Schizophrenia
Other psychotic disorders and causes

Class Objectives
- What are Delusional Disorders?
- What causes Schizophrenia?
- How can Schizophrenia be treated?

Can someone be psychotic without having schizophrenia?

Yes. There are several types of psychotic disorders that are not schizophrenia.
Delusional disorders are characterized by a persistent belief that is contrary to reality.

- There are several subtypes recognized by the DSM IV:
  -Erotomanic
  -Grandiose
  -Jealous
  -Persecutory
  -Somatic

Why do people stalk?

- An erotomanic delusion is the irrational belief that the individual is loved by another person, usually of a higher status.
  -Often seen in stalkers, especially those who stalk celebrities.

This behavior is also displayed in a jealous delusion, when a person believes their partner is unfaithful.
How common is this?

- Delusional disorder seems to be relatively rare, affecting 24-30 people per 100,000 in the general population.
- Researchers cannot be sure about the percentages because many of these individuals do not have contact with mental health services.
- The age of onset is relatively late with the average age of first admission between 40-49 yrs.

Statistics on Schizophrenia

- Schizophrenia is a chronic and disabling brain disease that effects approximately 1% of the general population
  - about 2 million Americans each year (Ho et al., 2003).
- There is NO cure and even with treatment people with schizophrenia are likely to experience life-long difficulties.
- People with schizophrenia have a shorter life expectancy due to the higher rate of suicide and accidents (Ho et al., 2003).

When does this develop?

- This disorder effects men and women equally, but the disorder seems to appear at different times:
  - Earlier in men (usually in teens or twenties)
  - Later in women (usually in twenties and thirties)
It's all in the family...

- Family studies which began by Kallmann (1938) discovered a strong genetic link.
- Research has found all forms of schizophrenia within families (catatonic, paranoid, etc...).
- The more severe the parent's schizophrenia, the more likely the child was to develop it.

Family studies

This suggests that people do not inherit a predisposition for one type of schizophrenia, but rather a general predisposition for schizophrenia that manifests in a particular form of schizophrenia.

How many genes?

- The more genes you share, the more likely you will develop schizophrenia.
  - You have the greatest chance (48%) of having schizophrenia if your identical twin does.
  - If both of your parents have schizophrenia you have a 46% chance of developing the disorder.
The Risk of Developing Schizophrenia

Other causes

- Another theory suggests that there is some relationship between high levels of the neurotransmitter Dopamine and schizophrenia (Carlsson, 1995).
  
  - The success of antipsychotic medications, which are Dopamine antagonists, support this theory.

- When drugs are administered that are known to increase dopamine there is an increase in schizophrenic behavior and vice versa.

But wait, there's more...

- However, there is evidence that contradicts the dopamine theory. A significant number of people with schizophrenia are not helped by dopamine antagonists.
  
  - In fact, many people are helped by the drug Clozapine, which ironically is considered to be a weak dopamine antagonist

- The consensus is that dopamine is involved, but the relationship is more complicated than once believed.
Can Schizophrenia be Treated?

Some early treatments for schizophrenia included:
- Insulin coma therapy
- Prefrontal lobotomy
- Electroconvulsive therapy (ECT)

These treatments were abandoned because they were found to be ineffective for patients with schizophrenia.

How about a pill?

- **Neuroleptics** (anti-psychotics) were help people with schizophrenia think more clearly and reduce or eliminate hallucinations and delusions.
  - Reduce the positive symptoms but are less effective in controlling the negative and disorganized symptoms (Potkin et al., 1993).
Antipsychotic Medications

- These are the most commonly prescribed for people with schizophrenia, as well as anti-depressants or mood stabilizers.

Approximately 50-70% of patients will show improvement to some degree.

Antipsychotic Drug Treatment

Non-compliance with meds

- Despite the effectiveness of antipsychotic medications, many patients are not compliant with taking the medication.

  - Approximately 7% of patients prescribed antipsychotic medication refuse to take it (Hoge et al., 1990).
WHY do patients refuse medication?

- There are a number of factors that influence non-compliance:
  - Negative side effects that produce unwanted physical symptoms
  - Negative patient-doctor relationships
  - Costs of medication
  - Poor social support

What are the risks?

- These drugs impact neurotransmitter systems, which produce more serious, extrapyramidal symptoms
  - These symptoms include motor difficulties similar to those experienced by patients with Parkinson's disease (Parkinsonian symptoms)

Extrapyramidal Symptoms

- **Tardive Dyskinesia** produces involuntary movements of the tongue, face and mouth.
  - These present as protrusions of the tongue, puffing of the cheeks, puckering of the mouth and chewing movements.
  - This results from long-term use of antipsychotics and is irreversible
Undesired Effects of Antipsychotic Meds

New medications
- Since the 1990's new medications help those who did not respond to earlier antipsychotic medications and they tend to have fewer side effects (Davis, et al., 2003).
  - Most commonly prescribed:
    - Clozapine
    - Risperdone
    - Olanzapine

What are the alternatives?
- Patients often fail to return to clinics and hospitals for follow-up, which make psychosocial interventions a necessity in treatment.
  - Traditional therapy
  - Behavioral family therapy
  - Vocational rehabilitation
  - Self- advocacy
  - Psychosocial clubs
Wrap it up…

- There are many treatments for this disorder, but because it is such a complex one treatment must be carried out at all levels.

- One approach alone is not sufficient to address the many needs of people with schizophrenia.

We are DONE!

Good Bye!