

SCHIZOPHRENIA

The Training and Education Center Network
Mental Health Association of Southeastern Pennsylvania
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Appendix II
Handout (1/96)

SCHIZOPHRENIA

I. WHAT IS SCHIZOPHRENIA?

- A. A brain syndrome characterized by difficulties in thinking, perceiving reality, social functioning and self-care.
- B. There is currently no laboratory test which can tell us for sure that a person has Schizophrenia. To deal with this problem, American psychiatrists use a common set of conditions that must be present in a patient before they diagnose him/her as having Schizophrenia. These criteria are listed in a book called the **Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition** (widely known as the **DSM – IV**).
- C. The term ‘Schizophrenia’ is technically incorrect because it implies a single disease. It has come to be believed by some researchers that Schizophrenia may actually consist of a group of different diseases with different causes.

II. SYMPTOMS OF SCHIZOPHRENIA:

- A. See attached for **DSM-IV** criteria for diagnosing schizophrenia.
- B. There is a wide variety of symptoms of schizophrenia, not all of which are mentioned in the **DSM-IV**. The following list of symptoms is according to Dr. E. Fuller Torrey:
 - 1. Alterations of the senses:
 - a. Over sensitivity of the senses, e.g. normal conversation sounds like screaming.
 - b. Under sensitivity of the senses, e.g. inability to feel physical pain or coldness.
 - c. Flooding of the mind with thoughts and memories.

2. Inability to interpret and respond to incoming sensations, and therefore, an inability to respond appropriately:
 - a. Difficulty concentrating.
 - b. *Loosening of associations* or inability to sort out thoughts or coordinate them with the senses or appropriate emotions.
 - c. Misinterpretation of visual or hearing cues, e.g., misidentifying people, inability to understand what others say.
 - d. Inability to select appropriate responses, e.g., laughing at a funeral.
 - e. Inability to think abstractly.
 - f. Making up words, called *neologisms*.
 - g. Stringing together series of unrelated words, called *word salad*.
 - h. Blocking of thoughts.
3. Hallucinations and Delusions:
 - a. *Hallucinations* (sensory experiences with no external stimuli... most commonly, hearing voices.)
 - b. *Delusions* (false ideas believed by the person, but not by other people in his/her culture.) Delusions experienced by persons with schizophrenia can include any of the following:
 1. Paranoid delusions: beliefs that one is being watched, persecuted, or attacked.
 2. Grandiose delusions: beliefs that one owns wealth, special power, or that one is a famous person.
 3. Religious delusions: beliefs that one has received messages from God.

4. Nihilistic delusions: beliefs that reality does not exist, that one cannot die.
 5. Somatic delusions: beliefs that one has a horrible disease or a disease other than what one actually has.
 6. Mind control: beliefs that one can control other people's minds.
 7. Thought insertion: delusion that someone or something else is putting thoughts into one's mind.
 8. Thought withdrawal: delusion that someone or something else is taking one's thoughts.
 9. Thought broadcasting: delusion that one's thoughts are radiating out of one's head and being broadcast over radio or T.V.
 10. Ideas of reference: delusion that random events going on around one all relate to one in a direct way.
4. Altered sense of self:
 - a. Difficulty distinguishing one's self from other persons or inanimate objects.
 - b. Disassociation and detachment from one's body parts, e.g., believing one's arms and legs are separate from one's body and that they go their own way.
 5. Changes in emotions:
 - a. Exaggerated feelings, particularly guilt and fear, e.g., fear that a small thread from a sweater may be sharp like a needle.
 - b. Emotions inappropriate to a particular situation.
 - c. Flattening of emotions, difficulty feeling one's feelings.
 - d. Rapidly changing emotions.

6. Changes in movements:
 - a. Increased or decreased speed in movement.
 - b. Awkwardness or clumsiness.
 - c. Decreased spontaneity.
 - d. Repetitious movements, e.g., tics, tremors, sucking movements, tongue movements.
 - e. Catatonic behavior (remaining in one place or posture for a long time without responding to external stimuli).

7. Changes in behavior:
 - a. Complete social withdrawal.
 - b. Ritualistic behaviors, postures, or gestures, e.g., walking through all doors backwards, rhythmically shaking one's hand.
 - c. Socially inappropriate behaviors, e.g. walking around naked in public.
 - d. Mimicking whatever others do.
 - e. Repeating whatever others say.

III. THE CONCEPT OF POSITIVE AND NEGATIVE SYMPTOMS:

- A. It has become increasingly popular for researchers to divide the symptoms listed above into two categories:
 1. Positive Symptoms: Experiences which are present, but should be absent, e.g., hallucinations, oversensitivity of the senses, loosening of associations, delusions.
 2. Negative (or Deficit) Symptoms: Experiences and abilities which are absent, but should be present, e.g., lack of initiative, blunted feelings, poor personal hygiene, social withdrawal, inappropriate social behavior, poor problem-solving and task performance.

- B. See attached for a more complete list of positive and negative symptoms.

- C. Unfortunately, the traditional antipsychotic medications used to treat Schizophrenia can only control the positive symptoms. They do not affect and can sometimes worsen the negative symptoms.
- D. The Food and Drug Administration has approved Clozaril and Risperdal as drugs which can reduce both positive and negative symptoms in some patients who have not responded to the traditional antipsychotic drugs.
- E. A particular person with schizophrenia may have only positive symptoms, only negative symptoms, or both at a particular point in time. The presence of positive and negative symptoms in a particular person can also change over the course of his/her illness.
- F. Selzer and his colleagues criticize the practice of grouping the negative symptoms together as if they have a common cause and will respond to a common treatment. Instead they propose the following five categories of “negative symptoms”, based on their ideas about all the possible factors that cause or contribute to negative symptoms, some of which can be influenced by the active effort of the patient and some by manipulation of medication.
 1. Frontal brain dysfunction due to the illness (e.g., poor performance in tasks and interpersonal situations).
 2. Psychological responses to the illness (e.g., social withdrawal).
 3. Interaction of frontal brain dysfunction and psychological responses to the illness (e.g., lack of motivation, apathy, poor personal hygiene).
 4. Side effects of treatment (e.g., side effects of antipsychotic medications, effects of not being involved in treatment decisions).
 5. Symptoms of Depression overlapping Schizophrenia (e.g., apathy, lack of motivation).

IV. RECURRENCES OF THE ACUTE SYMPTOMS (“RELAPSE RATE”):

- A. Does anyone completely recover?:
 1. This question is difficult to answer because there have been many different conclusions, but the following statistics represent a summary of many different

long-term follow-up studies of people hospitalized for schizophrenia:

- a. 10 years after the initial episode:
 - 1) 25% were completely recovered.
 - 2) 25% were much improved, relatively independent.
 - 3) 25% were improved, but still required an extensive support network.
 - 4) 15% were hospitalized and unimproved.
 - 5) 10% were dead, mostly due to suicide.
 - b. 30 years after the initial episode:
 - 1) 25% were completely recovered.
 - 2) 35% were much improved and relatively independent.
 - 3) 15% were improved, but still required an extensive support network.
 - 4) 10% were hospitalized and unimproved.
 - 5) 15% were dead.
2. A common principle traditionally used by American psychiatrists to summarize the research on relapse rate is the “Rule of Thirds”:
- a. Approximately 1/3 of persons with Schizophrenia will completely recover without needing medication to prevent relapse.
 - b. Approximately 1/3 of persons with Schizophrenia will improve, but not completely recover even when maintained on medication. However, the medication controls their symptoms and reduces relapse rate.
 - c. An unfortunate 1/3 of persons with Schizophrenia will NOT improve. Their symptoms do not respond to medication.

- B. As someone who cares about an individual with Schizophrenia, is there anything I can do to help prevent relapse?
1. *YES!!* You can start by learning as much as you can about Schizophrenia so that you know what it is that you, your relative, and the rest of your family are dealing with.
 2. The onset of the early or acute symptoms usually occurs when the person is experiencing emotional stress. Research shows that the risk of relapse is significantly higher during the 3 weeks after a stressful life change, whether positive or negative. Therefore, you can help by:
 - a. Learning (and encouraging other family members to learn) ways to create a low-stress atmosphere while in the person's presence.
 - b. Noticing sleeplessness for at least two consecutive nights, as sleep disturbance can be one of the earliest signs of relapse.
 - c. Getting to know what your relative does and/or says when his/her illness is worsening.
 - d. If you suspect your relative's condition is worsening, you can try:
 - 1) Notifying the medicating physician (if relevant) in case s/he wants to change the type of dosage of medication.
 - 2) Attempting to pinpoint what stresses may be aggravating the illness, then reducing any of the stresses over which you have some control.
 - 3) If you are fortunate enough to have a relative who acknowledges and manages the illness, let him/her know any signs of relapse you've observed so s/he can take appropriate action, e.g., calling his/her treating professionals.

V. CAUSES OS SCHIZOPHRENIA

A. Can I or anyone else cause schizophrenia?

Recent research using modern brain technology supports the theory that Schizophrenia is a group of brain diseases that can be affected by, but not caused by the family or significant others. The type and extent of disease vary with each individual and may have different causes. Some research indicates that Schizophrenia primarily affects the brain's switchboard technically known as the limbic system. Other research indicates dysfunction in the brain's frontal lobe.

B. What we do know about Schizophrenia:

1. It tends to run in families, but follows no simple mode of genetic transmission. Therefore, except for identical twins or children of 2 schizophrenic parents, the chances that blood relatives of a person with Schizophrenia will NOT have Schizophrenia are much, much greater than their chances of having it. (See genetic risk statistics under genetic theories below.)
2. It tends to begin between the ages of 16 and 25 (usually between 16 and 20 for males and between 20 and 25 for females).
3. In the northern hemisphere, 5 – 15% more persons with Schizophrenia than could be expected are born during the peak season for the flu, in the late winter and early spring months. This and other data support the notion that some cases of Schizophrenia begin with damage to the brain early in life, possibly even by a virus, while the child is still growing in the uterus.
4. CAT scans of some persons with Schizophrenia show enlargement of some of the brain's fluid canals (ventricles). This enlargement does not seem to progress past age 20 and correlates with poorer response to medication and poorer outcome.

C. Theories of cause for Schizophrenia

We do not yet know for sure what causes Schizophrenia. However, many theories of cause have been proposed. These theories vary widely in the amount of research data that supports them:

1. Theories which best explain what we know about Schizophrenia and are supported by research data that supports them:
 - a. Diathesis-Stress Theory: Persons with schizophrenia inherit brains that are “allergic” to stress, so that too much stress triggers the brain to malfunction.
 - b. Genetic Theories: The potential for developing Schizophrenia is transmitted through the parents’ genes and is then set off by some factor(s) in the environment, e.g., stress, diet, pollutants.

Current research indicates that an individual’s risk of developing Schizophrenia correlates with his/her genetic relatedness to a relative with Schizophrenia.

Your relationship to person with schizophrenia	Your risk of schizophrenia	Your chances of not having schizophrenia
Niece, nephew, aunt or uncle	2%	98%
Grandchild	3%	97%
Parent	4%	96%
Brother/sister	8%	92%
Child of 1 Sz parent	12%	88%
Brother/sister also with 1 Sz parent	14%	86%
Identical twin	35-50%	65-50%
Child with 2 Sz parents	37-46%	63-54%
No genetic relationship (general population)	1%	99%

- c. Infection Theories: Persons with Schizophrenia acquire a virus which does not attack the brain until late adolescence.
- d. Biochemical Theories: The brains of persons with Schizophrenia have too much of certain chemicals that transfer nerve signals from one brain cell to another, e.g., the Dopamine Hypothesis: The overabundance of one of these chemicals called dopamine causes parts of the brain to malfunction.
- e. Immunological Theories: Something is wrong with the immune systems of persons with Schizophrenia, but the impact of this impairment has not yet been identified.

2. Theories which are *not* supported by valid research data, but remain widely believed:
 - a. Nutrition Theories (or orthomolecular psychiatry):
The brain malfunction is caused by too much or too little of certain substances in one's diet.
 - b. Psychoanalytic Theories: A person develops Schizophrenia as a result of emotional trauma in childhood caused by interactions with parents.
 - c. Family Interaction Theories: Rather than suffering from an illness, a person with Schizophrenia is merely acting "*crazy*" as a way of surviving confusing communication or interaction patterns in the family.
 - d. Stress Theories: Anyone can develop Schizophrenia if they are put under enough stress.

VI. TREATMENT OPTIONS (for control of Schizophrenia):

- A. Typical antipsychotic medication:
 1. Approximately 70% of persons with Schizophrenia clearly improve on these drugs, 25% improve slightly or not at all, and 5% get worse.
 2. From their 1986 comprehensive review of antipsychotic medication effectiveness studies, Anderson, Reiss, and Hogarty concluded the following:
 - a. About 10 – 20% of persons with Schizophrenia could avoid a relapse for 2.5 years without antipsychotics, but there is currently no way of effectively identifying these persons ahead of time.
 - b. About 30% of persons with Schizophrenia who would relapse without antipsychotics remain well while taking them.
 - c. About 40 – 50% of persons with Schizophrenia relapse within 2 years in spite of antipsychotics.
 3. The risk of the potentially serious and potentially irreversible side effect of tardive dyskinesia must be weighed against the likelihood of increased relapse without antipsychotic medication.

A. Atypical antipsychotic medication:

1. Clozapine (Trade name: Clozaril):

- a. Clinical studies indicate that clozapine leads to significant improvement in 30 to 60% of patients who have not responded to traditional antipsychotic medication. These improvements can include:
 - 1) Reduction in positive symptoms.
 - 2) Reduction in negative symptoms.
 - 3) Improved social functioning.
 - 4) Reduction in aggressive behavior.
- b. Clozapine is also associated with a significantly lower incidence of tardive dyskinesia, a potentially irreversible neurological disorder caused by antipsychotic medication.
- c. Weekly blood counts are required of patients on clozapine because of its potential to lower the white blood cell count (called agranulocytosis). This effect can lead to death if not detected early so the medication can be stopped. However, this blood monitoring adds to the considerable expense of clozapine.

2. Risperidone (Trade name: Risperdal):

- a. Clinical studies indicate that Risperidone has the following beneficial effects for some patients:
 - 1) Reduction in positive symptoms.
 - 2) Reduction in negative symptoms.
 - 3) Reduction in aggressive behavior.
 - 4) Few movement side effects, with substantial improvement in pre-existing movement side effects in some individuals who had been taking typical antipsychotics.

- b. It is not yet known whether Risperidone can cause tardive dyskinesia.
- c. Risperidone does not seem to cause lowering of the white blood cell count, as clozapine can, so blood monitoring is not necessary and this added expense is therefore eliminated.

C. Lithium:

1. Lithium in combination with antipsychotics can reduce hallucinations, delusions, and thought disorders in about 33% of persons with Schizophrenia.
2. Lithium is another alternative for persons with Schizophrenia who do not respond to antipsychotics.
3. Regular blood counts are required of patients on Lithium because the therapeutic level in the blood is close to the toxic level. The patient's potential to manage this responsibility must be considered.

D. Tegretol (Carbamazepine):

1. Tegretol in combination with antipsychotics can reduce hallucinations, delusions, thought disorders, and agitation in schizophrenic patients who are either violent or responsive to Lithium, but cannot be maintained on it because of side effects.
2. As with Clozapine, blood counts are required of patients on Tegretol (at least initially) because of its potential to lower the white blood cell count. This effect can lead to death if not detected early.
3. Other potential serious side effects of Tegretol include aplastic anemia, hepatitis, and cardiac toxicity.

E. Hospitalization:

1. Inpatient hospitalization.
2. Day or partial hospitalization.

F. Psychotherapy:

1. The effects of therapy seem to depend on the form of therapy:
 - a. Therapy * which focuses on restructuring the personality through the exploration of the patient's unconscious conflicts with significant others in early childhood has been found to be useless and in some cases harmful to persons with Schizophrenia.

*(referred to as insight-oriented, psychodynamic, intensive, or exploratory therapy or psycho-analysis.)
 - b. Supportive therapy which focuses on the teaching of skills so that the patient can manage his/her daily activities in spite of the symptoms and disabilities of the illness can be very helpful, especially if combined with medication.
2. Therapy also varies in terms of who is included in the sessions:
 - a. Individual therapy: One patient only.
 - b. Group therapy: Several patients.
 - c. Family therapy: One patient and his/her family members.
 - d. Multiple family therapy: Several patients and their families.

G. Psychiatric or Psychosocial Rehabilitation:

“The goal of psychiatric rehabilitation is to assure that the person with a psychiatric disability possesses those physical, emotional, and intellectual skills needed to live, learn, and work in his or her own particular environment. The major interventions by which this goal is accomplished involve either developing in clients the particular skills that they need to function in their environments and/or developing the environmental resources needed to support or strengthen the present level of functioning.” (Anthony, Cohen and Cohen, p. 70)

H. Vocational Rehabilitation:

Focuses on developing or maintaining vocational skills:

1. Sheltered workshops.
2. Job readiness programs.
3. Transitional or supported employment programs.

I. Residential Programs for Transitional Living:

Supervised living arrangements that focus on developing independent living skills at various levels of care.

J. Social Rehabilitation:

Focuses on developing social skills and/or providing opportunities for peer relationships to develop.

K. Educational or “Psychoeducational” Approaches:

Focus on educating patients and/or their families about the illness, medication, coping skills for managing the illness, and/or coping skills for managing the mental health system.

L. Self-help/Advocacy Groups:

1. National Mental Health Consumers Association, call 1-800-688-4226
2. National Alliance for the Mentally Ill (NAMI), call (703) 524-7600.
3. National Mental Health Association, call (703) 684-7722.
4. National Depressive and Manic-Depressive Association, call (312) 993-0066.

M. Dietary Approaches:

Focus is on developing a diet and/or vitamin regimen thought to reduce or eliminate symptoms of Schizophrenia. However, this treatment alone has had questionable results in controlling schizophrenia.

1. Megavitamin therapy.
2. Orthomolecular approaches.