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## Schizophrenia: Its prevalence, consequences and effective pharmacist role

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### ABSTRACT

Schizophrenia is a mentally disorder in which a patient become far from reality and sometime very worse condition may occur. Schizophrenia is a genetic predisposing disease. Study aims to find out the prevalence of schizophrenia, its consequences and awareness status in patients. For the purpose of the study survey was conducted among different mental healthcare center. According to our result males are affected in large no as compared to females. We have found that patients between the ages of 20 to 30 years want to get married. The affected patients may also have sexual hormonal imbalance. The ratio of suicidal attempt is 40% and in which about 13 to 15% patients became successful to attempt suicide. Schizophrenia can be treated with medications include; Haloperidol, Quetiapine, Risperidone, Olanzapine And the symptoms of disease can be control by cognitive behavior therapy, The proper counseling of an affected person by any intelligence persons may prevent the further spread of this disease Schizophrenia.

**Keywords:** Schizophrenia, Patients and pharmacist, counseling, treatment

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### INTRODUCTION

Schizophrenia is a mental disorder and it is characterized by false behavior of patients and they also far from reality of life. It's symptoms included; negative and positive symptoms. [1] Positive symptoms include; Hallucination (some else feelings, hearing or seen which cannot be sense by healthy individual), Delusion (False believes) categorized in delusion of paranoia, delusion of grandiosity, Disorganized thinking, catatonic. [2] Negative symptoms include; Affective plattening, Alogia (little talking), Avolition (loss of action), Lake of pleasure. Cognitive symptoms include; Lake of decision making, Loss of orientation, [3] Schizophrenia are the disease which are transfer from genes, they may be are 1st-degree relative or 2nd-degree relatives. Schizophrenia risk are high in identical twins. [4] Scientist believed that the imbalance in the chemicals neurotransmitters of brain involves dopamine and glutamate neurotransmitters are the main cause of schizophrenia. The fluid-filled cavities of the brain located at the center, called as ventricles. These ventricles are become larger in patients with schizophrenia. Addiction to alcohol, Nicotine and other substance s which are abuse may prove a powerful cause of schizophrenia.[5] Usually people with schizophrenia are not very violent and also big or violent crimes are not committed by patients.[6] Substances of abuse may cause to make a patient violence. These are seen with delusion of persecution. [7]

Treatment of schizophrenia included; control the symptoms of disease. Treatment includes Anti-psychotic drugs; there are two types Typical or Atypical. Typical include, Chlorpromazine, Haloperidol. And Atypical include, Risperidone, Olanzapine, Ziprasidone, Quetiapine. [8] Side effects of Typical include, Drowsiness, Dizziness, Blurred vision, Rapid heartbeat, Skin rashes, and menstrual problems with women. Side effects of Atypical are weight gain, increasing risk of diabetes, high cholesterol. Long term use of typical antipsychotic drugs are

lead to Tardive Dyskinesia (TD). [9] It has been reported that, the brain volume in frontal cortex and frontal lobe is smaller than the patient affected with Alzheimer's disease. [10] These differences have been linked to the NEURO-cognitive deficit many times associated with schizophrenia. [11] There is alteration in neuronal circuits are the cause of this. [12] One research has been shown that, there is decrease in brain volume associated with the use of antipsychotic drugs. [13] In the mesolimbic area of the brain to the function of dopamine special attention attempt. From the drug phenothizine, which block the function of dopamine can be control the psychotic symptoms. It is also reported that amphetamines may induced the psychotic symptoms in schizophrenia and trigger the release of dopamine. [14] The hypothesis of dopamine cause the excessive activation of dopamine receptor which are main reason of positive symptoms in schizophrenia. [15] In the postmortem report of schizophrenia patients there is low level of glutamate receptors and lower activity of NMDA receptor have also been reported. [16] The drugs that block the glutamate receptor such as ketamine and phencyclidine can also enhance the symptoms of disease and cause cognitive problems. [17] Poor performance on tests is linked to reduce glutamate function requiring frontal lobe and hippo-Campal function, and glutamate can affect dopamine function, both of which have been implicated in schizophrenia, and they suggested an important mediating role of glutamate pathways in the condition. [18] But positive symptoms fail to respond to glutamate containing medication. For schizophrenia diagnostic test include a lab test called CBC(a complete blood count).The doctor may also request imaging studies, such as an MRI or CT scan.[19]

The objective of the study is to find out the ratio of schizophrenia, with its consequences and to provide the awareness about this disease and how to treat best the disease schizophrenia with role of pharmacist.

**METHODOLOGY**

In this retrospective studies about more than 100 patients were evaluated by their case history. This history has conducted in 2015 in Karachi in the month of April to May. We conduct the survey in different hospitals to find out the percentage ratio of schizophrenia patients and their main causes. Hospital participated to conduct survey in search of schizophrenic disorders included Civil hospital, ABBASI SHAHEED hospital and JINNAH hospital etc. question are based survey designed carefully to ask some question from patients. Gather the

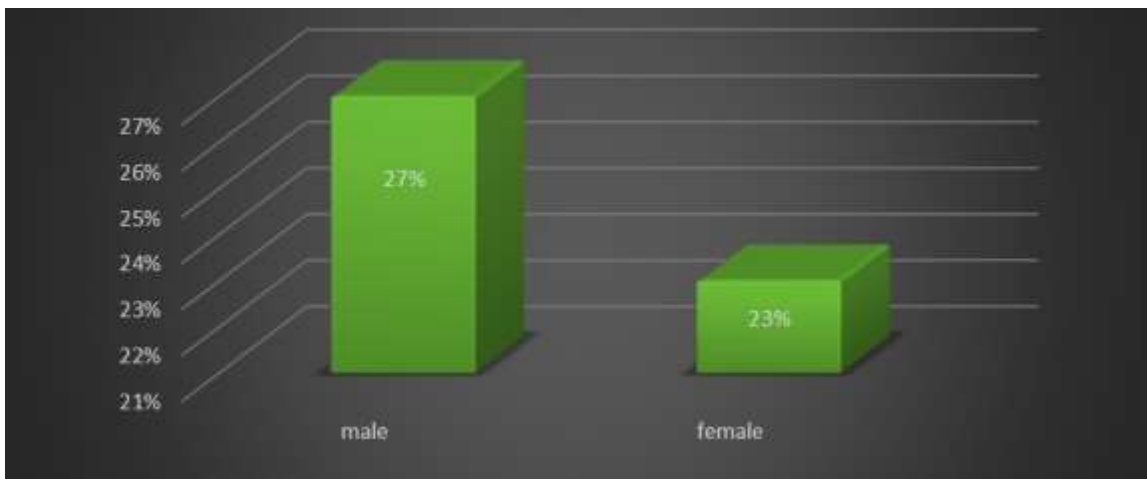
Collected data from hospitals and find out the percentage of schizophrenia in society with statistical analysis.

**RESULT**

After result interpretation we noticed that stress are the big main cause of schizophrenia about 60% patients are affected due to any stress or painful events in their life or tensions ,2nd main cause are genetically transmitted about 30% and 3rd main cause are addiction about 10%. [Shown in Figure No 1 & 2] with most affected age group included 15-20 years of age.



**Figure 1 Age Group Distribution affected with schizophrenia**



**Figure 2 RATIO BETWEEN MALE AND FEMALE**

**DISCUSSION**

We have discussed about the main role of pharmacist in controlling the disease schizophrenia. Basically, in schizophrenia patients faces most critical situation, they become far from reality, they loss their pleasure, their activities and also communication with other people. So, pharmacist should know about that, first we control the symptoms of patients and come back towards the reality of life again and control the behavior of patients. The medications are also available for controlling the symptoms included; Haloperidol, Risperidone, Quetiapine, Olanzapine, Chlorpromazine. The cognitive Behavior Therapy and Family Therapy should give by the pharmacist or physicians to patients along with medications. We have observed that, the

main reasons of schizophrenia genetically, which are genetically transmitted, intake of dope containing things or alcohol, stress and chemical imbalance in brain. The higher rate of schizophrenia are due to genetics and consuming alcohol or dope, stress are the 3rd main big cause of schizophrenia. Most of the teen agers are affected with schizophrenia due to stress and consuming alcohol or dope. During the whole survey, we noted that the higher number of patients which are affected with schizophrenia are unmarried or divorcee. We also observed that mostly patients are infertile which may be due to chemical imbalance in brain mainly (Dopamine).Patients affected with schizophrenia may be attempt to suicide and 40% patients become fail to attempt suicide and 13% patients become successful. Here the pharmacist and Health Organization centers

play an important role to further spread of schizophrenia. The seminars related to mental health are organized by pharmacist and survey which are based on mental health are also conducted by pharmacist or Health Related Centre's. The proper counseling by pharmacist or physicians may prove a good efforts for patients to stop the further increased in symptoms and to control of suicidal attempts by patients.

## CONCLUSION

We have concluded that, schizophrenia is a mentally disorder, so cognitive behavior therapy along with drug therapy are the

main remedy of this disease. We have also concluded that, to make sure survey and related seminar may prove helpful for us and for all population also. We have observed that some patients are affected with Schizophrenia due to family history and in some patients due to stress and other brain disorders. Schizophrenia may also cause by using dope containing things and due to hormonal imbalance. According to our research, the ratio of this disease schizophrenia in male and female is about 30:20 (means 30%males are affected with Schizophrenia and 20% females are affected with Schizophrenia).

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