Substance use 1: background, risks and effects of commonly used drugs, and current issues

Exploring background information, the range of risks and effects and current trends in commonly used drugs, reasons for and extent of use, and legal concerns

AUTHOR Ian Hamilton, PGDip, PGCAP, RMN, is lecturer, Department of Health Sciences, University of York.
This article, the first in a two-part unit on substance use, describes the scope of the problem, the most commonly used substances, and current trends in drug use. It also identifies the risks and effects.

INTRODUCTION
Some 11 million adults have used an illicit drug in their lifetime, according to the British Crime Survey (Home Office, 2006), and 40 million adults in the UK drink alcohol.
The majority of the population have used a psychoactive substance. Therefore, the patients with whom nurses come into contact are more likely to have used a substance than not.
Clearly, it is in nurses’ interest to be aware of substance use and their role in assessing and planning care with patients – it cannot be viewed as an issue only for specialist addiction workers.

THE EXTENT OF THE PROBLEM
Although most people use substances, not all develop problems. It is difficult to give precise numbers of people who do have a problem.
There is a stigma associated with substance use that prevents some people seeking treatment and therefore being included in official statistics. By its nature, the use of illegal substances means that some people are covert in their use.
Godfrey et al (2002) showed that official prevalence data could be underestimated by as much as 100%, revising a previous Home Office figure of 250,000 problem drug users up to a range of 280,000–500,000.
Addaction (2009) reported: ‘Alcohol and drug misuse cost the taxpayer around £38bn each year. That is the equivalent of over £2,500 a year for every family in the UK. Last year alone, it is estimated that 3.5 million people used illegal drugs in the UK, and 8.2 million have drinking problems.’

REASONS FOR SUBSTANCE USE
Is drug addiction self-inflicted? Is it something people bring on themselves? To answer these points, we need to understand why people use substances.
Humans have been using substances for thousands of years, to change the way we feel, behave or simply to have a different experience. Some substances are extremely effective at changing the way we feel.
If people are trying to block out negative thoughts and feelings, they may find a substance which does this. For someone with depression, using a stimulant such as an amphetamine can give a feeling of increased energy and euphoria that they have not experienced for some time.
Understanding the effects substances produce can provide clues about why an individual might use that particular drug.

DEFINITIONS
The term psychoactive refers to a drug that affects brain functioning, changes behaviour, mood, perception or consciousness.
People have used psychoactive drugs for their medicinal effects or as part of spiritual rituals. Cannabis is an example of a psychoactive drug that has been thought of and used in all these ways; it is a recreational drug, is used medicinally and is regarded as sacred by some religions.
Psychoactive drugs are categorised into three broad groups:
- Stimulants: amphetamines (speed), cocaine, crack cocaine, ecstasy, anabolic steroids;
- Depressants: cannabis (dope), alcohol, benzodiazepines (such as diazepam), opiates (heroin and morphine), GHB;
- Hallucinogens: LSD (acid), psilocybin mushrooms (magic mushrooms), strong cannabis (skunk).

Although these three headings are used, they can be unhelpful as a drug may have an effect that is both stimulating and hallucinogenic – an example is ecstasy.
Drugs also have street names – for example speed is the commonly used term for amphetamines. These names can vary from place to place so nurses should be familiar with the street names for drugs in their local area.

RISKS AND EFFECTS
Table 1 shows the effects and risks of some commonly used drugs.
Several factors will affect the experience someone has when using a drug. These include:
- The person’s expectations of what will happen;
- Their previous experience of using the drug;
- The dose of the drug and its purity;
- The route used to take it, such as orally, intravenously, snorted and so on;
- Who they are with;
- Where they are and their surroundings.

Some drugs have predictable effects – for example benzodiazepines will usually sedate users. However, the effects of a drug such as LSD are unpredictable; even if the dose and contextual factors remain the same, the same individual can have very different experiences, ranging from euphoria to extreme anxiety.

TRENDS
The popularity of individual drugs changes over time. Ecstasy use peaked in the 1990s, helped by its association with dance music. There were 16 million prescriptions for
barbiturates in the 1960s but today they are rarely prescribed or used.

The charity DrugScope carries out an annual survey of trends in drug use (DrugScope, 2008). Last year it found increasing use of benzodiazepines, a stronger variety of cannabis called skunk, and benzylpiperazine (BZP), an amphetamine-like drug which is sold in some countries as a ‘legal high’. In May this year, the UK Home Office issued a consultation on banning BZP, and it is likely to be controlled under the Misuse of Drugs Act 2008.

Drugs that are currently receiving attention because of their potential harm and increased use include GHB (gamma-hydroxybutyrate or liquid ecstasy), which can create feelings of euphoria, reduce inhibitions and make users feel sleepy.

GBL (gamma-butyrolactone) is closely related to GHB; once ingested, GBL is metabolised in under a minute and converted to GHB in the body. GBL is legally available as it is used commercially as an industrial solvent and nail polish remover. Its use as a party drug has increased over the past five years, and it is available on the internet for 50p a dose.

A number of deaths have been attributed to this drug and, in May this year, the home secretary said the government would control the sale and use of GBL.

There is concern that the use of crystal meth (methamphetamine, commonly referred to as methamphetamine) is on the increase in the UK. First reported in the US, it makes users feel aroused and exhilarated, but has been linked with amphetamine psychosis. It is difficult to get reliable figures on the number of users of these drugs and therefore the extent of the likely problem.

Health economists have identified two factors that are critical to the prevalence of drug use in a given area – price and availability. If a drug is sufficiently available and low enough in price then it will be used. In 2008, alcohol was 75% more affordable than it was in 1980 and is much easier to access. The entrances to many supermarkets show this, with ‘buy one get one free’ offers on cases of bottled beer.

The DrugScope (2008) survey shows marked variations in the price of the same drug in different cities. For example, the cost of ecstasy is four times higher in Liverpool than in Cardiff.

**THE LAW**

Illegal drugs are classified into three categories: A, B and C (Misuse of Drugs Act 1971). Class A drugs are viewed as the most dangerous and have the greatest penalties for illegal supply and use.

An example of some of the drugs in each class can be found in Table 2.

This law (the Misuse of Drugs Act 1971) is based on four principles, which are that it is unlawful to:

- Possess a controlled drug;
- Possess a controlled drug with intent to supply;
- Supply (sell/give/share) a controlled drug, even if it is given away free;
- To allow premises you occupy or manage to be used for the use of drugs.

The penalties are greater for someone using a class A drug than a class B drug.

Although the original act was passed in 1971, it has been amended several times since. Drugs such as cannabis have been reclassified several times over the past few years and currently it is a class B drug. This has caused confusion for some users who have misinterpreted the publicity about the change, believing cannabis has been legalised.

**TABLE 1. EFFECTS AND RISKS OF COMMON DRUGS**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Street name</th>
<th>Effects</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Booze</td>
<td>Relaxant, feel less anxious and more sociable</td>
<td>Drunkenness, aggression</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>Speed, whizz, billy, uppers</td>
<td>Euphoria, increased energy</td>
<td>Anxiety, panic, paranoia</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Blues, downers, tranks</td>
<td>Sedation, relaxation</td>
<td>Quickly develop dependence, drowsiness, overdose</td>
</tr>
<tr>
<td>Cannabis</td>
<td>Dope, hash, skunk</td>
<td>Relaxation, disinhibition</td>
<td>Red eyes, anxiety, confusion, psychosis</td>
</tr>
<tr>
<td>Cocaine</td>
<td>Charlie, coke, snow, crack, blow, C</td>
<td>Exhilation, alertness, excitement, high energy</td>
<td>Sweating, tremor, depression</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>Es, dove, MDMA, adam, disco biscuits</td>
<td>Increased energy, heightened perception of colour and sound</td>
<td>Lack of sleep, dehydration, death</td>
</tr>
<tr>
<td>GHB</td>
<td>R2, rib, blue juice, roofies, liquid e</td>
<td>Relaxation, induces sleep</td>
<td>Memory loss, associated with rape</td>
</tr>
<tr>
<td>Heroin</td>
<td>H, brown, gear, smack</td>
<td>Intense pleasure, warmth, detachment</td>
<td>Nausea, drowsiness, overdose</td>
</tr>
<tr>
<td>LSD</td>
<td>Acid, trip, tab, blotter, stars</td>
<td>Time distortion, perceptual changes</td>
<td>Impaired judgement, disorientation, anxiety</td>
</tr>
</tbody>
</table>

**TABLE 2. EXAMPLES OF DRUGS IN EACH CLASS**

<table>
<thead>
<tr>
<th>Class A</th>
<th>Heroin</th>
<th>Cocaine</th>
<th>LSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class B</td>
<td>Cannabis</td>
<td>Amphetamines</td>
<td>Barbiturates</td>
</tr>
<tr>
<td>Class C</td>
<td>Benzodiazepines</td>
<td>Ketamine</td>
<td>GHB</td>
</tr>
</tbody>
</table>

Nursing Times 7 July 2009 Vol 105 No 26 www.nursingtimes.net
Practice guided learning

TABLE 3. RISK ASSESSMENT MATRIX

<table>
<thead>
<tr>
<th>Category</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical harm</td>
<td>Acute</td>
</tr>
<tr>
<td></td>
<td>Chronic</td>
</tr>
<tr>
<td></td>
<td>Parenteral (IV etc)</td>
</tr>
<tr>
<td>Dependence</td>
<td>Intensity of pleasure</td>
</tr>
<tr>
<td></td>
<td>Psychological dependence</td>
</tr>
<tr>
<td>Social Harms</td>
<td>Intoxication</td>
</tr>
<tr>
<td></td>
<td>Other social harms</td>
</tr>
<tr>
<td></td>
<td>Healthcare costs</td>
</tr>
</tbody>
</table>

A score is assigned to each parameter:

- 0: No risk
- 1: Some risk
- 2: Moderate risk
- 3: Extreme risk


TABLE 4. RISK RANKING OF DIFFERENT DRUGS

<table>
<thead>
<tr>
<th>ACMD risk ranking:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Heroin</td>
</tr>
<tr>
<td>2. Cocaine</td>
</tr>
<tr>
<td>3. Barbiturates</td>
</tr>
<tr>
<td>4. Street methadone</td>
</tr>
<tr>
<td>5. Alcohol</td>
</tr>
<tr>
<td>6. Ketamine</td>
</tr>
<tr>
<td>7. Benzodiazepines</td>
</tr>
<tr>
<td>8. Amphetamines</td>
</tr>
<tr>
<td>9. Tobacco</td>
</tr>
<tr>
<td>10. Buprenorphine</td>
</tr>
<tr>
<td>11. Cannabis</td>
</tr>
<tr>
<td>12. Solvents</td>
</tr>
</tbody>
</table>

Source: Blakemore (2003)

SOURCES OF INFORMATION

The DH provides information about drugs to the public through its Talk to Frank website (www.talktofrank.com), which is detailed and tries to give a balanced view about the range of effects of drugs.

HIT (www.hit.org.uk) delivers effective interventions on drugs and provides information that is accessible and balanced. It also acknowledges the benefits as well as problems with drug use.

Part 2 of this unit, to be published in next week’s issue, examines nurses’ role in assessing and treating patients with a substance use problem.

The unit system is seductively simple, but has many problems. People are confused about exactly what a unit is. It is too vague to say one glass of wine as it depends on the size of the glass and the alcohol by volume (ABV) of the wine.

In addition, some people misinterpret the guidance by thinking they are drinking safely by consuming their total weekly units in a couple of days.

One definition of ‘binge drinking’ is drinking above double the recommended daily guidelines on one occasion (Cabinet Office, 2004) – that is, eight units for men and six units for women.

One unit of alcohol is about equal to:
- Half a pint of ordinary strength beer, lager or cider (3–4% ABV);
- A small pub measure (25ml) of spirits (40% ABV);
- A standard pub measure (50ml) of fortified wine such as sherry or port (20% ABV).

There are one and a half units of alcohol in:
- A small glass (125ml) of ordinary-strength wine (12% ABV);
- A standard pub measure (35ml) of spirits (40% ABV).

A scientific scale of alcohol harm has many problems. People are confused about exactly what a unit is. It is too vague to say one glass of wine as it depends on the size of the glass and the alcohol by volume (ABV) of the wine.

In addition, some people misinterpret the guidance by thinking they are drinking safely by consuming their total weekly units in a couple of days.

One definition of ‘binge drinking’ is drinking above double the recommended daily guidelines on one occasion (Cabinet Office, 2004) – that is, eight units for men and six units for women.

One unit of alcohol is about equal to:
- Half a pint of ordinary strength beer, lager or cider (3–4% ABV);
- A small pub measure (25ml) of spirits (40% ABV);
- A standard pub measure (50ml) of fortified wine such as sherry or port (20% ABV).

There are one and a half units of alcohol in:
- A small glass (125ml) of ordinary-strength wine (12% ABV);
- A standard pub measure (35ml) of spirits (40% ABV).

A scientifically based scale of alcohol harm has many problems. People are confused about exactly what a unit is. It is too vague to say one glass of wine as it depends on the size of the glass and the alcohol by volume (ABV) of the wine.

In addition, some people misinterpret the guidance by thinking they are drinking safely by consuming their total weekly units in a couple of days.

One definition of ‘binge drinking’ is drinking above double the recommended daily guidelines on one occasion (Cabinet Office, 2004) – that is, eight units for men and six units for women.

One unit of alcohol is about equal to:
- Half a pint of ordinary strength beer, lager or cider (3–4% ABV);
- A small pub measure (25ml) of spirits (40% ABV);
- A standard pub measure (50ml) of fortified wine such as sherry or port (20% ABV).

There are one and a half units of alcohol in:
- A small glass (125ml) of ordinary-strength wine (12% ABV);
- A standard pub measure (35ml) of spirits (40% ABV).

Alcohol becomes the fifth most dangerous drug, ahead of tobacco and cannabis (see Table 4).

This would be the equivalent of making alcohol – which is legal – a class B drug. This is unlikely to happen, as it would take a brave politician to put such a potential change to voters.

ALCOHOL

Most nurses are familiar with alcohol units and current guidance from the Department of Health about the recommended number of units for men and women.

Men should not regularly drink more than 3–4 units of alcohol a day and women should not regularly drink more than 2–3 units a day (DH, 2009).

NHS figures published in May 2009 (The Information Centre for Health and Social Care, 2009) show that one in four adults regularly drinks more than the recommended number of units.

The unit system is seductively simple, but has many problems. People are confused about exactly what a unit is. It is too vague to say one glass of wine as it depends on the size of the glass and the alcohol by volume (ABV) of the wine.

In addition, some people misinterpret the guidance by thinking they are drinking safely by consuming their total weekly units in a couple of days.

One definition of ‘binge drinking’ is drinking above double the recommended daily guidelines on one occasion (Cabinet Office, 2004) – that is, eight units for men and six units for women.

One unit of alcohol is about equal to:
- Half a pint of ordinary strength beer, lager or cider (3–4% ABV);
- A small pub measure (25ml) of spirits (40% ABV);
- A standard pub measure (50ml) of fortified wine such as sherry or port (20% ABV).

There are one and a half units of alcohol in:
- A small glass (125ml) of ordinary-strength wine (12% ABV);
- A standard pub measure (35ml) of spirits (40% ABV).

A scientifically based scale of alcohol harm has many problems. People are confused about exactly what a unit is. It is too vague to say one glass of wine as it depends on the size of the glass and the alcohol by volume (ABV) of the wine.

In addition, some people misinterpret the guidance by thinking they are drinking safely by consuming their total weekly units in a couple of days.

One definition of ‘binge drinking’ is drinking above double the recommended daily guidelines on one occasion (Cabinet Office, 2004) – that is, eight units for men and six units for women.

One unit of alcohol is about equal to:
- Half a pint of ordinary strength beer, lager or cider (3–4% ABV);
- A small pub measure (25ml) of spirits (40% ABV);
- A standard pub measure (50ml) of fortified wine such as sherry or port (20% ABV).

There are one and a half units of alcohol in:
- A small glass (125ml) of ordinary-strength wine (12% ABV);
- A standard pub measure (35ml) of spirits (40% ABV).

A scientifically based scale of alcohol harm has many problems. People are confused about exactly what a unit is. It is too vague to say one glass of wine as it depends on the size of the glass and the alcohol by volume (ABV) of the wine.

In addition, some people misinterpret the guidance by thinking they are drinking safely by consuming their total weekly units in a couple of days.

One definition of ‘binge drinking’ is drinking above double the recommended daily guidelines on one occasion (Cabinet Office, 2004) – that is, eight units for men and six units for women.

One unit of alcohol is about equal to:
- Half a pint of ordinary strength beer, lager or cider (3–4% ABV);
- A small pub measure (25ml) of spirits (40% ABV);
- A standard pub measure (50ml) of fortified wine such as sherry or port (20% ABV).

There are one and a half units of alcohol in:
- A small glass (125ml) of ordinary-strength wine (12% ABV);
- A standard pub measure (35ml) of spirits (40% ABV).