

THE IMPACT OF DRUG USE ON AUTOLYTIC BEHAVIOUR IN SCHIZOPHRENIA

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Abstract: The aim of this project is to present the data concerning the impact of drug consumption over the autolytic behaviour in schizophrenia that was obtained through a descriptive and comparative cohort study with retrospective elements, and also to correlate this with the data we found in specialty literature. Materials and methods. In the study, there were included 60 patients from the "Am Waldsee" Clinic in Rieden Germany who were diagnosed with schizophrenia and addiction, and 67 patients with schizophrenia but without addiction who were hospitalized in the Psychiatry Section of the "Gavril Curteanu" Clinic in Oradea, Romania. For each of the patients, there was compiled a record of study that included, in addition to demographic data, data on drug use and violent manifestations of impulsivity and autolytic behaviour. Results and conclusions. The autolytic behaviour of patients with schizophrenia and drug consumption is two times higher than the one of the control group. Males, age under 30 and single people are the main predictive and risk factors for the autolytic behaviour in the evolution of schizophrenia associated with addictive disorder. Suicide attempts were significantly more frequent in drug users, women as well as men in comparison with the control group. The risk of autolytic behaviour (self-destructive behaviours and suicide attempts) is 1.6 higher in drug users.

INTRODUCTION

Schizophrenia as an illness represents a "concept" that is constantly and currently concerning not only the professionals but also the mass of the population, being the centre of the psychiatry in the clinic, justice and research departments.

Schizophrenia often debuts in the early adulthood and is characterized by psychotic symptoms that have a chronic evolution, are being scattered with acute episodes and it significantly marks the person diagnosed with it with an important limitation of the functional social life most of the times, and the violent outbursts with impulsivity and the autolytic behaviour are a part of the psychosymptomatology, which explains the major social impact!

The abuse of illicit and non illicit pharmacological drugs affects almost 50% of all the patients with schizophrenia.(1,2,3,4)

The increasing scale of drug and alcohol abuse in patients with schizophrenia was demonstrated by a large number of epidemiological studies conducted in the last two decades, parallel with the overall increase of drug consumption in the society.(5,6,7,8,9)

A frequent combination of the two pathologies involves an effort for the clinicians to properly diagnose the patients and also difficulties concerning the therapeutic decision. Untreated, this comorbid disorder will exacerbate the development of schizophrenia and generate common complications: relapses and decompensations that will require repeated hospitalizations; increased frequency of depressive episodes, impulsive autolytic behaviour, therapeutic non-compliance, violence or other deviations from the rules of normal social behaviour, such as crime, delinquency, deviant sexual behaviour, prostitution or other crimes. Cannabis consumption emphasizes the occurrence of hallucinations. The

most dangerous of them all are the imperative hallucinations, given the irrational and unpredictable turnout of the disease, it may occur imperative requirement of suicide or other dangerous acts.(10,11,12) Cocaine and amphetamines increases anxiety and psychotic symptoms overall. Those who consume alcohol have an increased risk of aggressive behaviour, including homicides. The violent and impulsive manifestations gratuitous and unexpected violence, outrageous and unrestrained impulses and uncontrollable negativity are more common in schizophrenia than in those without mental disorders. Mental pathology frequently complicated by suicide is most often of psychotic intensity. The risk of suicide is very high in schizophrenia. Approximately one third of patients have a history of autolytic behaviour and 10% manage suicide. Suicide attempt, as a first symptom of psychosis may be the expression of a suicidal delusional idea, manifestation found in hallucinatory behaviour caused most frequently by auditory hallucinations imperative of acute episodes, secondary to reactive depression, to social dysfunction (post- psychotic malfunction socio-familial rejection) or of the reaction to the awareness of the condition but most often it is an incomprehensible act (bizarre suicide). The act of suicide in schizophrenia has some peculiarities, occurs more often during the onset, most often it lacks motivation and the way to achieve it is by heinous, brutal means. The most exposed form of the schizophrenia is the paranoid form and the depression symptomatology is present in 2/3 of the schizophrenic patients who manage to suicide themselves. It is difficult to determine whether substance abuse precedes or follows the mental difficulties that lead to suicide. Self-harm is a particular form of aggressive behaviour manifested by self-harming with scarification of the skin (cuts, burns), deliberate self-harm or self-harm with suicidal intent. The multifactorial features of

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autolytic behaviour brings to the fore the issue of risk assessment and predictive factors in the development of schizophrenia spectrum disorders. Risk factors for suicide are male, age under 30 years, bachelor who lives alone, jobless schizophrenic, evolving with frequent relapses, depressed mood during the first episode, addiction, recent discharge from hospital. Those with paranoid schizophrenia and high educational levels have an increased risk of suicidal behaviour. Employment status, social disintegration or other economic factors are also responsible for the increased rates of suicide attempts.

PURPOSE

The present study aimed at examining the relationships between risk factors in the development of this dual disorder schizophrenia /addiction and autolytic behaviour.

MATERIALS AND METHODS

The clinical research was conducted on two groups of patients with schizophrenia hospitalized during the period 2011-2014:

- A group of 60 patients with schizophrenia and drug abusers that overcame the withdrawal phase and who were hospitalized in "Am Waldsee" Clinic, Rieden, Germany.
- A group of 67 patients with schizophrenia without addiction hospitalized in the psychiatric ward of the "Gavril Curteanu" Clinical Hospital Oradea.

The study is a descriptive, comparative cohort study, with retrospective elements, following the relationship between clinical and sociodemographic characteristics.

For each patient, there was compiled a record of study that included, in addition to demographic data, data on drug use and violent manifestations of impulsivity and autolytic behaviour.

RESULTS AND DISCUSSIONS

Characteristics of the sample

In the study group, there were predominantly men (63.33%), with a male/female ratio of 1.7:1, while in the control group this ratio was 1.1:1 ($p = 0.026$).

The distribution by age revealed that most patients in the study group were aged between 21-30 years old (70.00%) with a mean age of 25.90 years old, while in the control group most were aged between 31-51 years old (64.22 %) with a mean age of 36.37 years old ($p < 0.001$).

Table no. 1. Characteristics of the study groups

	Study group	Control group
Gender (female/male)	36.67%/63.33%	47.76%/52.24%
Mean age	25.90±5.74 years old	36.37±6.82 years old
Environment (urban/rural)	65.0%/35.0%	64.18%/35.82%

In terms of environmental origin, patients in urban areas were majority (65.00 % and 64.18 %), with no significant differences ($p = 0.864$)

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
Entactogene + Ecstasy	32	53.33
Amphetamines	51	85.00
LSD	11	18.33
Hallucinogenic plant	13	21.67
Inhaler	2	3.33

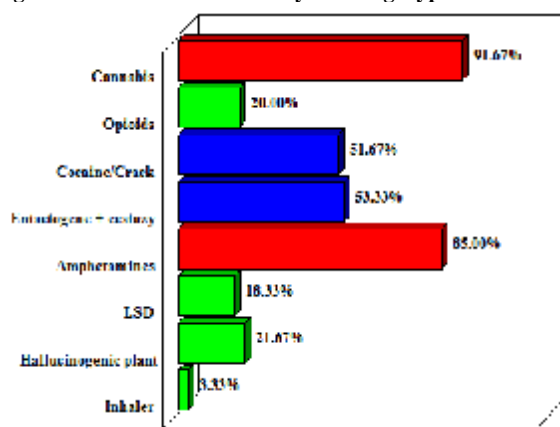
The most highly used drugs were the cannabis (91.67%) and amphetamines (85.00 %). Cocaine and ecstasy were consumed over 50% of subjects (51.67% and 53.33%).

We must point out the fact that only 11.67 % of the cases had consumed only one drug.

The researchers noted that the consumption of cannabis or cocaine can trigger psychotic episodes and confusional syndromes or may increase short-term positive or negative symptoms in schizophrenia.(13,14,15)

According to some authors, cannabis is one of the most important risk factors in the development of schizophrenia, emphasizing the increasing of the relapse rate.(16)

Figure no. 1. The distribution by the drugs type



People who smoke cannabis are twice more prone to schizophrenia than non-smokers. Even people who have tried once to use drugs risk 40% higher chances to suffer from schizophrenia or other psychotic disorders.

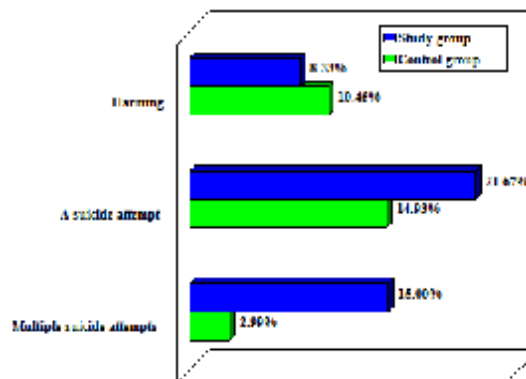
Table no. 3. The distribution of cases by autolytic behaviour

Autolytic behaviour	Study group		Control group	
	No.	%	No.	%
Without	33	55.00	48	71.64
Harming	5	8.33	7	10.45
Suicide attempt	22	36.67	12	17.91
A suicide attempt	13	21.67	10	14.93
Multiple suicide attempts	9	15.00	2	2.99

Self-harming was recorded in 8.33% of drug patients and 10.45% of patients in the control group ($p = 0.488$).

In the study group suicide attempts were recorded in 36.67 % of cases, more than 2 times more frequent than in the control group (17.91%) ($p < 0.001$).

Figure no. 2. The distribution of cases by autolytic behaviour



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Table no. 4. Frequency autolytic behaviour by gender

Gender	Study group		Control group	
	No.	%	No.	%
Harming				
Female	2	9.09	3	9.38
Male	3	7.90	4	11.42
Suicide attempt				
Female	5	22.73	4	12.50
Male	17	44.74	8	22.86

Suicide attempt was significantly more common in drug users than in the control group, both women and men (22.73% vs. 6.25% and 44.74% vs. 28.57) ($p < 0.001$). Both among drug users as well as in the control group, the frequency of suicide attempts was significantly higher in men than in women (44.74% vs. 22.73% and 28.57% vs. 6.25%) ($p < 0.001$). Autolytic risk behaviour (self-harm or attempted suicide) is 1.6 times higher in drug-consumers than in the non-consumers ($RR = 1.587$, $R = 0.166$).

Figure no. 3. Frequency autolytic behaviour by gender

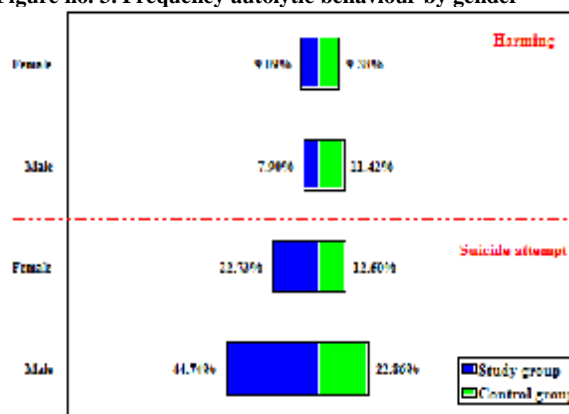


Table no. 5. Frequency autolytic behaviour by age

Age group	Study group		Control group	
	No.	%	No.	%
Harming				
≤20 years old	1	16.67		0.00
21-25 years old	0	0.00	1	10.00
26-30 years old	4	22.22	3	25.00
31-35 years old	0	0.00	2	9.52
>35 years old	0	0.00	1	4.55
Suicide attempt				
≤20 years old	1	16.67	0	0.00
21-25 years old	9	37.50	1	10.00
26-30 years old	8	44.44	4	33.33
31-35 years old	4	40.00	5	23.81
>35 years old	0	0.00	2	9.09

Of those 5 cases of self-harming that were recorded in all drug users group, all were aged below 30 years, while in the control group this percentage was 57.14%. The highest frequency of self-harm was in the age group 26-30 years in both groups (22.22% vs. 25.00%) ($p = 0.521$).

As for the attempted suicide, 81.82% of the study group cases were aged below 30, whereas in the control group the frequency was 41.67% percentage. The highest frequency of suicide attempts was in the age group 26-30 years in both groups (44.44% vs. 33.33%) ($p = 0.018$).

Autolytic risk behaviour (self-harm or attempted suicide) in people with the age under 30 years is 2.9 times higher than the non-consumers ($RR = 2.854$, $R = 0.249$).

Figure no.4. Frequency autolytic behaviour by age

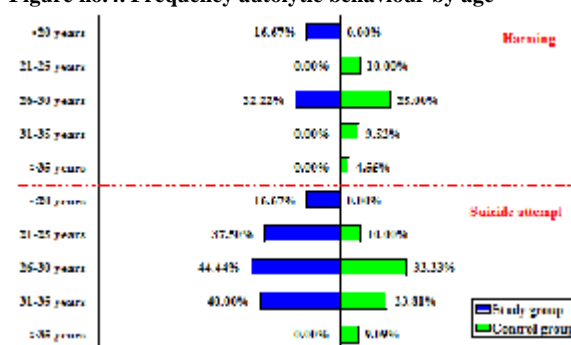


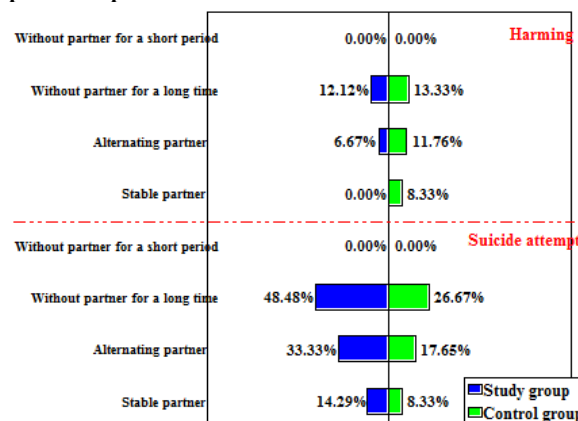
Table no. 6. The frequency of autolytic behaviour according to the partnership situation

Partnership	Study group		Control group	
	No.	%	No.	%
Harming				
Without partner for a short period	0	0.00	0	0.00
Without partner for a long time	4	12.12	4	13.33
Alternating partner	1	6.67	2	11.76
Stable partner	0	0.00	1	8.33
Suicide attempt				
Without partner for a short period	0	0.00	0	0.00
Without partner for a long time	16	48.48	8	26.67
Alternating partner	5	33.33	3	17.65
Stable partner	1	14.29	1	8.33

In both groups, both self-harming and suicide attempts had maximum frequency in patients without a partner on a long period of time (12.12% vs. 13.33%, $p = 0.722$, and 48.48% vs. 26.67%, $p < 0.001$).

Autolytic risk behaviour (self-harming or suicide attempt) in patients without a partner for a long period of time is 1.9 times higher than in the non-consumers ($RR = 1.861$, $R = 0.154$).

Figure no. 5 Frequency autolytic behaviour depending partnership



CONCLUSIONS

Autolytic behaviour in patients with schizophrenia and drug use is 2 times higher than the control group.

Male, under 30 years old, single people living alone

are predictors and risk factors for the autolytic behaviour in the evolution of schizophrenia associated with autolytic addictive disorder.

Suicide attempts were significantly more common in drug users in both females and males, compared to the control group.

Autolytic risk behaviour (self-harm and attempted suicide) is 1.6 times higher for drug users.

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