

Personality traits of drivers serving a custodial sentence for drink driving

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Summary

Objectives: The aim of the work was the analysis of personality traits of men serving a custodial sentence for driving under the influence of alcohol.

Methods: The study included 44 males serving a custodial sentence for drink driving, 45 males serving a custodial sentence for assault and robbery as well as 32 men with no criminal record, who had never driven a motor vehicle under the influence of alcohol. The following research methods were used during the study: the Socio-demographic Questionnaire designed by the authors, the KRS, the Cattell's IPAT, the NI, the ACL and the Life style Questionnaire.

Results: The obtained results indicate significant statistical differences between the men serving the custodial sentence for drink driving as regards stress coping, anxiety level, intensified need to look for new experiences as well as anti-social personality traits.

Conclusions: The men serving a custodial sentence for drink driving show intensified traits of antisocial personality, higher level of anxiety, intensified impulsiveness irritability, distrust, aggression, egocentrism, eccentricity, intensified need for recognition, breaking social standards, experiencing various stimuli, new impressions, greater adaptation difficulties, less self-discipline, lower self-esteem as well as more frequently used destructive, escapist and emotional stress coping strategies as compared to the people with no criminal record, who never drove while under the influence of alcohol. As regards the intensity of personality disorders, stress coping strategies and self-image no significant differences were found between the men serving a custodial sentence for drink driving and those imprisoned for assault and robbery.

Key words: personality, drivers, alcohol

Introduction

The annual report by the General Police Headquarters [1] shows that in 2012 drunk drivers caused 3 407 accidents (making up 9.2% of the total number), in which 475 (13.3%) people were killed and 4 071 (8.9%) people were injured. The most numerous group of drunk perpetrators of accidents was made up by those who operated motor

vehicles. They caused 2 336 accidents, in which 306 people were killed and 3 125 were injured. Out of general number of accidents caused by drivers, 7.7% of accidents were caused by those operating the motor vehicles under the influence of alcohol. In this group of drunk drivers the greatest risk was caused by those driving passenger cars. They caused 1 742 accidents (74.6% of accidents caused by drunk drivers) killing 242 people i.e. 79.2% of fatalities of drink driving, whereas 2 483 people (79.5%) were injured in these accidents. The greatest number of accidents caused by drivers operating a motor vehicle under the influence of alcohol results from the failure to adapt the speed to the traffic conditions (69.7%), failure to grant the right of way and from driving on the wrong side of the road.

The reason of so numerous accidents caused by drunk drivers is considered to stem from the social approval, acquiescence in driving after consumption of alcohol, lenient sentences, suspended sentences inflicted on the above drivers as well as their personality traits and family factors. Jonah [2] informs about the intensified impulsiveness of the people convicted for drink driving. At the same time Jonah and Ulleberg [2, 3] stress that the people with numerous convictions for drink driving obtained higher scores as regards thrill seeking as compared to those who were convicted for that offence for the first time. Ulleberg [3] singled out two groups of individuals showing risky driving behaviour. The first group was made up mainly by men with low altruism level, anxiety, high level of thrill seeking and lack of responsibility related to driving. The individuals from the second group showed a high level of sensation seeking, aggression and low emotional adaptation level. The subject researchers [3, 4] point out that those exhibiting risky driving behaviour show high sensation seeking level, hostility, irritability, aggression and low adaptation level. The individuals from the group frequently showing risky driving behaviour were significantly more aggressive, they showed less empathy, were less task-oriented and tended to show anti-social behaviours. According to Beirness [4] risky driving behaviour, accident record at the age of 18 is connected with a lesser attachment to traditional values, higher stimulation need, lower self confidence, higher sensation seeking, more tolerant attitudes as regards deviation behaviours, more liberal attitudes as regards alcohol consumption. Nochajski and Stasiewicz [5] show that the individuals with convictions for drink driving show anti-social personality traits. Zakrajesk and Shope [6] found that “the individuals characterised by early alcohol initiation show in a greater degree risky driving behaviour under the influence of alcohol”. Moreover, alcohol abuse by parents is a risk factor as regards driving under the influence of alcohol both in case of men and women.

In Poland there is a lack of research devoted to the analysis of personality traits of individuals driving under the influence of alcohol. Bąk and Bąk-Gajda [7] stress the fact that the drivers’ functioning while operating a motor vehicle on public roads is conditioned by the following factors: psychophysical factors, social adaptation, emotion control and stress coping ability in a complex task situation.

Based on the subject literature the following research hypotheses were formulated:

1. The men who serve a custodial sentence for drink driving are characterized by: intensified impulsiveness, antisocial personality traits, emotional ways of coping with stress and intensified anxiety level. Due to the fact that drink driving is a situation when the driver puts at risk other people's lives as well as his life the following hypothesis was formulated in the work, namely:
2. The men serving a prison sentence for drink driving do not differ as regards personality traits from the men serving a prison sentence for assault and battery.

Material

The study included 44 men serving a custodial sentence for drink driving (Article 178a of the Penal Code) (Group I), 45 men serving a custodial sentence for assault and battery (Article 280 of the Penal Code) (Group II) and 32 men with no criminal record, who had never operated a motor vehicle while drunk (a control group – Group III). In Group I, 6 men caused drink-drive accidents (Article 178a, §4 of the Penal Code). The individuals from Groups I and II had no previous criminal record. The research was conducted during the years 2011 – 2012. The average age of the people from Group I was 38 years, the average length of the custodial sentence having been served was 7 months, whereas the length of the adjudged sentence – 20 months. The average age of the men from Group II was 30 years, whereas from Group III – 37 years. Over 60% of the total number of respondents from the three groups lived in urban areas. In all three groups most individuals had vocational and primary level education and the least number – higher education. The medical history data show that 57% of men from Group I and 24% from Group II were diagnosed with alcohol dependence syndrome. In Group III no individuals complied with alcohol dependence criteria. Other psychoactive substances were used by 14% people from Group I, 31% from Group II and 6% from Group III. Self-harm was carried out by 7% of men from Group I, 22% from Group II and 0% from Group III, whereas suicide was attempted by 2% of individuals from Group I, 13% of people from Group II and 0% from Group III. Alcohol abuse by parents was reported by 33% of men from Group I, 35% from Group II and 16% from Group III. Physical violence from parents was experienced by 16% of men from Group I, 24% from Group II and 6% from Group III. 11% of respondents from Group I, 32% from Group II and 0% from Group III were raised in one-parent families.

Methods

The following research methods were used during the study: the Socio-demographic Questionnaire designed by the authors, the Stress Coping Questionnaire by Janke, Erdmann, Boucsein in the Polish version by Januszewska [8], the “N” Narcissism Inventory by Deneke, Hilgenstock, Müller in the Polish version designed by Januszewski [9], the Adjective Check List by Gough and Heilbrun in the Polish version by Płużek [10], the PAT Anxiety Scale by Cattell in the Polish version by Hirszel [11], and the

Life style [Styl Życia] Questionnaire by Trzebińska [12]. This questionnaire consist of 10 scales corresponding to 10 types of personality disorders differentiated in DSM-IV.

Results

In order to verify hypothesis 1 we compared using the Student's t-test the results achieved by the men from Groups I and III as regards the data obtained based on the questionnaires used for the purpose of research of various personality traits. The reason why the Student' t-test was used was that if in each compared group the number of individuals exceeds 30, the normality assumption of the distribution is not a critical assumption, due to the central limit theorem which says that the distribution of the sample is normal disregarding the distribution of a given variable in the population [13,14]. In the analysed example the t – test was used to check at the same time the homogeneity of variance and using the t-test for homogenous or heterogeneous data. Moreover, the differences between the groups using the Mann-Whitney U test, which proved the statistical significance of differences within the scales, where they had been found before using the t-test. In the tables of this article the results of the t-test were left due to its greater power.

The data obtained based on the Socio-demographic Questionnaire show that alcohol is abused significantly by more men from Group I as compared to Group III (chi sq. = 27.1; p = 0.001).

Afterwards, stress coping methods in respondents from Groups I and III were compared.

Table 1. Comparison of stress coping strategies in respondents from Group I and III

Stress Coping Strategies Scales	Group I		Group III		t	p
	M	SD	M	SD		
Avoidance tendency	12.95	3.16	11.06	3.24	2.50	0.015
Self-pity	9.44	3.45	7.16	3.41	2.82	0.006
Self-blame	10.93	3.60	8.50	3.50	2.89	0.005
Addiction	4.39	3.47	2.66	3.69	2.06	0.043

M – Mean, SD – Standard Deviation, t – Student's t-test results, p – statistical significance

Note: The Table contains only these scales which show statistically significant differences between the compared groups of respondents.

The men from Group I obtained significantly higher results as compared to the respondents from Group III as regards four scales contained in the Stress Coping Questionnaire: Avoidance tendency, Self-pity, Self-blame and Addiction. These results show that the men driving under the influence of alcohol significantly more often, as compared to the men from the Control Group, in a stressful situation escape from difficulties, show self-pity, dwell on their failures, show self-blame and abuse alcohol and other psychoactive substances.

Table 2 presents the results obtained by the men from Group I and III by the IPAT Anxiety Scale by Cattell.

Table 2. Anxiety intensity in respondents from Group I and III

Cattell	Group I		Group III		t	p
	M	SD	M	SD		
Low self-control	6.39	2.97	4.16	2.48	3.42	0.001
Lack of emotional balance	4.68	2.68	3.03	2.33	2.77	0.007
Suspiciousness	3.45	1.70	2.55	1.69	2.28	0.026
Sense of guilt	10.66	3.61	8.87	3.71	2.09	0.040
Internal tension	11.39	3.43	8.61	3.36	3.47	0.001
Observable anxiety	12.30	6.03	8.74	6.29	2.47	0.016
Latent anxiety	16.57	4.94	12.26	5.10	3.67	0.001
General anxiety	31.95	9.96	23.81	10.33	3.44	0.001

M – Mean, SD – Standard Deviation, t – Student's t-test results, p – statistical significance

The men from Group I obtained significantly statistically higher results in all scales of the IPAT Anxiety Scale by Cattell as compared to the men from Group III. The men from Group I are characterised by significantly higher level of anxiety, both observable and latent, as compared to the men from the Control Group. The men from Group I, as compared to those from Group III, are more impulsive, lacking emotional balance, immature, irritable, they show a more intensified need to get sympathy, recognition, attention, acceptance, they show lower tolerance to frustration, lower self-esteem. While dealing with other people they are more suspicious, distrustful, aggressive, hostile, egocentric and eccentric as compared with the people from Group III. The men from Group I are characterised by a more intensified tension and adaptation difficulties.

Table 3 presents the results obtained by the men from Group I and III in the Adjective Check List scales.

Table 3. Comparison of actual image in respondents from Group I and III

ACL	Group I		Group III		t	p
	M	SD	M	SD		
Need for autonomy	47.84	5.59	45.13	5.35	2.07	0.04
Masculinity scale	45.26	6.37	49.83	6.38	-3.02	0.01

M – Mean, SD – Standard Deviation, t – Student's t-test results, p – statistical significance

Note: The table contains only these scales which show significant statistical differences between the compared groups of people.

The respondents from Group I obtained significantly higher results in the scale Need for autonomy and significantly lower in the Masculinity scale as compared to the men from Group III. These results indicate that the individuals from Group I, as compared to the men from Group III, show a significantly more intensified need for breaking rules, social standards, regulations, acting against authorities and they are

characterised by lower self-discipline and greater striving for change and experiencing variety.

Table 4 presents the results obtained by the men from Group I and III in the “N” Narcissism Inventory.

Table 4. Comparison of narcissistic characteristics in the people from Group I and III

Narcissism Inventory	Group I		Group III		t	p
	M	SD	M	SD		
Social isolation	2.47	0.50	2.21	0.45	2.27	0.03

M – Mean, SD – Standard Deviation, t – Student’s t-test results, p – statistical significance
 Note: The table contains only these scales which show significant statistical differences between the compared groups of people.

The men from Group I obtained significantly higher results in the scale Social isolation as compared to the respondents from Group III, which means that the men serving a custodial sentence for drink driving as compared to the respondents from the Control Group (III) chose loneliness due to the lack of trust in other people whom they evaluate as disappointing, threatening and untrustworthy.

Table 5 presents the results obtained by the men from Group I and III in the scales of the Lifestyle Questionnaire by Trzebińska.

Table 5. Comparison of personality characteristics intensity in respondents from Group I and III

Personality types	Group I		Group III		t	p
	M	SD	M	SD		
Paranoid	2.02	0.80	1.48	0.66	3.05	0.003
Borderline	1.19	0.71	0.87	0.62	1.97	0.052
Antisocial	1.37	0.85	0.88	0.64	2.73	0.008

M – Mean, SD – Standard Deviation, t – Student’s t-test results, p – statistical significance
 Note: The table contains only these scales which show significant statistical differences between the compared groups of people.

The people from Group I obtained significantly higher results in the scales: Paranoid personality, Antisocial personality and Borderline personality as compared to the men from Group III.

In order to verify hypothesis 2, in the following part of the study a comparison was made of personality characteristics of the men serving a custodial sentence for drink driving (Group I) to the people serving a custodial sentence for assault and battery (Group II). Based on the data collected in the Socio-demographic Questionnaire by Rzeszutko and on the information contained in the records a conclusion can be formulated that significantly more men from Group I as compared to Group II were addicted to alcohol (chi sq. = 9.68; p = 0.002), whereas significantly more men from Group II as compared to Group I carried out self-harm (self-mutilation) (chi sq. = 4.23;

$p = 0.04$), attempted suicide ($\chi^2 = 3.76$; $p = 0.05$) and used psychoactive substances ($\chi^2 = 3.90$; $p = 0.05$).

As regards the stress coping methods measured by the Stress Coping Questionnaire, personality traits measured by the Lifestyle Questionnaire by Trzebińska, self-image determined based on the Adjective Check List (ACL) no significant differences were found between the men from Group I and II. The men from Group I differ from the men from Group II within the results in Cattell's IPAT scales (Table 6) and the "N" Narcissism Inventory (Table 7).

Table 6 presents the results obtained by the men from Group I and II in Cattell's Anxiety Scale.

Table 6. Anxiety intensity in the people from Group I and II

IPAT – self analysis form	Group I		Group II		t	p
	M	SD	M	SD		
Sense of guilt	10.66	3.61	8.48	3.73	2.79	0.01
Latent anxiety	16.57	4.94	14.20	4.31	2.39	0.02
General anxiety	31.95	9.96	27.50	10.50	2.04	0.04

M – Mean, SD – Standard Deviation, t – Student's t-test results, p – statistical significance

Note: The table contains only these scales which show significant statistical differences between the compared groups of people.

The men from Group I obtained statistically significantly higher results in the scale latent anxiety, general anxiety, sense of guilt of the IPAT Anxiety Scale as compared to the men from Group II. The respondents from Group I are characterized by more intensified general and latent anxiety, more intensified sense of loneliness, inadequacy and self-aggression as compared to the individuals from Group II.

Table 7 presents the results obtained by the men from Group I and II in the "N" Narcissism Inventory .

Table 7. Comparison of narcissistic traits in people from Group I and II

Narcissism Inventory	Group I		Group II		t	p
	M	SD	M	SD		
Value ideal	3.22	0.68	3.50	0.62	-2.01	0.05

M – Mean, SD – Standard Deviation, t – Student's t-test results, p – statistical significance

Note: The table contains only these scales which show significant statistical differences between the compared groups of people.

The men from Group II obtained significantly higher results in the scale value ideal as compared to the men from Group I. The men serving a custodial sentence for assault and robbery as compared to the men serving a custodial sentence for drink driving are convinced that they follow and are guided by better principles than the people they condemn.

Summary and discussion of the results

The obtained results allowed the verification of the research hypotheses formulated in the work. Based on the research findings it was demonstrated that the men serving a custodial sentence for driving a motor vehicle under the influence of alcohol, as compared to the individuals who never drove drunk, with no criminal record, are characterised by intensified antisocial personality traits, higher anxiety level, intensified impulsiveness, internal tension, lack of emotional balance, irritability, distrust, aggression, hostility, egocentrism, eccentricity, intensified need for recognition, attention and acceptance, stressing one's independence, breaking rules, social standards and laws, opposing authorities and striving for change, experiencing variety of stimuli and new experiences. The men driving a motor vehicle under the influence of alcohol are characterised by greater adaptation problems, lesser self-discipline, lower tolerance to frustration, lower self-esteem and they more often use destructive methods of coping with stress: they escape from problems, they blame themselves, they dwell on failures as well as more often use alcohol and other psychoactive substances in stressful situations. These results correspond to the opinion of researchers who point out the intensified impulsiveness [2], need for seeking new experiences [3], breaking social standards [15], lack of altruism, intensified aggression, hostility, irritability [16], fear, low level of emotional adaptation [3, 4], lack of empathy and a tendency to show antisocial behaviour [5] as demonstrated by the individuals who were convicted for drink driving.

What seems interesting are the results that indicate the lack of significant differences as regards coping with stress, self-image, personality disorders, hostility, aggression, impulsiveness, emotional immaturity, tension, social adaptation level and respecting social standards and rules shown by the men serving a custodial sentence for drink driving and those imprisoned for assault and robbery. Thus, the dissocial personality traits characterise both the individuals convicted for drink driving as well as those imprisoned for assault and robbery. What makes the men who drive while drunk different from the individuals sentenced for assault and robbery is more intensified anxiety and less intensified conviction about being guided by better principles as compared to other people.

Moreover, based on the obtained results one can conclude that significantly more often men serving a custodial sentence for drink driving, as compared to those imprisoned for assault and robbery, are addicted to alcohol. Some authors stress the fact that driving under the influence of alcohol function psychologically in a similar way as those addicted to alcohol [17]. Both the men serving a custodial sentence for drink driving and the individuals addicted to alcohol show such personality traits as: impulsiveness, making use of avoiding, emotional ways of coping with stress, alcohol consumption in a stressful situation, intensified fear and anxiety [16–18]. Low or extremely high self-esteem, which according to Łosiak [19] co-exist with high alcohol consumption, however, it is not connected to driving under the influence of alcohol. The research shows that the men serving a custodial sentence for drink driving do not differ from the men from the control group as regards self-esteem.

Based on the findings a conclusion can be formulated that significantly less individuals convicted for drink driving as compared to the men serving a sentence for assault and robbery carried out self-mutilation (self-harm), attempted suicide and used psychoactive agents.

It should be noted as well that alcohol abuse by a parent and experiencing physical violence from their parents were reported by more men serving a custodial sentence for drink driving and assault and robbery as compared to the men with no criminal record. Some researchers of the subject point out [6] that alcohol misuse by parents can constitute a risk factor of drink driving by both men and women. What is of great significance for the functioning of this group of drivers is the functioning of their parents with parents' alcoholism being inter alia a prognostic factor for the return to such behaviours [16]. At the same time a hypothesis can be formulated that the physical violence, aggression by parents is a factor adding to learning aggressive behaviours by children, their reflection being among others risky driving behaviour.

Conclusions

1. The men serving a custodial sentence for drink driving show intensified traits of dissocial personality, more intensified anxiety, impulsiveness, irritability, distrust, aggression, egocentrism, eccentricity, intensified need for recognition, breaking social standards, experiencing various stimuli, new impressions, greater adaptation difficulties, less self-discipline, lower self-esteem as well as more frequently used destructive, escapist and emotional stress coping strategies as compared to the people with no criminal record, who never drove while drunk.
2. As regards the intensity of personality disorders, stress coping strategies and self-image no significant differences were found between the men serving a custodial sentence for drink driving and those imprisoned for assault and robbery.

References

1. Police Headquarters. Traffic Office, Prevention and Analysis Team. *Wypadki drogowe w Polsce w 2012 roku*. Warsaw 2013; <http://dlakierowcow.policja.pl/dk/statystyka/47493dok.html> [retrieved 31.03.2015].
2. Jonah BA. *Sensation seeking and risky driving: a review and synthesis of the literature*. *Accid. Anal. Prev.* 1997; 29(5): 651–665.
3. Ulleberg P. *Personality subtypes of young drivers. Relationship to risk-taking preferences, accident involvement, and response to a traffic safety campaign*. *Transportation Res. Part F: Traffic Psychol. Behav.* 2002; 4(4): 279–297.
4. Beirness OJ. *Do we really drive as we live? The role of personality factors in road crashes*. *Alcohol Drugs Driv.* 1993; 9(3–4): 129–143.
5. Nochajski TH, Stasiewicz PR. *Relapse to driving under the influence (DUI): A review*. *Clin. Psychol. Rev.* 2006; 26(2): 179–195.

6. Zakrajsek SJ, Shope JT. *Longitudinal examination of underage drinking and subsequent drinking and risky driving*. J. Safety Res. 2006; 37(5): 443–451.
7. Bąk J, Bąk-Gajda D. *Psychologiczne czynniki bezpieczeństwa ruchu drogowego*. Ekspl. Niezawodn. 2008; 3: 22–29.
8. Januszewska E. *Kwestionariusz Radzenia Sobie ze Stresem. Wartość diagnostyczna i wyniki badań młodzieży*. In: Oleś P. ed. *Wybrane zagadnienia z psychologii klinicznej i osobowości. Metody diagnostyczne w badaniach dzieci i młodzieży*. Lublin: Scientific Society of the Catholic University of Lublin; 2005. p. 91–124.
9. Januszewski A. *Kwestionariusz Narcyzmu. Wartość diagnostyczna w świetle wyników badań polskiej młodzieży*. In: Oleś P. ed. *Wybrane zagadnienia z psychologii klinicznej i osobowości. Metody diagnostyczne w badaniach dzieci i młodzieży*. Lublin: Scientific Society of the Catholic University of Lublin; 2005. p. 153–196.
10. Juros A, Oleś P. *Struktura czynnikowa i skupieniowa Testu Przymiotnikowego ACLH.G. Gougha i A.B. Helbruna*. In: Brzeziński J, Hornowska E. ed. *Z psychometrycznych problemów diagnostyki psychologicznej*. Poznan: Adam Mickiewicz University Press; 1993. p. 171–201.
11. Siek S. *Wybrane metody badania osobowości*. Warsaw: ATK Publisher; 1983.
12. Trzebińska E. *Szaleństwo bez utraty rozumu. Z badań nad zaburzeniami osobowości*. Warsaw: SWPS Publishing House; 2009.
13. Stanisz A. *Przystępny kurs statystyki z zastosowaniem STATISTICA PL na przykładach z medycyny*. Krakow: StatSoft; 2006.
14. Francuz P, Mackiewicz R. *Przewodnik po metodologii i statystyce nie tylko dla psychologów*. Lublin: Scientific Society of the Catholic University of Lublin; 2005.
15. Bina M, Graziano F, Bonino S. *Risky driving and Lifestyles in adolescence*. Accid. Anal. Prev. 2006; 38(3): 472–481.
16. Ulleberg P, Rundmo T. *Personality, attitudes and risk perception as predictors of risky driving behaviour among young drivers*. Safety Sci. 2003; 41(5): 427–443.
17. Hubicka B, Källmén H, Hiltunen A, Bergman H. *Personality traits and mental health of severe drunk drivers in Sweden*. Soc. Psychiatry Psychiatr. Epidemiol. 2010; 45(7): 723–731.
18. Kałwa A. *Impulsivity and decision making in alcohol-addicted individuals*. Psychiatr. Pol. 2013; 47(2): 325–334.
19. Łosiak W. *Self-concept, alcohol expectancies and drinking habits in high school students*. Psychiatr. Pol. 2008; 42(3): 431–441.

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