

# THE FREQUENCY OF DUAL DIAGNOSIS AMONG THE USERS OF PSYCHOSOCIAL SERVICES IN THE THERAPEUTIC COMMUNITIES IN THE REPUBLIC OF CROATIA

Gordana Cavicchi<sup>1</sup>, Dragan Babić<sup>1,2,3</sup>, Ivan Ćelić<sup>4</sup>, Darjan Franjić<sup>2,5</sup>

<sup>1</sup>Faculty of Humanities and Social Sciences, University of Mostar, 88000 Mostar, Bosnia and Herzegovina

<sup>2</sup>Faculty of Health Studies, University of Mostar, 88000 Mostar, Bosna and Herzegovina

<sup>3</sup>Department of Psychiatry, University Hospital Mostar, 88000 Mostar, Bosnia and Herzegovina

<sup>4</sup>Department of Dual Diagnosis, University Psychiatric Hospital Vrapče,  
10090 Zagreb, Republic of Croatia

<sup>5</sup>Department of Oncology, University Hospital Mostar, 88000 Mostar, Bosnia and Herzegovina

*Received on 10.03.2023.*

*Reviewed on 27.03.2023.*

*Accepted on 01.04.2023*

## ABSTRACT

**Introduction:** Addiction is a mental state or physical condition that results from the continued use of a substance or performance of a particular activity. Dual diagnosis is the co-occurrence in the same individual of severe mental problems and addiction disease. **Objective:** To test the frequency of co-occurring disorders among the users of psychosocial services in the therapeutic communities in the Republic of Croatia. **Subjects and methods:** A cross-sectional study on a sample of 648 members of therapeutic communities was carried out. The data were collected by means of a modified international Pompidou Group's questionnaire consisting of general sociodemographic data and the data on treatment, risky behaviour and legal problems. **Results:** More than a half of the total number of subjects had dual diagnosis. The most frequent diagnoses co-occurring with addiction were disorders of adult personality and behaviour and schizophrenia, schizophrenia-like disorders and delusional disorders. Co-occurring disorders were more frequent in women than in men. In the Pope John XXIII Community, the main addiction substance among people of young age was amphetamine, and this change in trends of psychoactive substance abuse should be additionally explored. **Conclusion:** Somewhat more than a half of users of psychosocial services in the therapeutic communities in the Republic of Croatia had dual diagnosis.

**Key words:** addiction, dual diagnosis/co-occurring disorders, therapeutic communities, users of psychosocial services

Corresponding author contact information: Gordana Cavicchi, mag. act. soc.

E-mail: [gordana.cavicchi@gmail.com](mailto:gordana.cavicchi@gmail.com)

## INTRODUCTION

Addiction is a mental state or physical condition that results from the continued use of a substance or performance of a particular activity and that triggers the urge to continue to use that substance or perform that particular activity despite the harm it causes (1). It usually involves addiction to a psychoactive substance, i.e. “a substance that interacts with the central nervous system by altering not only mental, but also physical functions“ (2). The use of opioid/psychoactive substances is related to altered states of consciousness, and it most frequently results in, for example, jeopardizing the safety of public transport and other negative effects in the immediate vicinity of a person using such substances (3). An increased number of experts believe that research on the causes of addiction should include more factors (4). A great number of research studies have shown that addiction as a phenomenon depends on the correlation between psychological and sociological factors which, when combined, lead to the predisposition for addiction. The most common mental illnesses that psychologists encounter in addicts include depression, anxiety, schizophrenia, and personality disorders. Some hereditary factors impact on addiction and encourage its development (5). Dual diagnosis means the co-occurrence of severe mental problems and addiction (to psychoactive substances or alcohol). The term “dual diagnosis” is used to describe a diagnosis in people suffering from the co-occurring opioid substance abuse/addiction and

psychotic, affective or severe personality disorders (6). Dual diagnosis is difficult to diagnose due to the abuse of psychoactive substances which themselves cause problems and because their use is often explained as an attempt of “self-treatment” (7). In practice, two efficient diagnostic criteria included in DSM-V and ICD-10 can be used. Based on diagnostic criteria in these systems, various tools have been developed, such as the Tool for the Assessment of Dual Diagnosis, the Psychiatric Diagnostic Screening Questionnaire and the Form for Mental Health Assessment (8). As far as co-occurring disorders are concerned, those related to addiction include alcoholism, schizophrenia, personality disorders and mood disorders. These disorders are analysed hereinafter. It should be emphasised that new behavioural addictions have developed over the last several years and they are also analysed.

Treatment and rehabilitation of patients with dual diagnosis is a very complex and lengthy process which requires life-long commitment. Hospitals carry out detoxification; alleviate addiction withdrawal symptoms; introduce, adjust or withdraw substitution therapies, and implement various sociotherapeutic methods. As hospital treatment is just the beginning of a lengthy processes, patients who decide to establish total abstinence are recommended rehabilitation-resocialisation treatment in a therapeutic community (9). A therapeutic community is one of the most famous sociotherapeutic methods where the pyramid of authority is significantly less strict, and which employs two-way communication on all levels in order to improve

the mental state of patients (10). The experts talk about the four basic characteristics of a therapeutic community: permissiveness, democratisation, reality confrontation and communalism (11).

The purpose of this research study was to establish the frequency of dual diagnosis among the users of psychosocial services in the therapeutic communities in the Republic of Croatia.

## **SUBJECTS AND METHODS**

The cross-sectional study on a sample of 648 subjects, i.e. users of therapeutic community services, was carried out. The study was conducted between May and October 2022. The leaders of eight therapeutic communities in the Republic of Croatia, namely the Pope John XXIII Community Association, Comunità Mondo Nuovo, Therapeutic Community “Susret”, Therapeutic Community “Ne-ovisnost”, Therapeutic Community “Pet plus”, Therapeutic Community “Moji Dani”, Therapeutic Community “RetoCentar” and Therapeutic Community “Biram bolji život”, participated in the study and provided information on subjects with dual diagnosis who were the members of their therapeutic communities.

Telephone interviews with the leaders of therapeutic communities were carried out for the purposes of this research study. During the interviews, the purpose, methods and objectives of data collection were explained. After that, the leaders of therapeutic communities were emailed

a questionnaire. The method for completing the questionnaire and the relevant symbols were explained in detail. The data about the members of these therapeutic communities, i.e. about the addicts with dual diagnosis, were anonymous and could not be in any way traced back to them. The analysis was carried out on a group level. The leaders of therapeutic communities delivered the requested information on the basis of the modified international questionnaire of the Council of Europe Cooperation Group To Combat Drug Abuse and Illicit Trafficking in Drugs (The Pompidou Group), and the International Classification of Diseases, 10, codes F11 to F19 (12). The Pompidou Group’s questionnaire consists of general sociodemographic data and the data on treatment, risky behaviour and legal problems. The questionnaire used in this study was modified, i.e. shorter, and supplemented with the requested information on other diagnoses of community members that the leaders of therapeutic communities could provide on the basis of insight into their medical records.

Diagnoses were classified in five groups: schizophrenia and delusional disorders (F20-F29), mood (affective) disorders (F30-F39), neurotic, stress-related and somatoform disorders (F40-F48), disorders of adult personality and behaviour (F60-F69) and behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F90-F98).

The identity of leaders and members of therapeutic communities has not been revealed. If the study results are published, data protection policies will be respected to the maximum extent.

Study results are given both on a group level and statistically, without any individual disclosure of cases. All results will be kept confidential. The study subjects have no individual benefit from the study, but there is a general benefit in terms of detection and assessment of the frequency of dual diagnosis among the users of psychosocial services in the therapeutic communities in the Republic of Croatia.

#### Statistical analysis

The statistical software SPSS (Statistical Package for Social Sciences) for Windows (version 20.0, SPSS Inc, Chicago, Illinois, USA) was used for statistical analysis. The obtained results were analysed using descriptive statistics. They are shown in tables and charts, where their absolute (n) and relative frequencies (%) are indicated.

## RESULTS

Men were predominant (88.27 %) in a research population. The majority of subjects came from the Therapeutic Community “Susret” (22.8 %), and the smallest number of subjects from the Therapeutic Community “Biram Novi Život” (2.7 %). The majority of subjects were in the age range between 40 and 49 years (31.64 %), from the City of Zagreb (21.60 %), with high-school qualifications (71.91 %), single (71.72 %) and with no children (71.98 %).

The main abuse substance in the majority of members of therapeutic communities were opioids (40.43 %), and alcohol (18.98 %). The frequency of members with dual diagnosis and those without dual diagnosis was approximately equal in all therapeutic communities, with a somewhat higher ratio of those with dual diagnosis (52.01 %). The main addiction substance among young people in the Pope John XXIII Community was amphetamine, and this change in trends of psychoactive substance abuse should be additionally explored.

The most frequent diagnoses occurring with addiction were disorders of adult personality and behaviour (19.81 %) and schizophrenia, schizophrenia-like disorders and delusional disorders (19.66 %). The highest frequency of people with co-occurring disorders was recorded in the Therapeutic Community “Moji Dani” (Figure 1).

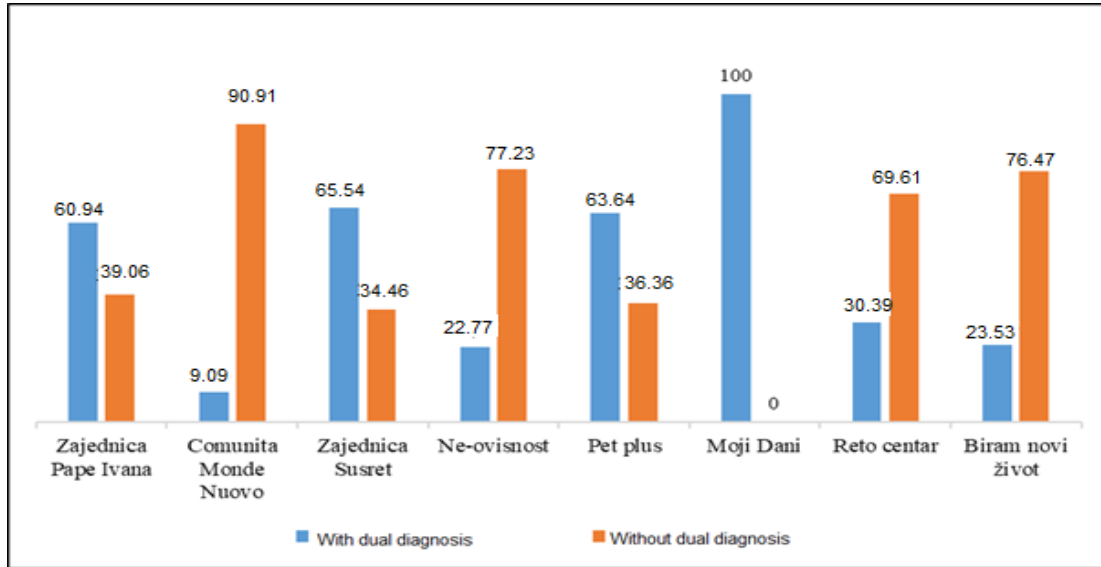


Figure 1. The presence of co-occurring disorders in members of therapeutic communities in the Republic of Croatia (in %).

The most frequent diagnoses in both men and women were disorders of adult personality and behaviour, followed by schizophrenia, schizophrenia-like disorders and delusional disorders (Figure 2).

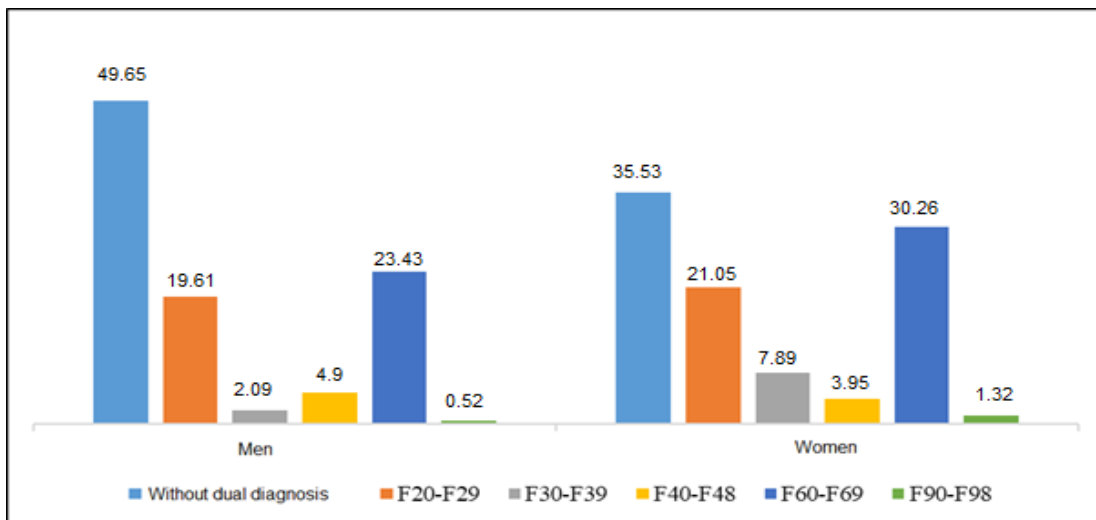


Figure 2. The frequency of various co-occurring disorders in men and women from all therapeutic communities in the Republic of Croatia (in %).

Co-occurring disorders were more frequent in women than in men in the therapeutic communities in the Republic of Croatia (Figure 3).

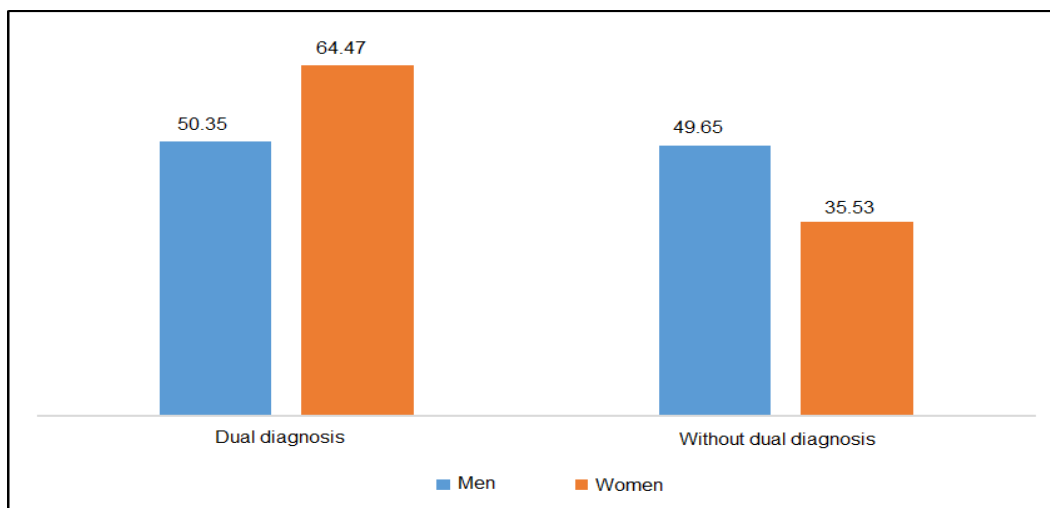


Figure 3. The presence of all co-occurring disorders in men and women in therapeutic communities (in %).

## DISCUSSION

The results of this research study have shown that the patients undergoing psychosocial treatment in the therapeutic communities in the Republic of Croatia are mostly men, middle-aged with high-school qualifications, single and with no children. As far as co-occurring disorders are concerned, the research has shown that more than a half of the clients of therapeutic communities are those with co-occurring disorders. Furthermore, addiction in these clients is most often accompanied with disorders of adult personality and behaviour and schizophrenia, schizophrenia-like disorders and delusional disorders, while behavioural and emotional disorders with onset usually occurring in childhood and adolescence are the least frequent. Therefore, the research hypothesis that there is a large number of people with dual diagnosis among the users of psychosocial services in the therapeutic communities in the Republic of Croatia can be confirmed. These results are in line with the results of other similar research studies. It has

been already emphasised that many authors state that three quarters of individuals with dissocial personality disorders also suffer from addiction disease (13, 14). In individuals with borderline personality disorders, addiction occurs in 14.0 to 72.0 % of cases. The rates of prevalence of co-occurring disorders are the lowest if the current addiction disease is taken into account, and the highest if we take into account the fact that an individual with a borderline personality disorder was an addict in a certain period of their life (15). Some research studies have shown that 45.0 % of individuals with borderline personality disorders meet the diagnostic criteria for addiction disease (16). As far as psychoactive substances are concerned, experts believe that addiction should be analysed from two aspects – mental and physical (17). As concerns schizophrenia and addiction disease, some research studies emphasise that these individuals often rely on self-treatment by consuming alcohol or psychoactive substances, i.e. that people with schizophrenia also fight alcohol or psychoactive

substance addiction (18). As far as specific substances are concerned, certain authors state that alcohol addiction occurs in 60.0 to 90.0 % of people with schizophrenia (19, 20). Alcohol addiction in those people occurs at the prevalence from 21.0 to 86.0 %, cannabis addiction at the prevalence from 17.0 to 83.0 % and cocaine abuse with the prevalence from 15 to 50 % (20). Therefore, incidence rates of dual diagnosis in people with schizophrenia are three times higher than in the general population (20, 21).

Furthermore, the results of this research study have shown that co-occurring disorders are more frequent in women than in men who undergo psychosocial treatment in the therapeutic communities in the Republic of Croatia. When the information related to the frequency of individual diagnoses is analysed, it is evident that there are no significant differences among the people undergoing psychosocial treatment in the therapeutic communities in the Republic of Croatia. Therefore, the research hypothesis that there are significant differences in diagnosis among the people undergoing psychosocial treatment in therapeutic communities in the Republic of Croatia with regard to sex of subjects is rejected. These research results, however, cannot be compared with the results of other similar research studies due to the scarce literature information about women with dual diagnosis (22). Nevertheless, a number of studies state that therapeutic communities play an important role in the improvement and preservation of mental health (23-27).

The advantage of this research study is that it was conducted on a relatively large sample of subjects. Only two therapeutic communities from the Republic of Croatia did not participate in the research, one of them not being eligible as it does not receive patients with dual diagnosis. Not understanding the questions from the questionnaire or giving socially desirable answers were the factors that could influence the accuracy of answers given by subjects. Despite these limitations, this research study is specific and the first one of this kind conducted in the Republic of Croatia since co-occurring disorders are not given sufficient attention. The research on the frequency of dual diagnosis among the users of psychosocial services in the therapeutic communities in the Republic of Croatia would provide an insight into the real situation, i.e. in the on-the-spot situation, and could contribute to the creation of innovative strategies to combat various types of addiction and provide better quality care for the people with dual diagnosis. This research could help in integrating new interventions in psychosocial treatment provided to patients with dual diagnosis in therapeutic communities.

## **CONCLUSION**

Somewhat more than a half of users of psychosocial services in the therapeutic communities of the Republic of Croatia have dual diagnosis, which indicates how important it is for experts to be persistent in providing maximum possible care to people with dual diagnosis. Other diagnoses present among those users occur at the

same incidence with regard to their sex. The ratio of users with dual diagnosis is higher in female than in male users of psychosocial services in the therapeutic communities in the Republic of Croatia.

## REFERENCES

1. Sakoman S. Školski programi prevencije ovisnosti [School addiction prevention programmes]. Zagreb: Agencija za odgoj i obrazovanje [Education and Teacher Training Agency]; 2009. 141 p.
2. Ricijaš N, Kranželić V, Leskovar L. Prevalencija i učestalost konzumiranja psihoaktivnih tvari mladih u odgojnim ustanovama – razlike s obzirom na vrstu ustanove i znanje o psihoaktivnim tvarima [Prevalence and frequency of psychoactive substance use in the young in educational institutions – differences with regard to institution type and the knowledge of psychoactive substances]. *Kriminologija & Socijalna Integracija* [Criminology & Social Integration] [Internet]. 2019 [cited on 2 Apr 2023];27(1):3-34. Available at: <https://hrcak.srce.hr/clanak/324237>
3. Klarić Markus M. Kriminogeni čimbenik ovisnosti o drogama [Criminogenic factor of drug dependency]. *Zbornik radova Veleučilišta u Šibeniku* [A collection of papers of the Polytechnic of Šibenik]. 2019;3-4:89-106.
4. Marić J, Babić D. Pojavnost uporabe psihoaktivnih tvari studenata Zdravstvenih studija Sveučilišta u Mostaru [The prevalence of use of psychoactive substances among the students of Health Studies of the University of Mostar]. *Zdravstveni Glasnik* [Health Bulletin] [Internet]. 2020 [cited on 2 Apr 2023];6(1):33-41. Available at: <https://hrcak.srce.hr/239142>
5. Ivandić Zimić J. Rizični čimbenici za pojavu ovisnosti o drogama s naglaskom na čimbenike u obiteljskom okruženju [Risk factors for the onset of drug dependency with an emphasis on factors in the family environment]. *Kriminologija & Socijalna Integracija* [Criminology & Social Integration] [Internet]. 2011 [cited on 2 Apr 2023];1(19):65-80. Available at: <https://hrcak.srce.hr/clanak/101180>
6. Evans K, Sullivan JM. *Dual diagnosis counseling the mentally ill substance abuser*. 2. ed. New York: The Guilford Press; 2001. 290 p.
7. Sušić E, Gruber EN, Kovačić I, Šuperba M. Komorbiditetne dijagnoze kod osoba koje uz zatvorsku kaznu imaju i izrečenu sigurnosnu mjeru obveznog psihijatrijskog liječenja na Odjelu forenzičke psihijatrije Zatvorske bolnice Zagreb [Comorbidities in people who are both sentenced to prison and should undergo psychiatric treatment at the Department of Forensic Psychiatry,



- Prison Hospital Zagreb]. *Socijalna Psihijatrija* [Social Psychiatry]. 2013;41(3):164-173.
8. Butorac K, Rukav L. Komorbiditet kod ovisnika i tretmanske intervencije [Comorbidity in addicts and treatment interventions]. *Kriminologija & Socijalna Integracija* [Criminology & Social Integration] [Internet]. 2018 [cited on 2 Apr 2023];26(1):79-99. Available at: <https://hrcak.srce.hr/clanak/304916>
  9. Whelan PJ, Remski K. Buprenorphine vs methadone treatment. A review of evidence in both developed and developing worlds. *JNRP*. 2012;3(1):45-50.
  10. Gregurek R. Grupa i grupna dinamika timskog rada [Group and group dynamics of teamwork]. In: Gregurek R, editor. *Psihološka Medicina* [Psychological Medicine]. Zagreb: Medicinska naklada; 2011. 179-191 p.
  11. Štrkalj-Ivezić S, Jendričko T, Pisk Z, Martić-Biočina S. Terapijska zajednica [Therapeutic Community]. *Socijalna Psihijatrija* [Social Psychiatry]. 2014;3(42):172-79.
  12. Council of Europe. Pompidou group [Internet]. Council of Europe; 2007 [cited 31.03.2023.]. Available at: <https://www.coe.int/en/web/pompidou>
  13. Bilalović S. Poremećaji ličnosti [Personality disorders]. Niš: Faculty of Medicine; 2014.
  14. Jakšić N, Čuržik D. Antisocijalni poremećaj ličnosti i psihopatija – pregled suvremenih spoznaja [Antisocial personality disorder and psychopathy – an overview of contemporary knowledge]. *Socijalna Psihijatrija* [Social Psychiatry]. 2012;40(3):57-68.
  15. Sansone RA, Sansone LA. Substance use disorders and borderline personality: common bedfellows. *Innov Clin Neurosci*. 2011;8(9):10-3.
  16. Trull TJ, Freeman LK, Vebares TJ, Choate AM, Helle AC, Wycoff AM. Borderline personality disorder and substance use disorders: an updated review. *Borderline Personal Disord Emot Dysregul*. 2018;5:15. doi: 10.1186/s40479-018-0093-9.
  17. Babić D, et al. Psihoaktivne tvari: duševni poremećaji i poremećaji ponašanja uzrokovani uporabom psihoaktivnih tvari [Psychoactive substances: mental and behavioural disorders caused by the use of psychoactive substances]. Mostar: University of Mostar; 2016. 229 p.
  18. Krystal JH, D'Souza DC, Gallinat J, Driesen N, Abi-Dargham A, Petrakis I, et al. The vulnerability to alcohol and substance abuse in individuals diagnosed with schizophrenia. *Neurotox Res*. 2006;10(3-4):235-52.
  19. Mueser KT, Drake RE, Wallach MA. Dual diagnosis: a review of etiological theories. *Addict Behav*. 1998;23:717-34.

20. Khokhar JY, Dwiell LL, Henricks AM, Doucette WT, Green AI. The link between schizophrenia and substance use disorder: A unifying hypothesis. *Schizophr Res*. 2018;194:78-85.
21. Błachut M, Ścisło P, Jarząb M, Zając M, Piegza M, Badura-Brzoza K, et al. Impact of dual diagnosis in patients with schizophrenia and affective disorders during hospital treatment on the course of illness and outcomes of treatment - a preliminary report. *Psychiatr Pol*. 2019;53(6):1237-1250.
22. Torrens-Melich M, Orengo T, Rodríguez de Fonseca F, Almodóvar I, Baquero A, Benito A. Gender perspective in dual diagnosis. *Brain Sci*. 2021;11(8):1101. doi: 10.3390/brainsci11081101.
23. Cavicchi C, Babić D, Cavicchi G, Franjić D, Hasanefendić B. Značajke i tretman maloljetnih eksperimentatora o psihoaktivnim tvarima u terapijskoj zajednici [Features and treatment of underage members of a therapeutic community who experiment with psychoactive substances]. *Zdravstveni Glasnik [Health Bulletin] [Internet]*. 2021 [cited on 2 Apr 2023];7(1):83-92. Available at: <https://hrcak.srce.hr/clanak/378157>
24. Wood CJ, Polley M, Barton JL, Wicks CL. Therapeutic community gardening as a green social prescription for mental ill-health: impact, barriers, and facilitators from the perspective of multiple stakeholders. *Int J Environ Res Public Health*. 2022 Oct 20;19(20):13612.
25. Millard D, Agulnik P, Armstrong N, Fees C, Hall J, Kennard D, et al. Innovation in mental health care: Bertram Mandelbrote, the Phoenix Unit and the therapeutic community approach. *Hist Psychiatry*. 2023 Mar;34(1):17-33.
26. Polimeni AM, Moore SM, Gruenert S. Mental health improvements of substance-dependent clients after 4 months in a Therapeutic Community. *Drug Alcohol Rev*. 2010 Sep;29(5):546-50.
27. Sullivan CJ, McKendrick K, Sacks S, Banks S. Modified therapeutic community treatment for offenders with MICA disorders: substance use outcomes. *Am J Drug Alcohol Abuse*. 2007;33(6):823-32.

# UČESTALOST DUALNIH POREMEĆAJA MEĐU KORISNICIMA PSIHOSOCIJALNOG TRETMANA U TERAPIJSKIM ZAJEDNICAMA REPUBLIKE HRVATSKE

Gordana Cavicchi<sup>1</sup>, Dragan Babić<sup>1,2,3</sup>, Ivan Čelić<sup>4</sup>, Darjan Franjić<sup>2,5</sup>

<sup>1</sup>Filozofski fakultet, Sveučilište u Mostaru

<sup>2</sup>Fakultet zdravstvenih studija Sveučilišta u Mostaru

<sup>3</sup>Klinika za psihijatriju, Sveučilišna klinička bolnica Mostar  
88000 Mostar, Bosna i Hercegovina

<sup>4</sup>Odjel za dualne dijagnoze Sveučilišne psihijatrijske bolnice Vrapče, Zagreb, Republika Hrvatska

<sup>5</sup>Odjel za onkologiju Sveučilišne kliničke bolnice Mostar, 88000 Mostar, Bosna i Hercegovina

## SAŽETAK

Uvod: Ovisnost je psihičko i fizičko stanje koje je posljedica višekratnog uzimanja određene tvari ili poduzimanja određenog djela. Pod dualnim poremećajem podrazumijeva se komorbiditet težih psihičkih problema te bolesti ovisnosti. Cilj: Ispitati učestalost dualnih poremećaja među korisnicima psihosocijalnog tretmana u terapijskim zajednicama u Republici Hrvatskoj. Ispitanici i metode: Provedena je presječna studija na uzorku od 648 korisnika terapijskih zajednica. Podatci su prikupljeni primjenom modificiranog međunarodnog Pompidou upitnika sastavljenog od općih sociodemografskih podataka te podataka o liječenju, rizičnom ponašanju i sudskim problemima.

Rezultati: Više od polovine ukupnog broja ispitanika imalo je dualni poremećaj. Najučestalije dijagnoze koje se javljaju uz dijagnozu ovisnosti bili su poremećaji ličnosti i poremećaji ponašanja odraslih te shizofrenije, poremećaji slični shizofreniji i sumanuta stanja. Dualni poremećaji bili su češći kod žena u odnosu na muškarce. U udruzi Zajednica Pape Ivana XXIII glavno sredstvo ovisnosti među osobama mlađe životne dobi bio je amfetamin, te bi ovu promjenu dosadašnjih trendova zlouporabe psihoaktivnih sredstava trebalo dodatno istražiti.

Zaključak: Među korisnicima psihosocijalnih tretmana u terapijskim zajednicama u Republici Hrvatskoj je nešto više od polovice korisnika s dualnim poremećajima.

**Ključne riječi:** Ovisnost, dualni poremećaji, terapijske zajednice, korisnici psihosocijalnog tretmana

Autor za korespondenciju: Gordana Cavicchi, mag. act. soc.