



Substance Use Disorders

Defining Substance Use Disorders

- Addiction
- Substance abuse and dependency
- Tolerance
- Withdrawal

Problems associated with regular substance use

- Many drugs have short-term benefits but long-term negative physical and psychological effects
- Regular drug use can blight social, educational and occupational functioning
- Significant burden to NHS services (e.g. car accidents, overdosing, cancer, binge drinking)

DSM-5 Criteria for Substance Use Disorder

Problematic pattern of use that impairs functioning. Two or more symptoms within a 1-year period:

- Failure to meet obligations
- Repeated use in situations where it is physically dangerous
- Repeated relationship problems
- Continued use despite problems caused by the substance
- Tolerance
- Withdrawal

DSM-5 Criteria for Substance Use Disorder

- Substance taken for a longer time or in greater amounts than intended
- Efforts to reduce or control use do not work
- Much time spent trying to obtain the substance
- Social, hobbies, or work activities given up or reduced
- Craving to use the substance is strong

Drinkaware Monitor 2025: Key Findings for Wales

Less frequent drinking: The percentage of UK adults drinking four or more times a week has fallen from 18% in 2018 to 14% in 2025.

Less binge drinking: The percentage who binge drink (defined as drinking more than 8 units in a single session for men, or more than 6 units for women) at least weekly has dropped from 15% in 2018 to 11% in 2025.

Guideline adherence: 82% of UK drinkers now consume within the UK Chief Medical Officers' low-risk guideline of 14 units per week, up from 77% in 2018 .

The "Ripple Effect" of Moderation

Social influence matters: One in five (22%) UK drinkers know someone who is trying to cut back.

Impact on behaviour: Of those, 57% said knowing that person has affected their own drinking habits, with 30% stating it made them more conscious of their alcohol consumption.

Successful moderation: Drinkers who know someone cutting back are almost twice as likely to have successfully reduced their own drinking in the last year (46%) compared to those who do not (24%) .

Cont.

Motivations & Misperceptions

Top motivation: Among UK drinkers currently moderating their intake, 64% are doing so due to a health concern.

Cost-of-living impact: For younger adults (18-34), financial reasons are a key driver, with 44% moderating to save money .

The "normal drinker" trap: A significant barrier to change is perception. Among those who drink at increasing or higher-risk levels (15+ units/week), 57% consider themselves "a fairly normal drinker," and 42% see nothing they need to change about their drinking .

Comorbidity of Substance Use Disorders: Key Findings

Disorder	% with SUD
Bipolar Disorder	60.7%
Schizophrenia	47.0%
Personality Disorders	42.0%
Bulimia Nervosa	36.8%
Panic Disorder	35.8%
OCD	32.8%
Major Depression	18.0%

ECA Study (Regier et al., 1990); NESARC-III (Goldstein et al., 2016); NCS (Kessler et al., 1996); Akosile et al., 2025; Rittenhouse, 2021.

Specific substance use disorders

- Alcohol
- Tobacco
- Cannabis
- Stimulant use
- Sedative use
- Hallucinogens

The costs of alcohol use disorders

- Costs of alcohol-related crime and public disorder in the UK estimated at £1.5 billion per annum
- Accidents and crime are the two biggest social problems associated with alcohol misuse
- Per capita alcohol consumption predicts
 - Mortality from liver cirrhosis
 - Mortality from accidents and homicide
 - Death from suicide

Table 6:3 Referral activity by Ethnic Origin

	Referral Year									
	2012-13		2013-14		2014-15		2015-16		2016-17	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
White	19,005	78.1	19,687	80.4	23,239	82.2	20,146	82.5	20,589	86.3
White and Black Caribbean	44	0.2	66	0.3	40	0.1	45	0.2	37	0.2
White and Black African	14	0.1	17	0.1	22	0.1	11	0.0	17	0.1
White and Asian	19	0.1	17	0.1	23	0.1	21	0.1	24	0.1
Any Other Mixed Background	83	0.3	110	0.4	92	0.3	87	0.4	90	0.4
Indian	28	0.1	25	0.1	29	0.1	16	0.1	28	0.1
Pakistani	30	0.1	43	0.2	45	0.2	28	0.1	39	0.2
Bangladeshi	30	0.1	29	0.1	30	0.1	16	0.1	25	0.1
Any Other Asian Background	34	0.1	34	0.1	55	0.2	53	0.2	72	0.3
Caribbean	35	0.1	56	0.2	27	0.1	30	0.1	32	0.1
African	39	0.2	64	0.3	31	0.1	47	0.2	39	0.2
Any Other Black Background	32	0.1	40	0.2	74	0.3	61	0.2	60	0.3
Other ethnic group (a)	36	0.1	31	0.1	40	0.1	50	0.2	40	0.2
Client not stated (b)	4,901	20.1	4,280	17.5	4,504	15.9	3,797	15.6	2,756	11.6
Unknown (c)	1	0.0	0	0.0	4	0.0	0	0.0	0	0.0
Total	24,331	100	24,499	100	28,255	100	24,408	100	23,848	100

Source: WNDSM, NHS Wales Informatics Service

Welsh National Database for Substance Misuse (WNDSM), NHS Wales Informatics Service. Referrals to substance misuse treatment by ethnic origin, Wales, 2012–13 to 2016–17.

Alcohol use disorder

- 26% UK population could be labelled as *hazardous drinkers*
 - Individuals who have 5 or more standard drinks (males) or 3 or more standard drinks (females) on a typical drinking day
 - Binge drinking is also of concern (young people)

The physical effects of alcohol

- Main constituent is ethyl alcohol which is absorbed into the bloodstream
- Initially acts to relax by affecting the neurotransmitter GABA
- Second stage of intoxication includes inability to make judgements
- The final physical effects include motor coordination difficulties and slowed reactions

Effects of alcohol on physical & psychological health

- Withdrawal symptoms
- Delirium tremens (DTs)
- Korsakoff's syndrome
- Foetal alcohol syndrome

Withdrawal symptoms

- The long-term physical effects of heavy alcohol consumption include withdrawal symptoms when the body is deprived of alcohol.
- These include
 - Restlessness
 - Inability to sleep
 - Anxiety and depression
 - Muscle tremors
 - Rises in blood pressure and temperature

Delirium Tremens (DTs)

The effects of withdrawal after extended heavy drinking over a number of years where the drinker may become delirious, experiences unpleasant hallucinations, and exhibits shaking and muscle tremors.

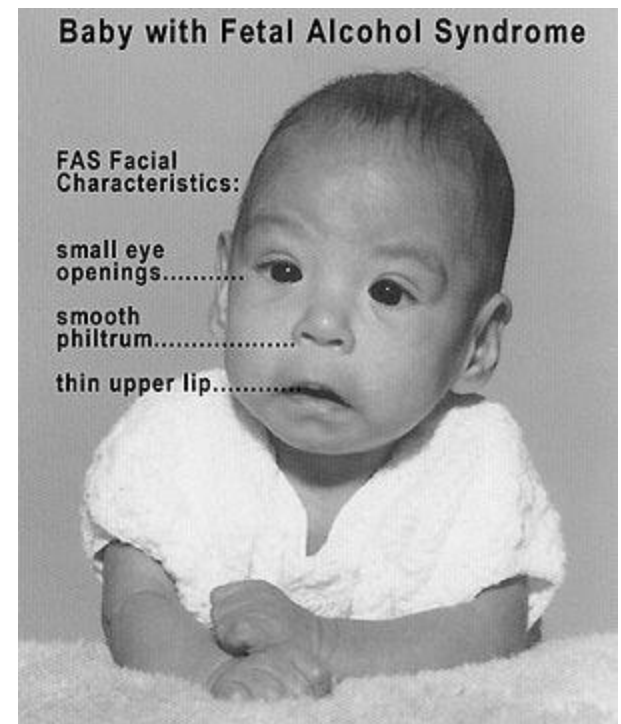
Korsakoff's syndrome

- A syndrome involving dementia and memory disorders which is caused by long-term alcohol abuse and dependency
- Can be the result of vitamin and mineral deficiencies caused by the long term excessive intake of alcohol which contains calories but is entirely devoid of nutrients

Foetal alcohol syndrome

- Where heavy drinking by a mother during pregnancy can cause a whole range of physical and psychological abnormalities in the child, including:

- Physical deformities
- Heart problems
- Stunted growth
- Hyperactivity
- Learning difficulties



Risk factors for alcohol use disorders

- A family history of alcoholism
- Long-term negative affect
- A diagnosis of childhood conduct disorder
- Experiencing life stress and childhood life stressors
- Holding beliefs that alcohol has favourable outcomes

The aetiology of substance abuse & dependency

- The aetiology of substance dependency has to be viewed in developmental terms
- Most individuals who become substance dependent go through three developmental stages:
 - Experimentation
 - Regular use
 - Abuse & dependency

The aetiology of substance abuse & dependency

- Experimentation
 - Availability
 - Familial Factors
 - Peer Group Influences
 - Media Influences
- Regular Use
 - Mood-Alteration Effects
 - Self-Medication
 - Long-Term Expectations & Beliefs
 - Cultural Variables
- Abuse & Dependency
 - Genetic Predisposition
 - Long-Term Cognitive Deficits
 - Concurrent Psychiatric Diagnoses
 - Poverty

The treatment of substance abuse & dependency

- Community-based programmes
- Behavioural therapies
 - Aversion therapy
 - Contingency management therapy
- Cognitive behavioural therapies (CBT)
- Family & couples therapy
- Biological treatments

Difficulties associated with treatment

- Clients are usually physically and psychologically addicted to a drug
- Clients may experience severe withdrawal symptoms when they abstain
- They will usually mix in social circles where drug use is prevalent
- Co-morbid psychiatric problems may make treatment difficult
- Many may not see their drug taking as problematic
- Many may be homeless or living in poverty

Community-based programmes

- Self-help groups (e.g. AA, SMART recovery)
- Drug prevention schemes
- Residential rehabilitation centres

Self-help groups

Self-help groups:

Group therapy which brings together people who share a common problem in an attempt to share information and help and support one Another (e.g. Alcoholics Anonymous, Narcotics Anonymous)

Drug-prevention schemes

Drug-prevention schemes: Community based services whose purpose is to try to prevent first use of a drug or to prevent experimentation with a drug developing into regular use – usually through information about the effects of drugs and through developing communication and peer-education skills.

Residential rehabilitation centres

Residential rehabilitation centres:

Centres which allow people to live, work and socialize with others undergoing treatment in an environment that offers advice, immediate support, and group and individual treatment programmes enabling clients to learn the social and coping skills necessary for the transition back to a normal life.

Behavioural therapies

- Behavioural therapies have a number of aims:
 - To change substance use from positive to negative
 - To help the individual identify stimuli that control substance use
 - To reinforce abstinence
 - To teach users alternative behaviours to substance use and abuse

Aversion therapy

- An aversive form of classical conditioning.
- For example, in treatment for substance dependency, clients are given their drug (the conditioned stimulus) followed immediately by another drug (the aversive unconditioned stimulus) that causes unpleasant physiological reactions such as nausea and sickness.

Contingency management therapy

- Teaches the client how to restructure and control their behaviour and environment in order to prevent drug use
- Controlled drinking is an example
- Based on conditioning principles:
 - Client learns to identify environmental triggers
 - Using rewards to reinforce abstinence
 - Learning to be aware of when and how frequently drug taking occurs
 - Setting attainable goals in a structured step-by-step approach

Cognitive Behavioural Therapies (CBT)

- CBT for substance abuse and dependency provides:
- Help in dealing with dysfunctional beliefs about relapse (abstinence violation beliefs)
- Help in coping with stressful situations in which the client would normally use drugs
- Help in dealing with negative emotions (known as motivational-enhancement training, MET)

Family & couples therapy

- Many drug abusers live with their families who can provide support on a day-to-day basis
- Family members may constitute part of the problem (e.g. being drug users themselves)
- Particularly successful in dealing with adolescent drug problems (Waldron et al., 2001)

Biological treatments

- Detoxification
- Methadone maintenance programmes
- Antabuse (disulfiram)
- Drug treatments:
 - Naltrexone
 - Naloxone
 - Buprenorphine
- Drug replacement treatment

Detoxification

- A process of systematic and supervised withdrawal from substance use that is either managed in a residential setting or on an outpatient basis.
- Methadone maintenance programme:
 - A detoxification programme where users take a less virulent opiate in order to wean themselves off heroin.
- Antabuse (disulfiram):
 - Has been used for over 60 years in the detoxification of individuals with alcohol dependency
 - Abstinence rates of 50% are achievable up to 9 years after treatment

Drug treatments

- Many drugs have been developed to influence the brain neurotransmitters and prevent the neurophysiological effects of stimulants, opiates and hallucinogens
- These include naltrexone, naloxone and buprenorphine
- Are effective in reducing craving and may be combined with other forms of treatment

Drug replacement treatment

- Involves treating severe cases of substance abuse and dependency by substituting a drug that has lesser damaging effects
- Largely confined to treating opiate dependency
- Attempts to develop substitute drugs for other dependencies:
 - Sativex, an aerosol that combines THC and non-psychoactive cannabis ingredients for the treatment of cannabis dependency