



Opiates / Narcotics

Psychology 470

Introduction to Chemical Addictions

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Background

- Are derived from the opium poppy or are synthetic copies
- Many uses
 - Relieve pain
 - Induce sleep
 - Reduce sensation
 - Pleasure

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SHORT HISTORY

- Is mentioned in recorded history 6,000 B. C. in Sumaria
 - 3,400 B.C. in Mesopotamia
- Is being used by Egyptians, Greeks, Arabs, Europeans, Chinese, by 400B.C.
 - Primarily used in medicine
- 1500 began to be used for pleasure in India
- Is addictive
 - Becomes very important in commerce
- Enters U.S. in 1800s
- Used in all sorts of medicines (OTCS) and products
- 1874 Wright synthesizes Heroin
 - Used to treat opium and morphine addiction
- Heroin use increases
- U.S. bans opium
- Harrison Narcotics Acts and others makes it illegal to purchase opium related products
 - Have to purchase off the black market

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Many Products Contain Opium

- Opium
- Codeine
- Morphine
- Demerol
- Heroin
- Hydromorphone (Dilaudid)
- Methadone
- Darvon/Darvocet
- Fentanyl
- Others

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Other Opiates and Related Drugs

- Oxycodone (Oxycontin)
- MPTP
- Pentazocine
- Propoxyphene
- Dextromethorphan
 - Used in cough medicine
- Clonidine
 - Relieves withdrawal symptoms
- Naloxone
 - Used for narcotic overdoses

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Opium

- Is a brownish tar-like substance
- Commonly smoked or orally ingested
- Is not commonly used today

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Codeine

- Can be combined with Aspirin (Darvon) or Tylenol (Darvocet)
 - Used for pain control
- Is used in higher end cough syrups
 - Must get from pharmacist
 - Do not need a prescription
 - Is often used to help with the “Jones” until a fix or hit is obtained.
 - Is commonly abused.

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Morphine

- Is the most refined form of opium
- Used for pain control in medical settings
 - Not as commonly used as other medical opiates.
- Is highly addictive in street form. Not as addictive from hospital use (expectancy effects).
- Hard to get
- Not as commonly used on the street as other opiates.

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Demerol

- Weaker version of Morphine
- Most commonly used in hospitals
- Same issues as Morphine
- Also seen in pill form

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Heroin

- Is the most commonly obtained and used opiate on the street.
- Has a white powder or tar-like form (Black Tar)
 - Most common form in Idaho.
- Comes in different colors
- Is smoked, snorted or injected

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Heroin Combinations

- Pure heroin is a white powder.
- Is usually “cut” (diluted) with lactose.
- When heroin first enters the U.S., it may be 95% pure, by the time it is sold, it is 3 to 5% pure.
- Heroin has a bitter taste and is often cut with quinine.
- Heroin plus cocaine is called a speedball

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Dilaudid

- Super Morphine
- 100 times more potent per dose
 - Can easily cause an overdose to a morphine or heroin addict
- Comes in a pill or liquid form
- Usually used in hospitals and hospice units for pain control.
- Is not commonly found on the street.

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Methadone

- Developed by the Germans for pain control when access to Opium was cut off.
- Is a synthetic opium
- Works exactly the same for pain but also targets different receptors associated with pleasure
- Does not really give you the “hit”
- Is often dispensed to help clients get off heroin
 - Stops withdrawal symptoms
- Is long-lasting (72h or longer)
- Can be very addictive
 - Need to observe clients carefully

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Fentanyl

- China White
- Is a liquid
- Used in hospitals for pain control and in anesthesia
- Is up to 100 times more potent than morphine.
 - Can even be stronger 20,000 times
 - Has no quality control (can easily kill you)
 - Not used as often as heroin or other substances

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General Effects and Usages of Opiates

- Medical Reasons
 - Pain Control
 - Control of chronic cough
 - Control of Diarrhea
- Street Reasons
 - Pleasure
 - Relief from mental pain
 - Relief from withdrawal symptoms
 - Pain control

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Pharmacokinetics

- Can be ingested
 - Orally,
 - Inhalation (usually through smoking)
 - Injection (IM and IV)
 - Associated with increased risk for BBPs
 - Rectally
- Distributed through the blood stream
- Metabolized by the liver
- Excreted by the kidneys

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Pharmacodynamics

Targets:

- Receptors in the brain stem
 - Medulla shuts down breathing, cough
 - Pons/RAS Influences sleeping, arousal
- Receptors in the Medial Forebrain Bundle
 - Hippocampus/UncusMemory
 - Limbic System Pleasure, Reward Centers
- Spinal Cord
 - Pain system
- Forebrain
 - Pleasure, long term memory

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Also Influences Other Structures

- Muscle tissue
- Pupils of the eye
- Sympathetic and Parasympathetic nervous system

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Tolerance

- Is rapid
- Occurs at the receptor level
- Occurs in other systems too - Liver
- Cross tolerance to other compounds also occurs

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Effects

- Euphoria
 - This is good stuff
 - Don't want to stop using
- Respiratory impairment
- Constipation
- Others

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Withdrawal

- Can occur after about two weeks of use
- Shakes
- Temperature
- Stomach and muscle cramping
- Others
- Solution
 - Get another hit

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Finally

- Injection use highly correlated with BBPs
 - Especially HIV and hepatitis
 - Must clean works
 - Must not needle share
- All Injection Drug Users (IDUs) must be tested for BBPs.
 - Is not an option anymore
 - IDUs are passing HIV into the heterosexual population

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Conclusions

- With exception of heroin, opiate use is decreasing.
 - Still high rates of users in Hispanic and Black populations
- More people are smoking or snorting heroin because of HIV risk

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