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Personality traits in alcohol-dependent individuals in the context of childhood abuse

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Summary

Aim. The aim of this study was to identify groups of alcohol-dependent individuals differing in the severity of childhood physical, emotional and sexual abuse and to find the personality variables that discriminate between those groups.

Methods. The study included 90 individuals dependent on alcohol. The following questionnaires were used: the Temperament and Character Inventory (TCI), the Coping Inventory (COPE), the Buss and Perry Aggression Questionnaire (BPAQ), Cattell's IPAT Anxiety Scale, and the Early Trauma Inventory (ETI).

Results. Two groups of subjects addicted to alcohol were identified: group 1 with high and group 2 with low childhood physical, emotional and sexual abuse indices. The subjects in Group 1 had significantly higher scores than the subjects in Group 2 on the TCI Temperament scales of NS and HA and lower scores on the TCI character scales of SD, C2 and C4. Group 1 subjects were significantly more likely than those from Group 2 to use avoidant coping strategies; they were also less likely to use problem-focused strategies and had significantly higher scores on general anxiety, overt anxiety, latent anxiety, level of aggression, physical aggression, hostility and anger.

Conclusions. The higher severity of childhood physical, emotional and sexual abuse in alcoholics is associated with those personality traits that seem to be crucial for maintaining abstinence and the quality of cooperation in therapy.

Key words: alcohol dependence, child abuse, personality traits

Introduction

Experiences of violence disrupt normal psychosocial development and personality forming processes in the child. In extreme cases, the structure of personality of adult victims of childhood abuse acquires the traits of pathology, meeting the criteria for

The study was not sponsored.

antisocial, borderline, narcissistic or histrionic personality disorders [1–3]. It seems purposeful to look for associations between exposure to maltreatment in childhood and personality traits in adult victims, because this allows a better understanding of the mechanisms of the devastating effects of child abuse [4].

Results of epidemiological studies indicate that any type of abuse against a child significantly increases the risk of alcohol dependence in adolescence and in adulthood [5–7]. Childhood physical, emotional and sexual abuse concerns a considerably higher percentage of people addicted to alcohol than healthy individuals. Exposure to physical trauma in childhood is reported by 31% to 36%, exposure to emotional trauma by 21% to 46%, and exposure to sexual trauma by 9.7% to 24% of alcoholics [1, 8, 9]. In the general population, these numbers are much lower at 19% for physical, 12% for emotional and 5% for sexual abuse [10].

Aim

The goal of the present study was to identify groups of people dependent on alcohol differing in the severity of physical, emotional and sexual abuse experienced before the age of 18 and then to look for differences between those groups in terms of character and temperament traits, coping strategies, and the levels of anxiety and aggression.

Method

The study group included 50 men and 40 women addicted to alcohol and receiving in-patient detoxification treatment. Mean age of the subjects was 37.17 years. The diagnosis of alcohol dependence was given on the basis of ICD-10 criteria and psychiatric assessment. The subjects had to give their informed consent to participate in the study and abstain from alcohol for at least two weeks prior to the study.

The severity of exposure to physical, emotional and sexual abuse before the age of 18 years was assessed using the Early Trauma Inventory (ETI) [11]. Temperament and character traits were assessed using Cloninger's Temperament and Character Inventory (TCI) [12]. The Multidimensional Coping Inventory (COPE) was used to determine coping strategies and styles [13]. The levels of anxiety and aggression were examined using Cattell's IPAT Anxiety Scale [14] and the Buss and Perry Aggression Questionnaire [15], respectively.

The ETI is a tool for measuring exposure to traumatic events, including abuse, experienced before the age of 18 years. The Inventory consists of four parts: I – general trauma, II – physical abuse, III – emotional abuse and IV – sexual abuse. In the present study, only parts II, III and IV of the Inventory were used. In each of these parts, the respondent is asked questions about exposure to the various types of abuse before the age of 18. If the item is endorsed, then the subject specifies, in section A, the age of onset of abuse: the preschool period (up to 5 years of age), the school period (6–12 years), adolescence (13–18 years). The frequency of abuse events is assessed in section

B on a 6-point scale from the lowest (once a month) to the highest rate of occurrence (every day). In order to determine the severity of the various forms of abuse, an index is calculated, which is the sum of the products of scores obtained in Sections A and B of each item in the individual parts of the inventory. In section A, the respondent scores 18 points if he or she experienced abuse for the first time as a preschooler, 12 points – at school-age, and 6 points – in adolescence. The scores in section B range from 1 to 6 [11].

The Temperament and Character Inventory is an operationalization of a psychobiological model of personality by Cloninger. It consists of 240 true/false items. Fourteen of the items are not part of any of the Inventory scales and are used to assess the likelihood of occurrence of personality disorders in subjects. The TCI measures 7 main dimensions and 24 sub-dimensions of personality. The dimensions of temperament include: Novelty seeking (NS), Harm avoidance (HA) and Reward dependence (RD), and the dimensions of character are Self-directedness (SD), Co-operativeness (C) and Auto-transcendence (AT) [12].

The COPE inventory consists of 60 items assessed on a four-point scale (4 = I usually do this a lot; 3 = I usually do this a medium amount, 2 = I usually do this a little bit, 1 = I usually don't do this at all). The items are then grouped into 15 different factors corresponding to 15 coping strategies. To reduce the number of variables, also second-order factors extracted by the authors of the Inventory were used. They correspond to three styles of coping: Active Coping, Denial and Disengagement, Seeking Support, and Focus on Emotions. [13].

Cattell's IPAT Anxiety Scale is used to assess the structure and severity of anxiety. The Scale measures the levels of overt, latent, and general anxiety, which is the sum of the first two types of anxiety. Overt anxiety is the type that a person is conscious of. In latent anxiety, the symptoms are camouflaged in such a way that an individual does not recognize them as anxiety but a manifestation of some other personality trait. It is characterized by symptoms such as the feelings of jealousy and anger, the desire to start a new life, and somatization symptoms. The questionnaire consists of 40 items. The items are scored on a scale of 0 to 2, with 2 points awarded for a diagnostic answer. If an item is difficult to assess, it is marked with a question mark and 1 point is granted. The calculations for each factor are made based on raw scores, which are then converted to sten scores, allowing a comparison of the scores for the different scales. In the present study, raw scores were used [14].

The Buss and Perry Aggression Questionnaire (BPAQ) is used to measure levels of trait aggression. It consists of 29 items which the respondents rank on a 5-point scale with answers ranging from: 1 – "Extremely uncharacteristic of me", through 2 – "Somewhat uncharacteristic of me," 3 – "Neither uncharacteristic nor characteristic of me," 4 "Somewhat characteristic of me," to 5 – "Extremely characteristic of me". The Aggression scale consists of four factors: physical aggression (PA), verbal aggression (VA), anger (A), and hostility (H). The general score is the sum of the scores obtained by a respondent for the particular factors. [15]

The results were analyzed statistically using STATISTICA 10.0 PL software. To identify groups of patients differing in the indices of physical, emotional and sexual abuse, non-hierarchical cluster analysis was used. The employed technique is known as k-means clustering. It is a method in which clusters are formed in such a way that the mean distance between all the cases in the cluster is as short as possible. In other words, the method aims at maximizing similarity among the objects which form a cluster, minimizing intragroup variance and maximizing distances among clusters, i.e., minimizing intra-cluster variance and maximizing inter-cluster variance [16]. Equality of variable distribution between the identified normal distribution groups was tested using the Kolmogorov–Smirnov test modified by Lilliefors as well as the Shapiro–Wilk test. Because the quantitative variables were not normally distributed, the results were shown as median and were compared using the Mann–Whitney U test.

Results

In the 90 surveyed individuals, two groups were identified which had characteristic profiles of physical, emotional and sexual abuse indices (Table 1). The division into the two groups was justified both statistically and substantively: the size of the groups allowed us to compare them in terms of specific variables, and the identified types were psychologically interpretable. Group 1 (n = 20) was characterized by significantly higher indexes of physical (p = 0.001), emotional (p = 0.004) and sexual abuse (p = 0.001) experienced before the age of 18 than group 2 (n = 70).

Table 1. **Mean indexes of emotional (INE), sexual (INS) and physical abuse (INF) in the two subgroups of patients with alcohol-dependence syndrome**

	Group 1 n = 20		Group 2 n = 70		t	p
	M	SD	M	SD		
INE	257.20	84.23	56.34	47.91	13.73	0.001
INS	60.30	147.14	6.37	24.93	2.96	0.004
INF	177.70	91.26	48.06	35.38	9.70	0.001

M – mean; SD – standard deviation; t – t-test value; p – statistical significance

The subjects with higher exposure to childhood physical, emotional and sexual abuse (Group 1) scored significantly higher than those from Group 2 on the following Temperament scales: NS (p = 0.012), NS2 (p = 0.022), NS4 (p = 0.004), HA (p = 0.046), HA1 (p = 0.002), and HA4 (p = 0.026). Differences with higher levels of statistical significance were observed for the TCI Character dimensions and sub-dimensions, for which subjects from Group 1 achieved significantly lower scores than the subjects from Group 2. These differences were found for the following scales: SD (p = 0.001), SD1 (p = 0.003), SD2 (p = 0.002), SD3 (p = 0.013); SD4 (p = 0.005), SD5 (p = 0.005), C2 (p = 0.002), C4 (p = 0.029). The difference for dimension C approximated statistical significance (p = 0.06) (Table 2).

Table 2. **Comparison of Group 1 and Group 2 scores on TCI**

TCI dimensions and subdimensions	Group 1	Group 2	Z	p
	Median	Median		
TEMPERAMENT DIMENSIONS AND SUBDIAMENTIONS				
NS – Novelty seeking	0.66	0.59	2.51	0.012
NS1 – Exploratory excitability	0.45	0.45	0.00	1.000
NS2 – Impulsiveness	0.65	0.50	2.30	0.022
NS3 – Extravagance	0.89	0.89	1.66	0.097
NS4 – Disorderliness	0.70	0.50	2.91	0.004
HA – Harm avoidance	0.69	0.60	2.00	0.046
HA1 – Anticipatory worry	0.64	0.45	3.10	0.002
HA2 – Fear of uncertainty	0.71	0.71	0.11	0.911
HA3 – Shyness	0.75	0.63	1.41	0.158
HA4 – Fatigability and asthenia	0.67	0.44	2.23	0.026
RD – Reward dependence	0.56	0.59	-1.25	0.211
RD1 – Sentimentality	0.60	0.75	-2.17	0.312
RD2 – Attachment	0.50	0.50	-1.30	0.195
RD3 – Dependence	0.59	0.50	0.82	0.409
CHARACTER DIMENSIONS AND SUBDIMENSIONS				
SD – Self–directedness	0.31	0.44	-3.73	0.001
SD1 – Responsibility	0.25	0.44	-2.94	0.003
SD2 – Purposeful	0.32	0.50	-3.07	0.002
SD3 – Resourcefulness	0.20	0.40	-2.49	0.013
SD4 – Self–acceptance	0.27	0.45	-2.81	0.005
SD5 – Congruent second nature	0.29	0.46	-2.80	0.005
C – Cooperativeness	0.54	0.65	-1.88	0.060
C1 – Social acceptance	0.63	0.75	-1.04	0.299
C2 – Empathy	0.43	0.57	-3.13	0.002
C3 – Helpfulness	0.50	0.50	-1.15	0.250
C4 – Compassion	0.60	0.70	-2.18	0.029
C5 – Pure–hearted	0.67	0.67	-0.17	0.865
AT – Self–transcendence	0.39	0.48	-1,62	0.106
AT1 – Self–forgetful	0.50	0.55	-0.62	0.535
AT2 – Transpersonal identification	0.33	0.56	-2.08	0.201
AT3 – Spiritual acceptance	0.42	0.50	-1.11	0.269

Z – result of the Mann-Whitney U test; p – statistical significance

Next, an analysis of the scores obtained by the two groups on the COPE Inventory was carried out. The subjects in Group 1 had a significantly greater propensity than those in Group 2 for using such coping strategies as behavioral disengagement ($p = 0.009$) and alcohol and drug use ($p = 0.018$), but were less likely to use restraint coping ($p = 0.047$). Greater exposure to childhood abuse was associated with a tendency to use avoidant coping ($p = 0.010$) and a less frequent use of the problem-focused style of coping ($p = 0.030$) (Table 3).

Table 3. **Scores obtained by Group 1 and 2 of alcohol dependents on COPE scales**

COPE	Group 1	Group 2	Z	p
	Median	Median		
COPING STRATEGIES				
Active coping	10.00	11.00	-1.83	0.067
Planning	9.00	11.00	-1.17	0.240
Seeking instrumental social support	10.00	11.00	-0.62	0.535
Seeking emotional social support	8.50	10.00	-1.10	0.271
Suppression of competing activities	9.50	10.50	-1.41	0.159
Turning to religion	7.00	10.00	-1.48	0.139
Positive reinterpretation and growth	9.00	9.00	-0.95	0.344
Restraint coping	9.50	10.50	-1.98	0.047
Acceptance	11.00	11.00	0.85	0.393
Focus on and venting of emotions	11.00	11.00	0.30	0.767
Denial	9.00	8.00	1.12	0.262
Mental disengagement	10.00	9.00	1.60	0.110
Behavioral disengagement	11.00	8.00	2.60	0.009
Alcohol/drug use	14.00	12.00	2.37	0.0108
Humor	7.00	7.00	0.67	0.503
COPING STYLES				
Problem-focused	9.40	10.40	-2.16	0.030
Social support and concentration on emotions	9.38	10.00	-1.21	0.225
Avoidant	10.42	9.42	2.58	0.010

Z – result of the Mann-Whitney U test; p – statistical significance

Respondents who scored higher on INF, INE and INS indices (Group1) had significantly higher levels of overt anxiety ($p = 0.001$), latent anxiety ($p = 0.001$) and general anxiety ($p = 0.001$) (Table 4).

Table 4. **Scores obtained by Group 1 and 2 of alcohol addicts on Cattell's IPAT Anxiety Scale**

IPAT Anxiety Scale by Cattell	Group 1	Group 2	Z	p
	Median	Median		
Latent Anxiety	27.50	21.50	4.08	0.001
Overt Anxiety	28.50	20.50	3.70	0.001
General Anxiety	57.00	44.00	4.03	0.001

Z – result of the Mann-Whitney U test; p – statistical significance

The data in Table 5 indicate that higher severity of physical, emotional and sexual abuse experienced before the age of 18 is associated with significantly higher levels of general aggression (p = 0.004) and three of its underlying factors: anger (p = 0.041), physical aggression (p = 0.006) and hostility (p = 0.015).

Table 5. **Scores obtained by Group 1 and 2 of alcohol dependents on the BPAQ**

BPAQ factors	Group 1	Group 2	Z	p
	Median	Median		
Anger	4.00	3.43	2.05	0.041
Physical Aggression	3.73	2.89	2.72	0.006
Hostility	4.00	3.44	2.43	0.015
Verbal Aggression	3.80	3.40	1.66	0.097
General score	114.50	96.00	2.86	0.004

Z – result of the Mann-Whitney U test; p – statistical significance

Discussion

According to Cloninger, personality is a complex, hierarchical system that can be decomposed into two separate psychobiological factors: temperament and character. Temperament is a set of genetically and neurobiologically conditioned dispositions to early emotions (anger, fear, attachment) and related automatic behavioral reactions (activation, inhibition, maintenance) that are triggered in response to specific environmental stimuli (novelty, danger, reward). Individual temperamental differences are determined by differences in the functioning of procedural memory and the related pre-semantic processes involving processing of visual-spatial information and emotional states [17, 18]. Novelty seeking (NS) is associated with the activity of the dopaminergic system, harm avoidance (HA) with the activity of the serotonergic system, and reward dependence (RD) is related to the activity of the noradrenergic system [19]. Character defines those characteristics of an individual which are acquired and shaped during the developmental period. It is subject to the influence of processes related to learning and upbringing. The underlying factor in shaping the

character is declarative memory, which is dependent on neural connections in the hippocampus and the neocortex. In contrast to temperament, which reflects individual differences in automatic emotional reactions and habits, character is associated with individual differences in the perception of the self and one's goals and values [17]. Subjects with higher exposure to childhood abuse had significantly higher scores on two major dimensions of temperament: novelty seeking (NS) and harm avoidance (HA), and on the sub-dimensions of impulsiveness (NS2), disorderliness (NS4), anticipatory worry (HA1), and fatigability and asthenia (HA4). This means that they react more intensely to novel stimuli, more actively seek stimulation, are more impulsive, excitable, have a lower level of frustration tolerance. They are also less systematic and orderly in action and are more likely to prefer activities that are unrestrained by strict rules and principles. On the other hand, they are observed to show a greater tendency to worrying, pessimism, states of chronic fatigue and lack of energy. As expected, differences with higher levels of statistical significance were found between the two groups on the character scales of self-directedness (SD) and all its sub-dimensions as well as empathy (C2) and compassion (C4). The difference in cooperativeness (C) between the two groups approximated the level of statistical significance ($p = 0.06$).

The results lead to the conclusion that individuals dependent on alcohol in whom the severity of physical, emotional and sexual abuse experienced before the age of 18 was higher, are characterized by a greater tendency to shift the responsibility for their own behavior and choices onto others or onto external circumstances. Such persons are less sure of their own long-term goals and aspirations and lack acquired habits necessary for meeting those goals. In the face of the encountered problems, they think of themselves as less competent, less resourceful and less efficient, which is why they are more likely to expect others to manage their affairs in such a way that they take the expected turn. A higher severity of childhood abuse is also associated with lower levels of self-acceptance, weaker will, and lower levels of compassion and sensitivity to the feelings and needs of others. Lukasiewicz et al. [20] have reported that exposure to abuse in childhood is associated with lower scores on TCI character dimensions and higher scores on the novelty seeking scale, which is in line with the results of our study. In addition, in the model developed by the authors of that study [20], character and novelty seeking mediate the relationship between childhood abuse and alcohol dependence in adulthood. Similarly, Dalbudak et al. [21], in a study of men with alcohol dependence have shown that exposure to traumatic experiences in childhood, including abuse, is associated with higher scores on the temperament scales of novelty seeking and harm avoidance and lower scores on all three TCI character dimensions. By contrast, Evren et al. [22] have not found a relationship between childhood abuse and temperament and character traits in people addicted to alcohol. The obtained results may be particularly important in the context of reports of other researchers who relate the high scores on novelty seeking in alcohol dependents to a higher risk of relapse to alcohol abuse within 6 months [23] and 12 months [24] after completing alcohol dependent

therapy and associate a higher level of self-directedness and co-operativeness with a better level of patient cooperation during the treatment [25]. Svrakic et al. [26] have demonstrated that low scores on self-directedness and co-operativeness are characteristic of people with personality disorders, where the configuration of temperament dimensions specifies the nature of these disorders.

In our study, people with higher severity of childhood abuse scored statistically significantly lower than those with less severe exposure to childhood abuse on self-directedness and showed a clear tendency to score lower on co-operativeness ($p = 0.06$). These individuals can therefore be expected to have a higher risk of personality disorders. The higher scores on novelty seeking and harm avoidance in this group show that these personality disorders may belong to cluster B (antisocial, borderline, histrionic and narcissistic) disorders. Contrary to expectation, the significant differences between the two groups identified in the study concerned not only the dimensions of character, which is shaped by environmental influences and evolves under the influence of learning processes, but also traits of temperament, which is inherited and stable in time. It has to be remembered that the author of the psychobiological model of personality himself has noted that genetic factors determine from 50% to 60% of the variability of temperament [17]. Since the present study is cross-sectional, it is difficult to unequivocally determine the nature of the relationships between the severity of childhood abuse and the subjects' temperament traits. The results can be interpreted in two ways. A child's "difficult" temperament may arouse negative feelings in others and provoke violence. Alternatively, latent temperament traits may be reinforced under exposure to domestic violence, when the child is deprived of normal patterns of emotional and behavioral regulation [27, 28]. Support for the first hypothesis is found in the study by Ruchkin et al. [29] who have shown that children with higher levels of reward dependence arouse emotional warmth in their parents, as opposed to children characterized by a high degree of novelty seeking (impulsive, quick-tempered, excitable) or harm avoidance (anxious, depressive). On the other hand, it is known that traumatic childhood experiences can induce neuroplastic and neurobiological changes in the maturing brain, which persist until adulthood. Stress experienced during the developmental period and the accompanying hypersecretion of cortisol modify the processes related to the maturing and shaping especially of those brain regions that are richest in glucocorticoid receptors and have the longest postnatal development phase [30]. Experiences of childhood abuse have been associated with a reduction in the volume of the corpus callosum, the neocortex of the left hemisphere of the brain, the amygdala and the hippocampus [31]. Possibly, similar neuroplastic changes occur in basal ganglia which are functionally connected to procedural memory and temperament. In a study by Dillon et al. [32] young adults who had experienced emotional, physical or sexual maltreatment before 14 years of age were observed to show a weaker subjective reaction to reward-predicting cues and a weaker activity of the globus pallidus and putamen during reward anticipation. The blunted response to reward-predicting cues

may be associated with two opposing consequences: 1. anhedonia and the risk of mood disorders; and 2. compensatory, active reward-seeking behaviors such as the use of alcohol and other psychoactive substances. Alcohol use can also be a form of self-medication of anhedonia [30].

Coping is defined as all the efforts, both cognitive and behavioral, made by an individual in order to meet the internal and external demands of the situation. It can be viewed as a strategy and a style. Coping strategies are smaller units of activity, often varied in quality, which can be identified during the entire stressful situation. In contrast, a coping style is a relatively stable and individual-specific repertoire of coping strategies that a person can use in a stressful situation. Coping styles have the status of personality variables [33]. An increased use of avoidant coping strategies, beside low self-efficiency and positive expectations regarding the effects of alcohol use, is associated with a higher risk of alcohol dependence as well as more severe drinking problems [34–36]. Persons addicted to alcohol, more often than healthy people, cope with stress by diverting attention from their problems, engaging in wishful thinking, and isolating themselves from others. At the same time, they are less likely to take active measures to eliminate the stressor, seek alternative ways of solving the problem, or seek more information about it [37–39]. Patients who chiefly use problem-focused coping strategies, as opposed to those who rely solely on avoidant strategies, have a better chance of achieving and maintaining abstinence [40]. The results of the present study show that alcohol dependents who have been exposed to more severe forms of physical, emotional and sexual abuse in childhood are more likely to use the avoidant coping style and are less likely to use the more adaptive problem-focused style. In a stressful situation, the subjects from Group 1 were significantly more likely than the respondents from Group 2 to feel helpless, abandon efforts to solve their problem or take hasty, premature action, without previous reflection as well as use alcohol or psychoactive agents. Physical, emotional, and sexual abuse arouses in the child a sense of guilt, shame and helplessness. Because children are often dependent on the persecutor and do not have sufficient resources to cope with the adversity, they often turn to passive, avoidant strategies that bring temporary emotional relief and eliminate negative feelings and thoughts. Because such strategies prove to effectively reduce the level of stress, they are re-used and reinforced. If a coping strategy developed in this way persists into adulthood and is generalized, it ceases to serve an adaptive function [41]. The results obtained in the present study are consistent with a report of Hyman et al. [42], who, in a study of people addicted to cocaine, have shown that a greater severity of childhood abuse and neglect corresponds with a greater tendency to use the avoidant coping style. In a study by Toker et al. [43], which included subjects addicted to various psychoactive substances (5% of whom were alcohol addicts) a greater severity of childhood emotional abuse was associated with lower scores for seeking instrumental support and a greater proclivity to regard stressful events as irreversible and necessary to accept. According to Min et al. [44], avoidant coping is a factor mediating between childhood abuse and the risk of alcohol and substance abuse in adulthood.

The results of our study indicate that alcohol dependent individuals who have been exposed to more severe childhood physical, emotional and sexual abuse are characterized by higher levels of aggression compared to those in Group 2. This is manifested as a greater predisposition to channeling aggression as physical aggression, anger and hostility towards others. The present results correspond with the findings of other researchers [45–48] and may be particularly important since high levels of aggression in people addicted to alcohol are associated with a high risk of suicide, regardless of co-morbidity with antisocial or borderline personality disorders [49, 50]. In addition, a high level of trait aggression is a predictor of early relapse to drinking after completing alcohol dependence therapy [51].

Alcohol dependents have higher levels of trait anxiety compared with the general population [52]. A high level of anxiety is one of the accepted factors associated with relapse to drinking in both men and women [53, 54]. The results of the present study show that subjects who have been exposed to more severe childhood physical, emotional and sexual abuse are characterized by higher levels of general, overt and latent anxiety. These results are consistent with the findings of other authors, who report a positive relationship between the level of trait anxiety and neuroticism and childhood adversity in alcohol dependent individuals [45, 55].

Our study has several limitations. Firstly, the experiences of childhood abuse were assessed retrospectively. This method of assessment is associated with the risk of obtaining false negative or, less often, false positive results. Secondly, the study group cannot be considered representative because it was small and included only those addicts who received alcohol dependence therapy. It should be noted, however, that as many as 40% of the people invited to take part in the study did not give their consent or did not fully complete the inventory forms. It is likely that this group included people who did not want to return to the traumatic childhood experiences or felt uncomfortable about answering questions regarding experiences such as sexual abuse. In addition, the study was cross-sectional, which makes it difficult to draw unequivocal conclusions as to the relationships between childhood abuse and adult personality traits.

Conclusions

1. A higher severity of childhood physical, emotional and sexual abuse in alcohol dependents is associated with higher levels of novelty seeking, harm avoidance, anxiety and aggression, and lower levels of self-directedness, empathy and compassion, as well as a more frequent use of avoidant coping and a less frequent use of problem-focused coping;
2. On the basis of the results of the present study and an analysis of the available literature it can be concluded that assessment of exposure to childhood physical, emotional and sexual abuse in patients with alcohol dependence may be used in building individual addiction treatment plans, because it allows one to predict in which areas of personality the patients may have the greatest deficits.

References

1. Bernstein DP, Stein JA, Handelsman L. *Predicting personality pathology among adult patients with substance use disorders: Effects of childhood maltreatment*. Addict. Behav. 1998; 23(6): 855–868
2. Johnson JG, Cohen P, Brown J, Smailes EM, Bernstein DP. *Childhood maltreatment increases risk for personality disorders during early adulthood*. Arch. Gen. Psychiatry 1999; 56(7): 600–606
3. Afifi TO, Mather A, Boman J, Fleisher W, Enns MW, MacMillan H. et al. *Childhood adversity and personality disorders: results from a nationally representative population-based study*. J. Psychiatr. Res. 2011; 45(6): 814–822.
4. McElroy S, Hevey D. *Relationship between adverse early experiences, stressors, psychosocial resources and wellbeing*. Child Abuse Negl. 2014; 38(1): 65–75.
5. Anda RF, Felitti VJ, Bremner JD, Walker JD, Whitfield CH, Perry BD. et al. *The enduring effects of abuse and related adverse experiences in childhood*. Eur. Arch. Psychiatry Clin. Neurosci. 2006; 256(3): 174–186.
6. Dube SR, Anda RF, Felitti VJ, Edwards VJ, Croft JB. *Adverse childhood experiences and personal alcohol abuse as an adult*. Addict. Behav. 2002; 27(5): 713–725.
7. Fenton MC, Geier T, Keyes K, Skodol AE, Grant BF, Hasin DS. *Combined role of childhood maltreatment, family history, and gender in the risk for alcohol dependence*. Psychol. Med. 2013; 43(05): 1045–1057.
8. Huang MC, Schwandt ML, Ramchandani VA, George DT, Heilig M. *Impact of multiple types of childhood trauma exposure on risk of psychiatric comorbidity among alcoholic inpatients*. Alcohol. Clin. Exp. Res. 2012; 36(6): 1099–1107.
9. Potthast N, Neuner F, Catani C. *The contribution of emotional maltreatment to alcohol dependence in a treatment-seeking sample*. Addict. Behav. 2014; 39(5): 949–958.
10. Scher CD, Forde DR, McQuaid JR, Stein MB. *Prevalence and demographic correlates of childhood maltreatment in an adult community sample*. Child Abuse Negl. 2004; 28(2): 167–180.
11. Śpila B, Makara M, Chuchra M, Grzywa A. *Polska adaptacja Inwentarza Wczesnej Traumy ETI*. Wiad. Psychiatr. 2005; 8(1): 19–24.
12. Hornowska E. *Temperamentalne uwarunkowania zachowania. Badania z wykorzystaniem kwestionariusza TCI R.C. Cloningera*. Poznan: Bogucki Scientific Publishing House; 2003.
13. Juczyński Z, Ogińska-Bulik N. *Narzędzia pomiaru stresu i radzenia sobie ze stresem*. Warsaw: Psychological Test Laboratory of the Polish Psychiatric Assocation; 2009.
14. Siek S. *Wybrane metody badania osobowości*. Warsaw: Christian Theological Academy Press; 1993.
15. Aranowska E, Rytel J. *Psychometric properties of The Buss-Perry Aggression Questionnaire*. In: Terelak JF, Majchrzyk Z. ed. *Psychology of aggression: Selected Issues*. Warsaw: Cardinal Stefan Wyszyński University Press; 2011. p. 217–243.
16. Statistica. Krakow: StatSoft Polska; 1997.
17. Cloninger CR, Svrakic DM, Przybeck TR. *A psychobiological model of temperament and character*. Arch. Gen. Psychiatry 1993; 50: 975–990.
18. Cloninger CR. *A psychobiological model of personality and psychopathology*. J. Psychosom. Med. 1997; 37(2): 91–102.

19. Stallings MC, Hewitt JK, Cloninger CR, Heath AC, Eaves LJ. *Genetic and environmental structure of the Tridimensional Personality Questionnaire: three or four temperament dimensions*? J. Pers. Soc. Psychol. 1996; 70: 127–140.
20. Lukasiewicz M, Neveu X, Blecha L, Falissard B, Reynaud M, Gasquet I. *Pathways to substance-related disorder: A structural model approach exploring the influence of temperament, character, and childhood adversity in a national cohort of prisoners*. Alcohol Alcohol. 2008; 43(3): 287–295.
21. Dalbudak E, Evren C, Çetin T, Durkaya M, Cetin R. *History of trauma and relationship with alexithymia, temperament and character dimensions in male alcohol dependent inpatients*. J. Psychiatry Neurol. Sci. 2010; 23(1): 1–12.
22. Evren C, Sar V, Dalbudak E, Durkaya M, Cetin R, Evren B. et al. *Childhood trauma and psychopathology among alcohol-dependent men: no interaction with temperament and character*. Psychopathology 2011; 44(1): 34–39.
23. Sellman JD, Mulder RT, Sullivan PF, Joyce PR. *Low persistence predicts relapse in alcohol dependence following treatment*. J. Stud. Alcohol. 1997; 58(3): 257–263.
24. Müller SE, Weijers HG, Böning J, Wiesbeck GA. *Personality traits predict treatment outcome in alcohol-dependent patients*. Neuropsychobiology 2008; 57(4): 159–164.
25. Arnau MM, Mondon S, Santacreu JJ. *Using the temperament and character inventory (TCI) to predict outcome after inpatient detoxification during 100 days of outpatient treatment*. Alcohol Alcohol. 2008; 43(5): 583–588.
26. Svrakic DM, Draganic S, Hill K, Bayon C, Przybeck TR, Cloninger CR. *Temperament, character, and personality disorders: etiologic, diagnostic, treatment issues*. Acta Psychiatr. Scand. 2002; 106(3): 189–195.
27. Belsky J. *Etiology of child maltreatment: A developmental ecological analysis*. Psychol. Bull. 1993; 114(3): 413–434.
28. Trocki KF, Caetano R. *Exposure to family violence and temperament factors as predictors of adult psychopathology and substance use outcomes*. J. Addict. Nurs. 2003; 14(4): 183–192.
29. Ruchkin VV, Eisemann M, Hägglöf B, Cloninger CR. *Interrelations between temperament, character, and parental rearing in male delinquent adolescents in Northern Russia*. Compr. Psychiatry 1998; 39(4): 25–30.
30. Pechtel P, Pizzagalli DA. *Effects of early life stress on cognitive and affective function: an integrated review of human literature*. Psychopharmacology 2011; 214(1): 5–70.
31. Teicher MH, Andersen SL, Polcari A, Andreson CM, Navalta CP, Kim DM. *The neurobiological consequences of early stress and childhood maltreatment*. Neurosci. Biobehav. 2003; 27(1): 3–44.
32. Dillon DG, Holmes J, Birk JL, Brooks N, Lyons-Ruth K, Pizzagalli DA. *Childhood adversity is associated with left basal ganglia dysfunction during reward anticipation in adulthood*. Biol. Psychiatry 2009; 66(3): 206–213.
33. Heszen-Niejodek I. *Coping style and its role in coping with stressful encounters*. Eur. Psychol. 1997; 2(4): 342–351.
34. Evans DM, Dunn NJ. *Alcohol expectancies, coping responses and self-efficacy judgments: a replication and extension of Copper et al.'s 1988 study in a college sample*. J. Stud. Alcohol. 1995; 56(2): 186–193.
35. Laurent J, Catanzaro SJ, Callan MK. *Stress, alcohol-related expectancies and coping preferences: A replication with adolescents of the Cooper et al. (1992) model*. J. Stud. Alcohol. 1997; 58(6): 644–651.

36. Cooper ML, Russell M, Skinner JB, Frone MR, Mudar P. *Stress and alcohol use: moderating effects of gender, coping, and alcohol expectancies*. J. Abnorm. 1992; 101(1): 139–152.
37. Mroziak B, Wójtowicz S, Woronowicz BT. *Psychospołeczne korelaty uzależnienia od alkoholu*. Alkohol. Narkom. 1998; 2(31): 193–203.
38. Madden C, Hinton E, Holman CP, Mountjouris S, King N. *Factors associated with coping in persons undergoing alcohol and drug detoxification*. Drug Alcohol Depend. 1995; 38(3): 229–235.
39. Paparrigopoulos T, Liappas J, Tzavellas E, Soldatos C. *Coping styles of alcohol-dependent individuals: Comparison with depressed patients and controls*. Soc. Behav. Pers. 2007; 35(5): 599–614.
40. Chung T, Langenbucher J, Labouvie E, Pandina RJ, Moos RH. *Changes in alcoholic patients' coping responses predict 12-month treatment outcomes*. J. Consult. Clin. Psychol. 2001; 69(1): 92–100.
41. Slavik S, Croake J. *The individual psychology conception of depression as a stress-diathesis model*. J. Individ. Psychol. 2006; 62(4): 417.
42. Hyman SM, Paliwal P, Sinha R. *Childhood maltreatment, perceived stress, and stress-related coping in recently abstinent cocaine dependent adults*. Psychol. Addict. Behav. 2007; 21(2): 233–238.
43. Toker T, Tiryaki A, Özçürümez G, Iskender B. *The relationship between traumatic childhood experiences and proclivities towards substance abuse, self-esteem and coping strategies*. Turk. Psikiyatr. Derg. 2011; 22: 83–92.
44. Min M, Farkas K, Minnes S, Singer LT. *Impact of childhood abuse and neglect on substance abuse and psychological distress in adulthood*. J. Trauma. Stress. 2007; 20(5): 833–844.
45. Evren C, Cınar O, Evren B, Ulku M, Karabulut V, Umut G. *The mediator roles of trait anxiety, hostility, and impulsivity in the association between childhood trauma and dissociation in male substance-dependent inpatients*. Compr. Psychiatry 2013; 54(2): 158–166.
46. Bácskai E, Czobor P, Gerevich J. *Suicidality and trait aggression related to childhood victimization in patients with alcoholism*. Psychiatry Res. 2009; 165(1): 103–110.
47. Gerevich J, Bácskai E. *Intimate partner violence, suicidal intent and alcoholism*. J. Clin. Psychiatry 2006; 67(12): 2033–2034.
48. Roy A. *Childhood trauma and depression in alcoholics: relationship to hostility*. J. Affect. Disord. 1999; 56(2–3): 215–218.
49. Roy A, Jana N. *Risk factors for suicide attempts among alcohol dependent patients*. Arch. Suicide Res. 2007; 11(2): 211–217.
50. Koller G, Preuss UW, Bottlender M, Wenzel K, Soyka M. *Impulsivity and aggression as predictors of suicide attempts in alcoholics*. Eur. Arch. Psychiatry Clin. Neurosci. 2002; 252(4): 155–160.
51. Ferrulli A, Leggio L, Cardone S, D'Angelo C, Mirijello A, Vonghia L. *Psychosocial findings in alcohol-dependent patients before and after three months of total alcohol abstinence*. Front. Psychiatry 2010; 6(1): 17.
52. King AC, Bernardy NC, Hauner K. *Stressful events, personality, and mood disturbance:: Gender differences in alcoholics and problem drinkers*. Addict. Behav. 2003; 28(1): 171–187.
53. Willinger U, Lenzinger E, Hornik K, Fischer G, Schönbeck G, Aschauer HN. et al. *Anxiety as a predictor of relapse in detoxified alcohol-dependent patients*. Alcohol Alcohol. 2002; 37(6): 609–612.

54. Schellekens AFA, de Jong CAJ, Buitelaar JK, Verkes RJ. *Co-morbid anxiety disorders predict early relapse after inpatient alcohol treatment*. Eur. Psychiatry 2015; 30(1): 128–136.
55. Mirsal H, Kalyoncu A, Pektaş O, Tan D, Beyazyürek M. *Childhood trauma in alcoholics*. Alcohol Alcohol. 2004: 39(2): 126–129.

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