

Personality Characteristics of Alcoholic Criminal Offenders and Non-offenders

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Summary – The research was based on some personality traits of alcoholics, such as special qualities of psychopathological and socio-pathological characteristics of alcoholic offenders according to the type of criminal offence and non-offenders. The research was carried out in prison and hospital system in Popovača. Two groups of examinees were included. The experimental group (E) (N=96) consisted of persons convicted for homicide (N1=32), traffic offences (N2=32) and offences against property (N3=32). The control group (K) (N4=64) consisted of alcoholics undergoing hospital treatment at the Alcoholism Department of Neuropsychiatric Hospital Dr. Ivan Barbot in Popovača. There were no evident differences in the examined psychopathological variables among alcoholic offenders except that the offenders against property displayed more aggression than the homicide offenders.

Key words: Alcoholic, Aggression, Criminal offence

INTRODUCTION

It is a very well-known fact that alcoholism is a factor that encourages criminal acts. In literature, there are numerous attempts of finding an answer to the question what is critical for perpetration of criminal offence. As we can see from literature research

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there are numerous factors that define if a person is going to commit a criminal offence.¹ There are numerous likely characteristics in alcoholics:¹⁻⁴ psychopathic traits, antisocial behavior, hostility as a sign of weak impulse control, impulsivity, low frustration tolerance, satisfaction with short-term awarding, difficulties in maintaining adequate objective relationships, problems with sexual identity and negative self image.^{5,6}

Antisocial personality disorder is frequently connected with alcoholism. Cloninger^{7,8} has observed adopted sons of alcoholics. Patient's subgroup type 2 had personality characteristics that show great dependence on awarding, excessive injury avoidance and low desire for acquiring new experience. It has been shown that type 2: subgroup is characterized by early alcoholic behavior, depression, suicidal tendencies and unrestrained physical violence.^{7,8} Results from Von Knorring and associates⁹ showed that type 2 alcoholics are anxious, verbally aggressive; less socialized and inhibited on the level of aggression as opposed to type 1 alcoholics. Regarding the psychopathic factors, type 2 alcoholics are significantly different from both type 1 and from healthy volunteers.

Kozarić Kovačić¹⁰ states that the group of aggressive alcoholics showed markedly lower psychosocial maturity in the latent phase in comparison with non-aggressive alcoholics with significantly higher level of outward hostility than non-delinquent alcoholics. In one research¹¹ the »classic« alcoholic personality profile was obtained. It showed that there are no significant differences in the personality traits of alcoholic offenders and non-offenders, except considering the area of aggression. The generalization of these conclusions requires reviewing in future research.

The aim of the study was to determine the psychopathological characteristics of alcoholic personality regarding the type of criminal offence. Hypothesis of the study is that alcoholic homicide offenders show more hostile, depressive and anxious personality characteristics.

SUBJECTS AND METHODS

The study was conducted in the penal system, in Penitentiary in Lipovica and in Neuropsychiatric hospital »Dr Ivan Barbot« in Popovača. It included two groups of subjects.

Experimental group (E) (N=96) consisted of individuals sentenced for homicide (N1=32), traffic offences (N2=32) and property offences (N3=32). Experimental group consisted of subjects who had been diagnosed with alcohol dependence through expert evaluation and were subjected to treatment of alcoholism in their penal institutions. The subjects had been drinking for at least 5 years and, with the clinical assess-

ment of alcohol dependence, they met the diagnostic criteria according to MKB-10¹² and DSM-IV.¹³

Control group (K) (N4=64) consisted of alcoholics who were subjected to treatment at the alcoholic ward of Neuropsychiatric hospital Dr Ivan Barbot in Popovača – they also met the diagnostic criteria.

We have excluded alcoholics with severe physical illnesses, abuse of drugs or other psychotropic substances in the period of one year before the study, those with obvious organic disorders, schizophrenia or affective disorders not related to alcohol, antisocial personality disorder before alcoholism occurred and high primary intellectual dysfunctions. Schizophrenia, mania, depression and antisocial personality disorder were diagnosed according to the DSM-IV criteria.¹³ The study was implemented between 5th and 10th day after the admission.

For each subject, following measuring instruments were applied:

1. Structured questionnaire of general data.
2. Structured questionnaire of alcohol history.
3. Minnesota Multifactor Personality Inventory (MMPI-202), for personality assessment.¹⁴
4. Eysenck Personality Questionnaire (EPQ), which also contains predisposition for criminality scale and is often used in this kind of research.^{15,16}
5. LMA questionnaire based on Žužul's research in the area of aggression.¹⁷

Statistical evaluation of data

The data obtained with tests and questionnaires, were tested by means of univariate and multivariate analytical procedures, discriminative and regression analysis, and the results shown in tables and charts.

RESULTS

The subjects were matched according to their marital status. In both groups there was the same proportion of subjects who were married and those who were not. Also, the subjects didn't significantly differ from the control group considering their age, total family income, education and occupation.

Post hoc test showed there was a significant difference between the groups of subjects with property offence and homicide offenders in variable LMAM. The significance level was set to 1%. Property offenders manifested a significantly higher level of aggression than homicide offenders. Post hoc test revealed a significant difference

Table 1. Final table of variance analysis (ANOVA) for samples of subjects with property, traffic and homicide offence and non-offenders; N=160

Dependent variable	(I) group of subjects	(J) group of subjects	Mean Difference (I-J)	Std. Error	Sig.
Imam	property	homicide	7,844	2.445	0.01**
	homicide	property	-7,844	2.445	0.01**
epql	homicide	Non-offenders	2.828	1.06	0.05*
	Non-offenders	homicide	-2.828	1.06	0.05*

Dependent variable –; lmam, lmal, lmad – scale on LMA questionnaire; epqp, epql, epqn, epqc – scales on EPQ personality questionnaire; Mean difference (I-J) – mean difference between group I and J; St. error – standard error; sig. – significance of Bonferroni post-hoc test; **p=0.01; *p=0.05

on EPQ lie scale between the homicide offenders and non-offenders on the level of significance of 5%. The difference between the arithmetic means for these two groups showed that homicide offenders lied significantly more (to show themselves in more desirable social light) than non-offenders.

Table 2. Equivalence test of arithmetic means for four group of subjects (traffic, property, homicide and non-offenders) on LMA, EPQ and MMPI personality questionnaire; N=160

Var.	Wilks' Lambda	F	df1	df2	Sig.
lmam	0.924	3.451	3	125	0.019*

Var. – variable; F – value F ratio; df – ldegrees of freedom; Sig. – level of significant difference; *p<0.05

Table 2. shows the difference of arithmetic means of groups defined by criminal offence (traffic offence, property offence, homicide, those without offence) regarding personality questionnaires LMA, EPQ and MMPI. The equivalence test of arithmetic means shows which of the independent variables predictors are isolated. This is true only for variable LMAM (manifested aggression) (F=3.451, p=0.019). The expressed manifested aggression was the variable that showed the differences between these four groups of subjects best.

Table 3. shows that the variable of manifested aggression (LMAM) and the difference between the manifested and latent aggression (LMAD) are highly connected with canonic discriminative functions (F1, F3). We can assume that these two variables are highly correlated, which artificially increases the connection between the variable LMAD and the discriminative function. Only the variable of manifested aggression can discriminate these four groups of subjects.

Table 3. Structural correlation matrix between discriminative variables (Var.) and standardized canonical discriminative functions (Function) for four group of subjects (traffic, property, homicide and non-offenders); N=160

Var.	Function		
	1	2	3
lmam	-.457*	0.196	0.092
lmad	0.151	0.031	-.562*

* – The biggest absolute correlation between variable and canonic discriminative function

Table 3. shows the differences of arithmetic means for groups of subjects defined regarding the criminal offence (offenders and non-offenders) on personality questionnaires MMPI, EPQ and LMA. The equivalence test of arithmetic means shows which independent variable is a significant predictor by itself, but based on these results, none of the personality variables proved to be significant (it cannot determine offenders from non-offenders). None of the variables proved to be highly connected with the canonic discriminative functions.

To describe the nature of differences between groups of subjects on variable LMAM (manifested aggression) in detail, in other words, to examine which psychopathological variables which define the manifested aggression in alcoholic offenders and non-offenders; best we have done two regression analyses (for offenders and for non-offenders). The hierarchical regression analysis was also made for all subjects, using the same criteria (LMAM) and predictor variables (scales MMPI).

To examine the contribution of some psychopathological variables in explaining the manifested aggression in criminal offenders, the regression analysis was made with the manifested aggression as criterion and MMPI scale results as predictors. In other words, we were interested to see if psychopathological variables were significant predictors of manifested aggression of alcoholic criminal offenders.

We introduced 11 predictor variables in the regression equation (11 scales on MMPI). These variables explained 69% of variance variables of manifested aggression, but none of the MMPI variables had proved to be a statistically significant predictor. The manifested aggression cannot be explained with any of the predictor variables used in this analysis.

To determine the contribution of some psychopathological variables in explaining the manifested aggression in non-offenders, a regression analysis was made with the manifested aggression as criterion and MMPI scale results as predictors. We were interested if psychopathological variables were significant predictors of manifested aggression in alcoholic non-offenders.

Table 4. Regression analysis results conducted on psychopathological variables (MMPI inventory scales) as predictors and manifested aggression as criterion for the group of subject non-offenders

Var.	β	t	p	R	R ²	R ² kor
MMPIF	-0.567	-2.103	0.04			
MMPIHY	0.454	2.069	0.044	0.497	0.247	-0.01

var. – variable; kazn. – Offence; MMPI... MMPIF, MMPIHY.... MMPIMA – scales on MMPI personality inventory; R – multiple correlation coefficient; R² – multiple determination coefficient; R²kor – corrected multiple determination coefficient; β – beta ponder; specific contribution to variable in explaining criteria

We introduced 11 predictor variables in the regression equation (11 scales on MMPI). These variables explained 0.1% of variance variables of manifested aggression. We found MMPI variable of weird answers and confused thinking (F scale) to be significant predictor ($\beta=-0.567$; $p=0.04$) and MMPIHY (hysteria scale) ($\beta=0.454$; $p=0.044$).

To identify the contribution of some psychopathological variables in explaining manifested aggression, a hierarchical regression analysis was made with manifested aggression as criterion and MMPI scale results as predictors, accompanied by the control of possible differences among subjects regarding the type of criminal offence. We were interested if psychopathological variables were significant predictors of manifested aggression if we control the possible differences among the subjects offenders and non-offenders on manifested aggression.

In the first step of the analysis, criminal offence was taken as a variable, assuming that there might be differences among the subjects regarding the criminal offence on criterion variable (manifested aggression). There were no significant differences among the subjects regarding criminal offence on this variable. In the second step of the analysis, 11 predictor variables (11 scales on MMPI) were introduced in the regression equation. These variables explained 1.3% of variance of variable of manifested aggression and none of the MMPI variables was shown to be a statistically significant predictor.

DISCUSSION

The variance analysis of the results of alcoholic offenders on psychopathological scales MMPI, EPQ and LMA showed that the subjects differed only on LMA subscale of manifested aggression ($F=3.519$; $p=0.017$). On the manifested aggression subscale, the property offenders obtained significantly higher results than homicide offenders.

In the discriminative analysis, the best variable for distinguishing the groups of subjects was the manifested aggression. Regression analysis and hierarchical regression analysis also showed (sample of offenders) that none of the psychopathological variables from MMPI scale was a significant predictor of the manifested aggression.

The comparison of results of alcoholic offenders and non-offenders on psychopathological variables (variance analysis) showed a significant difference among the subjects on EPQ lie subscale ($F=2.65$; $p=0.051$). On this subscale, the homicide offenders accomplished statistically higher results than non-offenders. According to the discriminative analysis results, none of the psychopathological variables were significantly different for alcoholic offenders and non-offenders.

According to the regression analysis results on the sample of alcoholic non-offenders among psychopathological variables of MMPI scale, the significant predictors of manifested aggression were variable F (MMPI subscale of bizarre answers; $\beta=-0.567$; $p=0.04$) and variable Hy (MMPI hysteria subscale; $\beta=0.454$; $p=0.044$).

To determine the specific factors of in psychopathological personality traits of alcoholics regarding the type of criminal offence, in questionnaires MMPI, EPQ and LMA, profiles have been formed to represent the results for four groups of subjects, divided according to the type of criminal offence (property, traffic, homicide and non-offenders). The following statistical analysis was made: variance analysis-ANOVA (with which we tried to determine the differences between alcoholic offenders in personality questionnaires MMPI, EPQ and LMA) and discriminative analysis of a linear combination of personality variables that best differentiate the groups of subjects. Afterwards, the regression analysis was made. Variance analysis revealed a significant difference between the groups of property offenders and homicide offenders in variable LMAM (LMA questionnaire; manifested aggression subscale). Property offenders showed significantly more manifested aggression than homicide offenders. Discriminative analysis results showed that only the manifested aggression variable could predict the differences between the criminal offenders. Regardless of the determined differences in manifested aggression, none of the psychopathological variables proved to be significant predictors (regression analysis, hierarchical regression analysis). Based on these results, the information on psychopathology of alcoholic (property, traffic and homicide offenders) was not reliable for predicting the aggression of these alcoholics.

Hence, based on these results, the alcoholic homicide, property and traffic offenders did not have any significant differences in psychopathology. The only exception was that the property offenders were more aggressive than homicide offenders. The mani-

fested aggression of alcoholic homicide offenders was not possible to predict using data on their psychopathology.

The literature states¹⁸ that male subjects who were found guilty for violent crimes and who released on parole showed more aggressive answers on PSAP than those who were found guilty for non-violent crimes and conditionally released. These investigations lack data on (which are relevant for the present study) the influence of alcohol on aggression. Laboratory tests revealed that the higher levels of testosterone were connected with higher levels of aggression in men as well as in women. Based on these studies, authors Moeller and Dougherty concluded that alcohol increases aggression in people. The authors also indicate that there is a big variability in the assessment of what kind of alcohol was connected with aggression and also that not all subjects showed increased aggression after consuming alcohol. Few of the researchers support the idea that the level of alcohol induced aggression is connected with person's previous aggressive behavior. For example, Giancola and Zeichner¹⁹ in laboratory assessment of aggression showed that aggression as a trait is connected with alcohol induced aggression. Bailey and Taylor²⁰ found interaction between personality traits, alcohol consumption and aggression. In their research among college students with an expressed hostile trait, they showed a surprising aggression enhancement after the alcohol consumption in response to provocation as opposed to students with a less expressed hostile trait. Dougherty and associates²¹ in their research compared the alcohol effects on aggression in men and women and found evidence of increasing differences in personality traits. Men and women equally showed increased aggression after alcohol consumption. Increased aggression was even higher in subjects who showed high levels of aggressive answers, even when they did not drink alcohol (under the influence of placebo). In other words, the subjects with the highest aggressive tendencies while sober, showed the highest increase of aggression after alcohol consumption. Moeller and associates¹⁸ found that alcohol increased aggression was positively correlated with the number of aggressive acts in one's history. If we analyze the joint findings of these researchers¹⁸⁻²³ concerning the connection of alcohol, aggression and personality traits, we come to three conclusions:

1. People with antisocial behavior show higher aggression than those without antisocial behavior, although not all people with antisocial behavior show increased aggression.
2. The most important predictor of the actual aggressive behavior is the aggressive behavior shown by this person in the past.
3. People who are more probable to be aggressive while sober are more likely to show increased aggressive behavior under the influence of alcohol.

There are numerous neurological and biochemical studies about the influence of alcohol on aggression. One such research on non-human primates showed that the individual differences in brain chemistry were predictors for aggression, impulsivity and alcohol induced aggression. These differences could be connected with previous experiences. Other researchers suggest a clear connection between alcohol and aggression in subjects with certain characteristics, antisocial personality, alcohol addiction, lower cognitive functioning, previous aggressive episodes and low level of brain serotonin activity. It is possible that neurobiological mechanisms, such as low serotonin production and transmission, lie in the basis of excessive alcohol use and impulsive, aggressive reacting which could be the subject of some other study.²²⁻²⁵

Cloninger^{7,8,26} suggested the existence of two types of alcoholism-type 1 and type 2. It is believed that a type 1 alcoholic, consumes alcohol to reduce anxiety, while among type 2 alcoholics, alcohol consumption is a part of general behavior and as such, a part of impulsive, antisocial behavior. Type 2 alcoholism is therefore characterized by weak impulse control, antisocial traits, difficulties in social relations and aggressive behavior. In research on rodents, Miczek and associates²⁵ showed that the influence of alcohol on aggression depends on dosage; it induces aggression in small doses and reduces it in high doses. This research shows that these effects aren't universal and that there are differences in the way alcohol effects aggression in each individual. The authors also found that the same doses induce aggression in some people, in others it reduces aggression, while in third group it has no effects. Based on the researches mentioned above, we see that lie a number of factors such as: psychological, neurological, biological and social (factors) at the core of the relation between alcohol and aggression. In our research we also found that the results of the regression analysis in alcoholic non-offenders are different than those obtained from alcoholic offenders. Among the psychopathological variables on MMPI scale, the significant predictors of manifested aggression were variable F (MMPI subscale of bizarre answers; $\beta = -0.567$; $p = 0.04$) and variable Hy (MMPI hysteria subscale; $\beta = 0.454$; $p = 0.044$). Therefore, the manifested aggression can be explained by absence of bizarre answers, absence of confusing thinking (beta ponder is negative) and conversion symptoms which may represent significant data for clinical practitioners. At the base of manifested aggression in alcoholic non-offenders is a tendency of such an alcoholic towards conversive reactions and absence of bizarre thinking. Since the tendency to conversive thinking is one of the symptoms of anxiety, it is possible that these subjects try to reduce their inner tension by the aggressive behavior. This is the presumption that should be tested in future research.

Kozarić^{5,27} in her research found that alcoholics have high neuroticism (defined by MMPI scales-Hs, Hy and D which characterize neurotic disorders) and refers higher values for hypochondria, hysteria and depression which would match the personality profile in another research.^{3,4} In a discussion by the same author, she states that depression in alcoholics has a high positive correlation with fatigue and negative correlation with irritability, anger and paranoia, which are related with the aggressive behavior factor. Knezović and associates²⁸ found high depressiveness in homicide offenders and somewhat lower in traffic offenders. The studies mentioned above were directed to depression that is not necessarily (or can be negatively connected) connected with aggression. The results of the present study go a step further- the conversive component of anxiety increases the possibility of aggressive behavior.

The analysis of psychopathological variables in alcoholic offenders and non-offenders (variance analysis) was conducted on EPQ lies scale, $F=2.65$, $p=0.051$. The results show that offenders lie significantly more than non-offenders (wishing to leave a good impression; show themselves in good social light). According to the discriminative analysis results, no combination of psychopathological variables that would best discriminate offenders from non-offenders was found. None of the psychopathological variables was a significant predictor by itself. Therefore, based on the knowledge of alcoholic's psychopathology, it's not possible to differentiate offenders from non-offenders. These results are in compliance with other findings^{3,7,29} which show that convicted alcoholics obtain higher results on EPQ L scale, which shows their tendency to present themselves in a more desirable light as opposed to hospitalized alcoholics. The time period of judicial investigation and criminal procedure is long enough so convicts as opposed to hospitalized subjects show better adjustment, feel more secure and develop a strategy of self censorship so they could give better answers. They learned to smoothe the real picture about themselves because during institutionalization they had learned what is better and more desirable. In this way, the cognitive dissonance can be avoided because everyone likes to have a better opinion of him/herself and they display themselves in that manner. In the alcoholic population, as a norm, there is a considerable amount guilt feelings. To reduce these feelings, it's desirable to fool oneself and show toward others a prettier image of yourself.

The authors^{7,11,29} state that if the situation was reverse-if alcoholics showed the »ugly« image they would increase their guilt feelings and »negative differences« regarding the common people, it would in penal terms (which are hard by themselves) be an equivalent of »psychic suicide«. In the studies mentioned above, in MMPI-201 inventory, the subjects said they had tendencies of painting a nicer self image, during illness they had developed a control of expressing the socially inadequate answers and

thus hide the answers which could reveal their pathology. These people show difficulties in social communication, they are hypersensitive and careful, outside the hospital they are overly tense and usually even during treatment, they solve their problems by drinking in a passive-aggressive way.

In conclusion, the profile of personality characteristics of subjects with traffic offences and non-offenders is almost identical, except that the homicide offenders obtained higher results than other subjects on the latent and manifested aggression scale. Among the alcoholic offenders, there are no differences in psychopathological variables examined except that the property offenders had more manifested aggression than homicide offenders. Conversiveness of alcoholic non-offenders is a predictor of manifested aggression.

NEKE ZNAČAJKE OSOBNOSTI ALKOHOLIČARA POČINITELJA I NEPOČINITELJA KAZNENIH DJELA

Sažetak – Istraživanje se temelji na nekim značajkama osobnosti alkoholičara kao što su specifičnosti ega, specifičnosti u psihopatološkim i sociopatološkim obilježjima alkoholičara počinitelja kaznenih djela prema vrsti kaznenog djela i nepočinitelja. Istraživanje se provodilo u penalnom i bolničkom sustavu tijekom 2002/2003 godine na području Popovače. Obuhvaćene su dvije skupine ispitanika. Eksperimentalna skupina (E) (N=96) obuhvaća osuđene osobe na izdržavanju kazne zbog krvnih delikata (N1=32), prometnih delikata (N2=32), i imovinskih delikata (N3=32). Kontrolnu skupinu (K) (N4=64) sačinjavali su alkoholičari koji su uključeni u bolnički tretman na Odjelu za alkoholizam Neuropsihijatrijske bolnice »Dr. Ivan Barbot« u Popovači. Među alkoholičarima počiniteljima kaznenih djela nisu nađene razlike na ispitivanim psihopatološkim varijablama osim što su počinitelji imovinskog delikta više manifestno agresivni od počinitelja krvnog delikta.

Ključne riječi: Alkoholičar, agresivnost, kaznena djela

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