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Recent Aspect Management and Treatment of Neurological Disorder Schizophrenia

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Abstract

Pharmacist plays an important role in patient healthcare. Schizophrenia is a severe, persistent, debilitating, and poorly understood psychiatric disorder that probably consists of several separate illnesses. Schizophrenia is a brain disorder that affects the way a person acts, thinks, and sees the world. People with schizophrenia have an altered perception of reality, often a significant *loss* of contact with reality. They may see or hear things that don't exist, speak in strange or confusing ways, believe that others are trying to harm them, or feel like they're being constantly watched.. About 10% of people with schizophrenia commit suicide. Pharmacist now more patient oriented and have brought many changes in life of patients. Patient counseling is considered the most important parameter for insuring better health care, because here the pharmacist interacts with patients directly. To reduce the severity of psychotic symptoms. To prevent the recurrence of symptomatic episodes and the associated deterioration in functioning. To provide support and thus enable people to function at the highest level possible. Although antipsychotic drug treatment is necessary for schizophrenic patients, it is not enough for rehabilitation alone. Rehabilitation also requires supportive psychotherapy. Various psychosocial treatments are available for varying stages in the disease, and each patient requires a unique treatment regimen. Doctor and therapist appointments for medication management and psychological healing are necessary in all stages of recovery, even when symptoms are under control. Antipsychotic drugs, rehabilitation and community support activities, and psychotherapy are the major components of treatment.

Key words: Schizophrenia, Psychiatric disorder, Medication management

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Introduction

Schizophrenia is a brain disease that interferes with normal brain functioning. It causes affected people to exhibit odd and often highly irrational or disorganized behavior. Because the brain is the organ in the body where thinking, feeling and understanding of the world takes place (where consciousness exists), a brain disease like schizophrenia alters thinking, feeling, understanding and consciousness itself in affected persons, changing their lives for the worse. Schizophrenia symptoms include difficulty thinking coherently, interacting with others normally, carrying out responsibilities and expressing emotions appropriately. Even simple everyday tasks like personal hygiene can become unmanageable and neglected. The disease can thus impact every aspect of affected people's work, family, and social life. Though not affected directly, family members also frequently become distressed and overwhelmed by the difficulties involved in providing care and in coming to terms with the transformation of their loved one into a patient with a serious chronic illness. Antipsychotic drugs, also referred to as neuroleptics, are essential to the management of schizophrenia. With the exception of clozapine (Clozaril), all antipsychotic medications are equally effective overall. Older medications known as ‘typical’ antipsychotics are known to generally have more severe side effects than newer ‘atypical’ antipsychotics, specifically extrapyramidal symptoms like tremors, restlessness, and muscle spasms.Atypical antipsychotic medications include risperidone (Risperdal), olanzapine (Zyprexa), ziprasidone (Geodon), quetiapine (Seroquel), and aripiprazole (Abilify). Typical antipsychotic mediations include haloperidol, chlorpromazine, thioridazine (Mellaril), trifluoperazine (Stelazine), and thiothixene (Navane).Clozapine (Clozaril) has been shown to be more effective than any other treatment for schizophrenia, especially in refractory cases. It is effective for both positive and negative symptoms of the disease and has a low incidence of extrapyramidal side effects. However because of the risk of agranulocytosis, a disorder of suppressed white blood cells, it is rarely used as a first line agent. As compliance with daily medication is an obstacle to care in schizophrenia, there are several long acting forms of antipsychotic medication that only have to be administered every week or every few weeks. Some of these long term medications include haloperidol deconate (Haldol Decanoate), fluphenazine deconate (Prolixin Decanoate), and Risperdal Consta.Other drugs used include lithium and the benzodiazepines. Lithium alone is inferior to neuroleptic agents in inducing remission of psychosis. Generally, psychotherapy aims to establish a collaborative relationship between people, their family members, and doctor. That way people may learn to understand and manage their disorder, to take antipsychotic drugs as prescribed, and to manage stresses that can aggravate the disorder. A good doctor-patient relationship is often a major determinant of whether treatment is successful. Psychotherapy reduces the severity of symptoms in some people and helps prevent relapse in others.

Pathophysiology

Schizophrenia currently is conceptualized as a broad syndrome expressed by a heterogeneous group of brain disorders rather than as a single disease entity. In addition, schizophrenia is viewed as the most severe end of a spectrum of schizophrenia-related disorders. Although placed in the category of "functional" psychiatric disorders, schizophrenia is associated primarily with abnormalities of brain neurochemistry, neuroanatomy, and development.Genetics and intrauterine events likely play the major etiologic role in schizophrenia, with psychosocial stressors serving as precipitating or exacerbating factors. This view is a move away from the psychodynamic theories of the mid-twentieth century and a return to some of the earliest conceptions of the disease. This modern biopsychiatric model has a firm foundation in twin concordance studies and research into the actions of antipsychotic medications on the dopamine

systems, and, more recently, serotonin, glutamate, and muscarine systems in the brain. As a result, antipsychotic medications are now the primary treatment for schizophrenia, with counseling and behavioral therapies playing supportive, but secondary, roles. The dopamine hypothesis suggests that the hallmark neurochemical disturbance is an overactivity of the dopamine system in the brain, particularly that involving the D2 receptors, which are blocked by all antipsychotic drugs (with the possible exception of the newest atypical antipsychotic drugs). Dopamine overactivity is thought to cause the positive symptoms of the disease. Diminished activity in the prefrontal cortex (ie, hypofrontality) related to serotonin transmission is associated with the negative symptoms. The efficacy of the new atypical antipsychotics in reversing negative symptoms may be owing to their blockage of specific serotonin receptors. Glutamatergic and, most recently, muscarinic systems have been shown in some studies to be related to both positive and negative schizophrenia symptoms. Modulation of these systems is at the forefront of research on schizophrenia medication treatment.

Symptoms of Schizophrenia

The onset of schizophrenia may be sudden, over a period of days or weeks, or slow and insidious, over a period of years. Although the severity and types of symptoms vary among different people with schizophrenia, the symptoms are usually sufficiently severe as to interfere with the ability to work, interact with people, and care for oneself. In some people with schizophrenia, mental function declines, leading to an impaired ability to pay attention, think in the abstract, and solve problems. The severity of mental impairment largely determines overall disability in people with schizophrenia. Symptoms may be triggered or worsened by environmental stresses, such as stressful life events. Drug use, including use of marijuana, may trigger or worsen symptoms as well.

Categories: Overall, the symptoms of schizophrenia fall into four major categories:

- Positive symptoms
- Negative symptoms
- Disorganization
- Cognitive impairment

People may have symptoms from one, two, or all categories.

Positive symptoms involve an excess or a distortion of normal functions. They include the following:

- Delusions are false beliefs that usually involve a misinterpretation of perceptions or experiences. For example, people with schizophrenia may have persecutory delusions, believing that they are being tormented, followed, tricked, or spied on. They may have delusions of reference, believing that passages from books, newspapers, or song lyrics are directed specifically at them. They may have delusions of thought withdrawal or thought insertion, believing that others can read their mind, that their thoughts are being transmitted to others, or that thoughts and impulses are being imposed on them by outside forces.

- Hallucinations of sound, sight, smell, taste, or touch may occur, although hallucinations of sound (auditory hallucinations) are by far the most common. People may hear voices in their head commenting on their behavior, conversing with one another, or making critical and abusive comments.

Negative symptoms involve a decrease in or loss of normal functions. They include the following:

- Blunted affect refers to a flattening of emotions. The face may appear immobile. People make little or no eye contact and lack emotional expressiveness. Events that would normally make them laugh or cry produce no response.
- Poverty of speech refers to a decreased amount of speech. Answers to questions may be terse, perhaps one or two words, creating the impression of an inner emptiness.
- Anhedonia refers to a diminished capacity to experience pleasure. People may take little interest in previous activities and spend more time in purposeless ones.
- Asociality refers to a lack of interest in relationships with other people. These negative symptoms are often associated with a general loss of motivation, sense of purpose, and goals.

Disorganization involves thought disorders and bizarre behavior

- Thought disorder refers to disorganized thinking, which becomes apparent when speech is rambling or shifts from one topic to another. Speech may be mildly disorganized or completely incoherent and incomprehensible.
- Bizarre behavior may take the form of childlike silliness, agitation, or inappropriate appearance, hygiene, or conduct. Catatonia is an extreme form of bizarre behavior in which people maintain a rigid posture and resist efforts to be moved or, in contrast, display purposeless and unstimulated motor activity.

Cognitive impairment refers to difficulty concentrating, remembering, organizing, planning, and problem solving. Some people are unable to concentrate sufficiently to read, follow the story line of a movie or television show, or follow directions. Others are unable to ignore distractions or remain focused on a task. Consequently, work that involves attention to detail, involvement in complicated procedures, and decision making may be impossible.

Subtypes of Schizophrenia*:* Some researchers believe schizophrenia is a single disorder, but others believe it is a syndrome (a collection of symptoms) based on numerous underlying disorders. Subtypes of schizophrenia have been proposed in an effort to classify people into more distinct groups. However, the subtype in a particular person may change over time. Subtypes include the following:

- **Paranoid:** People are preoccupied with delusions or auditory hallucinations. Disorganized speech and inappropriate emotions are less prominent.
- **Disorganized:** Speech and behavior are disorganized, and people do not express emotions or have inappropriate emotions.
- **Catatonic:** Symptoms are mainly physical. They include immobility, excessive motor activity, or assumption of bizarre postures.
- **Undifferentiated:** People have a mixture of symptoms from the other subtypes: delusions and hallucinations, thought disorder and bizarre behavior, and negative symptoms.

- **Residual:** People have had a clear history of prominent schizophrenia symptoms that are followed by a long period of mild negative symptoms.

Causes of Schizophrenia

There is no known single cause of schizophrenia. Many diseases, such as heart disease, result from an interplay of genetic, behavioral, and other factors; and this may be the case for schizophrenia as well. Scientists do not yet understand all of the factors necessary to produce schizophrenia, but all the tools of modern biomedical research are being used to search for genes, critical moments in brain development, and other factors that may lead to the illness.It has long been known that schizophrenia runs in families. People who have a close relative with schizophrenia are more likely to develop the disorder than are people who have no relatives with the illness. For example, a monozygotic (identical) twin of a person with schizophrenia has the highest risk - 40 to 50 percent - of developing the illness. A child whose parent has schizophrenia has about a 10 percent chance. By comparison, the risk of schizophrenia in the general population is about 1 percent.Scientists are studying genetic factors in schizophrenia. It appears likely that multiple genes are involved in creating a predisposition to develop the disorder. In addition, factors such as prenatal difficulties like intrauterine starvation or viral infections, perinatal complications, and various nonspecific stressors, seem to influence the development of schizophrenia. However, it is not yet understood how the genetic predisposition is transmitted, and it cannot yet be accurately predicted whether a given person will or will not develop the disorder.Several regions of the human genome are being investigated to identify genes that may confer susceptibility for schizophrenia. The strongest evidence to date leads to chromosomes 13 and 6 but remains unconfirmed. Identification of specific genes involved in the development of schizophrenia will provide important clues into what goes wrong in the brain to produce and sustain the illness and will guide the development of new and better treatments.

Prognosis

For people with schizophrenia, the prognosis depends largely on adherence to drug treatment. Without drug treatment, 70 to 80% of people have another episode within the first year after diagnosis. Drugs taken continuously can reduce this percentage to about 20 to 30% and can lessen the severity of symptoms significantly in most people. After discharge from a hospital, people who do not take prescribed drugs are very likely to be readmitted within the year. Taking drugs as directed dramatically reduces the likelihood of being readmitted. Despite the proven benefit of drug therapy; half of people with schizophrenia do not take their prescribed drugs. Some do not recognize their illness and resist taking drugs. Others stop taking their drugs because of unpleasant side effects. Memory problems, disorganization, or simply a lack of money prevents others from taking their drugs. Adherence is most likely to improve when specific barriers are addressed. If side effects of drugs are a major problem, a change to a different drug may help. A consistent, trusting relationship with a doctor or other therapist helps some people with schizophrenia to accept their illness more readily and recognize the need for adhering to prescribed treatment. Over longer periods, the prognosis varies. In general, one third of people achieve significant and lasting improvement, one third achieve some improvement with intermittent relapses and residual disabilities, and one third experience severe and permanent incapacity. Factors associated with a better prognosis include the following:

- Sudden onset of the disorder
- Older age at onset
- A good level of skills and accomplishments before becoming ill
- Presence of positive rather than negative symptoms

Factors associated with a poor prognosis include the following:
- Younger age at onset
- Poor social and vocational functioning before becoming ill
- A family history of schizophrenia
- Presence of negative rather than positive symptoms

Schizophrenia Tests

To diagnose schizophrenia, one has first to rule out any medical illness that may be the actual cause of the behavioral changes. Once medical causes have been looked for and not found, a psychotic illness such as schizophrenia could be considered. The diagnosis will best be made by a licensed mental health professional (preferably a psychiatrist) who can evaluate the patient and carefully sort through a variety of mental illnesses that might look alike at the initial examination.

❖ The doctor will examine someone in whom schizophrenia is suspected either in an office or in the emergency department. The doctor's role is to ensure that the patient doesn't have any medical problems. The doctor takes the patient's history and performs a physical examination. Laboratory and other tests, sometimes including a computerized tomography (CT) scan of the brain, are performed. Physical findings can relate to the symptoms associated with schizophrenia or to the medications the person may be taking.
❖ People with schizophrenia can exhibit a mild confusion or clumsiness.
❖ Subtle minor physical features, such as highly arched palate or wide or narrow set eyes, have been described, but none of these findings alone allow the physician to make the diagnosis.
❖ Most symptoms found are related to movement (motor symptoms). Some of these can be side effects of prescribed medications. Medications may, for example, cause dry mouth, constipation, drowsiness, stiffness on one side of the neck or jaw, restlessness, tremors of the hands and feet, and slurred speech.
❖ Tardive dyskinesia is one of the most serious side effects of medications used to treat schizophrenia. It is usually seen in older people and involves facial twitching, jerking and twisting of the limbs or trunk of the body, or both. It is a less common side effect with the newer generation of medications used to treat schizophrenia. It does not always go away, even when the medicine that caused it is discontinued.
❖ A rare, but life-threatening complication resulting from the use of neuroleptic (antipsychotic, tranquilizing) medications is neuroleptic malignant syndrome (NMS). It involves extreme muscle rigidity, sweatiness, salivation, and fever. If this is suspected, it should be treated as an emergency.
❖ Generally, results are normal in schizophrenia for the lab tests and imaging studies available to most doctors. If the person has a particular behavior as part of their mental disorder, such as drinking too much water, then this might show as a metabolic abnormality in the person's laboratory results. Some medications can trigger a decreased immune response, reflected by a low number of white blood cells in the blood. Likewise, in people with NMS, metabolism may be abnormal.

❖ Family members or friends of the person with schizophrenia can help by giving the doctor a detailed history and information about the patient, including behavioral changes, previous level of social functioning, history of mental illness in the family, past medical and psychiatric problems, medications, and allergies (to foods and medications), as well as the person's previous physicians and psychiatrists. A history of hospitalizations is also helpful so that old records at these facilities might be obtained and reviewed.

Treatment of Schizophrenia

Being diagnosed with schizophrenia can be terrifying and devastating. Learning more about the disease, including learning what types of treatment are available, and finding a support network through family and community services may provide some relief and encouragement. Unfortunately, people with schizophrenia often do not seek treatment or they stop treatment due to unpleasant side effects of medicines or lack of support. Treatment is also more difficult when symptoms are not caught early on.The goals of treatment are to eliminate symptoms, reduce the number of relapses, and reduce the severity of the illness. Improving the level of social function and relationships is also important. Treatment for schizophrenia is lifelong and includes medications, professional counseling, and support from family or community services.Medicines are the most effective treatment, and it is important to continue to take them as prescribed by your doctor. If you discontinue treatment, your quality of life will suffer, and it may take a long time to return to an acceptable level of functioning.

Initial treatment

Negative symptoms of schizophrenia (such as lack of emotion or loss of motivation) usually occur first and can be confused with other health problems such as depression or substance abuse. Substance abuse often occurs before the symptoms of schizophrenia become apparent. Negative symptoms can be difficult to treat and often do not respond well to medicines. They can also be disabling, because the symptoms are long-lasting and reduce the motivation to perform daily tasks or relate to others.Medicines used most often to treat schizophrenia include:First-generation antipsychotics, such as haloperidol (Haldol) or chlorpromazine (Thorazine), which are used to reduce anxiety and agitation, and to stop delusions and hallucinations. These medicines can be very effective, but they often have significant side effects, such as tardive dyskinesia, which is a condition that causes uncontrolled body movements. Second-generation antipsychotics, such as risperidone (Risperdal), paliperidone (Invega), olanzapine (Zyprexa), ziprasidone (Geodon), and quetiapine (Seroquel). These medicines effectively treat symptoms of schizophrenia and may help reduce the risk for relapse. Clozapine, such as Clozaril or Leponex, is usually considered a second-generation antipsychotic. This drug is approved in the United States for treating suicidal behavior associated with schizophrenia and for severe schizophrenia which has not improved with other treatment. But in the U.S., your doctor will need special authorization to prescribe clozapine for schizophrenia symptoms, and special monitoring is needed when clozapine is used.Other medicines may be added to help reduce other symptoms, such as:Lithium carbonate, such as Lithobid, Lithane, and Eskalith, to regulate moods. Antianxiety medicines, such as alprazolam (Xanax) and diazepam (for example, Valium), to reduce anxiety and nervousness. Anticonvulsant medicines, such as carbamazepine (for example, Tegretol) and valproate (for example, Depakote), to reduce symptoms during relapse. Antidepressant medicines, such as selective serotonin reuptake inhibitors (SSRIs) (for example, Zoloft or Celexa) or tricyclic antidepressants (for example, Pamelor), to reduce symptoms of depression. In addition to medicines, other effective treatment

can improve the quality of your life while you are living with schizophrenia, such as: Cognitive (CBT), especially compliance therapy (teaching and motivating the person to continue with treatment), which has been shown to reduce the symptoms of schizophrenia and reduce the distress associated with the illness. Family therapy, which helps improve compliance with treatment. Assertive community treatment (ACT), a community rehabilitation service. Education about schizophrenia, to improve your quality of life while you are living with this disease. Vocational therapy or job training, which evaluates and trains you and then places you in a job where you can be successful and improve your sense of self-worth. Social skills training, to help you develop communication and coping skills. This may include cognitive enhancement therapy, a treatment that may help you improve how well you understand and interact with other people. Your success will hinge on your ability to stick with your treatment plan. Once your symptoms are well controlled, work with your health professional to develop a treatment plan so you know what to do if you begin to show signs of relapse. If you stop taking your medicines, you are much more likely to relapse. You will need to rely on others to help you help you get through relapses and regain control over your symptoms. Therapy can help you learn how to follow your treatment plan and will improve the likelihood of treatment success.

Ongoing treatment

Treatment for people with schizophrenia during relapse is different than treatment during times of remission.During relapse, most people with schizophrenia need constant care and may need to be admitted to a hospital. Medication doses may be increased or additional medicines prescribed. During relapse, most people with schizophrenia are not able to participate in the treatment for their illness. Continuing with medicines for at least 6 to 9 months and getting counseling after an acute episode can help reduce the risk of another relapse. During remission, most people with schizophrenia do not need to be in a hospital. But they may need to continue to take medicines, sometimes in lower doses. Treatment during remission includes professional counseling, classes that help a person learn about the illness, social skills training, vocational therapy and job training, and other group activities.Medicines used most often to treat schizophrenia include:First-generation antipsychotics, such as haloperidol (Haldol) or chlorpromazine (Thorazine), which are used to reduce anxiety and agitation, and to stop delusions and hallucinations. These medicines can be very effective but often have significant side effects, such as tardive dyskinesia, which is a condition that causes uncontrolled body movements. Second-generation antipsychotics, such as risperidone (Risperdal), paliperidone (Invega), olanzapine (Zyprexa), ziprasidone (Geodon), and quetiapine (Seroquel). These medicines effectively treat symptoms of schizophrenia and may help reduce the risk for relapse. Clozapine, such as Clozaril or Leponex, is usually considered a second-generation antipsychotic. This drug is approved in the United States for treating suicidal behavior associated with schizophrenia and for severe schizophrenia which has not improved with other treatment. Other medicines may be added to help reduce other symptoms, such as:Lithium carbonate, such as Lithobid, Lithane, and Eskalith, to regulate moods. Antianxiety medicines, such as alprazolam (Xanax) and diazepam (for example, Valium), to reduce anxiety and nervousness. Anticonvulsant medicines, such as carbamazepine (for example, Tegretol) and valproate (for example, Depakote), to reduce symptoms during relapse. Antidepressant medicines, such as selective serotonin reuptake inhibitors (SSRIs) (for example, Zoloft or Celexa) or tricyclic antidepressants (for example, Pamelor), to reduce symptoms of depression.For the best outcome, other treatment is added to medicines and includes:Cognitive-behavioral therapy (CBT), especially compliance therapy

(teaching and motivating the person to continue with treatment), which has been shown to reduce the symptoms of schizophrenia and reduce the distress associated with the illness. Family therapy, which helps improve compliance with treatment. Assertive community treatment (ACT), a community rehabilitation service. Education about schizophrenia, to improve your quality of life while you are living with this disease. Vocational therapy or job training, which evaluates, trains, and places you in a job where you can be successful and improve your sense of self-worth. Social skills training, to help you develop communication and coping skills. This may include cognitive enhancement therapy, a treatment that may help you improve how well you understand and interact with other people. In some cases, electroconvulsive therapy (ECT) may be an option. During this procedure, which is done under a general anesthetic, brief electrical stimulation to the brain is given through electrodes placed on the head. The stimulation produces a short seizure that is thought to balance brain chemicals. Other conditions often occur with schizophrenia (such as depression or substance abuse), and additional treatment is needed for these conditions.

Psychosocial Treatment

Numerous studies have found that psychosocial treatments can help patients who are already stabilized on antipsychotic medications deal with certain aspects of schizophrenia, such as difficulty with communication, motivation, self-care, work, and establishing and maintaining relationships with others. Learning and using coping mechanisms to address these problems allows people with schizophrenia to attend school, work, and socialize. Patients who receive regular psychosocial treatment also adhere better to their medication schedule and have fewer relapses and hospitalizations. A positive relationship with a therapist or a case manager gives the patient a reliable source of information, sympathy, encouragement, and hope, all of which are essential for for managing the disease. The therapist can help patients better understand and adjust to living with schizophrenia by educating them about the causes of the disorder, common symptoms or problems they may experience, and the importance of staying on medications.

Illness Management Skills.

People with schizophrenia can take an active role in managing their own illness. Once they learn basic facts about schizophrenia and the principles of schizophrenia treatment, they can make informed decisions about their care. If they are taught how to monitor the early warning signs of relapse and make a plan to respond to these signs, they can learn to prevent relapses. Patients can also be taught more effective coping skills to deal with persistent symptoms.

Integrated Treatment for Co-occurring Substance Abuse.

Substance abuse is the most common co-occurring disorder in people with schizophrenia, but ordinary substance abuse treatment programs usually do not address this population's special needs. Integrating schizophrenia treatment programs and drug treatment programs produces better outcomes.

Rehabilitation.

Rehabilitation emphasizes social and vocational training to help people with schizophrenia function more effectively in their communities. Because people with schizophrenia frequently become ill during the critical career-forming years of life (ages 18 to 35) and because the disease often interferes with normal cognitive functioning, most patients do not receive the training

required for skilled work. Rehabilitation programs can include vocational counseling, job training, money management counseling, assistance in learning to use public transportation, and opportunities to practice social and workplace communication skills.

Family Education.
Patients with schizophrenia are often discharged from the hospital into the care of their families, so it is important that family members know as much as possible about the disease to prevent relapses. Family members should be able to use different kinds of treatment adherence programs and have an arsenal of coping strategies and problem-solving skills to manage their ill relative effectively. Knowing where to find outpatient and family services that support people with schizophrenia and their caregivers is also valuable.

Cognitive Behavioral Therapy.
Cognitive behavioral therapy is useful for patients with symptoms that persist even when they take medication. The cognitive therapist teaches people with schizophrenia how to test the reality of their thoughts and perceptions, how to "not listen" to their voices, and how to shake off the apathy that often immobilizes them. This treatment appears to be effective in reducing the severity of symptoms and decreasing the risk of relapse.

Self-Help Groups.
Self-help groups for people with schizophrenia and their families are becoming increasingly common. Although professional therapists are not involved, the group members are a continuing source of mutual support and comfort for each other, which is also therapeutic. People in self-help groups know that others are facing the same problems they face and no longer feel isolated by their illness or the illness of their loved one. The networking that takes place in self-help groups can also generate social action. Families working together can advocate for research and more hospital and community treatment programs, and patients acting as a group may be able to draw public attention to the discriminations many people with mental illnesses still face in today's world.Support groups and advocacy groups are excellent resources for people with many types of mental disorders.

Conclusion

Schizophrenia is a severe brain disorder that can have devastating effects, leaving the sufferer withdrawn, paranoid, and delusional. Though there is currently no cure for schizophrenia, a variety of treatment options are available. These treatments are highly effective at reducing symptoms of the disorder and preventing relapse. If you have schizophrenia, it is important to get diagnosed and seek treatment as soon as possible. The most common medical treatment for schizophrenia is the use of antipsychotic medication. 70% of people using medications for schizophrenia improve, and medicine can also cut the relapse rate for the disorder by half, reducing it to 40%. Psychotherapy of some type is highly recommended for people suffering from schizophrenia. By adding behavioral treatments for schizophrenia to a medical treatment regimen, the rate of relapse is further reduced, to only 25%. A variety of types of psychotherapy are available to schizophrenics. Cognitive therapy, psychoeducation, and family therapy can all

help schizophrenics deal with their symptoms and learn to operate in society. Social skills training is of great importance, in order to teach the patient specific ways to manage themselves in social situations.

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