdrawal symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Valium (a sedative) haloperidol (an antipsychotic) for DTs</td>
</tr>
<tr>
<td>Heroin</td>
<td>Clonadine (to reduce blood pressure) Quinine (to reduce muscle cramps) Maxalon (to reduce nausea) Methadone (used when person is going onto Methadone maintenance treatment)</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>Antidepressants (used to treat severe depression accompanying withdrawal) e.g. Zyban</td>
</tr>
<tr>
<td>Nicotine</td>
<td>Nicotine (replacement patches and gum)</td>
</tr>
<tr>
<td>Benzodiazapines</td>
<td>Reducing doses of a long acting benzodiazepine such as Valium</td>
</tr>
<tr>
<td>Cannabis</td>
<td>Sedatives and antidepressants occasionally used</td>
</tr>
</tbody>
</table>
Does your organisation have policy/procedure/protocol in relation to administration of medication to young people?

Given some of the withdrawal symptoms we have identified for each drug, what kinds of medication might be used to relieve withdrawal symptoms for alcohol and heroin etc?

Withdrawal:

- is the set of symptoms a daily user of a drug experiences when they stop taking that drug
- symptoms can be difficult to predict
- effects are often opposite to the effect of the drug that has been used this is known as the rebound effect.
Topic 11
Reducing drug-related harm

Overview

In this topic learners will explore the potential of harm drug use can cause as well as being introduced to strategies to reduce and minimise these effects.

Key Issues

- Understanding drug-related harm
- Thorley’s model of drug-related harm
- The Four L’s model
- Harm minimisation
- Specific harms related to drugs and drug use
11.1 Understanding drug-related harm

- Now that we have explored some issues related to pharmacology, we will start to focus on AOD-related harm.

- AOD-related harm may be a direct result of the effect of the drug on the body or it may be a result of broader factors related to drug use, such as the way the drug is administered or accidents that occur while under the influence of the drug.

- The Public Health model can be used to understand drug-related harm. According to this model three areas determine the drug experience: the drug, the individual and the environment. Harm resulting from drug use can relate to one or more of these three areas. This can be a helpful way of identifying the range of harms that young people can experience due to their drug use. Similarly each of these areas can be the focus of strategies to reduce harm related to drug use. This approach is also referred to as the Interaction Model.
Identifying drug-related harm

Q  What are some of the individual factors that may cause drug-related harm?

A  Possible answers include:

- **The drug and type of drug used** – Harms related to injecting drugs, overdose
- **The individual and individual factor** – Aggressive behaviour, depression, money problems, dependency, tolerance
- **The environment (or context) in which drugs are used** – Legal problems, friends using, problems with family, homelessness.
Thorley’s model of problematic drug use also assists our understanding of drug-related harm. Thorley’s model focuses on the problems related to different patterns of drug use. This model identifies the possible problems associated with dependence, regular use and intoxication and the overlap between these factors.

Thorley’s model of harm relating to intoxication, regular use and dependency

- **Dependence**
  - Problems associated with dependence:
    - Discomfort when remaining from use
    - Inability to rest
    - Phobias
    - Isolation
    - Withdrawal
    - Anxiety
    - Social problems
    - Homelessness
    - Loss of control

- **Regular Use**
  - Continued use over a longer period of time can result in the following:
    - Medical and health problems
    - Child neglect
    - Withdrawal
    - Family problems
    - Relationship problems
    - Financial problems

- **Intoxication**
  - The following problems can arise from a single occasion of use:
    - Accidents
    - Aggression/Violence
    - Marital disputes
    - Suicides
    - Drink driving
    - Drowning
    - Legal Problems
Whilst there may be some overlap between the type of use and associated harms, there are also many separate issues related to the different types of use.

It is important to remember that the majority of young people will not experience problems related to dependent use. Most of their difficulties will arise from intoxication (using at hazardous levels) or regular use (a couple of drinks each night with friends).

However, a smaller proportion of long-term excessive users will experience some dependence-related problems as they develop a tolerance to the drug and a need to use for both psychological and physical reasons.
Another useful model for understanding the nature and extent of drug-related difficulties considers the actual nature of the difficulties experienced. Thorley’s model looks at patterns of use and related problems whereas the Four L’s model, (adapted by Roizen) considers the impact of drug use on four major spheres on a young person’s life. These are:

- **Liver:** Anything to do with a person’s health – either physical, psychological or emotional health problems
- **Lover:** Problems associated with a person’s relationships, family, friends, children, lovers etc.
- **Lifestyle/Livelihood:** Problems which relate accommodation, work, finances, education, recreation etc.
- **Legal:** Any problems associated with the law – either criminal or civil proceedings.

Like Thorley’s model, the Four L’s model is extremely useful for frontline workers in that it assists you to work out the types of problems or difficulties being experienced by a young person. This model can be applied during an initial or more comprehensive assessment of a young person as it helps you to identify the most urgent areas for intervention. If a young person is experiencing difficulties in all four spheres of life it may indicate that they are dependent upon drugs. Once drug use affects every aspect of daily life it is a major issue of concern and will require further exploration with the young person.
11.4 Harm minimisation

- Harm minimisation aims to reduce the harmful health, social and economic consequences of alcohol and other drugs on individuals and society.

- Implementing harm minimisation strategies is covered in more detail in the modules 'Working with Young People on AOD Issues' and 'Working with Families, Peers and Communities'.

- Harm minimisation is based on the Public Health model. Goals and strategies for harm minimisation are wide ranging. The approach is broad enough so that the goals of safer drug use, controlled use and abstinence can all be accommodated.

- Harm minimisation strategies can be categorised into three areas:

  - **Harm reduction** – Strategies that aim to reduce the harm from drugs for both individuals and communities. These strategies do not necessarily aim to stop drug use. Examples include needle syringe services, methadone maintenance, brief interventions, peer education and education for safer drug use.

  - **Supply reduction** – Strategies aimed at reducing the production and supply of illicit drugs. Examples include legislation and law enforcement.

  - **Demand reduction** – Strategies aimed at preventing the uptake of harmful drug use. Examples include community development projects and media campaigns.

- In this module as we are focusing on the drug itself we will emphasis harm reduction.
## 11.5 Specific harms related to drugs and drug use

- The table below will help you identify possible harms related to particular drugs and harm reduction strategies that can be used to reduce these harms. One example has been provided.

- In groups, fill in the rest of the table focusing on drugs that young people in your area commonly use.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Drug-related harm</th>
<th>Harm reduction strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecstasy</td>
<td>Dehydration</td>
<td>Drinking water</td>
</tr>
</tbody>
</table>

- Most young people do not inject drugs. However, there are harms related to injecting drug use that it is important to be familiar with. These include:

  - **Fatal overdose** due to respiratory depression (a large dose of CNS depressants can cause the person’s brain to ‘forget’ to breathe)
  - **Blood-borne viruses** (e.g. HIV and Hepatitis C) spread by sharing needles or other injecting equipment with an infected person
  - **Other medical problems** (e.g. skin sores, bruising, blood clots, blood infections) caused by injecting practices, such as poor hygiene and overusing the same injecting site.
Strategies to reduce harm

- Some strategies that reduce the harm related to injecting drug use include:
  - Following infection control procedures
  - Never re-using syringes or needles
  - Using sterile ‘fit kits’ provided by health services and selected chemists. (The fit kit provides injecting drug users with sterilised needles and a disposal receptacle to reduce risk of stab wounds to others. The kit is available through hospitals at no cost.)
  - Disposing of needles in sterile bins.

MATT

Matt is a 16-year-old male in Year 11 at school. His parents have recently called the school counsellor, concerned because he is drinking large amounts of alcohol on weekends with his friends. More recently he has begun arriving home early on Sunday morning (after a Saturday night out) extremely intoxicated, to the point where he vomits and has difficulty speaking or even walking.

A few weeks ago, Matt arrived home later than usual, minus his eyebrows because they were shaved off by his mates after he ‘passed out’ after drinking too much. Although Matt’s parents accept ‘heavy drinking’ as a relatively normal part of growing up, they are concerned that Matt’s drinking is happening more frequently. They also suspect that he may be using other substances as well. Whenever they have tried to discuss their concerns with Matt, or impose limits on his going out, he becomes extremely agitated and tells his parents that they don’t understand and that they are being over protective. Matt believes that he is just doing what his mates do and that there is nothing wrong with his behaviour.

His teachers have noticed no recent decline in his grades. Although Matt has never been a top student, he has consistently obtained B/C grades and has always planned on going to university to study business. Indeed, as long as his current grades are maintained, he may achieve this goal (although in order to do so it is important that his grades do not fall).
What sort of harm might Matt be experiencing from the effects of alcohol?

If the school counsellor adopted a harm reduction approach, what might they recommend to Matt and his parents?

What activities could cause harm to young people that you work with?

Reflect on any harm reduction strategies you currently use in your work with young people. Do you think these strategies work well for these young people? Consider the reasons for your response.

What research harm reduction strategies or services do other agencies in your area use in their work with young people?
At this point you should reflect with the learners on their learning experience and together assess whether the following learning outcomes have been met:

- Classify common psycho-active drugs according to their effect on the central nervous system (CNS)
- Outline the major short and long-term effects of psycho-active drugs
- Discuss key issues in pharmacology such as tolerance, withdrawal, overdose, dependence and interaction
- Describe the harmful effects on young people resulting from AOD use.
12.2 Summary of contents

In this module learners have explored how mind-altering drugs of different types act on young people. Some key issues in pharmacology have been covered that may help the way learners respond more appropriately to the needs of young people with alcohol and other drug problems.
12.3 Self-reflection activity

- It is helpful for learners to take some time to reflect on what they have gained from this module. Ask learners to complete the following questions and allow time for feedback and discussion.

Q What aspect of this module do you feel is most relevant and useful in your work practice?

Q What kinds of issues has this module raised for you in your work?

Q Have you identified any further learning needs as a result of completing this module?

Q If so, what are some ways you can achieve these learning needs?
Overview

- The suggested assessment events for this module have been mapped to the unit of competence CHCYTH1A and correspond with the learning outcomes listed at the beginning of this module, How Drugs Work. Over the course of this program learners could be required to complete one of the following assessments:

Event 1: Case study

- Develop a case study from your workplace based on a young person who has had problems with drugs and/or alcohol. Write a brief case history outlining:
  - Drug/s used
  - Current amount/s used
  - Length of use

- Make sure you exclude any information that could identify the client.

- Use your case study to answer the following questions. It is expected that each answer will be approximately 100 words.

  1. Name the drugs used and the effects of these on the CNS.
  2. Do you think the person is dependent on any of the drug/s? Give your reasons.
  3. If the person was dependent and went into withdrawal what would s/he be likely to experience?
  4. What could be done to manage the withdrawal?
  5. Outline any short-term problems that the person could experience due to their drug use.
6. Outline any long-term problems that the person could experience due to their drug use.

7. Outline any problems due to poly-drug use.

8. Is tolerance a factor in this person’s drug use? Explain your answer.

If you do not have a client you can use the following case study to answer the above questions. You can also further develop the case study below to provide background details to assist you in answering the above questions.

MADELAINE

Madelaine is a 16-year-old girl who uses $100 heroin per day. Her use has been increasing since she first started using six months ago. Madelaine is also an occasional user of benzodiazepines and alcohol. Sometimes she uses both these in combination with heroin, sometime alone.

Assessment criteria

The following key areas are to assist you and the learners in providing a guide for marking the assessment for this particular unit:

- Demonstrates ability to provide relevant case study that incorporates the necessary characteristics of an individuals drug use, how much and length of drug use

- Ability to demonstrate sound understanding of the pharmacology and problems associated with dependency, intoxication and/or regular drug use in young people

- Demonstrates ability to answer each question in a clear, concise manner and provides additional research and/or information to support their report.
References


MIMS Australia, published by Medimdia, is monthly and annual guide used by health professionals to find information on pharmaceuticals. While these guides are not generally available to the general public, they can often be sourced from hospital libraries and medical practitioners.


Websites

National Institute on Drug Abuse. Slide Teaching Packet 1, For Health Practitioners, Teachers and Neuroscientists. The Brain and the Actions of Cocaine, Opiates, and Marijuana
www.clubdrugs.org

An excellent website, with details descriptions of major disorders and links to many high quality mental health and AOD related sites
www.mentalhealth.com

Devoted to the psychopharmacology with a very wide range of links: academic, lay and weird
www.biopsychiatry.com/refs
www.aidscouncil.org.au

www.hepatitisc.org.au

www.ceida.net.au

www.mims.com.au

www.psychnet-uk.com/addictions_and_drugs/psychopharmacology1.htm

http://165.112.78.61/Teaching/Teaching.html

Drug Info Clearinghouse – The drug prevention network
http://druginfo.adf.org.au

The Australian Drug Foundation (ADF):

The Centre for Youth Drug Studies is within the ADF:

The Alcohol and Other Drug Council of Australia (ADCA):
www.adca.org.au/

The National Drug and Alcohol Research Centre (NDARC):
www.med.unsw.edu.au/ndarc/

The Centre for Education and Information on Drugs and Alcohol (CEIDA):
www.ceida.net.au/

The Network of Alcohol and Drug Agencies (NADA):
www.nada.org.au

Drug Arm (This site is particularly focused on youth issues):
www.drugarm.org.au

The Australian Drug Information Network:
www.adin.com.au
<table>
<thead>
<tr>
<th>Key terms</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstinence</td>
<td>Refraining from drug use.</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>Behavioural stimulant.</td>
</tr>
<tr>
<td>Antabuse</td>
<td>Trade name for disulfiram, a drug that interferes with the breakdown of alcohol, resulting in the accumulation of acetaldehyde.</td>
</tr>
<tr>
<td>Antagonist</td>
<td>Drug that attaches to a receptor and blocks the action of either an endogenous transmitter or an agonist drug.</td>
</tr>
<tr>
<td>Antidepressant</td>
<td>Drug that is useful in treating mental depression in depressed patients but does not produce stimulant effects in normal persons.</td>
</tr>
<tr>
<td>AOD</td>
<td>Alcohol and/or other drugs</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>Class of chemically related sedative-hypnotic compounds that share a characteristic six-membered ring structure.</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Class of chemically related sedative-hypnotic agents of which chlordiazepoxide (Librium) and diazepam (Valium) are examples.</td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>Affective disorder characterised by alternating bouts of mania and depression. Previously referred to as manic-depressive illness.</td>
</tr>
<tr>
<td>Brand name</td>
<td>Unique name licensed to one manufacturer of a drug. Contrasts with generic name, the name under which any manufacturer may sell a drug.</td>
</tr>
<tr>
<td>Caffeine</td>
<td>Behavioural and general cellular stimulant found in coffee, tea, cola drinks and chocolate.</td>
</tr>
<tr>
<td>Cannabis</td>
<td>Plant that contains marijuana.</td>
</tr>
<tr>
<td>Central nervous system (CNS)</td>
<td>Brain and spinal cord.</td>
</tr>
<tr>
<td>Cirrhosis</td>
<td>Serious, usually irreversible liver disease. Usually associated with chronic excessive alcohol consumption.</td>
</tr>
<tr>
<td>Key terms (continued)</td>
<td></td>
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</tr>
<tr>
<td><strong>Cocaine</strong></td>
<td>Behavioural stimulant.</td>
</tr>
<tr>
<td><strong>Codeine</strong></td>
<td>Sedative and pain-relieving agent found in opium. Structurally related to morphine but less potent.</td>
</tr>
<tr>
<td><strong>Crack</strong></td>
<td>Street name for a smokable form of potent, concentrated cocaine.</td>
</tr>
<tr>
<td><strong>Delirium tremens</strong></td>
<td>Syndrome of tremulousness with hallucinations, (DT’s, ‘rum fits’) psychomotor agitation, confusion and disorientation, sleep disorders and other associated discomforts, lasting several days after alcohol withdrawal.</td>
</tr>
<tr>
<td><strong>Depressants</strong></td>
<td>Drugs that slow down the brain and central nervous system.</td>
</tr>
<tr>
<td><strong>Detoxification</strong></td>
<td>Process of allowing time for the body to metabolise and/or excrete accumulations of a drug. Usually a first step in drug abuse evaluation and treatment.</td>
</tr>
<tr>
<td><strong>Drug</strong></td>
<td>Within the context of this course, a drug is a substance that produces a psycho-active effect (i.e. changes in mood or behaviour due to alterations in brain function).</td>
</tr>
<tr>
<td><strong>Drug absorption</strong></td>
<td>Mechanism by which a drug reaches the bloodstream from the skin, lungs, stomach, intestinal tract, or muscle.</td>
</tr>
<tr>
<td><strong>Drug dependence</strong></td>
<td>Occurs when a drug becomes central to a person’s thoughts, emotions and activities. A dependent person finds it difficult to stop using the drug or even to cut down on the amount used. Dependence has physiological and psychological elements.</td>
</tr>
<tr>
<td><strong>Drug half-life</strong></td>
<td>The time it takes for 50 percent of a drug to be metabolised into an inactive substance and/or eliminated from a person’s body.</td>
</tr>
<tr>
<td><strong>Drug interaction</strong></td>
<td>Modification of the action of one drug by the concurrent or prior administration of another drug.</td>
</tr>
<tr>
<td><strong>Drug misuse</strong></td>
<td>Use of any drug (legal or illegal) for a medical or recreational purpose when other alternatives are available, practical, or warranted or when drug use endangers either the user or others.</td>
</tr>
</tbody>
</table>
### Key terms (continued)

<table>
<thead>
<tr>
<th><strong>Generic name</strong></th>
<th><strong>Name under which any manufacturer may sell a drug.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hallucinogens</strong></td>
<td>Drugs that act on the brain to distort perception, (i.e. sight, taste, touch, sound or smell).</td>
</tr>
<tr>
<td><strong>Harm minimisation</strong></td>
<td>Harm minimisation is the primary principle underpinning the National Drug Strategy and refers to policies and programs aimed at reducing drug-related harm. It encompasses a wide range of approaches including abstinence-oriented strategies. Both legal and illegal drugs are the focus of Australia’s harm minimisation strategy. Harm minimisation includes preventing anticipated harm and reducing actual harm.</td>
</tr>
<tr>
<td><strong>Harm reduction</strong></td>
<td>Harm reduction aims to reduce the impact of drug-related harm on individuals and communities. It includes those strategies designed to reduce the harm associated with drug use without necessarily reducing or stopping use.</td>
</tr>
<tr>
<td><strong>Hashish</strong></td>
<td>Extract of the hemp plant (<em>Cannabis sativa</em>) that has a higher concentration of THC than does marijuana.</td>
</tr>
<tr>
<td><strong>Heroin</strong></td>
<td>Semisynthetic opiate produced by a chemical modification of morphine.</td>
</tr>
<tr>
<td><strong>Intoxication</strong></td>
<td>Any change in our perception, mood, thinking processes and motor skills as a result of the impact of a drug(s) on our central nervous system.</td>
</tr>
<tr>
<td><strong>Major tranquillizer</strong></td>
<td>Drug used in the treatment of psychotic states (antipsychotic tranquillizer).</td>
</tr>
<tr>
<td><strong>Marijuana</strong></td>
<td>Mixture of the crushed leaves, flowers, and small branches of both the male and female hemp plant (<em>Cannabis sativa</em>).</td>
</tr>
<tr>
<td><strong>Morphine</strong></td>
<td>Major sedative and pain-relieving drug found in opium, comprising approximately 10 percent of the crude opium exudate.</td>
</tr>
<tr>
<td><strong>Neuron</strong></td>
<td>The basic nerve cell of the nervous system which transmits nerve impulses to and from the body and the brain.</td>
</tr>
<tr>
<td><strong>Neurotransmitter</strong></td>
<td>Endogenous chemical released by one neuron that alters the electrical activity of another neuron.</td>
</tr>
<tr>
<td><strong>Key terms (continued)</strong></td>
<td></td>
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<tr>
<td>--------------------------</td>
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</tr>
<tr>
<td><strong>Nicotine</strong></td>
<td>Behavioural stimulant found in tobacco which is responsible for the psychedelic effects of tobacco and for tobacco dependence.</td>
</tr>
<tr>
<td><strong>Opioid</strong></td>
<td>Natural or synthetic drug that exerts actions on the body similar to those induced by morphine, the major pain-relieving agent obtained from the opium poppy (<em>Papaver somniferum</em>).</td>
</tr>
<tr>
<td><strong>Opium</strong></td>
<td>Rude resinous exudate from the opium poppy.</td>
</tr>
<tr>
<td><strong>Overdose</strong></td>
<td>Use of a drug in an amount that causes acute adverse physical or mental effects. Overdose may produce transient or lasting effects and can sometimes be fatal.</td>
</tr>
<tr>
<td><strong>Pharmaco-dynamics</strong></td>
<td>Study of the interactions of a drug and the receptors responsible for the action of the drug in the body.</td>
</tr>
<tr>
<td><strong>Pharmacokinetics</strong></td>
<td>Study of the factors that influence the absorption, distribution, metabolism, and excretion of a drug.</td>
</tr>
<tr>
<td><strong>Pharmacology</strong></td>
<td>Branch of science that deals with the study of drugs and their actions on living systems.</td>
</tr>
<tr>
<td><strong>Physical dependence</strong></td>
<td>State in which the use of a drug is required for a person to function normally. Confirmed by withdrawing the drug and noting the occurrence of withdrawal symptoms (abstinence syndrome). Characteristically, withdrawal symptoms can be terminated by readministration of the drug.</td>
</tr>
<tr>
<td><strong>Placebo</strong></td>
<td>Pharmacologically inert substance that may elicit a significant reaction largely because of the mental ‘set’ of the patient or the physical setting in which the drug is taken.</td>
</tr>
<tr>
<td><strong>Poly-drug use</strong></td>
<td>The use of more than one psycho-active drug, simultaneously or at different times. The term ‘poly-drug user’ is often used to distinguish a person with a varied pattern of drug use from someone who uses one kind of drug exclusively.</td>
</tr>
<tr>
<td><strong>Potency</strong></td>
<td>Measure of drug activity expressed in terms of the amount required to produce an effect of a given intensity. Potency varies inversely with the amount of drug required to produce this effect – the more potent the drug, the lower the amount required to produce the effect.</td>
</tr>
</tbody>
</table>
**Psychological dependence**
Compulsion to use a drug for its pleasurable effects. Such dependence may lead to a compulsion to misuse a drug.

**Psycho-pharmacotherapy**
Clinical treatment of psychiatric disorders with drugs

**Receptor**
Location in the nervous system at which a neurotransmitter or drug binds in order to exert its characteristic effect

**Route of administration**
Method used to take drugs into the body. Includes oral (via the mouth); injection (intravenous, intramuscular, subcutaneous); inhalation (via the lungs); mucous membrane absorption (nasal, under the tongue, anal/rectal); dermal/topical (skin patches or cream).

**Side effect**
Drug-induced effect that accompanies the primary effect for which the drug is administered.

**Stimulants**
Drugs that speed up the brain and nervous system.

**Tolerance**
Occurs when a person needs increased doses of a drug to obtain the same effect as the body adapts to the presence of the drug. Tolerance develops more quickly if use is frequent and heavy.

**Toxic effect**
Adverse drug-induced effect (temporary or permanent) on any organ or system of an animal or person. Includes both the relatively minor side effects that invariably accompany drug administration and the more serious and unexpected manifestations that occur in only a small percentage of patients who take a drug.

**Withdrawal symptoms**
Symptoms that can occur when a person using a drug over a prolonged period reduces or ceases use.