

Contemporary Mental Health

Psychopharmacology



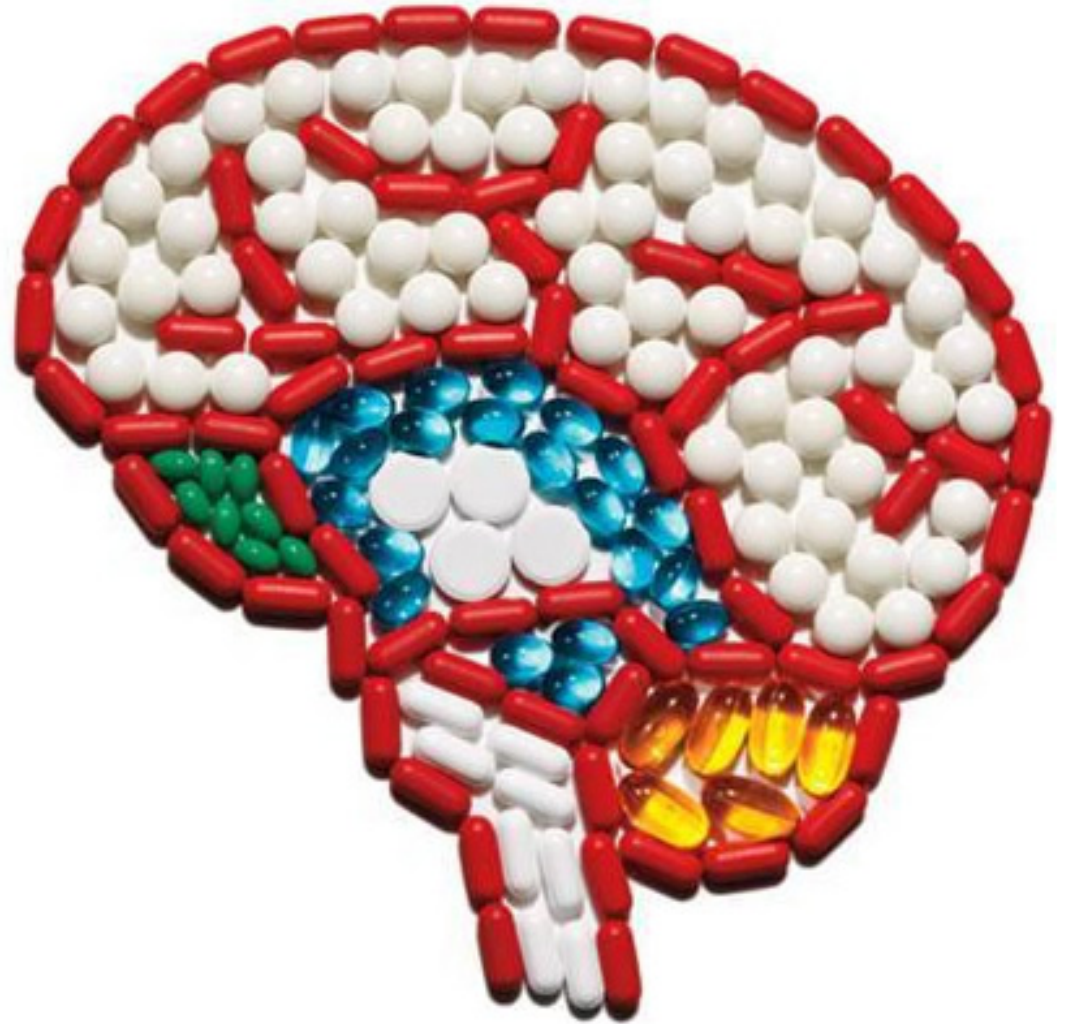


Biological Interventions for Mental Health Problems

- Medication
- Electroconvulsive Therapy (ECT)
- Psychosurgery

Psychopharmacology

- Psyche - Mind
- Pharmaka – Drugs/Medicine
- Logos - Study





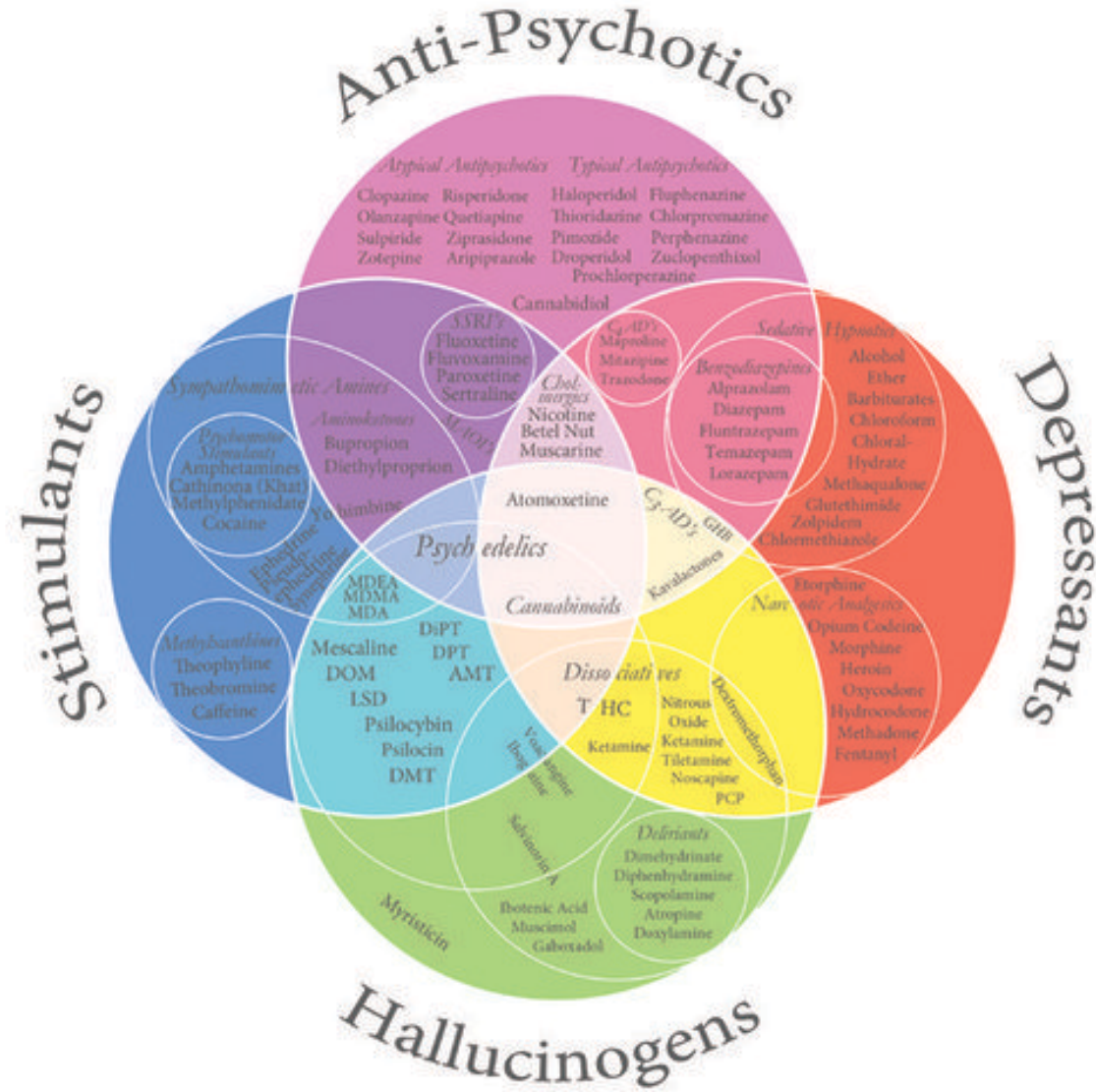
Psychopharmacology

- ❖ The generic term for the study and use of psychoactive drugs to alter functioning of the brain and nervous system.
 - ❖ Any substance that alter the mind and affect the mood are 'psychotropic' (mind-altering).
 - ❖ Psychopharmacology is the study of the ways in which psychotropic and psychoactive substances affect the mind, behaviour, emotions and consciousness in various ways.
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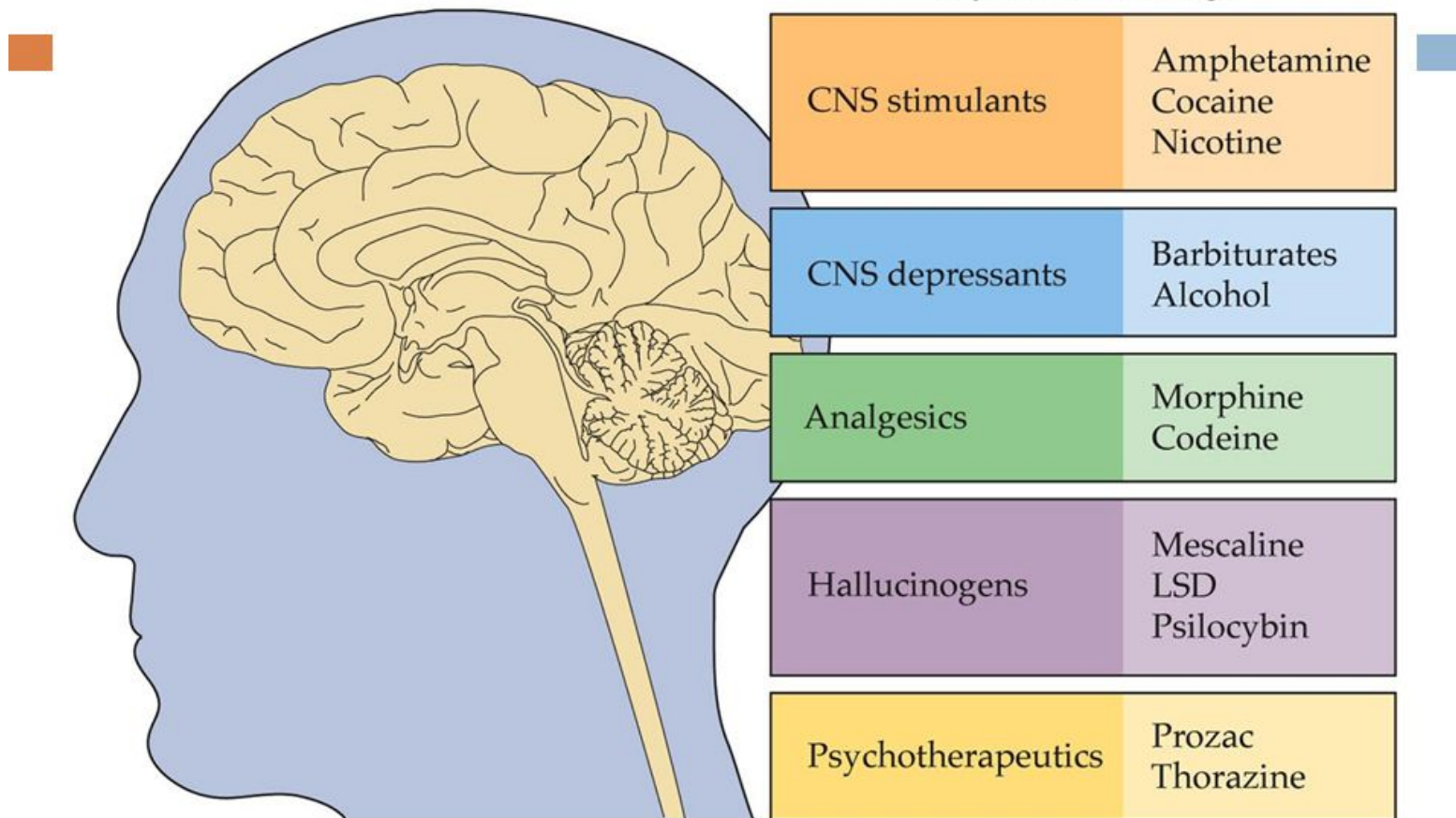
Psychopharmacology

- Antidepressants
- Anxiolytics
- Antipsychotics
- Mood stabilisers
- Sedative hypnotics
- Medication used for Parkinsons, ADHD and sleep disorders





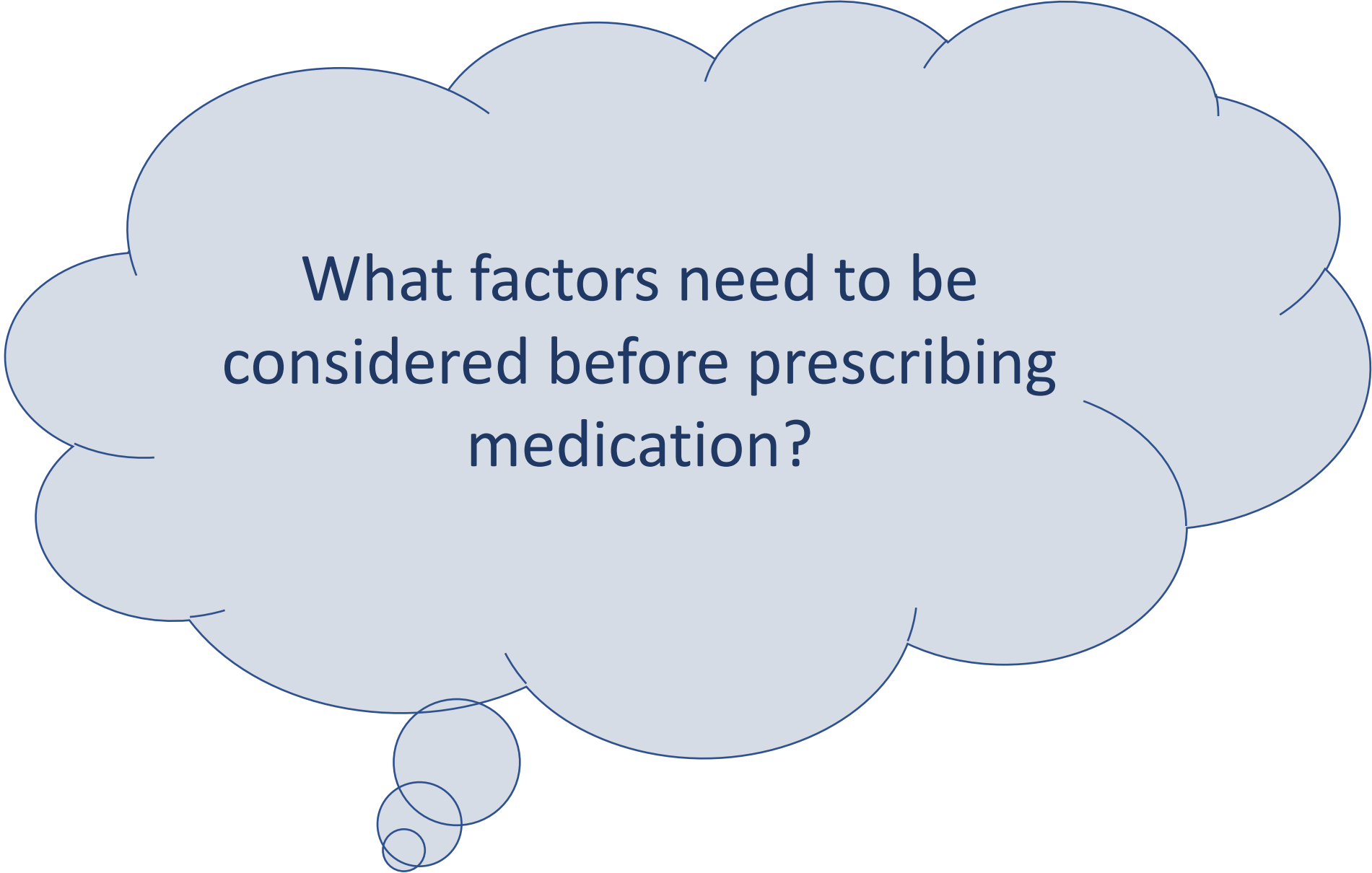
Drug Categories



Psychoactive drugs have been used throughout the ages (Siegal, 2005)

- Drugs have come into use as a natural by-product of farming
- Opium
- Cannabis
- Alcohol
- Hunter-gatherers and tribal cultures attach spiritual significance to such drug use.





What factors need to be
considered before prescribing
medication?

Psychiatry

- Psychotropic drugs are used in the treatment of all forms of mental disorder (Baldessarini, 1999)
- Prior to WW2, drugs were used to suppress or manage symptoms i.e. 'sedatives' 'tranquilisers'
- 1950's – 'Pharmacological Revolution'
- Psychotropic drugs have powerful effects on central nervous system
- Side-effects can be life-diminishing and life-threatening (Kellam, 1987; Waddington et al, 1998).
- Benzodiazepines and neuroleptics (Fisher & Greenberg, 1997; Segal et al, 1992)

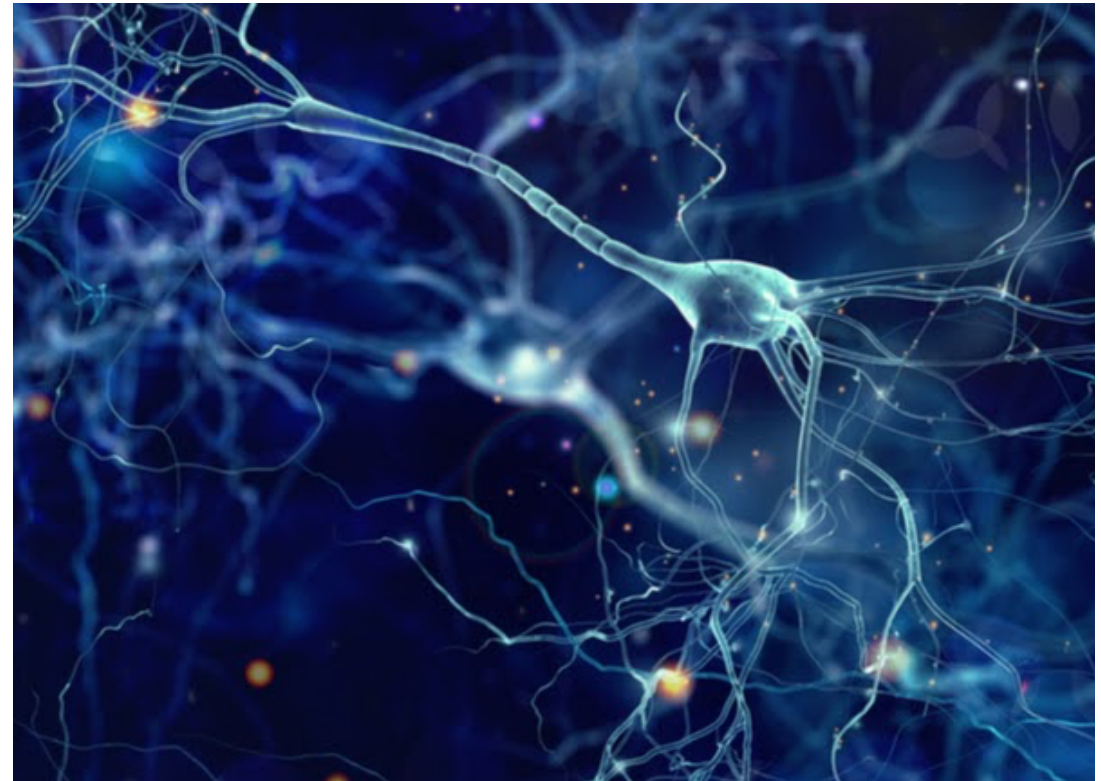


Psychopharmacology

- ❖ **All** drugs can be toxic and have side-effects.
 - ❖ Alcohol and nicotine cause the most harm (Nutt, King & Phillips, 2010)
 - ❖ We have to consider the toxic effects of drugs against beneficial benefits.
 - ❖ Drugs do not work in the same way for all people, some have reverse effects.
 - ❖ Trial and error - researchers are still trying to find out exactly how some drugs work (Cottingham, 2009)
 - ❖ Psychoactive drugs are thought to affect the brain's chemical pathways and neurotransmission.
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Neurotransmitters

- Cells in the nervous system are called neurons
- Neurotransmitters are chemicals that allow neurons to send signals across the synapse to other neurons



Several neurotransmitters are important in psychopathology

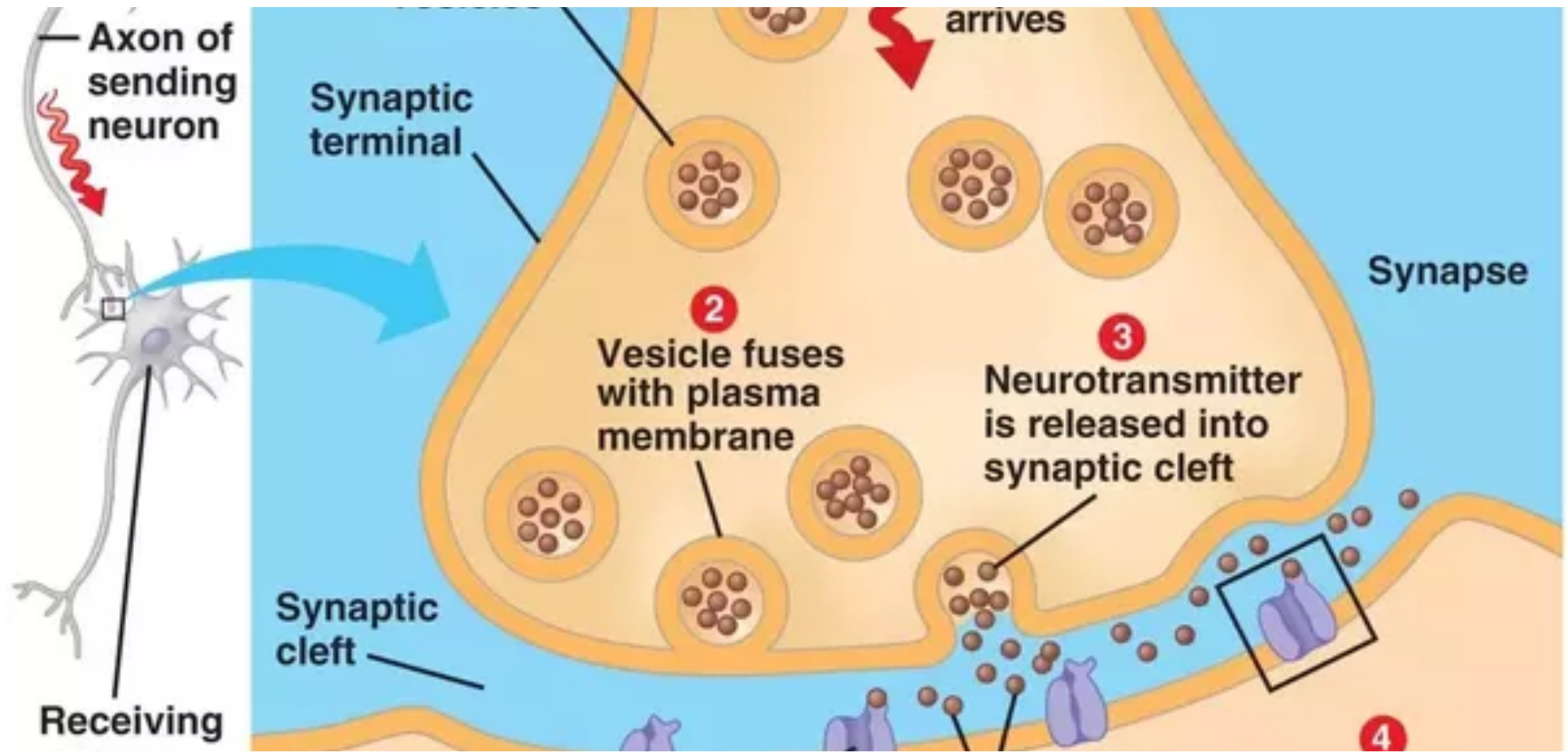
- Serotonin
- Dopamine
- Norepinephrine
- Gamma-aminobutyric acid (GABA)



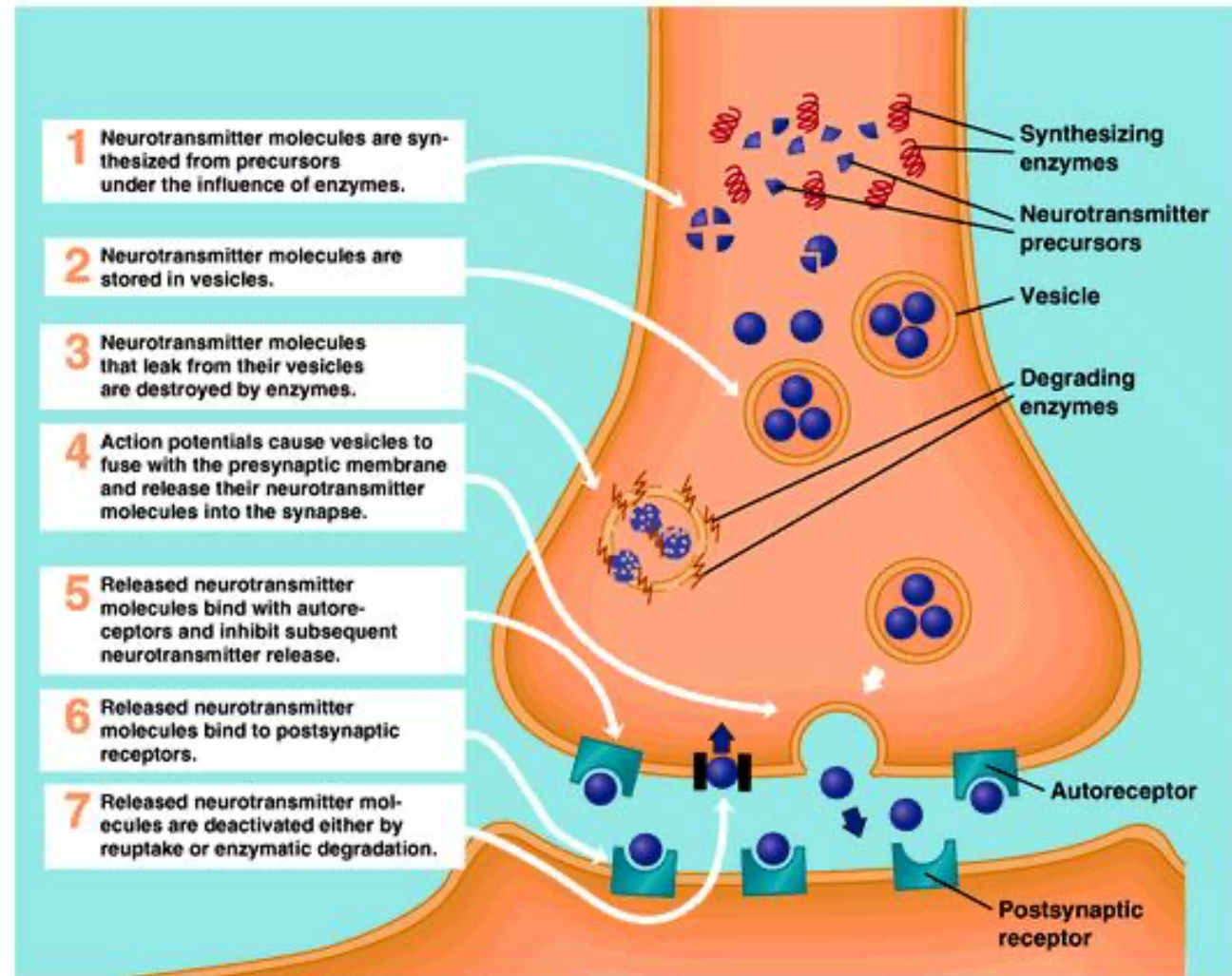


The Neurotransmitter Hypothesis of Psychopharmacology

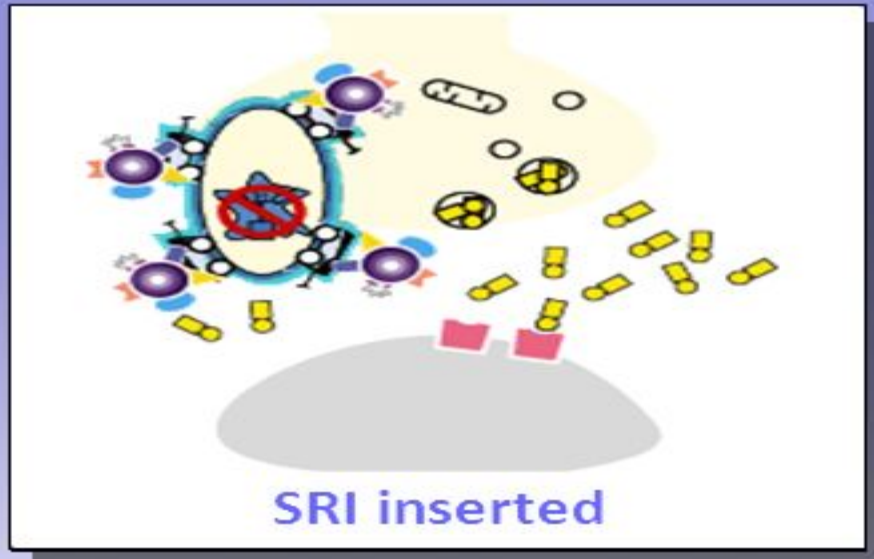
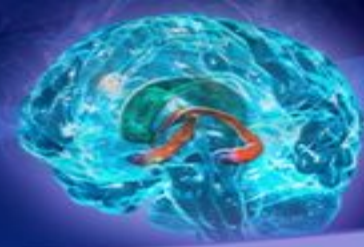
- ❖ Most of the drugs currently used in psychiatry are presumed to act by either increasing or competing with naturally occurring chemicals – neurotransmitters mediate electrical transmission in the brain, spinal cord and muscles
 - ❖ Most psychoactive drugs work by influencing chemical transmission in the synapse, they may mimic the transmitter.
 - ❖ Homeostasis – When psychoactive drugs are suddenly stopped, they may leave the transmission in a worse state than before the drug was started (Rebound effect)
More drugs may be needed to produce the same effect, leading to dependency
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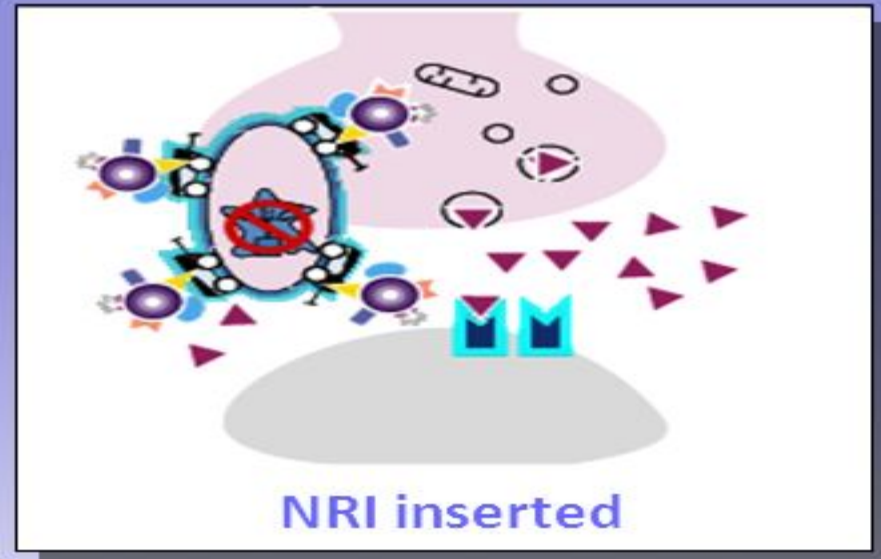
► Seven Processes in Neurotransmitter Action



Monoamine Hypothesis



depression lifts



depression lifts

Neurotransmitter	Abbreviation	Behaviors or Diseases Related to These Neurotransmitter
Acetylcholine	ACh	Learning and memory; Alzheimer's disease' muscle movement in the peripheral nervous system
Dopamine	DA	Reward circuits; Motor circuits involved in Parkinson's disease; Schizophrenia
Norepinephrine	NE	Arousal; Depression
Serotonin	5HT	Depression; Aggression; Schizophrenia
Glutamate	GLU	Learning; Major excitatory neurotransmitter in the brain
GABA	GABA	Anxiety disorders; Epilepsy; Major inhibitory neurotransmitter in the brain
Endogenous Opioids	Endorphins, Enkephalins	Pain; Analgesia; Reward

Neurotransmitters and...

- Serotonin and dopamine associated with depression, mania and schizophrenia
- Norepinephrine communicates with the sympathetic nervous system, thus producing states of high arousal and may be associated with anxiety disorders and stress-related conditions
- GABA inhibits nerve impulses throughout the brain and is associated with anxiety disorders.



Antidepressant Nation

By APage

1 in 10 Americans take antidepressants, making them the third most common prescription drug in the U.S. Take a look at the types of antidepressants and know their most common side effects.

Types of Antidepressants & Common Side Effects

Tricyclics	SSRIs	SNRIs	MAOIs	Newer Combinations
 Tremors	 Sweating	 Tremors	 Insomnia	 Appetite Changes
 Indigestion	 Indigestion & Nausea	 Nausea	 Muscle Aches	 Indigestion & Constipation
 Headache	 Headache	 Headache	 Low Blood Pressure	 Headache
 Dry Mouth	 Dry Mouth	 Dry Mouth	 Dry Mouth	 Dry Mouth
 Drowsiness	 Drowsiness	 Blurred Vision	 Sexual Side Effects	 Insomnia
 Elevated Heart Rate	 Sexual Side Effects	 Increased Blood Pressure	 Nervousness	 Sweating
Common Brand Names:	Common Brand Names:	Common Brand Names:	Common Brand Names:	Common Brand Names:
Elavil	Celexa			
Asendin	Lexapro			
Anafranil	Luvox			
Adapine	Prozac			
Sinequan	Paxil			
Tofranil	Zoloft			
Pamelor				
Vivactil				
		Cymbalta	Marplan	Wellbutrin
		Serzone	Nardil	Norpramin
		Effexor	Parnate	Ludiomil
				Remeron
				Desyrel

For a complete list of antidepressants and side effects visit:
<http://www.nimh.nih.gov/health/publications/mental-health-medications/complete-index.shtml>

HealthCentral

Antidepressants

- ❖ Monoamine Oxidase Inhibitors (MAOIs)
 - ❖ Tricyclic antidepressants
 - ❖ Selective Serotonin Reuptake Inhibitors (SSRIs)
 - ❖ Serotonin – Noradrenalin Reuptake Inhibitors (SNRIs)
- (Healy, 2009)

Anti-depressants

- A major study in 1965 demonstrated that tricyclic's were more effective than MAOIs, closer investigation suggested that ECT was probably the most effective treatment for depression (Healy, 2009)
- Tricyclic's act mainly on the serotonin system.
- SSRIs (e.g., Prozac) were allegedly non-addictive and supposedly had fewer side effects and easier to administer than tricyclic's and MAOIs.





Do Antidepressants Work?

- ❖ Up until 2003, the answer to this question was a resounding yes, published studies showed a 95% recovery rate (Meyers, 2000; Turner et al, 2008)
 - ❖ In 2004 a meta-study by Moncrieff, Wessley and Hard (2004) called this research into serious doubt, exposing unpublished data. The true success rate was more like 50%.
 - ❖ This was confirmed in later studies by Pigott et al in 2010.
 - ❖ 50% of depressed patients taking placebos also improved.
 - ❖ Different antidepressants might work differently for different people - Are all studies really comparing like for like?
-



Do Antidepressants work?

- ❖ Many random control studies do have a positive effect, Royal College of Psychiatrists (RCPsych, 2010) claim that antidepressants appear to be twice as effective as placebos.
 - ❖ Modern therapeutic practice combine medication with psychotherapy.
 - ❖ In some cases, whereby patients have severe treatment resistant depression, the only effective treatment is Electro-convulsive therapy (ECT)
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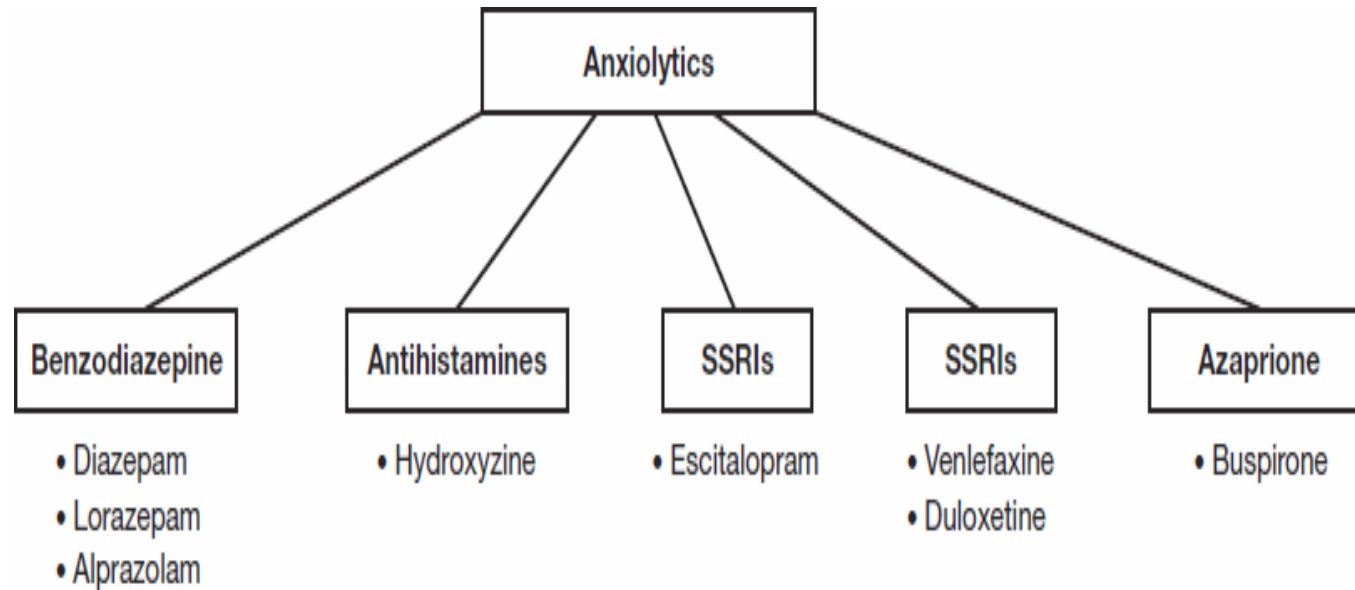
Anxiolytics (Anti-Anxiety Drugs)

- ❖ Used in the treatment of anxiety disorders
 - ❖ The first anti-anxiety medication –
Barbiturates were highly addictive and dangerous sedatives.
 - ❖ Replaced with Benzodiazepines (Diazepam, Lorazepam) tranquilisers.
 - ❖ Other drugs that might be used are some of the Antipsychotics, SSRIs, Beta-blockers and psycho-stimulants (Dexedrine, Ritalin)
-



Anxiolytics

- ❖ It is believed that Benzodiazepines act on the neurotransmitter gamma-aminobutyric acid (GABA)
- ❖ Their effect is neither to block nor enhance the functioning of this chemical messenger, but rather to minimise its effect (Tozer & Rowland, 2006)
- ❖ Anti-anxiety drugs have other important medical uses- i.e. diazepam - can be used as a pre-surgery muscle relaxant, beta-blockers are used to regulate cardiac rhythms

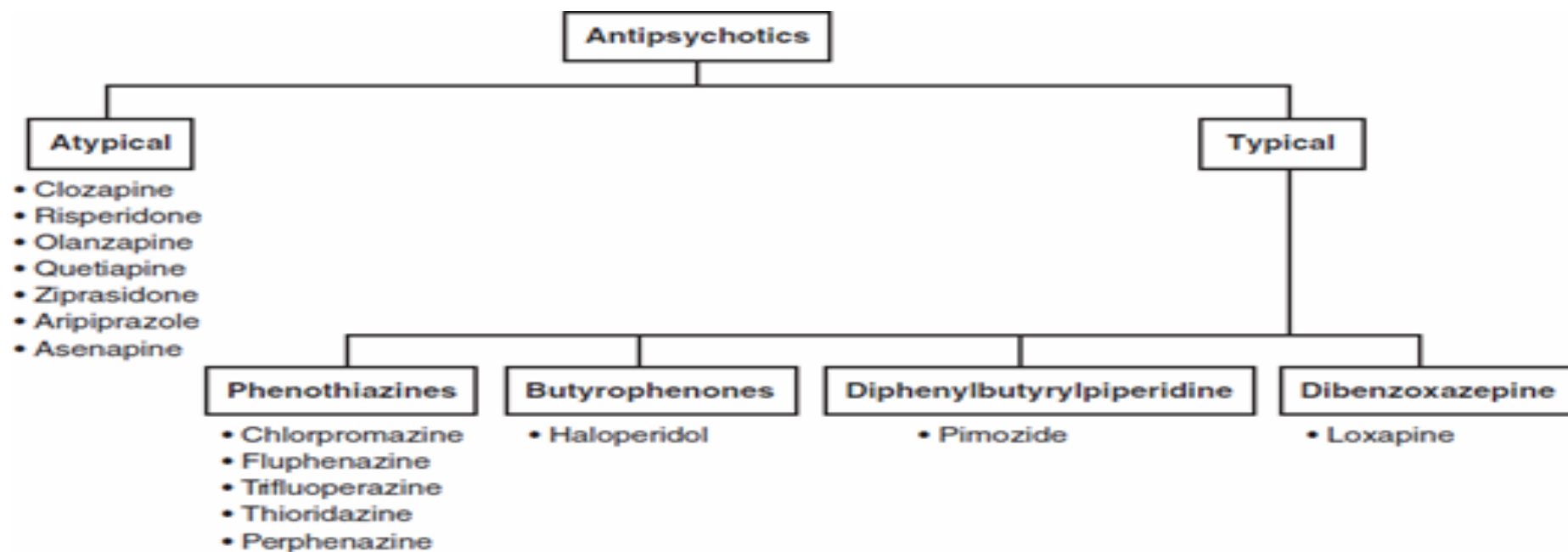


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Antipsychotics

- ❖ Used mainly in the treatment of schizophrenia
 - ❖ *Typical* antipsychotic medication work on so-called typical symptoms of psychosis (delusions, speech abnormalities, etc) (Neuroleptics). This drug is believed to work across entire mental illness spectrum, considered to have a wide ranging action.
 - ❖ *Atypical* antipsychotic medication work on the *atypical* symptoms (flattened mood, loss of motivation)
 - ❖ Chlorpromazine discovered by Henri Laborit in 1952, discovered by accident and has a wide ranging action working with other general medical conditions.
 - ❖ Antipsychotics mainly work on the dopamine system (Torrey, 2006).
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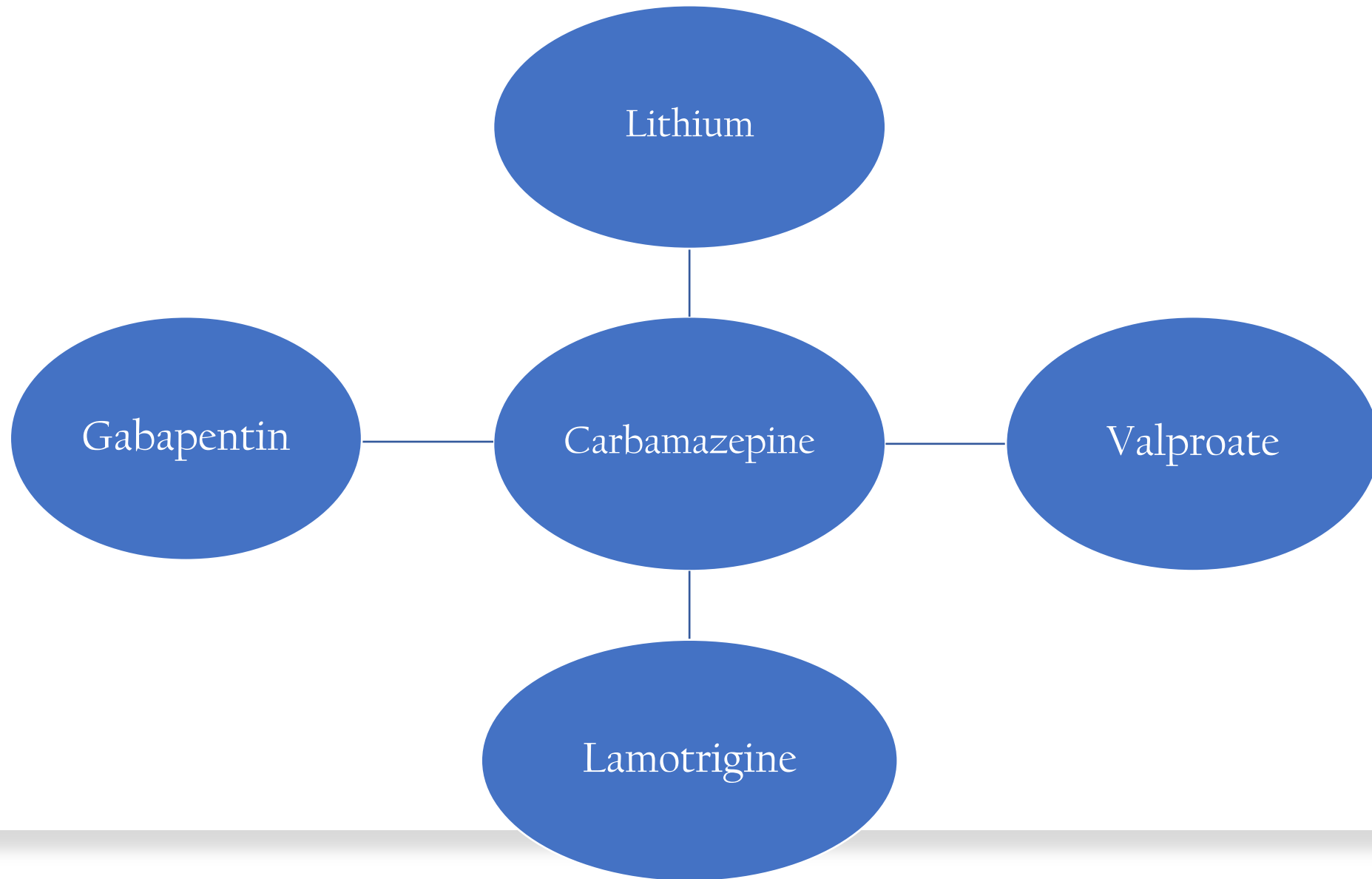


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Mood Stabilisers

- ❖ A number of drugs are used in the treatment of bipolar disorder
- ❖ These include lithium components, some antipsychotics and certain benzodiazepines, sometimes a number of approaches are needed in the treatment of bipolar disorder.
- ❖ Major or minor tranquillisers might be used if manic episodes are sufficiently disruptive.
- ❖ Drugs that also have prophylactic (preventative) effects (mood stabilisers) may also be used.

Mood Stabilisers





Pharmacological Treatment vs Psychotherapeutic Treatment

- ❖ The mind-body dilemma underpins much of the debate over the psychological explanations of the mental disorders.
 - ❖ Are these disorders caused by psychological dysfunctions in the psyche (mind) or by physical dysfunctions in the body or brain?
 - ❖ Biomedical Model
 - ❖ Bio-psychosocial model
 - ❖ Modern research is narrowing the gap between cognition patterns and neurological and physiological functions.
-

Is psychopharmacology ever justified?

- Advances in medical science have been useful in terms of helping us to understand the aetiology and cause of many infectious diseases such as Coronary Heart Disease (CHD) and Aids
- Socrates(469-399BC) viewed psychological distress as a blessing and an opportunity to change and take control of one's life experience.
- Feminists argue that women depressed as a result of their home or relationship situation may be sedated by medication and surrender the power to rectify their situation.
- Medication might suppress the negative emotions that might power change and escape from the work of self reflection

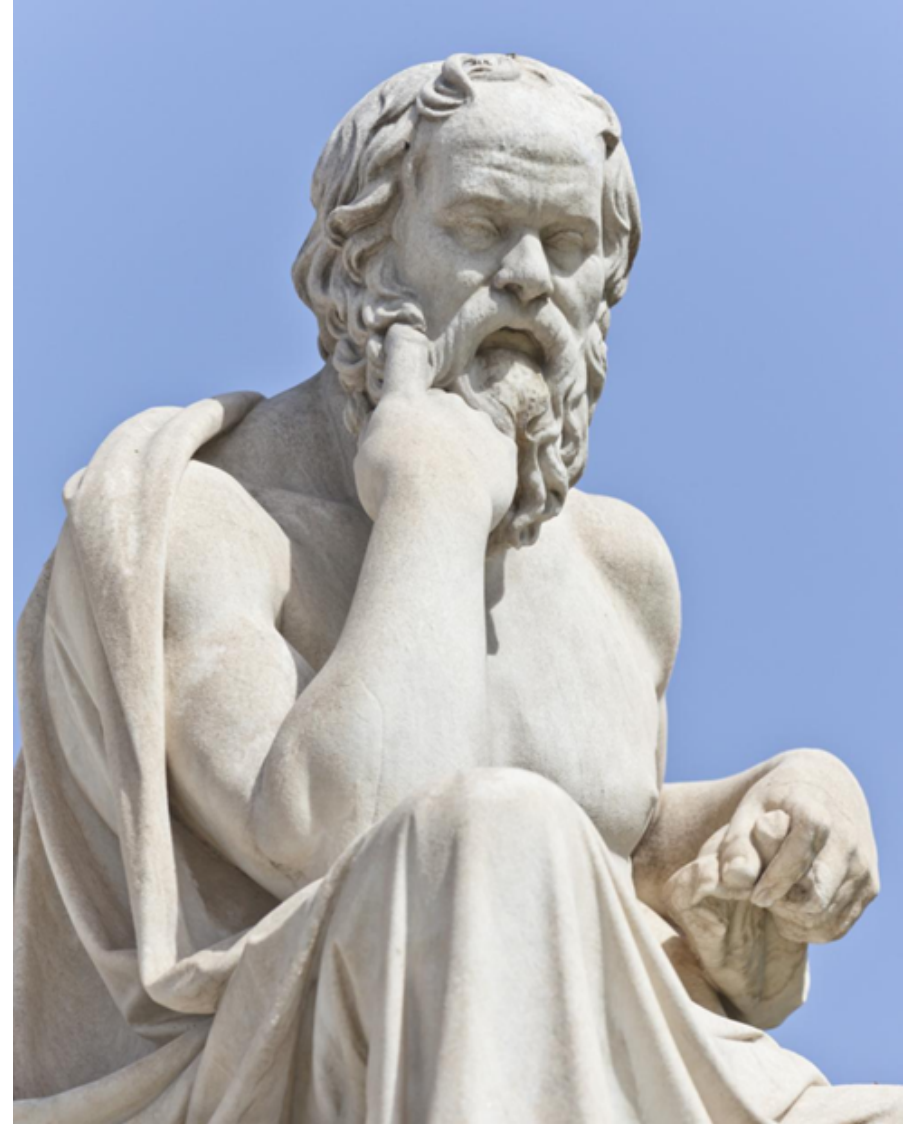


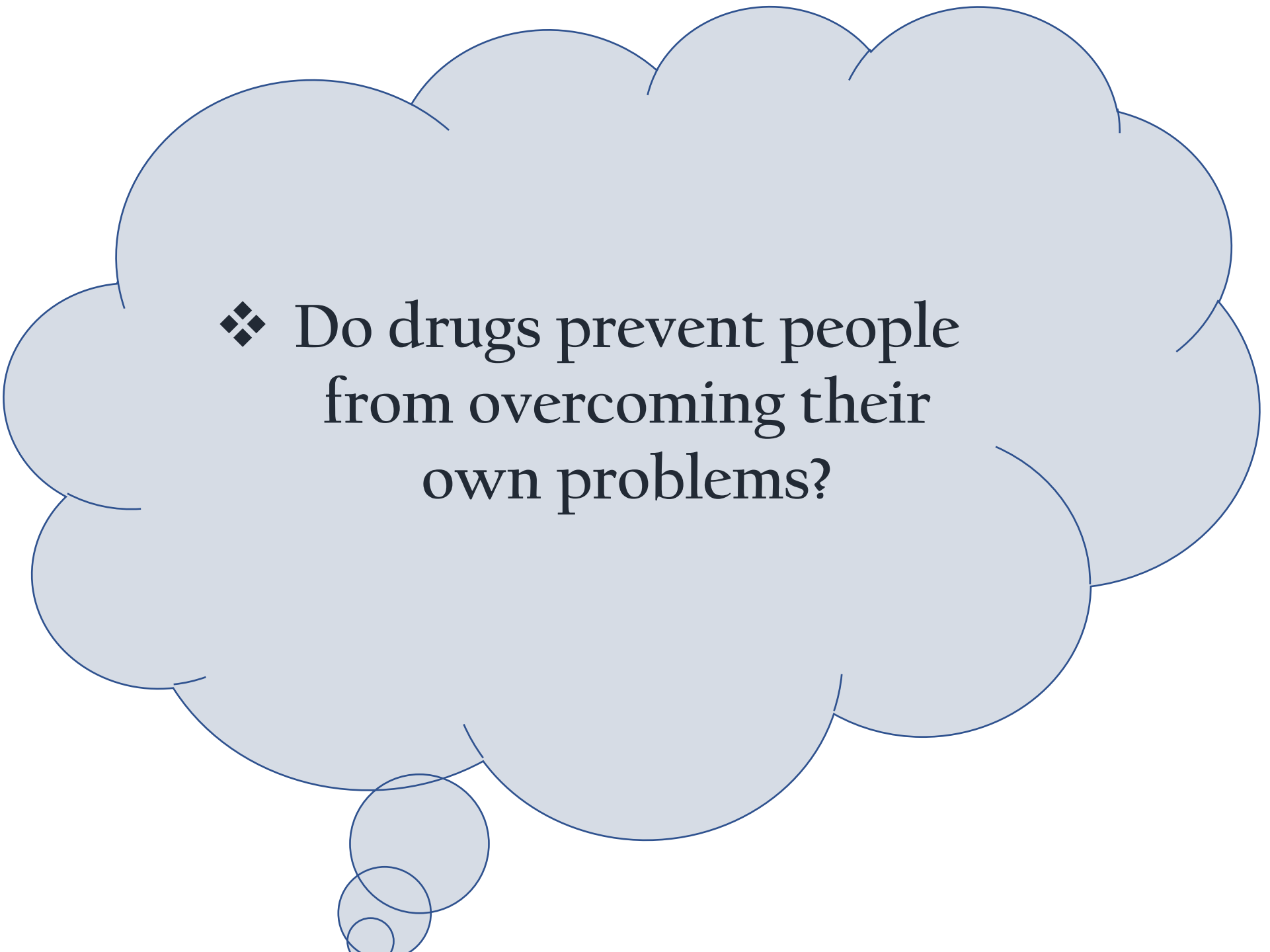


Placebo Effect

- ❖ The placebo effect remains an important hidden element in psychiatry
 - ❖ A recent reanalysis of the effects of antidepressants that included unpublished studies demonstrate that the outcome of placebo was no different in people with mild to moderate depression, even though the published studies suggest otherwise (Kirsch, 2008).
 - ❖ We have to consider other factors such as the time people might have been waiting for treatment for example
 - ❖ Jerome Frank (1961) argued the placebo effect of psychotherapy, suggesting that it depends on what patients believe or have most faith in (Chilvers, 2001 argues against this)
 - ❖ There is strong evidence that severe depression, mania, psychosis and ADHD improve with drug intervention
-

- *‘THE UNEXAMINED LIFE IS NOT WORTH LIVING’ ‘We may not find what we seek, but the life we live will be one that strengthens our inner selves’ Socrates (469-399BC)*
- Dysphoria is a natural part of being human and persists even when artificially numbed.
- Therefore, dysphoria has an important function that is necessary for survival



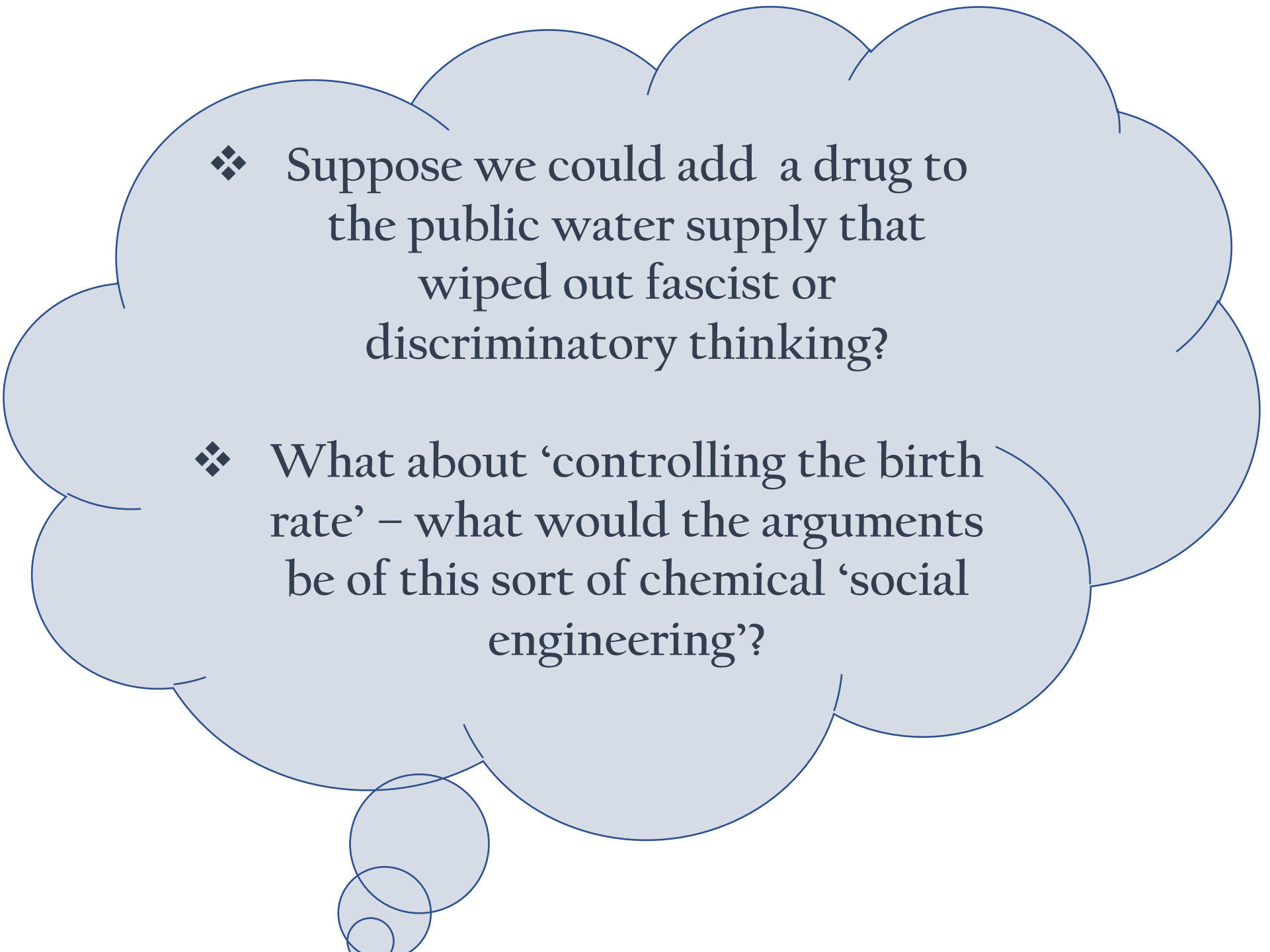


❖ Do drugs prevent people
from overcoming their
own problems?



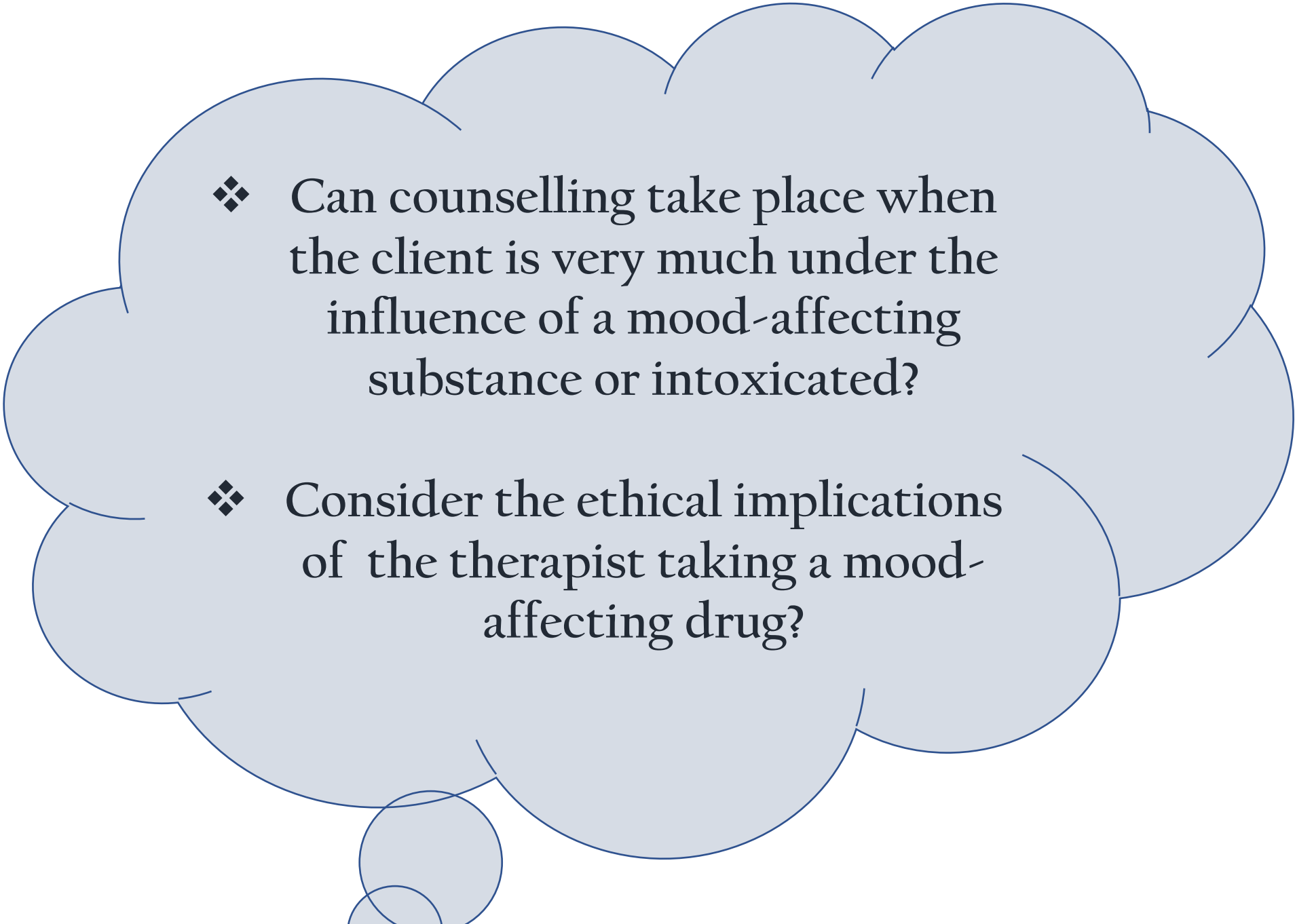
❖ Are we becoming
'Cosmetic Psychiatrists'?

❖ Is this 'Social
Engineering'?



❖ Suppose we could add a drug to the public water supply that wiped out fascist or discriminatory thinking?

❖ What about ‘controlling the birth rate’ – what would the arguments be of this sort of chemical ‘social engineering’?

- 
- ❖ Can counselling take place when the client is very much under the influence of a mood-affecting substance or intoxicated?
 - ❖ Consider the ethical implications of the therapist taking a mood-affecting drug?

Resources

Psychopharmacology

- ❖ Claringbull, N. (2011). *Mental Health in Counselling and Psychotherapy*. Learning Matters: London. (Chapter 8).
- ❖ Feltham, C. and Horton, I. (2012) *The Sage Handbook of Counselling and Psychotherapy*. London: Sage. Pp. 408-415
- ❖ Pilgrim, D (2017) *Key Concepts in Mental Health* 4th ed. London: Sage.
- ❖ Woolfe, R., Strawbridge, S., Douglas, B. and Dryden, W., (2010) *Handbook of Counselling Psychology* 3rd ed. London: Sage. (Chapter 32)

