



The cognitive impairment illustrated in drawings used in gaining insight and motivation in alcoholism treatment

Upotreba ilustracije kognitivnog oštećenja na crtežima za povećanje uvida i motivacije u lečenju alkoholizma

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Abstract

Introduction. The neuropsychological impairment such as different severity of executive deficit and mnesic disturbance among chronic alcoholics is frequent, but usually not explored. **Case report.** Two clinical vignettes of alcoholics who were not simultaneously treated in day hospital are presented, and they illustrated similar visuospatial impairments in free association drawings of a house made by. In this paper, the focus was on drawing not only as diagnostic tool, but also as a means of a confrontation within the group. Qualitative analysis of drawings and protocols from the group analysis were applied in the integrative day program. After confrontation, one alcoholic increased the insight into his cognitive impairment and strengthened motivation for early abstinence and treatment maintenance. He continued drawing houses as a theme of the following sessions till his obvious visuospatial impairments were repaired. Thus, he spontaneously trained his executive abilities and got group support for their improvement. **Conclusion.** Drawing could be a simple means of illustration cognitive impairments and the group analysis of drawings may serve as useful adjuvant method of strengthening insight and motivation for abstinence and treatment maintenance with documented cognitive recovery during abstinence.

Key words:

alcoholism; cognition; cognition disorders; art therapy; psychiatric status rating scales; self-evaluation programs; treatment outcome.

Apstrakt

Uvod. Kod hroničnih alkoholičara često postoji neuropsihološko oštećenje u vidu deficita izvršnih funkcija i mnestičkih poremećaja različitog intenziteta, mada se rutinski ne ispituju. **Prikaz bolesnika.** Prikazane su dve kliničke vinjete alkoholičara koji nisu bili istovremeno lečeni u dnevnoj bolnici, ali su ilustrovali slična vizuo-spacijalna oštećenja na crtežima kuće, nastalim prema slobodnim asocijacijama. U ovom radu fokus je bio na crtežu kao sredstvu za konfrontiranje u grupi, a ne samo kao dijagnostičkom sredstvu. U okviru integrativnog dnevnog lečenja alkoholičara primenjeni su kvalitativna analiza crteža i protokoli grupne analize crteža. Kod jednog alkoholičara, nakon konfrontiranja sa vizuo-spacijalnim oštećenjem došlo je do povećanog uvida i jačanja motivacije za dalju apstinenciju i lečenje. Na sledećim sesijama on je samoinicijativno ponovo crtao kuću dok nije reparirao svoje oštećenje. Tako je spontano trenirao svoje izvršne sposobnosti i dobio grupnu podršku za njihovo poboljšanje. **Zaključak.** Crtež i grupna analiza crteža mogu biti korisna pomoćna metoda i jednostavno sredstvo za registrovanje i upotrebu kognitivnih oštećenja u cilju jačanja početnog uvida i motivacije za održavanje apstinencije kod alkoholičara, kao i za dokumentovanu ekspanziju njihovog oporavka.

Ključne reči:

alkoholizam; mentalni procesi; saznanje, poremećaji; lečenje umetnošću; psihijatrijski status, testovi; samoprocena, programi; lečenje, ishod.

Introduction

Alcoholism is often associated with mild to severe cognitive impairment of varying intensity while remaining underestimated¹. The relationship between neuropsychological and emotional functioning may influence negatively alcoholics' compliance and diminish therapy efficacy². The evaluation of cognitive deficits is of great importance for optimi-

zing patient treatment. The question about period of cognitive recovery after detoxication from alcohol is still open, but some data suggest that an average length of one year is needed³. There was evidence that recovery of cognitive functions could be facilitated by applying relevant tasks early in the treatment⁴.

The challenge how to maintain abstinence and increase motivation in treatments that are easily applied, need more speci-

fic procedures⁵. Besides cognitive behavioral therapy and combination of treatments, novel treatment strategies for improving treatment response are needed⁶. However, the specific psychotherapeutic treatment programs among small percentage of alcoholics are applied⁷. The research of therapeutic intervention and exploration of artistic production of alcoholics is still understudied. An important role of self-expression by the creative process of drawing in gaining insight is observed. Thus, intrapsychic content becomes visible and can be analysed and included into integrative treatment⁸.

We presented two cases of verified clinical observations of the cognitive impairment expressed in drawings of the alcoholics with the focus on illustrations as a means of confrontation during group analysis and gaining insight as well as enhancing motivation for alcohol treatment.

Case report

The both cases were primary, right-handed, male alcoholics, who entered a two-month day integrative treatment after completion of the three week in-patient detoxification. It was the first alcohol treatment for each of them. They were admitted in the different periods and did not meet during therapy. The diagnose of alcohol dependence was established according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) criteria⁹. There were no history of any other mental disorder, head injuries, convulsions, and use of psychoactive substances except tobacco smoking. Routine laboratory analyses showed normal range and there were no prominent medical, nor neurological disturbances detected on out-patient hospital admission.

The alcoholics were visiting the day hospital homogeneous group, focusing on alcoholism, which was meeting three times a week. Also, individual psychotherapy, family therapy and the occupational therapy were applied. After they had been informed about integrative treatment procedures, the patients gave written consent to participate in the art group therapy and use of their drawings for the analysis. Once a week, they took part in the art therapy. It was an open, heterogeneous group of patients. The group work consisted of free associations drawing followed by exhibition with discussion of all drawings for 90 minutes¹⁰. For each session, the qualitative analysis of drawings and therapy protocols were made.

Case 1

A thirty-one year old male, graduated from high school and unemployed, was living with his parents after divorce while his young son stayed with his ex-wife. He had early onset of drinking at the age of 15. Having been verbally and physically aggressive to his parents while drunk, he was admitted to the closed ward for three-weeks hospitalisation. He had never had psychiatric treatment earlier. After detoxification, his score on the Mini-Mental State Examination (MMSE) was 29. Despite the alcohol dependence was diagnosed, he was ambivalent to continue treatment in day hospital. He was aware that clinical examination did not show any medical and neurological disturbances and realised that he had recovered without consequences

of alcohol abuse. He thought that he was not an alcoholic, but his parents persuaded him to enter day hospital treatment. During the homogenous group sessions discussing alcoholism he minimised his alcohol problems and rationalised his aggressive behaviour and alcohol use by marital disfunctions and his divorce. But, unexpectedly, his first drawing engaged the majority of the patients during group analysis of drawings to confront him with his illustrated impairment. It was a free association drawing (Figure 1a).

When he described his drawing, a therapist asked him to look at it again and put in some corrections if he had wished. But he said that everything was right. After that, most members of the group were surprised that he could not recognize his mistakes. One by one, they showed him and explained that the roof was drawn without parallel edges. Also, they showed that the stairs and path on the drawing had to be narrower at the door and wider from the house to the position of the observer. He was confused and ashamed that he was not able to recognize his mistakes, especially because other alcoholics, neurotic and psychotic patients corrected him. The therapist explained to him that alcohol could damage brain in that way, but by maintaining the alcohol abstinence give a chance for brain recovery. On the next group session, he accepted that he was an alcoholic and that he had brain impairment due to alcohol. He decided to draw another house on the follow-up art therapy and each week he made efforts to improve his abilities for drawing houses. At the beginning, he used a ruler to draw the parallel edges of the roof. When he was discharged, he got his group support for his obvious improvement and illustrated recovery (Figure 1b). He had maintained alcohol abstinence and follow-up treatment once a week for the next year.

Case 2

A thirty-six years old man diagnosed with alcohol dependence, divorced, living alone, had a 9 year old child. He started drinking at the age of 19 and drank more than 30 drinks a week after divorce over the previous 5 years. He had problems on the job due to alcohol, and after he stopped drinking the tremor was noticed and alcohol withdrawal intensified. He was admitted as an emergency in a close ward. After detoxification, he stayed for three-week in-patient standard treatment for alcoholics with only benzodiazepines, hypnotics and vitamins during hospitalization and disulfiram before he was discharge. The Mini Mental Scale Examination (MMSE) score was 28 and he was without presence of medical and neurological disorders. The laboratory findings on discharge were inside the normal range and he decided to enter day treatment only because his colleagues told him that he could lose his job because of his alcohol abuse. His resistance to accept that he was alcohol dependent was obvious after detoxification. Usually, he was drawing the sea and the sky, without objects in a three-dimensional perspective. But, once he drew a free association house, too (Figure 2).

After exhibition, during the group discussion, other patients asked him why he drew the stairs upside-down and a crooked right edge of the roof, but he was confused and con-

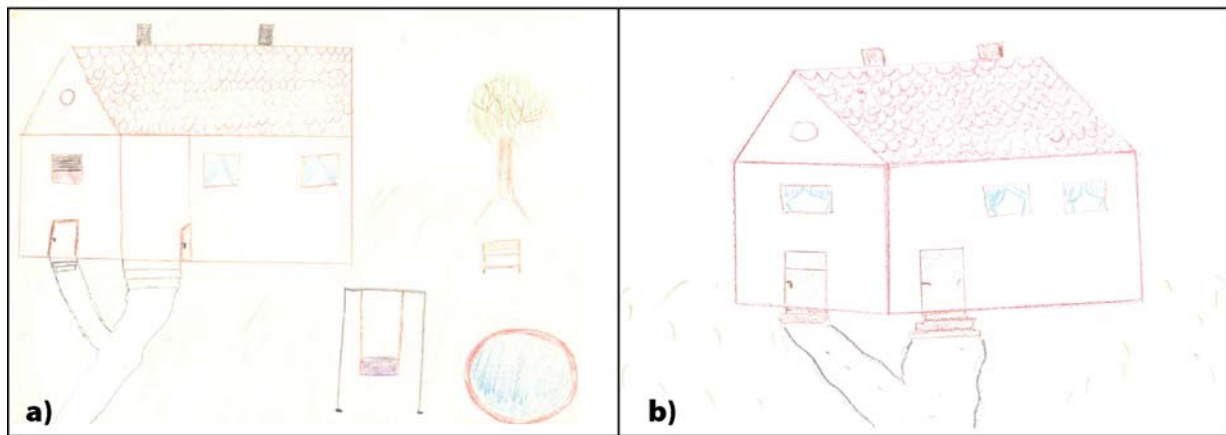


Fig. 1 –The first patient’s free association drawing: a) at the beginning of the treatment; b) at discharge showing obvious improvement.

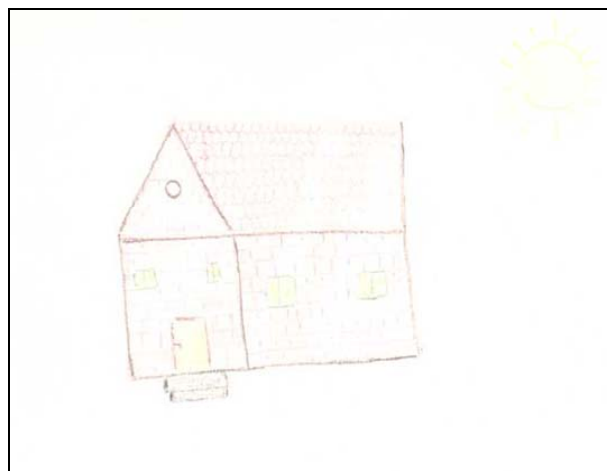


Fig. 2 – The second patient’s free association drawing at the beginning of the treatment.

fessed that he did not see any wrong lines. After further discussion he was angry, but remained silent. On the following sessions he only used watercolours and painted the sheet evenly. After discharge, he continued the treatment just until the next month.

Discussion

The both alcoholics spontaneously drew the same free association motif in different periods in day patient hospital and they did not even met. The house as a motif is a universal symbol from filogenetic to ontogenetic human development. It is a frequent theme or a part of a theme in patients’ drawings. The patients with dementia were not included, so our clinical experience revealed that among adult heterogenous patients with neurotic and stress related disorders, affective disorders and psychosis in day hospital the visuo- spatial cognitive impairments were not illustrated on the drawings, except among some alcoholics and some chronic psychotics.

Comprehensive clinical assessments indicated moderate impairment across multiple cognitive functions: intelligence quotient, attention, verbal fluency/language, working memory, problem solving/executive functions, verbal learning and memory, visual learning, visual memory and visuo-

spatial abilities during the first year of abstinence from alcohol³. In both cases the MMSE score indicated no cognitive impairment, but showed similar distorted perspective illustrated in Figure 1a and Figure 2, which may suggest that there could be visuo-spatial impairments related to alcohol abuse. In clinical researches and practice there are more sophisticated neuroimaging functional techniques and neuropsychological tests in diagnosing cognitive impairments of alcoholics. But our experience showed that alcoholics frequently deny it, or they are not able to understand an importance of these findings. The recent literature data suggest that cognitive training can facilitate brain recovery¹¹.

The focus of this paper was more on gaining insight and strengthening motivation for alcohol abstinence because it is a key point in the treatment. Early intervention and motivational enhancement is a key goal of alcoholism treatment, because clinical data showed that after in-patient treatment only 30–40% of alcoholics remain abstinent¹². The alcoholics exhibited poor performance across the domains of attentional control and executive function related to years of alcohol consumption. Therefore the need for therapeutic strategies to target these enduring neurocognitive deficits in improving the treatment of alcohol dependence are recognised¹³. The both cases were confused and ashamed during group analysis of drawings when their houses

were exhibited. The first time they were confronted with obvious material proof of their brain disfunction and they had no more arguments that there were no consequences of alcohol abuse and that they were not alcoholics. The confrontation of alcoholic with other alcoholic during psychotherapy is of great importance for gaining insight. But, in this paper, even the psychotic members of the group analysis recognized distorted lines and perspectives in presented alcoholics drawings, what upset and make feel ashamed our subjects.

The limitations of the presented clinical experience related to diagnostic and therapeutic use of cognitive impairments in alcoholics expressed in their drawings, are that they were spontaneously illustrated and series of more cases are needed to confirm frequent impairments among alcoholics. It would be useful to compare these impairments with standar-

dised objective neuropsychological and neuroimaging findings. Even if it was only an adjunctive therapy as a part of the the day integrative program, the group analysis of drawings gave possibility to intensified the therapeutic process itself.

Conclusion

Drawing could be a simple means of illustration of neuropsychological impairment among alcoholics. The group analysis of drawings may serve as a useful adjuvant method for gaining an insight and increasing the motivation for abstinence and treatment maintenance. The drawings could provide simple cognitive training and documented cognitive recovery during abstinence.

R E F E R E N C E S

1. *Lindemann A, Antille V, Clarke S.* Cognitive impairment in alcohol addiction. *Rev Med Suisse* 2011; 7(302): 1450–4. (French)
2. *Johnson-Greene, D., Adams, K.M., Gilman, S., Junck, L.* Relationship between neuropsychological and emotional functioning in severe chronic alcoholism. *Clin Neuropsychol* 2002; 16(3): 300–9
3. *Starvo K, Pelletier J, Potvin S.* Widespread and sustained cognitive deficits in alcoholism: A meta-analysis. *Addict Biol* 2013; 18(2): 203–13.
4. *Bates ME, Buckman JF, Nguyen TT.* A role for cognitive rehabilitation in increasing the effectiveness of treatment for alcohol use disorders. *Neuropsychol Rev* 2013; 23(1): 27–47.
5. *Kienast T, Heinz A.* Therapy and supportive care of alcoholics: Guidelines for practitioners. *Dig Dis* 2005; 23(3–4): 304–9.
6. *McHugh KR, Hearon BA, Otto MW.* Cognitive behavioral therapy for substance use disorders. *Psychiatr Clin North Am* 2010; 33(3): 511–25.
7. *Steinbauer M, Taucher J.* Paintings and their progress by psychiatric inpatients within the concept of integrative art therapy. *Wien Med Wochenschr* 2001; 151(15–17): 375–9. (German)
8. *Rici-Boyer L, Schiltz L, Spitz E.* Evaluation in the interest in arts psychotherapy treatment of alcoholics hospitalized for a weaning process-presentation of two clinical examples. *Bull Soc Sci Med Grand Duche Luxemb* 2010; 1(1): 229–38. (French)
9. *American Psychiatric Association.* Diagnostic and Statistical Manual of Mental Disorders. 4th ed. Washington, DC: American Psychiatric Association; 1994.
10. *Mandić-Gajić G.* Group art therapy as adjunct therapy for the treatment of schizophrenic patients in day hospital. *Vojnosanit Pregl* 2013; 70(11): 1065–9.
11. *Dresler M, Sandberg A, Ohla K, Bublitz C, Trenado C, Mroczko-Wasowicz A, et al. Repantis D.* Non-pharmacological cognitive enhancement. *Neuropharmacology* 2013; 64: 529–43.
12. *Soyka M, Helten C, Scharfenberg CO.* Psychotherapy of alcohol addiction: Principles and new findings of therapy research. *Wien Med Wochenschr.* 2001; 151(15-17): 380–8. (German)
13. *Naim-Feil J, Fitzgerald PB, Bradshaw JL, Lubman DI, Sheppard D.* Neurocognitive deficits, craving, and abstinence among alcohol-dependent individuals following detoxification. *Arch Clin Neuropsychol* 2014; 29(1): 26–37.

Received on June 22, 2016.
Accepted on July 25, 2016.
Online First October, 2016.