

# THE CORRELATION BETWEEN SCHIZOPHRENIA ONSET AND DRUGS CONSUMPTION

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**Abstract:** The primary objective of the study is to establish the link between drug use and the onset of schizophrenia. *Materials and methods.* We have studied 60 patients diagnosed with schizophrenia in the Am Waldsee Clinic, Riedener Muehlen, Germany, who are also consumers of illicit drugs. The study was conducted in 2011-2014. We conducted a cross-sectional study, the main parameters studied being the type of drug used, the age at which patients started to use drugs and age of onset of schizophrenia. *Results:* In our study group men predominated, male/female ratio being 1.9: 1, the average age was 25.9 years, and most of the patients were from urban areas. The most used drugs were cannabis (91.67%) and amphetamines (85.00%). Cocaine and ecstasy were consumed by over 50% of subjects (51.67% and 53.33%). We noted that only 11.67% of the cases had consumed one drug. Over 75% of the subjects began drug use at ages under 15 years. Onset of schizophrenia was 55% of subjects aged below 20 years old. *Conclusions:* The onset of illicit drug use starts at very young ages, under 15, the most widely used drugs are cannabis and amphetamines. The younger the onset of drug use, the earlier the age of schizophrenia onset.

## INTRODUCTION

Schizophrenia is by far the most impressive disease more devastating inside and most desolating for a human being; it is a disease of absolute loneliness.(1) It is a psychosis characterized by impairment of thought processes and inappropriate emotional responses.(2)

Comorbidity of schizophrenia and substance abuse has provoked controversy for decades. Multiple potential links, including genetic vulnerability, side effects of medications, and psychosocial factors, have been discussed.(3)

Although it is not as common as other mental disorders, schizophrenia affects more than 21 million people worldwide affecting more men with onset in particular at young ages.

Drug use is one of the most important threats to the health, safety and integrity of the population. From their use for medicinal and therapeutic purposes, now they are used for cultivation, production and marketing by the international networks belonging to organized crime.

In general, the more schizophrenia starts in younger people, the contribution of somatic is more causal, primary symptoms are dominating and there are major damages.(1) It is estimated that 208 million people consume drugs illegally, since very young age, even at 12 years old.

Adolescence is a period of confusion, vulnerable in terms of value of the consumption of psychoactive substances. During this period of time, easily nonconformist behaviors are easily adopted, often at friends' suggestions, superposing often over the stage of the great delusions.

Some drugs have been associated with the occurrence of schizophrenia (4,5), nearly half of those who have schizophrenia use excessively drug and/or alcohol.(6) The role of cannabis might be causal, (8) but other drugs could be used only as mechanisms to cope with depression, anxiety, boredom

and loneliness.(6,8)

The most common illegal drug is marijuana. According to the report "Global Drugs" (World Drug Report) in 2008, conducted by the United Nations (9), about 3.9% of people aged between 15 and 64 years old have consumed marijuana.(10,11)

Studies show that in Europe, between 10% and 40% of the young between 15-19 years old have consumed marijuana. The most troubling figures are in the Czech Republic (44%), Ireland (39%), the United Kingdom and France (38%).(9,12)

Researchers have noted that cannabis use may trigger psychotic episodes in the short term, even in healthy individuals from psychological point of view.

There may be an association between marijuana consumption or other illicit drugs and schizophrenia.(13,14)

## PURPOSE

The main objective of the study is to establish the link between drug use and the onset of schizophrenia.

## MATERIALS AND METHODS

There were taken into study 60 patients diagnosed with schizophrenia from the records of Am Waldsee Clinic, Germany Riedener Muehlen, who are also consumers of illicit drugs. The study was conducted during the period 2011-2014.

**Table no. 1. Characteristics of group**

Gender (women / men)	36.67%/63.33%
Average age	25.90±5.74 years
Environment (urban / rural)	65.0%/35.0%

In our study the men prevailed, men/women ratio being 1.9:1, the mean age was 25.9 years and most patients were coming from urban areas.

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## CLINICAL ASPECTS

We conducted a cross-sectional study, the main parameters studied being the type of drug consumed, the age at which patients started to use drugs and the age of onset of schizophrenia.

### RESULTS AND DISCUSSIONS

There is conclusive evidence on the existence of policonsumption of drug among intensive consumers. More than half of the patients said they had used several types of illicit drugs or medications in recent months.

As shown in Table 2 most commonly used drugs were cannabis (91.67%) and amphetamines (85.00%). Cocaine and ecstasy were consumed by more than 50% of the subjects (51.67 53.33% respectively). Only 11.67% of cases had consumed a single drug.

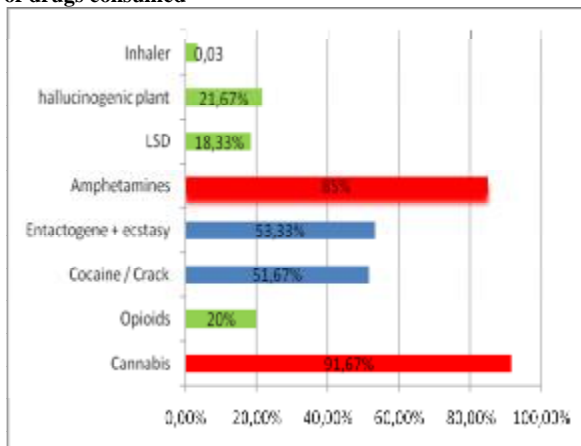
**Table no. 2. The distribution of cases depending on the type of drugs consumed**

Drugs consumed	No.	%
Cannabis	55	91.67
Opioids	12	20.00
Cocaine / Crack	31	51.67
Enactogenic drugs + ecstasy	32	53.33
Amphetamines	51	85.00
LSD	11	18.33
hallucinogenic plant	13	21.67
Inhaler	2	3.33

Researchers have noted that cannabis use may trigger psychotic episodes in the short term, even in healthy individuals from psychological point of view. There may be an association of marijuana consumption or other illicit drugs and schizophrenia.

A study conducted by Australian researchers shows that young people who smoke marijuana are more predisposed to schizophrenia and psychotic symptoms than those who have never tried to smoke the "weed".

**Figure no. 1. The distribution of cases depending on the type of drugs consumed**



People who smoke cannabis are twice predisposed to schizophrenia than non-smokers. Even people who once tried to consume drugs present a risk by 40% higher to suffer from schizophrenia or other psychotic disorders.

The onset of the drug use begins from early ages under 12 years-18,33%, 13-15 years-58,33% 16-18 years-20% over 18 years-3.33%. Accessibility to drug use is high in places of leisure, on the street and in schools.

**Table no. 3. Case distribution of first drug use**

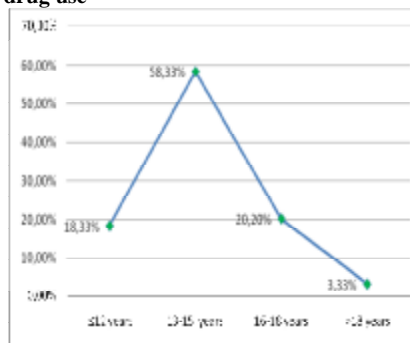
Age	No.	%
≤12 years	11	18.33
13-15 years	35	58.33
16-18 years	12	20.00
>18 years	2	3.33

Over 75% of the subjects began using drugs at ages younger than 15 (76.67%). This figure is confirmed by numerous studies that show that the onset of drug use is at adolescence.

Some authors consider that part of drug users, especially young people, have a degree of vulnerability of the personality before the commencement of consumption.

Many persons accuse states of depression, anxiety, but it is less clear whether these are the causes or the consequences of drug addiction. To some of people, in family history there are mental disorders or personality disorders.(15) Many addicts come from dysfunctional backgrounds and often have had an unhappy childhood.

**Figure no. 2. The distribution of cases depending on the onset of drug use**



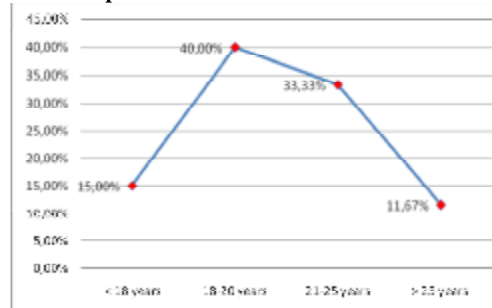
**Table no. 4. Distribution of cases according to the onset of schizophrenia**

Age	Nr.	%
< 18 years	9	15.00
18-20 years	24	40.00
21-25 years	20	33.33
> 25 years	7	11.67

The onset of schizophrenia was at ages below 20 years in 55% of subjects. Studies show that 40% of men and 23% of women were diagnosed with schizophrenia before the age of 19 years.

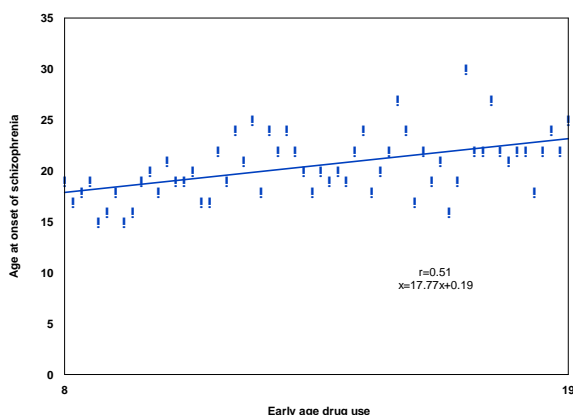
In the context of data obtained, we have established a correlation between the age of onset of drug use and the onset of schizophrenia. The younger the age of drug use, the earlier the age of schizophrenia onset.

**Figure no. 3. The distribution of cases depending on the onset of schizophrenia**



## CLINICAL ASPECTS

**Figure no. 4. Correlation of age of onset of drug use and onset of schizophrenia**



Some studies show a strong association between drug use and earlier onset of psychosis which gives further evidence that the onset of schizophrenia can be accelerated by drug use.

### CONCLUSIONS

Young male patients are associated with a higher risk for substance abuse.

The onset of illicit drug use starts at a very young age, less than 15 years, the most commonly used drugs being cannabis and amphetamines.

The younger the age of drug use, the earlier the age of schizophrenia onset.

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