

# Postmodern Openings

ISSN: 2068 – 0236 (print), ISSN: 2069 – 9387  
(electronic)

Covered in: Index Copernicus, Ideas RePeC, EconPapers,  
Socionet, Ulrich Pro Quest, Cabell, SSRN, Appreciative  
Inquiry Commons, Journalseek, Scipio, CEEOL, EBSCO

---

## **REALITY OR MYTH? CONSIDERATIONS REGARDING THE AGGRESSIVENESS OF PATIENTS WITH SCHIZOPHRENIA**

Marius NEAGU  
Carmen CALOTĂ  
Bogdan-Daniel CHIRILĂ  
Simona-Irina DAMIAN  
Irina Smaranda MANOILESCU  
Beatrice-Gabriela IOAN

Postmodern Openings, 2014, Volume 5, Issue 4, December,  
pp: 157-169

The online version of this article can be found at:

<http://postmodernopenings.com>

---

Published by:  
Lumen Publishing House  
On behalf of:  
Lumen Research Center in Social and Humanistic Sciences

# Reality or Myth?

## Considerations Regarding the Aggressiveness of Patients with Schizophrenia

Marius NEAGU<sup>1</sup>

Carmen CALOTĂ<sup>2</sup>

Bogdan-Daniel CHIRILĂ<sup>3</sup>

Simona-Irina DAMIAN<sup>4</sup>

Irina Smaranda MANOILESCU<sup>5</sup>

Beatrice-Gabriela IOAN<sup>6</sup>

### Abstract

*Schizophrenia is one of the most invalidating mental disorders due to its onset at an early age, the long term evolution, and the negative impact on the social, professional and relational life. The correlation between schizophrenia and violence is very complex and only partially predicted by symptomatology, an important role being played by family and social factors.*

*This study aimed to identify the clinical and socio-demographic factors associated to the aggressive behaviour of the schizophrenic patients. The study group included 183 patients admitted in the Clinical Hospital of Psychiatry "Socola" between 01.06.2013-30.12.2013. The main result of our study was the positive association between schizophrenia and aggressiveness. Also, correlations were found between the patients' socio-demographic characteristics and violence, and the association of the aggressive behaviour with substance abuse like psych stimulants and other somatic diseases.*

*Knowing the risk factors for aggression is likely to support effective methods for risk reduction of marginalization and stigmatization of the patients with*

---

<sup>1</sup> Marius Neagu, M.D., Ph.D. student, University of Medicine and Pharmacy "Gr. T. Popa", Iași, Romania, [mariusneagu87@gmail.com](mailto:mariusneagu87@gmail.com)

<sup>2</sup> Carmen Calotă, M.D., Ph.D. student, University of Medicine and Pharmacy "Gr. T. Popa", Iași, Romania, [mariusneagu87@gmail.com](mailto:mariusneagu87@gmail.com) - corresponding author

<sup>3</sup> Bogdan-Daniel Chirilă, M.D., Ph.D. student, University of Medicine and Pharmacy "Gr. T. Popa", Iași, Romania, [c\\_bogdan\\_d@yahoo.com](mailto:c_bogdan_d@yahoo.com)

<sup>4</sup> Simona-Irina Damian, M.D., Ph.D., Lecturer, University of Medicine and Pharmacy "Gr. T. Popa", Iași, Romania, [si\\_damian@yahoo.com](mailto:si_damian@yahoo.com)

<sup>5</sup> Irina Smaranda Manoiilescu, M.D., Ph.D., University of Medicine and Pharmacy "Gr. T. Popa", Iași, Romania, [irinamanoilescu@yahoo.com](mailto:irinamanoilescu@yahoo.com)

<sup>6</sup> Beatrice-Gabriela Ioan, M.D., Ph.D., associate Professor University of Medicine and Pharmacy "Gr. T. Popa", Iași, Romania, [ioanbml@yahoo.com](mailto:ioanbml@yahoo.com)

*schizophrenia, facilitating their integration into the community and reducing the economic, social and health burden created by this disease.*

**Keywords:**

*schizophrenia, aggression, risk factors*

**Introduction**

Schizophrenia is one of the most invalidating mental disorders due to its onset at an early age, long term evolution, and the negative impact on social, professional and relational life. The invalidating character of the disease is reflected, for example, in lack of social activities in around 70-80% of the patients suffering from this disease (Daniel, Weinberger & Harrison, 2011).

Statistical data from Romania indicate a schizophrenia prevalence of 1%, which means that around 200.000 Romanians suffer from this disease.

One of the fundamental social problems of the patient with schizophrenia is, for certain, the community marginalization and social exclusion, due to both people's attitudes and behaviour towards the patient, and to the specific symptoms of the disease.

Social costs of schizophrenia are very high because of the non-medical costs such as welfares and medical expenses reflected in: prolonged hospitalization, costs with specialized medical personnel and treatment schemes or with social reinsertion programs.

The association between the mental disorder and violence was a highly discussed topic over the years. In the past, it was considered that patients with psychic problems were not more predisposed to violence than general population. Nowadays, however, it is accepted that "there is a statistically significant correlation between mental disorder and violence", but this "is not at the magnitude of the social causes that remain dominant in determining violence" (Prelipceanu, 2002). Violent behaviour of the mentally ill patients is often facilitated by unfavorable social factors, such as marginalization, stigmatization, rejection by close entourage, which force them to adhere to the "deviant subculture of violence"(Prelipceanu, 2002).

Acts of aggression carried out by the schizophrenic patients are a public safety problem concerning both the patient and his/her family,

medical staff and community. This issue is complicated by the fact that the correlation between schizophrenia and violence is very complex and only partially predicted by symptomatology, an important role being played by family and social factors.

### **Materials and Methods**

The aim of this study is to completely analyse, in terms of social, family and clinical view, the risk factors for aggressive behaviour of the schizophrenic patient. The study aimed to identify the clinical and socio-demographic factors associated to the aggressive behaviour of the schizophrenic patient, and to analyse the correlation between them and acts of aggression.

The data used in this study was obtained from registers, patients' records and the reports drawn by the police for patients with involuntary hospitalization existing in the archive of the Clinical Hospital of Psychiatry Socola, Iasi. The variables followed were: socio-demographic (age, sex, area of residence), clinical (type of schizophrenia, duration of evolution from the onset, secondary diagnoses, family history, treatment compliance, number of hospitalization days and number of admissions during the studied period), the level of socio-professional and family integration (level of education, occupation, family status) and criminological (type of aggression, history of aggression, alcohol and drug abuse).

The schizophrenia diagnostic was established according to the ICD 10 criteria (Saha, Chant & McGrath, 2007), and comorbidities were diagnosed by doctors from different specialties in inter-clinical consults.

In our study, aggressiveness was defined by acts of physical and verbal hetero-aggressiveness against family members, medical personnel, other patients or visitors; destruction of goods, and also by acts of auto-aggressiveness, including threats of suicide.

Descriptive analysis of the data was performed using the SPSS 20.0 program, through calculating frequency, percentage, medians and standard deviation.

The study limitations were represented by its retrospective nature, possible underestimation of violence due to family tolerability towards the aggressive behaviour of the patient and due to the non-compliant attitude of the patients. Evaluation of aggressive behaviour on admission is influenced by family tolerance to it and by the lack of

cooperation of the patients, which may lead to incomplete description and recording of violence acts. Moreover, data was collected far from the production of violent incidents. On the other hand, retrospective collection of data is an advantage with respect to their objectivity.

### **Results and discussions**

The study group included 183 patients admitted in the Clinical Hospital of Psychiatry Socola between 01.06.2013-30.12.2013. The group characteristics indicate a slight predominance of males (59.5%), age group 31-45 (52%) and of urban residence (53.7%). The most frequent form of schizophrenia in our group was the paranoid form (93.44%), followed by the hebephrenic form (3.02%), catatonic (1.64%) and undifferentiated (1.9%). The absence of treatment compliance is observed in more than 71.1% of the patients included in our study.

Then, the study group was divided and analysed depending on the existence or the absence of aggressive behaviour (42%, respectively 58%). In the group that included patients with aggressive behaviour, there is a predominance of males (50.2%), with a slight predominance of the ones with urban residence (54.5%). The higher frequency of aggressiveness in male patients is supported by studies which demonstrate the implication of androgen hormones in the aetiology of aggressiveness both in general population and in schizophrenic patients (Amore, Menchetti, Toni, Scarlatti & Ludgan, 2008; Pavlov & Christiakov, 2012), while the higher number of patients with urban residence can be associated with stress caused by industrialization and economic progress, more pronounced in this living environment (Boydell, Van Os, Lambri, Castle & Allardyce, 2003).

There was a clear predominance (89.6%) of the paranoid form of schizophrenia in aggressive patients included in the study group. Most of the aggressive patients suffer of paranoid schizophrenia, 69 patients out of 171 patients with paranoid schizophrenia included in the study showing different forms of aggressive behaviour. This fact can be caused by the high frequency of this disease type in our study, but also in general (Chirita, Papari & Chirita, 2009; Jeican, 2009; Jeican, 1998). Reporting to the total number of patients included in the study, aggression manifested in 42% of the patients with hebephrenic form and in all patients with catatonic and undifferentiated form of the disease. In the last two situations, the results are debatable because of the small

number of patients with this forms of the disease included in the study and the co-existence of secondary diagnosis of acute alcohol intoxication in 4 out of 5 patients who have catatonic and undifferentiated schizophrenia. In these patients, the decompensating of the disease, manifested as aggression was the motive for admission, but the aggressive behaviour was not observed again during hospitalization.

Alcohol consumption is more common among aggressive schizophrenic patients, compared to those with no aggressive behaviour (74% versus 53.8%). Consumption patterns declared by aggressive patients are dominated by occasional consumption (51.9%), followed by chronic consumption (9.1%); 3.1% of the aggressive patients were diagnosed with acute alcohol intoxication on admission (this diagnostic was not identified in patients without aggressive manifestations).

These results are consistent with data from literature which show that the dangerousness of the patient with schizophrenia is increased by the presence of delirium, especially the mystical and persecution ones, and by alcohol consumption.

Analysing the characteristics of violence in aggressive schizophrenic patients included in our study, we were able to ascertain that most of them present complex aggressiveness represented by auto- and hetero-aggressiveness, both verbally and physically (34.5%). The second form of aggressiveness identified in our study is hetero-aggressiveness (14.63%), followed by self-aggressiveness (8.74%) and the one targeting objects (pyromania -1.54% of the cases). Most of the aggressive manifestations did not have severe consequences, being expressed through insults (64 cases), death threats (38), and minor physical aggression (13).

In this context, there are important findings from other studies that show that antisocial schizophrenic patient tends to repeat the same type of crime, therefore special attention should be given to patients with history of severe aggression acts.

In 11 patients, self-aggressiveness was expressed as an independent form of aggression, consisting of suicide threats (6), suicide attempt (4) and self-mutilation (1). Three out of four patients who resorted to a suicide method were females, had a history of violent behaviour or suicide attempts, and, in the moment of the act, the psychiatric symptomatology was dominated by delusional ideation and hallucinations. The suicide method used by these patients was ingestion

of toxic substances (benzodiazepines, propranol and ethanol). The male patient resorted to cutting blade, on a background of auditory hallucinations indicating "poison in the blood".

Suicide has an important prevalence among schizophrenic patients (10%), representing one of the reasons why their mortality rate is higher than in general population. In a clinical study that included 1460 patients, regarding the correlation between violence and suicide in schizophrenic patients, a high association between violence, suicide threats and suicide attempts was observed, in both males and females (Witt, Hawton & Fazel, 1989). Suicidal ideation was not associated with hetero-aggressiveness, being explained by its high frequency among schizophrenic patients, in generally (Kontaxakis, Havaki-Kontaxakis, Margariti, Stamouli & Kollias, 2004).

The victims of the patients with schizophrenia are, in descending order of the frequency, parents (48%), medical personnel (43.2%), roommates and life-partners (19.2%). The high percentage of violent acts towards medical staff and roommates can be explained by the fact that the study aimed patients during hospitalization and for a short period before admission, taking into consideration historical data on how the disease decompensated. High frequency of victims among parents is correlated with the social status and the grade of social integration of the aggressive patients, aspects which will be explained further.

These results are consistent with literature data, which show that the most frequent victims of the aggressive acts committed by the patients with schizophrenia are persons in their immediate vicinity (Wehring & Carpenter, 2011).

Among the aggressive patients, 25.2% had psychiatric family history, most frequently on the parental line (19%, divided in 12.5% on maternal line and 6.5% on the paternal line), followed by fraternal history (6.2%).

Regarding secondary diagnostics on admission, we found a high association between the diagnosis of schizophrenia and manifestations of violence and acute alcohol intoxication (20.7%) and mental retardation (5.1%). The association between drug abuse and violence did not have a high significance in the study group, one of the reasons may be the low prevalence of drug abuse in our geographic region, both in psychiatric patients and in general population. Marijuana consumption was noted in 2 patients, one of them also associated acute alcohol consumption. The

form of aggressiveness observed at these 2 patients was verbal accompanied by delusional ideation with revendication theme and persecution.

Organic comorbidities highlighted in 16.8% of patients were represented by hypertension, viral hepatitis, systemic lupus erythematosus and diabetes mellitus.

Knowing the fact that alcohol represents an independent risk factor for violence, and taking into consideration the high percentage of alcohol consumers among violent patients with schizophrenia and the possible organic comorbidities among those, it rises the hypothesis of a plurifactorial aetiology of the violence among schizophrenic patients.

The analysis of the number of admissions within 6 months (period covered by our study) reveals a number of admissions in non-violent patients between 1 and 4, with a median of 2.5 compared to those of the violent group, which varied between 1 and 8, with a median of 4.1. Also, there was a significant correlation between the violent manifestation of schizophrenia and the days of hospitalization. Thus, the number of days of hospitalization in aggressive patients was between 12 and 180, with an average of 57.35, compared with non-aggressive patients, where the number of days of hospitalization was in the range of 10 to 120, with an average of 30.3 days. The association between violence and the high number of hospitalization days and re-admissions is constantly reported in other studies, as well (Noble & Roger, 1989). This can be explained by greater severity of the psychotic disorders in this category of patients and by higher frequency of the secondary diagnostics, associated with a low rate of treatment response and low adherence to treatment.

The increased number of hospitalization days and frequent readmissions reflects in the social and economic costs of the disease (Romila, 1997). The overall costs for society regarding schizophrenia are important, being represented by non-medical expenses in form of pensions and social benefits (in France, for example, 47% of these patients receive social benefits for disabled, 15% receive a pension for disability, and 46% other forms of social benefits from the state), by direct medical costs reflected in the high number of hospitalization days of the schizophrenic patients with violent manifestations, but also in competent medical personnel, both professionally and numerical.



Distribution of the group of patients according to disease onset shows a correlation between the recent onset of schizophrenia and aggression. Thus, almost half of the aggressive patients (46.8%) have 10 years at most from the onset of the disease. For the rest of the violent patients, the onset of the disease is placed between 11 to 20 years (38.7%), between 21 and 30 years in 9.2%, and in only 5.2% of the patients the onset was between 31 to 45 years before. Therefore, a higher prevalence of violence is observed in younger patients, who are at a short period of time after onset (0-10 years). The association between young age and violence is constantly reported in literature (James et al, 1990; Soliman & Reza, 2001).

Regarding the social status, the percentage of unmarried patients is higher among the violent ones (75.3%) than in non-violent group (50%). However, divorce rate is quite similar between the 2 groups (9.10% in violent patients and 8.4% in non-violent ones).

Analysing social integration and family relationships, there is a high percentage of abandonment in aggressive patients (7.5%). Also, the percentage of patients who live with family is significantly higher in the non-aggressive than in aggressive patients (66.2% versus 36.7%), in the violent patients group there are represented in a higher extent those who live alone (55.66%).

Both schizophrenic patients and those with schizotypal personality disorder have a tendency to isolation. In our study, the results in analysing social integration of aggressive patients confirm this, stating that there are no differences among inter-personal levels of relationships in both violent and non-violent patients.

In terms of professional integration, only a small proportion of patients with schizophrenia and aggressive behaviour have a stable job (7.8%); most of them are retired on medical grounds (53.2%) or unemployed (35%). This low representation in the labour market contrasts with good education level found among study participants (42.4% - high school graduates, 28.8% - graduates of post-secondary schools). Level of schizophrenic patient's occupational integration is closely related to the economic and social implications of the disease. The literature indicates that, once the established diagnosis of schizophrenia, it is associated with unemployment or incapacity of acquiring a job, leading to financial instability and social decline. They tend to encourage subsistence, characterized by poverty housing and

homelessness, substance abuse, interpersonal conflicts and increased crime (Mullen, 2006).

### **Conclusions**

Schizophrenia is a very controversial subject, since the beginnings of defining this disease by Bleuer, and debates varied from etiopathogenic mechanisms to the assumption of schizophrenia as a real disease. Over time, studies have demonstrated that patients with schizophrenia have a high risk of being implicated in violent acts compared to general population, and this has a negative impact both on the victims, but also on the aggressors and requiring a high socio-economic cost.

The main result of our study was the positive association between schizophrenia and aggressiveness. Also, correlations were found between socio-demographic characteristics and violence, and the association of the aggressive behaviour with substance abuse like psych stimulants and other somatic diagnostics.

Discrimination of patients with schizophrenia or other mental illness is a problem well known and disputed. Discrimination in the workplace, exclusion from a group of friends or family and revulsion and fear attitude of the society towards this disease, contributes to the negative development of the schizophrenic patient towards social isolation, financial decline and decline to medical services addressability, which results in frequent decompensating of the disease, comorbidities development, consumption of toxic substances and aggressive behaviour. Interrupting this causal chain can be achieved by knowing the risk factors for aggression, to identifying optimal methods for risk reduction of marginalization and stigmatization of the patients with schizophrenia, facilitating their integration into the community and reducing the economic, social and health burden created by this disease.

## References

- Weinberger, D. R., & Harrison, P. J. (2011). *Schizophrenia*. Oxford: Blackwell Publishing.
- Chiriță, V., Papari, A., & Chiriță, R. (2009). *Tratat de psihiatrie* (Volumul 1). Constanța: Editura Fundației Andrei Șaguna.
- Jeican, R. (2009). *Schizofrenia- teorii și interpretări etiopatogenetice clinice și psihologice contemporane*. Cluj-Napoca: Editura Eikon.
- Amore, M., Menchetti, M., Toni, C., Scarlatti, F., & Ludgan, E. (2008). Predictors of violent behavior among acute psychiatric patients: clinical study. *Psychiatry and Clinical Neurosciences*, 62, 247 – 255.
- Jeican, R. (1998). *Schizofrenia, Monografie medicala*. Cluj-Napoca: Casa Cartii de Stiință.
- Romilă, A. (1997). *Psihiatrie*. București: Editat de asociația Psihiatrilor liberi din România.
- Pavlov, K. A., & Christiakov, D. A. (2012). Genetic determination of aggression and impulsivity in humans. *Appl Genetics*, 53, 61 – 82.
- Preliceanu D. (2002). Violența și boala psihică. *Revista română de psihiatrie*, 1-2.
- Wehring, H. J., & Carpenter, W. T. (2011). Violence and Schizophrenia. *Schizophrenia Bull*, 37(5), 877 - 878.
- Saha, S., Chant, D., & McGrath, J. (2007). A systematic review of mortality in schizophrenia: is the differential mortality gap worsening over time. *Arch. Gen. Psychiatry*, 64, 1123 - 1131.
- Boydell, J., Van Os, J., Lambri, M., Castle, D., & Allardyce, J. (2003). Incidence of schizophrenia in south-east London between 1965 and 1997. *BJP*, 182, 1-A2.
- Noble, P., & Roger, S. (1989). Violence by psychiatric in-patients. *Brit J Psychiat*, 155, 384 - 390.
- Witt, K., Hawton, K., Fazel, S. (2014). The relationship between suicide and violence in schizophrenia: Analysis of the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) dataset. *Schizophr Res.*, 154(1-3), 61 - 67.
- Kontaxakis, V., Havaki-Kontaxaki, B., Margariti, M., Stamouli, S., Kollias, C., & Christodoulou, G. (2004). Suicidal ideation in in-patients with acute schizophrenia. *Can. J. Psychiatry*, 49, 476 - 479.

- James, D. V., Fineberg, N. A., et al. (1990). An increase in violence on a acute psychiatric ward, a study of associated factors. *Brit J of Psychiat.*, 156, 846 - 852.
- Soliman, A. E. D., & Reza, H. (2001). Risk factors and correlatates of violence among acutely ill adult psychiatric inpatients. *Psichiatr Serv.*, 52(2), 75 - 79.
- Mullen, P. E. (2006). Schizophrenia and violence: from correlations to preventive strategies. *Rc Psych Advances in Psychiatric Treatment*, 12, 239 - 248.

**Acknowledgment:** The publishing of this article was supported by the grant of LUMEN Research Center in Social and Humanistic Sciences: *LUMEN Promoting Excellence in Research.*

### Biodata



**Marius NEAGU** is a Forensic Medicine resident within University of Medicine and Pharmacy “Gr. T. Popa”, Department of Legal Medicine and Bioethics, Iasi, Romania, since 2013. He is also a PhD student on Medical Science within University of Medicine and Pharmacy “Gr. T. Popa”, Iasi, Romania, since 2014. Forensic Medicine, Bioethics and Psychiatry are his areas of interest. He published several scientific works and participated to various scientific meetings in his fields.



**Carmen CALOTĂ** will be a Neurology resident University of Medicine and Pharmacy “Carol Davila” Bucuresti starting from January 2015. She graduated University of Medicine and Pharmacy “Gr.T. Popa”, Iasi, Romania, in 2014. Neurology and Psychiatry are her areas of interest. She also participated to various national and international congresses and conferences in her fields.



**Bogdan-Daniel CHIRILĂ** is a Psychiatry resident at Regional Institute of Psychiatry “Socola” Iasi since January 2013. He is also a Ph.D. student on Medical Science within University of Medicine and Pharmacy “Gr. T. Popa”, Iasi, Romania, since October 2014. Psychiatry, psychotherapy, forensic medicine, bioethics and philosophy are his areas of interest. He published several scientific works and he participated to various national and international congresses and conferences in his fields. He is co-author of a monograph in the field of criminalistics and also collaborated in the realization of a monograph in the field of philosophy.



**Simona-Irina DAMIAN.** Ph.D. in Medical Sciences at the University of Medicine and Pharmacy "Gr. T. Popa" Iasi, Romania, 2012. M.D., graduated University of Medicine and Pharmacy "Gr. T. Popa" in 1998 and Faculty of Juridical Sciences, University "Mihail Kogalniceanu" Iasi in 2006. Master in Penal Sciences and Criminalistics in 2007. Post-doctoral researcher in Ethics and Psychiatry. Currently works as Assistant Professor at the University of Medicine and Pharmacy "Gr. T. Popa" Iași, Romania and as MD, specialty Forensic Medicine, at the Institute of Legal Medicine Iași. Author and co-author of various papers in journals and conferences.



**Irina Smaranda MANOILESCU.** Ph.D. in Medical Sciences at the University of Medicine and Pharmacy "Gr. T. Popa" Iasi, Romania, 2012. M.D., graduated University of Medicine and Pharmacy "Gr. T. Popa" in 1998. Currently works as Assistant Professor at the University of Medicine and Pharmacy "Gr. T. Popa" Iași, Romania and as MD, specialty Forensic Medicine, at the Institute of Legal Medicine Iași. Forensic Medicine, Bioethics and Psychiatry are his areas of interest. Author and co-author of various papers in journals and conferences.



**Beatrice-Gabriela IOAN** is Associate Professor in Legal Medicine at the University of Medicine and Pharmacy "Grigore T. Popa" and senior forensic pathologist at the Institute of Legal Medicine of Iasi, Romania. She graduated from the faculties of Medicine (1993), Psychology (2002) and Law (2012) and from the Master of Art in Bioethics Program at Case Western Reserve University, USA (2004). She holds a PhD in Medical Sciences (2002). She is the Vice-Chair of the Committee on Bioethics (DH-BIO) of the Council of Europe, independent expert of the European Commission, member of the Bioethics Commission and of the Discipline Commission of the Romanian College of Physicians and also member of several research ethics committees in Romania. She participated in European and national research projects and authored many scientific papers and books in the fields of Legal Medicine and Bioethics.