

STATES OF CONSCIOUSNESS

2-4%

CONSCIOUSNESS IS DEFINED AS
THE AWARENESS OF OURSELVES
AND OUR ENVIRONMENT.

CIRCADIAN RHYTHMS

are our bodies biological cycles that occur every 24 hours.

Sleep, blood pressure, body temperature are just some examples

Awake
Beta waves



Drowsy, relaxed
Alpha waves



Stage N1 sleep
Theta waves



Stage N2 sleep
Sleep spindles



Stage N3 sleep
Delta waves



REM sleep
Fast, random



SLEEP STAGES

When people are relaxed & ready to fall asleep, their **EEG (electroencephalogram)** shows mostly *alpha waves*.

Stage I sleep lasts for just a few minutes.

Stage 2 sleep last for about 20 minutes & is characterized by short burst of brain waves called *sleep spindles*.

Stages 3 & 4 are known as slow wave sleep, and the EEG displays *delta waves*. People in stage 3 & 4 sleep show slow breathing & pulse rates, are difficult to arouse. This is the stage in which sleep walking occurs.

At the end of stage 4, people go back through the stages in reverse for stage 4 to 3 to 2 and then into *REM or Rapid Eye Movement*, also known as *paradoxical sleep*.

SLEEP DEPRIVATION

- REM sleep deprivation interferes with memory.
- If deprived of REM sleep will experience **REM rebound**-experiencing more & longer periods of REM the next time allowed to sleep normally.
- The more stress we experience, the longer our periods of REM sleep will be.

SLEEP DISORDERS

Insomnia – problem with falling or staying asleep

Narcolepsy – fall asleep during the day

Sleep apnea – stop breathing many times during the night, and each time they stop breathing, they wake up briefly and gasp for air. This robs them of deep sleep, which leads to irritability, high blood pressure & fatigue during the day.

DREAM THEORIES

- Dreams are the series of story like images we experience as we sleep.
- LUCID DREAMS are when we are aware we are dreaming & control our dreams.

The Psychoanalytic View

Manifest content –storyline of the dream

Latent content – hidden meaning of the dream.

Freud felt that dream interpretation was a method to get at the repressed memories & that dreams were wish fulfilling..in other words we act out our unconscious desires.

THE ACTIVATION SYNTHESIS THEORY

- The dreaming brain is a result of randomly activated neurons during REM sleep.
- Just random neural impulses.
- The brain synthesizes these spontaneously generated neural signals into coherent patterns or dreams.
- Dreams are basically brain sparks.

The Information Processing Theory

- Stress during the day will increase the number and intensity of dreams during the night. Most people's dream content relates to their daily concerns or problems. So perhaps the brain is dealing with daily stress and information during REM sleep.

ALTERED STATES

- **HYPNOSIS**

is a procedure that opens people up to the power of suggestion, by placing the subject into an intense state of relaxation.

Posthypnotic amnesia – instructed to forget what happened during the hypnosis.

Posthypnotic suggestion – a suggestion that a hypnotized person behave in a certain way after being brought out of hypnosis.

Ernest Hilgard's Dissociation Theory

- Hypnosis causes us to divide our consciousness voluntarily. One part of our consciousness responds to the suggestions of the hypnotist, while the other part retains an awareness of reality.

PSYCHOACTIVE DRUGS

- *are chemicals that change consciousness awareness, mood, thinking, perception or behavior.*
- **Stimulants**-increase alertness, elevate mood
examples: Nicotine, caffeine, cocaine, amphetamines
- **Depressants**-decrease bodily processes, create relaxation
examples: alcohol, valium, xanax
- **Narcotics/Opiates**-numb the senses & serve as painkillers examples: codeine, morphine, heroin, opium
- **Hallucinogens**- changes perception,
examples: LSD & marijuana

Other vocabulary terms

- Tolerance – Reduced responsiveness to a drug, prompting the user to increase the dosage to achieve effects previously obtained by lower doses.
- Withdrawal – the discomfort that follows when a person who is dependent on a drug discontinues the use of that drug.
- Dependence – a state of physiological and psychological need to take more of a substance after given use.