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Is it possible to change the psychopathic traits of substance abusers treated in faith-based therapeutic communities – does the length of treatment matter?

Da li je moguće menjati psihopatska obeležja kod osoba zavisnih od psihoaktivnih supstanci lečenih u verskim terapijskim zajednicama – da li dužina boravka pravi razliku?

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Abstract

Background/Aim. Faith-based therapeutic communities (FBTCs) have been increasingly employed as a modality in the treatment of substance abuse. Their program influences behavioral, psychological, cognitive and social changes among their beneficiaries. The aim of the study was to evaluate whether the duration of treatment in a FBTC may contribute to changes in the traits that make the four Hare's psychopathy dimensions – Antisocial behavior, Lifestyle, Interpersonal relationships, and Psychopathic affect. Another aim was to assess whether abusers on treatment in a FBTC have more pronounced psychopathic traits compared with subjects with no history of substance abuse. **Methods**. The study included 59 male subjects, of an average age of 29 years, and of different educational levels, who were divided into three groups: substance abusers who had spent one year in the FBTC; substance abusers who had successfully completed a two-year program in the FBTC; and healthy controls with no history of substance abuse. The Psychopathy Assessment Questionnaire (PAQ) was employed to assess the four Hare's dimensions of psychopathy. **Results**. There were statistically significant differences among the groups on the Antisocial Behavior dimension. For this dimension, there were differences among non-abusers and both groups of substance abusers, with non-abusers achieving the lowest average scores. There were no statistically significant differences between two groups of substance abusers in any of the studied dimensions. **Conclusion**. The longer, two-year treatment in the FBTC did not contribute to changes of the psychopathic traits more than the one-year treatment. In addition, subjects with history of substance abuse undergoing treatment in the FBTC had more pronounced psychopathic traits compared with non-abusers.

Key words:
substance-related disorders; faith healing; therapeutic community; psychopathology; antisocial personality disorder; surveys and questionnaires.

Apstrakt

Uvod/Cilj. Verske terapijske zajednice se izdvajaju kao sve češći terapijski modalitet u tretmanu osoba zavisnih od psihoaktivnih supstanci (PAS). Svojim programom one utiču na bihevioralnu, psihološku, kognitivnu i socijalnu promenu među svojim korisnicima. Cilj istraživanja bio je da se ispita da li dužina boravka u verskoj terapijskoj zajednici može da doprinese promeni obeležja koje čine četiri Harove dimenzije psihopatije – Antisocijalno ponašanje, Životni stil, Interpersonalni odnosi i Psihopatski afekat. Drugi cilj je bio da se ispita da li grupa ispitanika sa istorijatom zloupotrebe PAS, na tretmanu u verskoj terapijskoj zajednici, ima izraženija obeležja psihopatije u odnosu na grupu koja nikada nije konzumirala PAS. **Metode.** U istraživanju je učestvovalo 59 muških ispitanika, prosečne starosti 29 godina, svih obrazovnih profila, podeljenih u tri grupe: prva grupa ispitanika zavisnih od PAS koji su godinu dana boravili na tretmanu u verskoj terapijskoj zajednici; druga grupa ispitanika koji su završili dvogodišnji tretman u zajednici; treću grupu su činili zdravi dobrovoljci koji nikada nisu zloupotrebljavali PAS. Korišćen je Upitnik za procenu psihopatije koji meri četiri Harove dimenzije psihopatije. **Rezultati.** Dobijene su statistički značajne razlike između ispitivanih grupa na dimenziji Antisocijalno ponašanje. Na datoj dimenziji beleži se razlika između kontrolne grupe zdravih dobrovoljaca i obe grupe zavisnika, kako onih koji se nalaze godinu dana na tretmanu, tako i onih koji su uspešno završili dvogodišnji tretman u

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zajednici. Na ispitanoj dimenziji, kontrolna grupa zdravih osoba ostvarila je prosečno najniže skorove, dok se ni na jednoj od ispitanih dimenzija nije zabeležila statistički značajna razlika između dve grupe koje su boravile na tretmanu. **Zaključak.** Dvogodišnji boravak u verskoj terapijskoj zajednici nije doprineo promeni obeležja psihopatije u odnosu na jednogodišnji boravak u istoj. Ispitanici koji imaju istorijat zloupotrebe PAS i koji se leče u verskoj terapijskoj zajednici imaju izraženija psihopatska obeležja u odnosu na kontrolnu grupu ispitanika koji nisu nikad zloupotrebljavali psihoaktivne supstance.

Ključne reči:
poremećaji izazvani supstancama; lečenje verom; terapijska zajednica; psihopatologija; ličnost, antisocijalni poremećaji; ankete i upitnici

Introduction

Faith-based therapeutic communities (FBTCs) have recently been increasingly employed as a modality in the treatment of substance use disorders [1]. However, there are insufficient scientific publications that would clearly confirm successfulness of this type of treatment. Therefore, their role in the treatment process is usually implied on the basis of qualitative analysis of individual cases, which is primarily based on comparison between the traditional substance abuse treatments and faith-based therapeutic communities [2–5]. The increased interests in the treatment approach adopted by religious therapeutic communities presupposes an increased interest in conceptual and methodological issues related to spirituality and religiousness and their implications on the general well-being [6, 7]. Studies dealing with the role of religion and spirituality on recovery of persons with a history of substance abuse showed that religion and spirituality significantly affected behavioral changes in these patients [8], especially after completion of the treatment [9]. In addition, research showed that the highly religious persons tend to abuse psychoactive substances less frequently, compared with those who are less religious, and moreover, that religiousness in general is associated with the decreased substance abuse [1, 10, 11]. The very concept of therapeutic communities in the treatment of substance use disorders is founded on the principle that the community represents an environment where psychoactive substances are not available and where the persons with dependency problems live together in an organized and structured way that promotes changes towards recovery and social reintegration [12]. Specificity of therapeutic communities lies in the way they interpret the problem of dependency – the dependency is not observed as a disorder, but rather as a whole person problem [13]. Therefore, the treatment is directed towards the person, and not the substance [14]. This approach is founded in humanistic psychology, but also in Christianity – emphasizing a person's potential and ability to grow [15]. A person is considered emotionally weak and immature, but with a potential to change in a positive direction. Socially/morally acceptable living includes values such as honesty, responsible concern, dedication, work ethics and consideration of learning as a main value [16]. Recovery is not used in the traditional medical way (i.e., becoming abstinent), but rather as an indication of a more fundamental change in identity and lifestyle [16]. The FBTCs use the main postulates of organization of therapeutic communities which are additionally enriched by promoting religious convictions and lifestyle preached by the given religion, most often Christianity. FBTCs are specific in that they presuppose living of substance abusers under isolated conditions, mainly in countryside locations, where they have very limited and controlled contacts with their family members, for a period of minimum two years. The main role in a FBTC is played by the clergymen, with the principal task of establishing a connection between substance abusers and the lifestyle and moral principles taught by the religion. An important prerequisite for the FBTC's staff is their ability to serve as role models to their beneficiaries. These role models should be able to demonstrate in a concrete way the abstract concepts of behavior that is presented as socially acceptable and desirable.

The community-based treatment is directed towards correction of socially unwelcome forms of behavior, primarily inadequate personality traits, such as psychopathic traits. One of the most prominent researchers in the field, Hare and Neumann [17] describe psychopathy as a construct that comprises a set of interpersonal, affective and behavioral characteristics. These characteristics cover a wide spectrum of narcissistic and antisocial behaviors, including manipulation, lying, impulsivity, search for sensation, and a lack of empathy, guilt and regret. These traits are frequently encountered in persons dependent on psychoactive substances, and are therefore considered the most frequent psychiatric comorbidity seen in therapeutic communities [18–20]. The persistent cognitive, emotional, interpersonal and behavioral problems that characterize this group of disorders, and their prominence, contribute to a poorer outcome in the treatment of substance abuse [21]. It has been frequently suggested that there is still no efficient treatment for correction of psychopathological traits [22–24]. It would be interesting to analyze effects of alternative treatments, such as the FBTC, on the psychopathic traits of substance abusers.

The goal of treatment in the FBTCs is to achieve as successful social reintegration of beneficiaries as possible, which requires mastering socially acceptable behaviors [25]. This primarily means attempting to correct or at least diminish socially unacceptable psychopathic traits. The aim of the research was to evaluate whether the length of treatment in the FBTC is a factor affecting changes in psychopathic traits, i.e., four Hare's dimensions of psychopathy – Antisocial behavior, Lifestyle, Interpersonal relationships and Psychopathic affect. Another aim was to assess whether substance abusers in the FBTC have more pronounced psychopathic traits compared with subjects with no history of substance abuse.

Methods

The study included 59 males of an average age of 29 years and of different educational levels.

All participants were divided into three groups: the subjects who were on substance abuse treatment in the FBTC for one year (hereafter one-year treatment group; n = 20); the subjects who had successfully completed two-year treatment for substance abuse in the FBTC (hereafter two-year treatment group; n = 20); and the healthy volunteers with no history of substance abuse (hereafter non-abusers; n = 19).

The Psychopathy Assessment Questionnaire (PAQ) [26] comprised 40 items with a binary format of responses. The questionnaire was constructed according to the Cleckley-Hare's criteria by comprising a number of items related to 20 psychopathy traits as defined by Hare. The number of items was reduced on the basis of psychometric indicators and items that differentiate persons with and without psychopathic traits. Factor analysis of baseline items identified four factors corresponding to the four Hare's dimensions [26]. The questionnaire contained four subscales that measured four dimensions, each operationalized with 10 items. The dimension Interpersonal Relationships included items that corresponded with a poor control of aggression, unscrupulousness, belief in own charm and manipulativeness. The dimension Psychopathic affect comprised the indicators of cold-bloodedness, superficial affect and lack of guilt and regret. Lifestyle comprised items that indicated a highly pronounced need for stimulation, irresponsibility and tendency towards substance abuse. Antisocial behavior related to items that indicated the physical aggression, conflicts with law, problematic family relationships in childhood and tendency towards crime. The whole scale had a high confidence level (Cronbach's alpha = 0.79). The PAQ dimensions are expressed as the summary scores. The dimensions were calculated according to a pre-defined key, as described by the authors of the test.

The research was conducted over a period of nine months. The study complied with the World Medical Association (WMA) Declaration of Helsinki – Ethical Principles for Medical Research Involving Human Subjects.

We had contacted one of Orthodox FBTCs in Vojvodina, which gave a permission for their beneficiaries to participate in the research. The researchers were allowed access to data about the persons who had been on the treatment in the community for one year at the time of the research as well as about those who had successfully completed two-year treatment in the community two months prior to the start of the research. The community's only requirement was that their identity remained anonymous, in terms of their name and location. Public invitation through social media networks was used to recruit subjects from the general population who had no history of substance abuse and were willing to participate in the research. All three groups of subjects signed an informed consent and the subjects' anonymity was guaranteed. The one-year treatment group filled in the questionnaire on the premises of the FBTC. The two-year treatment group and non-abusers completed the questionnaire at their homes.

The treatment in the FBTC was considered successful if a subject had spent two years in the community, adhering to all rules of the community (completed abstinence from substance use, participation in all treatment activities – daily prayers, occupational therapy including physical work, controlled possibility of communication with the family, leaving the FBTC's premises only with a permission). The beneficiaries were allowed to see their family members only after one year of treatment.

The residence in the FBTC was based on a strictly defined structure of daily activities, carried out according to the pre-defined rules of behavior. Daily activities started with getting up and collective chanting (06.30–06.45h), followed by a morning prayer (06.45–07.30h), breakfast (07.30–08.30h), delegation of daily tasks and performance of the tasks (08.30–12h), collective praying with rosaries and chanting, lunch and free activities (12.30–14h), continuation with daily tasks (14–17.30h), daily hygiene (17.30–18.45h), evening prayer and dinner (from 18.45h) and going to bed (22h). During the dinner, the beneficiaries read excerpts from the Gospel for the day (each one interprets messages) and afterwards they discuss the daily tasks, e.g., tasks they had and whether they had performed them successfully. If they had failed to perform the tasks, the beneficiaries are sanctioned, most commonly in the form of being denied a meal or having to perform low bows (prostrate) during a meal or stand at the table during a meal. The daily tasks may include work with animals, farming, workshop tasks, preparation of meals, cleaning the house and doing the laundry. Free/leisure activities included reading, having a walk, listening to music, conversation, writing and singing. The beneficiaries are forbidden to lie in bed during free activities. They also read a part from the Book of Psalms every day. The newcomers were obliged to follow an elder beneficiary, whom they call "angel" and were not permitted to leave him in the first days after their arrival, not even when they went to the toilet. The hierarchical organization within the community presupposed that 3 to 4 persons who spent the longest time in the community were responsible for delegation and supervision of tasks. Telephone communication was allowed only to the oldest and the most reliable beneficiary in the group, and only in the presence of a priest and an educator in charge of the given group. The educators were ex-beneficiaries of the community who had successfully completed the two-year treatment. There were usually between 19 and 25 beneficiaries in a group at a time. Disobedience of the strict structure and rules lead to expulsion from the community.

The gathered data were processed with the statistical package SPSS 19.0. The differences among the groups were compared using the nonparametric statistics (Kruskal-Wallis and Man-Whitney tests). The main sociodemographic data were presented using the descriptive statistics.

Results

The study included only male subjects. Analysis showed the significant differences among the studied groups in the main sociodemographic characteristics, i.e., age [H (2

n = 59) = 12.78; $p = 0.02$], and educational level ($\chi^2 = 13.44$; df = 6; $p = 0.036$). The average ages of the one-year treatment group, two-year treatment group and non-abusers were 32.00, 29.95 and 27.58 years respectively (Table 1). There was a statistically significant difference between the non-abusers and abusers. The group of non-abusers had a higher average educational level compared with the two-year treatment group. There was no significant statistical difference among the studied groups in marital status ($\chi^2 = 6.68$; df = 4; $p = 0.153$). A majority of subjects were single and completed secondary education. A majority of subjects from the two groups of abusers had been convicted. There was no difference in the type of substance used between the two groups of abusers. The analysis of correlation matrix did not show a significant correlation between the subjects' age and the studied dimensions of psychopathy. On the other hand, we found a significant correlation between education and the psychopathy dimensions. Accordingly, we performed the partialization of effects of education for all applied measures of psychopathy.

Differences on PAQ dimensions in those three groups were analyzed using the Kruskal-Wallis test. The mean ranks are presented in Table 2.

The Kruskal-Wallis ANOVA showed the presence of statistically significant differences between the groups only on one PAQ dimension – Antisocial Behavior (Table 2). In order to determine the degree of difference among the groups, the *post-hoc* Mann-Whitney *U*-test was employed. Because of the multiple comparisons, the Bonferroni correction of alpha values was performed. The Mann-Whitney *U*-test results are presented in Table 3. The significant differences were found for the dimension Antisocial behavior between the two-year treatment group and non-abusers as well as between the one-year treatment group and non-abusers (Table 3). Non-abusers had the lower Antisocial behavior scores (Table 2).

Table 1

Sociodemographic characteristics of study groups

Sociodemographic parameters	One-year treatment group (n = 20)	Two-year treatment group (n = 20)	Non-abusers (n = 19)
Education, n (%)			
primary	4 (20.00)	2 (10.00)	0 (0)
secondary	11 (55.00)	17 (85.00)	14 (73.10)
2-yr tertiary	4 (20.00)	0 (0.00)	1 (5.30)
tertiary	1 (5.00)	1 (5.00)	4 (21.10)
Marital status, n (%)			
single	13 (65.00)	18 (90.00)	14 (73.10)
married	3 (15.00)	2 (10.00)	4 (21.10)
divorced	4 (20.00)	0 (0.00)	1 (5.30)
Convicted, n (%)			
yes	16 (80.00)	14 (70.00)	-
no	4 (20.00)	6 (30.00)	-
Age (years), mean ± SD	32.00 ± 4.507	29.95 ± 3.517	27.58 ± 11.46
minimum-maximum	26–44	26–42	19–59

SD – standard deviation

Table 2

Mean ranks on the PAQ dimensions in three groups of subjects

PAQ dimensions	Mean rank			H	*p*
	One-year treatment group	Two-year treatment group	Non-abusers		
Antisocial behavior	37.38	36.03	15.89	19.13	0.000
Lifestyle	36.63	28.93	24.16	5.25	0.072
Psychopathic affect	31.13	25.55	33.50	2.22	0.330
Interpersonal relationships	34.00	25.43	30.61	2.53	0.283

PAQ – Psychopathy Assessment Questionnaire.

Table 3

Mann-Whitney *U*-test (MW U) of differences among three groups on the Antisocial behavior dimension

Dimension	Differences between groups	MW U	z	*p*
Antisocial behavior	1 : 2	182.00	-.487	0.626
	1 : 3	60.50	-3.68	0.000
	2 : 3	51.50	-3.93	0.000

Groups: 1 – One-year treatment group; 2 – Two-year treatment group; 3 – Non-abusers.

Discussion

In the present study, we used the PAQ questionnaire constructed to measure four Hare's dimensions of psychopathy, with the aim to determine whether the length of treatment of substance abusers in a FBTC may contribute to changes of their psychopathic traits. We found the differences among the study groups in one dimension only – Antisocial Behavior. For this dimension, we found significant differences between the non-abusers, the one-year treatment group and the two-year treatment group. The one-year treatment group had the highest scores on this dimension, which indicates that they had a higher degree of physical aggression, conflict with law, problematic family relationship in childhood and generally more pronounced tendency towards violent behavior compared to the other two groups of subjects. These traits were less pronounced in the group that successfully completed the treatment, although the difference between the one-year and two-year treatment groups was not statistically significant, but inferred from the analysis of mean values. These traits were the least prominent in the non-abuser group. This finding suggests that the two groups of abusers with different lengths of treatment did not differ in psychopathic traits measured by the dimension Antisocial behavior. These findings are in agreement with the previous studies confirming that psychopathic traits were more pronounced and frequent in substance abusers, particularly among the violent offenders [27]. We also found that most of our subjects with a history of substance abuse had been convicted (80% of the one-year treatment group and 70% of the two-year treatment group). Although it was expected that the study groups would have differed on other dimensions of the PAQ, i.e., Lifestyle, Psychopathic affect and Interpersonal relationships, there were no significant differences.

Taking into account that there was no statistically significant difference between the one-year and two-year treatment groups, whereas there was a difference between non-abusers and both groups of abusers, it can be assumed that the pronounced psychopathic traits are permanent personality characteristics, i.e., that regardless of the duration of treatment in the FBCT, it is not possible to alter these traits. These findings are in agreement with a volume of research showing inability of correction of these traits, regardless of the type of treatment [23, 24, 28–32]. However, these findings can partially be explained in the context of the transversal study design, and a future longitudinal study of one-year treatment group could contribute to a clearer picture and more thorough data. On the other hand, the studies suggesting that certain psychopathic behaviors can be corrected related mostly to younger age, i.e., adolescents, which was not the case in our research [32, 33]. The meta analyses dealing with the treatments aimed at correction of psychopathic traits suggested that there was usually no significant improvement and that the corrections should be approached with realistic expectations [34, 35]. It means that we should not expect a complete removal of all socially unacceptable psychopathic traits, but rather the gradual and minor corrections [34, 35]. If we observe the possibility of treatment of psychopathy in this way, the role of length of stay in the FTBC could potentially play a role in this process of change. This is corroborated by our findings that, although statistically insignificant, minor differences did exist between two abusers groups on the PAQ dimension Antisocial behavior. An alternative interpretation may be that although a successfully completed two-year treatment in the FBTC did not lead to correction of psychopathic traits, as the permanent personality traits, it still may contribute to the subjects' mastering a higher degree of control over their socially unacceptable behaviors. This implies that future research in the FBTCs should be directed towards the assessment of control over their own inadequate behavior, rather than change of permanent personality traits. In this case, the instruments used should also be specific for the assessment of control of behavior, and not of personality traits.

A limitation of the present study can be observed in the context of the sample size. Future research should include more participants within all groups, since it is possible that our results were influenced by the sample size. It is also possible that we had "unrealistic" expectations regarding getting statistically significant differences among the groups on all PAQ dimensions. In addition, it would be useful to include and compare different types of FBTCs, besides duration of treatment, in order to evaluate efficacy of their programs. On the other hand, the advantages of the study may be interpreted through the difficulties the researchers encountered. Namely, it was very difficult to form a study sample for this type of research, because the number of persons dependent on psychoactive substance staying in a community and those who successfully completed the FBTC program was very limited. Another advantage of the present study is that it is one of the first studies in the region on the effect of FBTC on the correction of certain psychopathic traits. Considering that religious therapeutic communities represent a closed type of communes, this means that researchers are usually not able to access them. Therefore, the very fact that a religious therapeutic community permitted conducting a study on their premises represents a significant step forward in this research field.

Conclusion

The longer, two-year treatment in the FBTC did not contribute to changes of the psychopathic traits more than the one-year treatment. In addition, the subjects with a history of substance abuse undergoing the treatment in the FBTC had more pronounced psychopathic traits compared with the non-abusers.

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