

SOME CHARACTERISTICS OF PATIENTS WITH SCHIZOPHRENIA WHO ATTEMPTED SUICIDE

Isjanovski Viktor,¹ Vukovic Vilma,¹ Hadjihatma Kadri,²
Pejoska-Gerazova Vesna,² Raleva Marija²

¹ Skopje Psychiatric Hospital, Skopje, R. Macedonia

² University Psychiatric Clinic, Medical Faculty, Skopje, R. Macedonia

Abstract: *Objectives:* The aim of this study was to determinate some characteristics of schizophrenia patients who attempted suicide at the Skopje Psychiatric Hospital, Skopje, with respect to clinical, ethical and legal context.

Methods: The study included 80 patients with schizophrenia, 17.5% (n = 14) of whom attempted suicide. The psychiatric diagnosis of schizophrenia was based on ICD-10 criteria. Sociodemographic and clinical data are presented descriptively as percentages.

Results: Based on the characteristics of patients with schizophrenia who attempted suicide, we obtained a typical profile as follows: middle-aged persons (average age 44.8), single (71.4% were not married and 35.7% lived alone), (87.5%) unemployed, repeatedly hospitalized and had a history of suicide attempts (50%), attempting suicide using a violent method (poisoning 64.3%, drowning 21.4%, slashing their wrists 14.3%, jumped from a height 7.1% etc.) after more than three weeks of hospital treatment, and out of hospital. The success of psychiatric treatment is the perception of the legal and medical aspects of suicide as well as their efficient balancing.

Key words: suicide, schizophrenia, characteristics.

Introduction

Suicide is a complex phenomenon, and a deliberate act of taking one's own life, associated with numerous and various biological, social and psychological factors. It is an important psychopathological entity and one of the most

demanding clinical problems which psychiatrists face in their everyday practice, especially in schizophrenic patients [1]. According to literature data, the number of suicides of schizophrenic patients has been increasing in recent decades [2].

Research has shown that approximately 80% of people who attempt suicide have schizophrenia, 90% have a mental disorder, which undoubtedly supports the assumption of an association between psychiatric diagnosis and suicide (1–2). Research has shown that the suicide rate among patients with schizophrenia is seven to ten times higher than among the general population (1–2). According to Smalc VF., [3] suicidality is a very important and frequent event in schizophrenic patients, occurring in up to 50% of patients during their lifetime, and 20% of schizophrenic patients end with suicide. Suicide in schizophrenic patients, although sharing some characteristics with suicides in the general population, also has features specific for this particular diagnostic group. As many as 1 out of 4 persons with schizophrenia attempts suicide, some even while they are under psychiatric care. Specialists in the study of suicide outline risk factors for suicide in schizophrenic patients and the implications for preventive strategies. Suicide is a major cause of death among patients with schizophrenia, with young adulthood to midlife being the age range at greatest risk. A past history of suicide attempts is common among schizophrenic suicide victims, as are affective symptomatology and feelings of hopelessness and demoralization [4]. Active paranoia may increase risk, whereas negative symptoms may decrease the risk of self-destructive acts in schizophrenic patients. Many suicides occur during hospitalization or shortly after discharge. A methodical assessment of suicidal ideation and aggressive treatment with psychological, social, and pharmacologic approaches are vital aspects of patient management.

Subjects and Methods

The study included 80 patients hospitalized at the Skopje Psychiatric Hospital with the diagnosis of schizophrenia.

Sociodemographic data were collected (sex, age at the time of suicide, marital and employment status) as well as data on their clinical characteristics (psychiatric diagnosis and duration of illness) place and methods of committing suicide, legal aspects of hospitalization (voluntary or involuntary) and family history.

Patient data were collected retrospectively from medical records. Psychiatric diagnosis of schizophrenia was based on ICD-10 criteria. Sociodemographic and clinical data are presented descriptively as percentages.

Results

During the observation period, 80 patients had the diagnosis of schizophrenia, suicide attempts were registered in 17.5% ($n = 14$) of the patients (Table 1). Among the patients who attempted suicide, there were 9 (64.3%) men and 5 (35.7%) women. 71.4% (10) were not married, 35.7% were single and lived alone or with their parents (Table 2). The average age was 44.8 (± 11.6) one patient was in the 20–29 age group, 10 were in the 30–49 age group, 1 in the 50–59 age group and two patients were aged over 60 (Table 2). As many as 12 (85.7%) patients were unemployed and only two were employed (Table 2).

Table 1 – Табела 1

Patients with suicide attempts in the group of patients with schizophrenia
Приказ на пациенти со суицидни обиди во групата
на заболени од шизофренија

Suicide attempts	No	%
yes	14	17.5
no	66	82.5

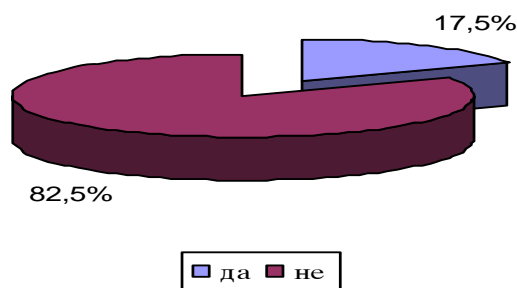


Figure 1 – Patients with suicide attempts in the group of patients with schizophrenia
Слика 1 – Приказ на пациенти со суицидни обиди во групата
на заболени од шизофренија

Table 2 – Табела 2

*Sociodemographic characteristics of 14 patients who attempted suicide
and 66 patients who did not*
*Социодемографски карактеристики на 14 пациенти кои имаат обиди
за самоубиство и 66 пациенти кои немаат*

Sociodemographic characteristic	n (%) With attempted Suicide	n (%) with out suicide
sex		
Men	9 (64.3)	38 (57.6)
Women	5 (35.7)	28 (42.4)
average of age		
44.8y -mean	minimum 27y	maximum 64y
31.1y -mean	minimum 14y	maximum 54y
	± St. Dev.	11.6 with attempted
	± St. Dev.	7.4 with out
age(years)		
≤ 29y	1 (7.1)	11 (16.7)
30–49	10 (71.4)	49 (74.2)
≥ 50	3 (21.5)	6 (9.15)
Married status		
Not married	10 (71.4)	40 (60.6)
Married		15 (22.7)
widow /er		1 (1.5)
divorced	4 (28.6)	10 (15.2)
Employed status		
employed	2 (14.3)	4 (6.1)
Students/pupils		3 (4.5)
Pensioner		3 (4.5)
unemployed	12 (85.7)	56 (84.8)
Living with		
Alone	5 (35.7)	19 (28.8)
Parents	5 (35.7)	20 (30.4)
Cousins	1 (7.1)	3 (4.5)
Other persons	1 (7.1)	2 (3.0)
With wife/husband		15 (22.7)
In institutions	2 (14.3)	7 (10.6)

Most of the patients with schizophrenia who attempted suicide had already been hospitalized at least twice, the average of previous hospitalizations was 3.8 ± 2.4 , with one and the maximum of 8 times (Table 3). With respect to the duration of illness, most of the patients had been chronic patients who had suffered from schizophrenia for more than five years – 71.4%. As for the hospitalization duration, most of the patients who attempted suicide were hospitalized

for up to three weeks. The majority were hospitalized voluntarily. Clinical types of schizophrenia were; 28.6% paranoid, non-differentiated and non-specific (Table 3).

Table 3 – Табела 3

Characteristics of 14 patients who attempted suicide
Карактеристике на 14 пациенти кои имаат обиди за самоубиство

Patient history	n (%)
No. of previous hospitalizations	
One	2 (14.4)
Two-three	6 (42.8)
Four and more	6 (42.8)
average of previous hospitalizations	
3,857143-mean minimum 1.0 maximum 8.0	± St. Dev. 2,381245
Durations of illness (years)	
1–5	4 (28.6)
> 5	10 (71.4)
Duration of hospitalization (weeks)	
1–3	9 (64.3)
> 3	5 (35.7)
Hospitalization	
Voluntary	10 (71.4)
Involuntary	4 (28.6)
Clinical type of schizophrenia	
Paranoid	4 (28.6)
Hebephrenic	1 (7.1)
Non-differentiated	4 (28.6)
Residual	4 (28.6)
Non-specific	1 (7.1)
Suicide methods	
Slashing their wrists	2 (14.3)
Hanging	2 (14.3)
Jumping in front of vehicle (car, bus, train)	1 (7.1)
Jumping from a height	1 (7.1)
Drowning	3 (21.4)
Electric current	1 (7.1)
Stabbing him/herself with knife	1 (7.1)
Poisoning (medicaments, acid)	9 (64.3)
History of suicidal behaviour	
Positive patient	7 (50.0)
Positive family	2 (14.3)

The suicide methods. Most patients used poisoning with medicaments or acid – 64.3% as a suicide method, drowning – 21.4%, hanging and slashing their wrists – 14.3% whereas a smaller number attempted suicide by jumping in front of a vehicle(car, bus or train), used electric current, jumped from a height, stabbed him/herself with knife – 7.1% (Table 3). Seven of fourteen patients who attempted suicide had earlier suicide attempts, and only two patients had a family history of suicide (Table 3). All the attempted suicides were outside of the hospital.

Discussion

Due to the small sample size, it is very difficult to generalize the conclusion, but the obtained data could indicate a more severe long-term prognosis of schizophrenia patients.

In our study, suicide was attempted by 64.35% in men, but there is no statistical difference between men and women ($p = 0.1422$), whereas in the general population, men attempt suicide three times more often than women. Brecic [1] also found no gender difference in suicides. On the other hand, other authors reported that men attempt suicide more frequently [1, 5–8].

Patients with paranoid, non-differentiated and non-specific (28.6%) clinical types of schizophrenia were a relative majority among the hospital patients. This result is in accordance with the findings reported by other authors. In their studies Fenton *et al.* [9–11] found that among patients with schizophrenia 50% had the paranoid subtype, 42.8% had undifferentiated schizophrenia, and 7.2% had the disorganized type. Active paranoia may increase risk, whereas negative symptoms may decrease the risk of self-destructive acts in schizophrenic patients [4].

As was observed in our sample, a past history of suicide attempts is common in attempted suicide with schizophrenia, and may be the most prominent predictor of subsequent death. We found that most patients who attempted suicide had already attempted suicide, which is in accordance with previous reports on suicide attempts as the most important predictive factor [12–16]. These patients should be under close supervision. A past history of suicide attempts is common among schizophrenic suicide victims, as are affective symptomatology and feelings of hopelessness and demoralization [4]. According some authors [14, 17, 18] and their informants, records documented a past history of suicide attempts in 75% of victims. Seventy-one percent of Finnish schizophrenics who committed suicide had a past history of suicide attempts [13]. Allebeck *et al.* [16–17] noted this association to be especially strong among women.

Individuals with schizophrenia have a shortened life expectancy [19]. Compared with both the general population and persons with other mental disorders, these patients have an increased mortality risk due to physical illness, accidents, and other causes of violent death, especially suicide [20, 21]. Studies estimate that from 9% to 24% of individuals with schizophrenia will die by their own hand [20–29].

According to Caldwell *et al.* [22, 23] in their study, the mean age was 36.5 (\pm 12.0) years. Fourteen (70%) were single, 3 were married, 2 were divorced, and 1 was widowed. Five (25%) lived alone, while the remainder lived with other family or friends. These percentages are similar to our findings. Some evidence supports that being unmarried, socially isolated, and unemployed are also risk factors for suicide among schizophrenics [24–26].

Violent suicide methods – poisoning with medicaments or acid – 64.3%, drowning – 21.4 %, slashing their wrists and hanging – 14.3%, stabbing him/herself with a knife, electric current, jumping in front of a moving vehicle, jumping from a height – 7.1% were the methods used by all the suicide cases in our study. These data are somewhat different from those for the general population, where 51% suicides are attempted by hanging, 18% with firearms and 7% by jumping from a height. Jumping from a height was the most frequent method in the patient sample from the Vrapce Psychiatric Hospital [1]. Our results are very similar to these data. According to another study [12], schizophrenic patients tended to use violent methods to take their lives: 6 (30%) used a firearm, 5 hanged themselves, 4 jumped from a height, and the remainder used a variety of other means (drowning, drug ingestion, carbon monoxide poisoning, exposure, and self-immolation). According to the literature data, the method of attempting suicide is greatly determined by the availability of methods.

For those with available data ($n = 14$), the mean duration of illness was over 5 years, with an average of 3.9 lifetime psychiatric admissions. Studies indicate that schizophrenic patients who commit suicide tend to have a relatively more chronic course of illness, with acute exacerbations [14, 18, 19]. Among 92 schizophrenic suicides identified in the Finnish National Suicide Prevention Project, the mean duration of illness was 15.5 years, and victims had an average of 7.9 lifetime psychiatric admissions [14]. Havaki-Kontaxaki *et al.* [15] found a mean duration of illness of 19.3 (\pm 8.8) years for suicide completers, compared with 13.5 (\pm 9.9) years for schizophrenic controls, a significant difference. Cheng *et al.* [12] found that, compared with nonsuicidal schizophrenics, suicide completers had more frequent psychiatric hospitalizations. Westermeyer and Harrow [24] suggest that a gradual onset of illness over time may also place schizophrenic patients at risk for suicide. Most of the patients in the Vrapce [1] samples were unmarried and unemployed, with a long duration of illness and a large number of previous hospitalizations (6.3 on average), which are well-known risk factors for attempting suicide.

Many suicides occur during hospitalization or shortly after discharge. In our study, almost two-thirds of suicides were attempted after three weeks of treatment and hospitalization, which is in accordance with the results of the Vrapce study [1]. A large proportion of suicides among schizophrenics occur during or shortly after hospitalization. Allebeck and Wistedt [27] found that 34 of 63 suicides took place during or shortly after psychiatric care. Hu and co-workers [28] found that 81.1% of Taiwanese schizophrenic individuals who committed suicide were engaged in either inpatient or outpatient treatment during their final month of life, and 31% of suicides occurred while the patient was receiving inpatient psychiatric care. In a Finnish sample, 45 (51%) of 89 schizophrenics who committed suicide had their last contact with a health care provider within 4 days of death, 70% within 2 weeks, and 82% within a month [14]. Caldwell and Gottesman [22] concluded that 88.1% of schizophrenics who committed suicide were in psychiatric care at the time of the attempt.

We agree with conclusion of Brecic *et al.* [1], that the variability in methodology used in similar studies limits comparison of results. This is the basic problem in the field of suicide research and the reason why no relevant and reliable predictive factors of suicide risk assessment have been identified. It is also an aggravating circumstance regarding the problem of suicide prevention. The number of suicides attempted during and after hospitalization has been increasing in the last years, which represents a paradox given the progress in the field of pharmacotherapy and psychotherapeutic techniques. The possible reason could be shorter hospitalizations, larger and faster patient turnover, changes of custodial approach into much more liberal treatment regimes, numerous hospitalizations, and inadequate care in the community, the services of which have not kept up with radical changes in the health system [1, 3]. As Brecic *et al.* [1] said, suicide in psychiatric hospitals is a reality, which should be accepted as such, and reconciled with. The first and foremost reason of reducing the suicide is not to avoid legal responsibility, but to protect life as such. Methodical assessment of suicidal ideation and aggressive treatment with psychological, social, and pharmacological approaches are vital aspects of patient management.

REFERENCES

1. Brecic P., Ostojic D., Vidovic D. *et al.* (2009): Characteristics of patients who attempted suicide during hospitalization in Psychiatric hospital "Vrapce" in the period 1996–2006, *Coll.Antropol.*; 33, 1: 233–236.
2. Gordon H. (2002): *Advances in Psychiatric Treatment*, 8, 408.
3. Smalc V.F., Henigsberg N. (2002): Pharmacotherapy of suicidality in schizophrenic patients, *MEDICUS*, Vol.11, No. 2, 177–182.

4. Kovacic D.K., Jendricko T. (2004): Suicidality and depression, *MEDICUS*, Vol. 13, No 1, 77–87.
5. Conwell Y., Duberstein P.R., Cox C. *et al.* (1996): Relationships of age and axis I diagnoses in victims of completed suicide: A psychological autopsy study. *Am J Psychiatry*; 153: 1001–1008.
6. Newman S.C., Bland R.C. (1991): Mortality in a cohort of patients with schizophrenia: A record linkage study. *Can J Psychiatry*; 4: 239–245.
7. Goldstein J.M., Santangelo S.L., Simpson J. *et al.* (1993): Gender and mortality in schizophrenia: Do women act like men? *Psychological Med*; 23: 941–948.
8. Ivezic S.S., Johan N. (2009): Gender and schizophrenia, *Psychiatria danubina*; Vol. 21, Suppl. 1, pp. 106–110.
9. Fenton W.S., McGlashan T.H., Victor B.J. *et al.* (1997): Symptoms, subtype, and suicidality in patients with schizophrenia spectrum disorders. *Am J Psychiatry*; 154: 199–204.
10. Fenton W.S., McGlashan T.H. (1991): Natural history of schizophrenia subtypes, I: Longitudinal course of paranoid, hebephrenic, and undifferentiated schizophrenia. *Arch Gen Psychiatry*; 48: 969–977.
11. Fenton W.S., McGlashan T.H. (1991): Natural history of schizophrenia subtypes, II: Positive and negative symptoms and long-term course. *Arch Gen Psychiatry*; 48: 978–986.
12. Cheng K.K., Leung C.M., Lo W.H. *et al.* (1999): Risk factors of suicide among schizophrenics. *Acta Psychiatr Scand*; 81: 220–224.
13. Roy A.: Suicide in schizophrenia, in Roy A. (ed), (1996): Suicide. Baltimore, Williams & Wilkins, pp. 97–112.
14. Heila H., Isometsa E.T., Henriksson M.M. *et al.* (1997): Suicide and schizophrenia: A nationwide psychological autopsy study on age- and sex-specific clinical characteristics of 92 suicide victims with schizophrenia. *Am J Psychiatry*; 154: 1235–1242.
15. Havaki-Kontaxaki B.J., Kontaxakis V.P., Protopappa V.A. *et al.* (1994): ^{Suicides} in a large psychiatric hospital: Risk factors for schizophrenic patients. *Bibl Psychiatry*; 165: 63–71.
16. Allebeck P. (1999): Schizophrenia: A life-shortening disease. *Schizophr Bull*; 15: 81–89.
17. Allebeck P., Varla A., Kristjansson E. *et al.* (1997): Risk factors for suicide among patients with schizophrenia. *Acta Psychiatr Scand*; 76: 414–419.
18. Drake R.E., Gates E., Cotton P.G. *et al.* (1994): Suicide among schizophrenics: Who is at risk? *J Nerv Ment Dis*; 172: 613–617.
19. Westermeyer J.F., Harrow M.: Early phases of schizophrenia and depression: Prediction of suicide, in Williams R., Dalby JT. (eds) (1999): Depression in Schizophrenics. New York, Plenum Press, pp. 153–169.
20. Tsuang M.A., Woolson R.F., Fleming J.A. (1980): Premature deaths in schizophrenia and affective disorders: An analysis of survival curves and variables affecting the shortened survival. *Arch Gen Psychiatry*; 37: 979–983 .

21. Black D.W., Winokur G.: Prospective studies of suicide and mortality in psychiatric patients, in Mann J.J., Stanley M. (eds) (1996), *Psychobiology of Suicidal Behavior*. New York, N.Y. Academy of Sciences, pp. 106–113.
22. Caldwell C.B., Gottesman II. (1990): Schizophrenics kill themselves, too: A review of risk factors for suicide. *Schizophr Bull*; 16: 571–589.
23. Caldwell C.B., Gottesman II. (1992): Schizophrenia – A high-risk factor for suicides: Clues to risk reduction. *Suicide Life Threat Behav*; 22: 479–493.
24. Westermeyer J.F., Harrow M., Marengo J.T. (1991): Risk for suicide in schizophrenia and other psychotic and nonpsychotic disorders. *J Nerv Ment Dis* 179: 259–266.
25. Potkonjak J., Karlovic D. (2008): Sociodemographic and medical characteristics of involuntary psychiatric inpatients-retrospective study of five-year experience with Croatian act on mental health, *Acta Clin Croat*; 47: 141–147.
26. Siris S.G., Mason S.E., Shuwall M.A. (1993): Histories of substance abuse, panic and suicidal ideation in schizophrenic patients with histories of post-psychotic depressions. *Prog Neuropsychopharmacol Biol Psychiatry*; 17: 609–617.
27. Allebeck P., Wistedt B. (1996): Mortality in schizophrenia: A ten-year follow-up based on the Stockholm County Inpatient Register. *Arch Gen Psychiatry*; 43: 650–653.
28. Hu W., Sun D., Lee C. *et al.* (1991): A clinical study of schizophrenic suicides: 42 cases in Taiwan. *Schizophrenia Res*; 5: 43–50.

Резиме

НЕКОИ КАРАКТЕРИСТИКИ НА ПАЦИЕНТИ ЗАБОЛЕНИ ОД ШИЗОФРЕНИЈА КОИ ИМААТ ОБИДИ ЗА САМОУБИСТВО

Исјановски Виктор,¹ Вуковиќ Вилма,¹ Хаџихамза Кадри,²
Пејоска-Герасова Весна,² Ралева Марија²

¹Психијатриска болница „Скопје“, Скопје, Р. Македонија

²Универзитетска психијатриска клиника,
Медицински факултет, Скопје, Р. Македонија

Цел: Целта на оваа студија беше да се одредат некои карактеристики на пациенти заболени од шизофренија кои имаат обид за самоубиство во Психијатриската болница „Скопје“ – Скопје.

Методи: Студијата вклучува 80 пациенти заболени од шизофренија, од нив 17,5% (14) се со обид за самоубиство. Психијатриската дијагноза шизофренија е поставена според МКБ-Х. Социодемографските и клиничките податоци се дескриптивно прикажани како проценти.

Резултати: Врз основа на добиените карактеристики на заболените од шизофренија со обиди за самоубиство добивме еден типичен профил: средовечни пациенти (просек 44,7 години), самци (71,4% не се женети/маже-ни, живеат сами 35,7%), невработени 87,5%, повеќекратно хоспитализирани, со историја на претходни обиди за самоубиство (50%), користење на насилни методи (труење – 64,3%; давење – 21,4%; сечење вени – 14,3%, скок од височина – 7,1% итн.) при извршување на самоубиството, по повеќе од три недели од хоспитализацијата и надвор од болницата. Успехот на психијатрискиот третман е резултат на перцепција на правни и медицински аспекти на самоубиството, како и нивно балансирање.

Клучни зборови: самоубиство, шизофренија, карактеристики.

Corresponding Author:

Viktor Mile Isjanovski
"Skopje" Psychiatric Hospital,
Skopje, R. Macedonia
mob.tel. 070539080
tel. 3070134

E-mail: viktorisjanovski@yahoo.com