

## **Alcohol Abuse Among the Not-Accountable Perpetrators of Criminal Acts During the Forensic-Psychiatric Treatment**

**Tija Zarković Palijan, Dražen Kovačević, Emilija Pereza Radovčić, Marina Kovač, Jelena Medak**

*Dr. Ivan Barbot Neuropsychiatry Hospital, Popovača, Croatia*

### *Summary*

The aim of this study was to examine the differences among the not-accountable perpetrators of criminal acts who had occasionally abused alcohol and those who had not abused alcohol during their forensic-psychiatric treatment, considering the following variables: marital status, education, diagnostic category, type of criminal act and alcohol intoxication and age *tempore criminis*. We have applied the comparative design of investigation, in which the data considering the alcohol abuse among the not-accountable perpetrators of criminal acts treated at Dr. Ivan Barbot Neuropsychiatry Hospital in Popovača, in the period from 2000-2004, had been gathered by means of patients follow-up and questionnaire. The sample consisted of 142 forensic patients who had occasionally abused alcohol and 188 forensic patients who had not abused alcohol during their treatment. The groups have been matched according to sex (male), age at the time of investigation and the duration of treatment. The groups did not differ significantly neither according to the type of criminal act nor according to the level of education. The results of our study have shown that the groups differed significantly according to the diagnostic categories ( $p < 0.01$ ). The persons diagnosed with schizophrenia had abused alcohol less frequently during their forensic-psychiatric treatment, compared to the persons diagnosed with personality disorders and alcoholism. The persons who had abused alcohol during their treatment had done their crime at older age ( $p < 0.027$ ). The groups had also significantly differed according to alcohol intoxication *tempore criminis* ( $p < 0.01$ ) and according to their marital status ( $p < 0.025$ ). More not-accountable subjects who

had abused alcohol during their treatment had been under the influence of alcohol *tempore criminis*. There were also more divorced persons in that group. (Alcoholism 2004; 40: 113-126).

**Key words:** Alcoholism; Not-accountable; Criminal act; Forensic-psychiatric treatment

## INTRODUCTION

The behavior of persons who, due to their compromised mental health and more severe mental disturbances, directly endanger their health and security and also the health and security of other persons is an important social issue and is dealt with by numerous institutions.<sup>1</sup> The persons manifesting such behavior represent a high-risk population. The risk evaluation and control have become the key elements in almost all activities dealing with mental health.<sup>2</sup> The reduction of hazard resulting from the disease of the mentally ill persons is beneficial and protective for both the mentally ill person and for his/her potential victim.<sup>3</sup> Thus the number of potential victims is also reduced. Engagement of the institutions is directed towards the reduction of potential danger for the community. The series of actions in that direction taken by the community affects also the quality of life of these persons.

When the person who, at the time when he/she had fulfilled the legal definition of what comprises a criminal act, had not been able to understand the significance of his/her actions or had not been able to control his/her will due to a mental illness, temporary mental disturbance, insufficient mental development or some more severe mental problem, commits a criminal act, police, legal system, forensic-psychiatric institution and social services become engaged.<sup>4</sup>

For a non-accountable person who commits a criminal act and so fulfils the conditions for a criminal action, the forensic-psychiatric practice takes several phases of action. First, it defines the disturbance by means of giving the professional psychiatric opinion, estimates the level of accountability of the subject and proposes the most adequate treatment. When a non-accountable person is referred to the mandatory hospital treatment, according to the Article 44 of *The law for protection of mentally disturbed persons*, the actual state is treated immediately and the remission of the disease is established.<sup>5</sup> When the satisfactory remission has been established, the programs of rehabilitation and re-socialization follow.

One of the attempts to return these persons to their social communities are the approbatory-therapeutic leaves and the long-term treatment from freedom follows.

The most of the not-accountable persons undergo a long-term treatment in institutions. The duration of treatment is influenced by the disturbance causing the public

hazard itself, characterized by a greater probability of repeating the more severe criminal acts.

The society changes which caused the decrease of tolerance towards the hazardous behavior, had also lead to a series of actions through which the social community, along with the professionals, took control, while the control of such behavior exercised by families, relatives and neighbors became less present.<sup>12</sup>

In the frame of forensic-psychiatric treatment, we can detect an active attempt of correcting the patient's behavior and the evaluation of risk of socially hazardous behavior. However, the reduction of risk is limited by numerous factors, primarily such as the disease itself, but also such as the treatment and social care possibilities. The estimation of risk from a mentally-ill person, i.e. the hazard reduction in forensic practice is based on the multi-disciplinary technique of analysis of all relevant factors used in forensic psychiatry, such as the previous criminal behavior, actual symptomatology and patient's behavior, level of insight achieved, willingness to collaborate in the course of treatment and risk factors in his/her social surroundings. The reduction of forensic hazard to the level when the process of treatment from freedom can begin is frequently a long process, sometimes lasting for many years.

We are aware of the fact that the institutions can reduce the overall hazard, but also cannot prevent all the hazardous activities which can be manifested by such persons, particularly since not all result from the illness.

One of these risk factors is alcohol abuse.<sup>13</sup> The fact most frequently mentioned speaking of the mentally disturbed persons prone to hostile and aggressive behavior is their rather frequent abuse of drugs and alcohol.<sup>14,15</sup> Among the schizophrenics, the highest level of aggressive behavior is reached by those who are also dependent on alcohol or drugs.<sup>16</sup> Theoretically, the connection between drug/alcohol abuse, mental disturbance and aggressive behavior can indicate that:

- a) drug/alcohol abuse induces the aggressive behavior in people with mental disturbances (direct causal connection);
- b) drug/alcohol abuse stops the efficient treatment of the disturbance, causing the progression of symptoms and resulting in greater unrest and aggressive behavior as a consequence (indirect causal connection);
- c) mentally disturbed people who are prone to aggressive behavior are also prone
  - to drug/alcohol abuse (non-causal connection, based on chance or due to some third factor - for example the factor of personality).

But, what kinds of relations exist among the non-accountable perpetrators of criminal acts who occasionally abuse alcohol and what kind of attitude towards alcohol

do they take during the forensic-psychiatric treatment? The studies of inclination towards the alcohol abuse during the course of treatment among the non-accountable perpetrators of criminal acts are very rare, although the risk of aggressive behavior and criminal acts is much higher among the persons who, besides alcoholism, suffer from some other mental disturbances.

#### AIM OF THE STUDY

The aim of this study was to investigate the differences between the non-accountable perpetrators of criminal acts who occasionally abuse alcohol and those who do not abuse alcohol during the forensic-psychiatric treatment, according to the following variables: education, marital status, diagnostic category according to ICD 10,<sup>17</sup> type of criminal deed and presence of alcohol intoxication and age *tempore criminis*.

#### SAMPLE AND METHOD

We have applied the comparative design of investigation, in which the data considering the alcohol abuse among the not-accountable perpetrators of criminal acts treated at Dr. Ivan Barbot Neuropsychiatrie Hospital in Popovaca, in the period from 2000-2004, had been gathered by means of follow-up and questionnaire.

The sample consisted of N=142 not-accountable perpetrators of criminal acts who occasionally abused alcohol and N=188 not-accountable perpetrators of criminal acts who did not abuse alcohol during the treatment. The groups have been matched according to sex (male), age at the time of investigation and the duration of treatment.

Table 1. The comparison of group of subjects drinking (N=142) and subjects not drinking during treatment (N=188) according to the age at the moment of investigation and according to the duration of forensic-psychiatric treatment.

	Drinking during treatment M±SD	Not drinking during treatment M±SD	Statistical index	p
Age at the time • of investigation	47.10±14.42	44.80±13.44	t = 1.506	0.133
Duration of treatment	5.60±5.05	6.20±5.87	t = -0.54	0.331

#### Alcohol abuse during the forensic-psychiatric treatment

The groups have been compared considering several qualitative variables (level of education, marital status, type of criminal act, diagnostic categories according to ICD-10 and presence of alcohol intoxication *tempore criminis*) and considering one quantitative variable - age *tempore criminis*.

Statistical analysis has been done using the SPSS statistical software. For the calculation of statistical significance, we have used  $\chi^2$  test and t-test, and the results obtained have been displayed in tables.

### RESULTS

Table 2. The comparison of groups of subjects drinking (N=142) and subjects not drinking during treatment (N=188) according to the age at the moment of investigation and according to the level of education.

Level of education	Drinking during treatment	Not drinking during treatment	Statistical index	p
1-4 grades	19.7%	20.2%		
5-8 grades	26.8%	28.2%	$\chi^2=5.588$	0.133
9-12 grades	52.1%	45.2%		
13 and more	1.4%	6.4%		

Table 2 shows that the groups do not differ significantly according to the level of education. There is a similar number of not-accountable perpetrators of criminal deeds drinking during treatment and those not drinking during treatment in all categories. The greatest number of not-accountable perpetrators (those who drink during treatment - 52.1%, and those who do not drink during treatment - 45.2%) have completed the secondary school education (9-12 grades).

Comparing the structure of criminal acts (Table 3) between the groups of subjects drinking (N=142) and subjects not drinking during treatment (N=188) we have found no statistically significant differences ( $\chi^2 = 7.095$ ;  $p > 0.419$ ). The greatest number of not-accountable subjects have committed murder (30.3% of those drinking during treatment and 28.7% of those not drinking during treatment). The other significantly represented group were the acts of violence, 21.1% among those drinking during treatment and 27.1% among those not drinking during treatment. Percentages of other types of criminal acts were very level (attempted murder, theft, arson). Criminal acts of molestation and other crimes against property were represented in our sample with a rather small percentage (1.4%-0%).

Table 3. The comparison of groups of subjects drinking (N=142) and subjects not drinking during treatment (N=188) according to the type or criminal act.

Criminal act	Drinking during treatment	Not drinking during treatment	Statistical index	"
Murder	30.3%	28.7%		
Attempted murder	16.9%	18.6%		
Acts of violence	21.1%	27.1%	$\chi^2=7.095$	0.008
Theft	16.9%	16.0%		
Arson	7.7%	7.4%		
Sexual crimes	4.9%	1.6%		
Family violence	0.7%	0.5%		
Other crimes against property	1.4%	0%		

Table 4. The comparison of groups of subjects drinking (N=142) and subjects not drinking during treatment (N=188) according to the diagnostic categories.

Diagnosis	Drinking during treatment	Not drinking during treatment	Statistical index
Schizophrenia	36.6%	54.3%	
+Alcoholism	35.9%	24.4%	
Epilepsy	2.8%	5.3%	$\chi^2=49.33^*$
Organic psychosis	4.2%	5.9%	
Mental retardation	4.2%	5.3%	
Personality disorder	16.2%	4.8%	

\*p &lt; 0.01

Table 5. The comparison of groups of subjects drinking (N=142) and subjects not drinking during treatment (N=188) according to the presence of alcohol intoxication *tempore criminis*.

Presence of alcohol intoxication <i>tempore criminis</i>	Drinking during treatment	Not drinking during treatment	Statistical index	P
Yes	61.3%	27.7%	$\chi^2 = 37.48$	0.000*
No	38.7%	72.3%		

\*P &lt; 0.01

We have found a statistically significant difference between the forensic patients who were drinking during treatment and those who were not drinking during treatment, considering the disease type ( $\chi^2 = 49.33$ ;  $p < 0.01$ ). Among the not-accountable subjects who were drinking during treatment, there was a greatest number of

those diagnosed with the personality disorders and alcoholism, while alcohol was abused less frequently during the course of forensic-psychiatric treatment among those diagnosed with schizophrenia.

We have found a statistically significant difference between the not-accountable perpetrators of criminal acts who were drinking and those who were not drinking during treatment according to the presence of alcohol intoxication *tempore criminis* ( $r^2 = 37.48$ ;  $p < 0.01$ ). The greatest percentage of not-accountable subjects who were drinking during treatment have been under the influence of alcohol *tempore criminis* (61.3%).

Table 6. The comparison of groups of subjects drinking (N=142) and subjects not drinking during treatment (N=188) according to the age *tempore criminis*.

	Drinking during treatment	Not drinking during treatment	Statistical index	p
Age <i>tempore criminis</i>	39.4±13.31	36.2±12.66	t=2.22	0.027*

\*p < 0.05

Statistically significant differences have been found considering the mean age *tempore criminis* between the not-accountable subjects who were drinking and those who were not drinking during treatment. The mean age at the time of criminal act among the not-accountable subjects who were drinking during treatment equaled about 39 years, while among the not-accountable subjects who were not drinking during treatment it equaled about 36 years of age. Considering the age at the time of criminal act, the groups differed significantly (t=2.22; p<0.05). The perpetrators who were drinking during treatment have done their criminal acts at an older age.

Table 7. The comparison of groups of subjects drinking (N=142) and subjects not drinking during treatment (N=188) according to the marital status.

Marital status	Drinking during treatment	Not drinking during treatment	Statistical index
Married	15.5%	10.6%	X <sup>2</sup> =9.38*
Not-married	55.6%	71.8%	
Divorced	21.2%	12.8%	
Widower	7.7%	4.8%	

\*p < 0.025

Considering the marital status, we found some statistically significant differences ( $\chi^2$  test=9.38;  $p<0.025$ ) between the two groups of not-accountable perpetrators of criminal acts. The greatest percentage of subjects from both groups are not married (55.6% of those who were drinking during treatment and 71.8% of those who were not drinking during treatment). There is a greater number of divorced subjects among those who were drinking during treatment (21.2%) compared to the group of subjects who were not drinking during treatment (12.8%). There are also a bit higher percentages of married and widowed subjects among those who were occasionally drinking during their treatment.

## DISCUSSION

The evaluation and control of risk represent the adequate care of institutions and professionals from the field of mental healthcare as far as to the level where they initiate the therapeutic interventions which directly or indirectly aid the person evaluated. The forensic treatment of mentally-ill perpetrators of criminal acts consists of a broad spectrum of therapeutic procedures which have to fulfill the criteria of all diagnostic categories for the forensic patients. The rehabilitation in forensic psychiatry is a group of coordinated activities aimed to achieve what is possible in re-building and establishing the mental, social, professional and somatic functions of mentally-ill persons, but also to reduce the risk of repeating the criminal acts. As opposed to other professionals, a forensic psychiatrist is constantly in an ambivalent position: besides caring for the best interests of the patient, he also has to protect the interests of the wider community from the potentially socially hazardous behavior of patients.

The most important problem in the course of treatment is the need to reduce and control the hazard to such extent that the further treatment may be continued outside of the psychiatric institution, which requires a complete treatment (social therapy, pharmacotherapy, psychotherapy, work-occupational treatment, family treatment, collaboration with the Social care center), having in mind the specific features of the individual and the particular diagnostic categories.

Alcohol abuse is one of the predictors of violent behavior in people who had already been diagnosed with some other psychiatric disturbances.

In this investigation of alcohol abuse among the not-accountable perpetrators of criminal acts, we have found no significant differences of education level between the not-accountable perpetrators of criminal deeds who had and those who had not abused alcohol during treatment. The similar number of not-accountable perpetrators of criminal acts who had and those who had not been drinking was found



in all diagnostic categories. The greatest number of not-accountable perpetrators (52.1% of those who had been drinking during treatment and 45.2% of those who had not been drinking during treatment) had finished a secondary school (9-12 grades).

No significant differences have been found between the not-accountable perpetrators of criminal deeds who had and those who had not been drinking during treatment considering the structure of criminal acts. The greatest percentage of not-accountable patients had done a murder (30.3% of those who had been drinking during treatment and 28,7% of those who had not been drinking during treatment). The significant percentage belonged also to the violent criminal acts (21.1% in the group of subjects who had and 27.1% in the group of subjects who had not been drinking during treatment). The percentages of other types of criminal acts (attempted murder, theft, arson) have been very level. A very small number of not-accountable subjects had, in our sample, committed the crimes of molestation and other crimes against property.

The not-accountable perpetrators of criminal deeds who had not been drinking during treatment had similar educational level and committed similar crimes as the not-accountable perpetrators of criminal deeds who had abused alcohol during treatment. Thus, these two variables have not proved relevant for differentiating the two groups of subjects investigated.

We have found a statistically significant difference between the forensic patients who had and those who had not been drinking during treatment considering the diagnostic categories ( $\chi^2 = 49.33$ ;  $p < 0.01$ ). The differences of diagnoses were most obvious for the diagnostic categories of schizophrenia and borderline personality disorders. There are less schizophrenic patients in the group of subjects who had abused alcohol during treatment and more borderline patients compared to the group of patients who had not drunk during treatment.

The alcohol addiction is a chronic, relapsing disease. There were slightly more subjects diagnosed with, among other diagnoses, alcoholism, among those who had been drinking during treatment. It seems that the persons with personality disorders and addiction to alcohol are more prone to abuse alcohol even in the secure and controlled hospital conditions. The not-accountable perpetrators had occasionally abused alcohol during their forensic-psychiatric treatment due to numerous reasons: alcohol is the most available means to stop the self-censure, release the feelings, thus helping to endure the uncertainty of the duration of treatment and the frustrating situation considering the quality of life, resulting in better control of aggressive impulses towards the staff and towards the other patients. The alcohol abuse during treatment is not acting always in the same manner or in the same direction. Alcohol

consumed during treatment alleviates the aggressive tensions in some patients and initiates aggression in others.

The surroundings significantly affect the efficiency of abstinence. There is a disproportion between the designed programs and their practical application. It is exactly that disproportion that affects the quality of life of patients and influences the creation of better patient-staff relationships. In this case, or better to say, in this frustrating/provoking situation, the tension caused by these relationships arises. The alcohol abuse during treatment of forensic-psychiatric patients is a result of treatment itself and the interaction of persons who take part in it, meaning both patients and staff and the frustrating situations in which they enter. Altogether, this creates a recognizable situation and results in a learned pattern of drinking behavior. Some members of the therapeutic team behave exactly the way some mothers, fathers, wives, or girlfriends of their patients had behaved, making their decisions, thinking and feeling in their place, but not caring how the patients feel about it.

The treatment of alcoholism, i.e. alcohol-related disturbances, has its specific dynamics, lasts for a long period of time and is aimed to achieve the state of permanent abstinence as long as possible and change the harmful patterns of behavior. Alcohol abuse during treatment of forensic-psychiatric patients is a result of, among other things, a frustrating treatment situation, personality structure, therapeutic staff structure and previous history of alcohol drinking. A relatively high number of not-accountable perpetrators of criminal acts who had abused alcohol during the forensic-psychiatric treatment indicates a necessity to make some changes in the treatment program. Detection and understanding of relapse dynamics is the basis on which the therapeutical approach can be built and the problem solving expected, primarily through the better designed treatment and occupational contents of the forensic-psychiatric treatment.

There was a significant difference between the not-accountable perpetrators who had and those who had not been drinking considering the presence of alcohol intoxication tempore criminis ( $\chi^2=37.48$ ;  $p<0.01$ ). The greatest number of subjects who had been drinking during treatment had been under the influence of alcohol tempore criminis (61.3%). This can be related to the earlier findings that most alcoholics drink during their treatment. It seems probable that these are the same persons who had been under the influence of alcohol tempore criminis.

The mean age at the time of the criminal act among the not-accountable perpetrators of criminal acts who had been drinking during treatment equaled about 39, while it equaled about 36 years of age in the group of subjects who had not been drinking during treatment. The two groups of not-accountable perpetrators of criminal acts differed significantly considering the age of criminal action ( $t=2.22$ ;

$p < 0.05$ ). The perpetrators who had been drinking during treatment had done their criminal deed at an older age. Similar results have been obtained in the investigation on a sample of not-accountable alcoholic criminals and other forensic patients.<sup>18</sup> The not-accountable alcoholics have committed their criminal deeds at an older age. The behavior disturbances caused by alcohol appear at earlier age and are directed towards the social function, while the mental disturbances occur in the later stages of the disease and the alcoholics manage to maintain control over their psychopathology. If we consider the fact that most of the not-accountable subjects who drank during treatment had also been diagnosed with alcoholism, then this explanation can be applied also for this study.

The family-ties weaken during the longer hospitalizations and, in certain number of hospitalized patients, get severed entirely. To exclude the factor of treatment duration in both groups of subjects investigated, the groups have been matched by the duration of treatment. The more detailed analysis shows that some marriages had been violently broken through the criminal acts which had been the reason for referring the patients to the mandatory forensic treatment, but that is similarly so in both groups of patients tested.

We have also found some statistically significant differences between the two groups of not-accountable perpetrators of criminal acts considering their marital status ( $\chi^2$  test=9.38;  $p < 0.025$ ). The quality of married life influences the potential relapsing during treatment. Both groups consisted mostly of not married subjects (55.6% in the group of patients who had been drinking during treatment and 71.8% in the group of subjects who had not been drinking during treatment). The most of the not-accountable perpetrators of criminal acts had not managed to establish the union of marriage, due to the nature of their illness itself. A larger percentage of divorced subjects has been found in the group of subjects who had been drinking during treatment (21.2%), compared to the group of subjects who had not been drinking during treatment (12.8%). This finding says something about the social pathology of the not-accountable persons who are, even during the course of treatment, prone to alcohol abuse - the disturbed family relations. One of the reasons why the family relations might be disturbed could be, beside other things, connected with the patient's behavior during treatment. Thus, probably, the not-accountable perpetrators who had not been drinking during treatment achieve the relative remission more rapidly and the improvement becomes detected by their families who continue to support them. However, the connection between the inclination towards the alcohol abuse of the not-accountable perpetrators of criminal deeds and their family situation is very complex, so this explanation should be tested in further studies.

Considering the results obtained in this study, it is important to stress that neither the differences established, nor any other, do not necessarily reflect a casual relationship. If we want to go further from finding the variables which significantly differ between the groups of not-accountable subjects prone to alcohol abuse during treatment and those who do not drink during treatment, it is not enough to rely exclusively on locking-up and keeping the patients away, but it is necessary to establish and articulate a causal relationship which lies in the basis of predictive correlations. Following the strategies of alcohol abuse risk evaluation and reduction and control of this risk represents a practical improvement of treatment.

### CONCLUSION

At the beginning of this study, the aim was to investigate if there are significant differences between the not-accountable perpetrators of criminal deeds which are and those which are not prone to alcohol abuse, considering the variables: education, marital status, diagnostic categories, type of criminal deed and the presence of alcohol intoxication and age *tempore criminis*. Based on the results obtained, we can conclude that the not-accountable perpetrators of criminal deeds who occasionally abuse alcohol during treatment do not differ significantly to those who do not drink, considering their education and the structure of the deeds committed. Statistically significant differences have been established between the groups considering the following variables: diagnosis, marital status, presence of alcohol intoxication *tempore criminis* and age *tempore criminis*. The subjects who had been drinking during treatment had been more frequently diagnosed with personality disorders and alcoholism, most of them had been intoxicated with alcohol *tempore criminis* and committed their criminal deeds at an older age.

To achieve a more complete insight into the reasons of the occasional alcohol abuse during the forensic-psychiatric treatment, further studies should be carried out, including a larger number of dependent variables and much more complex methods of statistical analysis. For the improved understanding of the problem, we should also gather the qualitative data. However, even a study carried out in this manner indicates and establishes some problems which influence the alcohol abuse during the forensic-psychiatric treatment.

S a ž e t a k

ZLOUPOTREBA ALKOHOLA NEUBROJIVIH POČINITELJA KAZNENIH  
DIJELA TIJEKOM FORENZIČKO-PSIHIJATRIJSKOG TRETMANA

Cilj istraživanja je ispitati razlike između nebrojivih počinitelja kaznenog djela koji povremeno zlorabljavaju alkohol i onih koji ne zlorabljavaju alkohol, tijekom forenzičko-psihijatrijskog tretmana na varijablama: bračni status, obrazovanje, dijagnostička kategorija, vrsta kaznenog djela te alkoholiziranost i dob *tempore criminis*. Primijenjen je komparativni nacrt istraživanja u kojemu su putem praćenja pacijenta i upitnika prikupljeni podaci o zlorabljanju alkohola kod nebrojivih počinitelja kaznenih djela liječenih u Zavodu za forenzičku psihijatriju u Neuropsihijatrijskoj bolnici "Dr. Ivan Barbot" u Popovači od 2000. do 2004. godine. Uzorak čine 142 forenzička pacijenta koja povremeno zlorabljavaju alkohol i 188 forenzičkih pacijenata koji ne zlorabljavaju alkohol tijekom tretmana. Skupine su izjednačene po spolu (muški), dobi u trenutku ispitivanja te po dužini tretmana. Skupine se ne razlikuju po vrsti počinjenog kaznenog djela i po razini obrazovanja. Rezultati ispitivanja pokazuju da se skupine razlikuju po dijagnostičkoj kategoriji ( $p < 0,01$ ). Osobe s dijagnozom shizofrenije manje zlorabljavaju alkohol tijekom forenzičko-psihijatrijskog tretmana, dok osobe s dijagnozom poremećaja osobnosti i osobe koje imaju u dijagnozi i alkoholizam više. Osobe koje zlorabljavaju alkohol tijekom tretmana kazneno su djelo počinili u starijoj životnoj dobi ( $p < 0,027$ ). Skupine se razlikuju po alkoholiziranosti *tempore criminis* ( $p < 0,01$ ) i po bračnom statusu ( $p < 0,025$ ). Više je nebrojivih koji zlorabljavaju alkohol tijekom forenzičko-psihijatrijskog tretmana bilo alkoholizirano *tempore criminis*. U toj skupini bilo je i više rastavljenih osoba.

Ključne riječi: Alkoholizam; Nebrojivost; Kazneno djelo; Forenzičko-psihijatrijski tretman

REFERENCES

1. RASCH W. Forensische Psychiatrie. 2nd ed. Stuttgart-Berlin-Köln: Kohlhammer; 1999.
2. NEDOPIL N. Forensische Psychiatrie: Klinik, Begutachtung und Behandlung zwischen Psychiatrie und recht. 2nd ed. Stuttgart-New York: Georg Thieme Verlag; 2000.
3. KOZARIC-KOVACIC D, GRUBISIC-ILIC M, GROZDANIC V. Forenzička psihijatrija. Zagreb: MUP RH; 1996.
4. GUNN J, TAYLOR PL eds. Forensic Psychiatry. Clinical, Legal and Ethical Issues. Oxford: Butterworth-Heinemann; 1993.
5. BLUGLASS R, BOWDEN P, eds. Principles and Practice of Forensic Psychiatry. Edinburgh: Churchill Livingstone; 1990.
6. GUNN J. Future directions for treatment in forensic psychiatry. Br J Psychiatry 2000; 176: 332-338.
7. TENGSTROM A, HODGINS S. Criminal behavior of forensic and general psychiatric patients with schizophrenia: are they different? Acta Psychiatr Scand Suppl. 2002; (412):62-6.
8. ANGERMEYER MC. Schizophrenia and violence. Acta Psychiatr Scand Suppl. 2000;(407): 63-7.
9. TUNINGER EE, LEVANDER S, BERNCE R, JOHANSSON G. Criminality and aggression among psychotic in-patients: frequency and clinical correlates. Acta Psychiatr Scand 2001;103(4):294-300.

10. PAVIŠIĆ B. Kazneni zakon: redakcijski pročišćeni tekst i stvarno kazalo. Rijeka: Pravni fakultet Sveučilišta u Rijeci, 2001.
11. GORETA M, JUKIĆ V, eds. Zakon o zaštiti osoba s duševnim smetnjama: ideje, norme, implementacija, evaluacija. Zagreb: Medicinska naklada - Psihijatrijska bolnica Vrapče; 2000.
12. MULLEN PE. Forensic mental health. Br J Psychiatry 2000;176:307-311.
13. STEADMAN HJ, MULVEY EP, MONAHAN J, ROBBINS PC, APPELBAUM PS, GRISSO T, ROTH LH, SILVER E. Violence by people discharged from acute psychiatric inpatient facilities and by others in the same neighborhoods. Arch Gen Psychiatry 1998;55(5):393-401.
14. MUNKNER R, HAASTRUP S, JORGENSEN T, ANDREASEN AH, KRAMP P. Taking cognizance of mental illness in schizophrenics and its association with crime and substance-related diagnoses. Acta Psychiatr Scand 2003;107(2): 111-7.
15. SWARTZ MS, SWANSON JW, HIDAY VA, BORUM R, WAGNER HR, BURNS BJ. Violence and severe mental illness: the effects of substance abuse and nonadherence to medication. Am J Psychiatry 1998;155(2):226-31.
16. SOYKA M. Substance misuse, psychiatric disorder and violent and disturbed behaviour. Br J Psychiatry 2000;176:345-50.
17. Međunarodna klasifikacija bolesti i srodnih zdravstvenih problema, 10. revizija. Zagreb: Medicinska naklada, 1994.
18. ŽARKOVIĆ PALIJAN T, HALMI A, KOVAČEVIĆ D, CRNOJA J. Alcoholism and mentally incompetent perpetrators of criminal deeds. Alcoholism 2003;39:83-92.

*Received September 12, 2004, accepted after revision December 6, 2004*