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FACTORS DETERMINING QUALITY OF LIFE IN THE OPIATE ADDICTS POPULATION

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It is possible that gaining an understanding of the factors that influence the quality of life of opiate addicts may improve both the quality of therapy and its overall effectiveness. There is a correlation between the many treatment facets and overall healthcare attributes, which results in a variable quality of life. In addition to the characteristics of the addiction, other aspects of the addict's life, such as demographics, socioeconomic status, and health, may also have an impact on the addict's quality of life. The purpose of this research is to determine whether or not certain characteristics of addicts, addiction, and treatment have a predictive influence on the quality of life of opiate addicts who were treated using the two approaches that are the most common.

Epidemiological cross-sectional research was performed in 2020 on a random sample of 70 opiate addicts treated at University Clinical Center Niš (35 addicts in the methadone maintenance program and 35 addicts treated with buprenorphine). Using standardized World Health Organization (WHO) instruments for measuring health status (EQ-5D), severity of addiction consequences (ASI), and quality of life (WHOQOL), the necessary data were collected through "face-to-face" interviews with respondents based on an independently developed questionnaire, from which health indices were calculated (EQ-5D Index), severity of addiction consequences (Addiction Severity Index), and quality of life (WHOQOL-BREF Index). The data were presented using appropriate descriptive statistics techniques, and group differences were evaluated using the χ^2 test (Chi-squared test) and t-test. Using multiple regression and correlation, predictors were extracted.

In terms of the quality of life index values, there was no significant difference between addicts who were treated with methadone and addicts who were not treated with methadone. However, the former reported experiencing a much worse quality of life compared to the latter. Health traits, characteristics of respondents' socioeconomic positions, and other addiction-related outcomes were the most prominent factors in the degree to which one's quality of life was affected. The effects of the treatment were becoming less noticeable. Methadone treatment had a predictive influence on the addict's outlook on life as well as the addict's degree of satisfaction with both their psychological state and their surrounding environment. The duration of methadone therapy as well as any breaks in care were the two most important indicators. The consequences of methadone therapy on both the body and society were, on the whole, rather mild.

It is impossible for a single predictor to account for variations in both the degree and the perception of quality of life across a number of different aspects. The number of aspects that are considered is rather high, and the implications that follow from this are complex.

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Key words: *opiate addicts, treatment, quality of life, predictors*

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Introduction

The quality of life of methadone-treated addicts is always poorer than that of healthy individuals or the general population, according to all measurements (1). In contrast, there is no consensus about the comparability of methadone-treated and untreated addicts' quality of life. In addition, several studies highlight the negative effects of methadone treatment on various elements of quality of life.

Although there is unanimity on the efficacy of methadone therapy, the quality of life of addicts undergoing this treatment varies across dimensions. Variations are often associated with varying treatment parameters (duration, dose strength, therapeutic content, psychological

support) and general healthcare features. Variations in the quality of life of methadone-treated opiate addicts are, however, also associated with demographic, socioeconomic, health, and addiction characteristics.

It is difficult to discern between the effects of demographic characteristics and other factors on the quality of life of addicts (1). Guillery, Zielinski (1, 2) and Bawor (3) emphasise that the effects of gender-specific characteristics must be examined alongside the impact of job, family structure, and living environment. Lin (4) establishes a predictive influence of age on the quality of life of addicts in the physical domain but cautions that it must be evaluated in conjunction with other variables such as employment, comorbidity, hospitalizations, usage, and age at initiation of drug use. Huissoud (5) confirmed these findings, mostly in younger addicts. Unidentified is the influence of age on the psychological domain of quality of life.

One of the factors significantly predicting the quality of life of addicts (1, 2, 4, 6) is their socioeconomic level, which is composed of multiple components. Sanders (7) emphasises the necessity of education. It may be considered a predictor of improvements in the psychological and social areas of quality of life, but its influence on the physical domain is negligible. According to Peack (6), employed patients have substantially greater psychological and social functioning. Guillerry and Lin (1, 4) connect employment to enhanced performance in males but to physical improvement and worsening environmental circumstances in females.

It is difficult to determine the effect of the environment on variations in the quality of life of addicts participating in the methadone programme as it is often mediated by numerous other personal variables, drug-related and/or treatment-related factors. Aghayan (8) attributes variations in quality of life to the influence of living situation, financial situation, and participation in free andsocial activities, as opposed to the direct influence of heroin, and identifies the inability of addicts to adapt to new life circumstances as the most significant predictor of low quality of life. Huissoud (5) emphasises the importance of substandard living conditions and lack of permanent residence as predictors of a poor quality of life for addicts. Others, such Guillerry (1), Aghayan (8), Lin (4), and Tracy (9), emphasise the importance of family, home, and relationships inside the home. Tracy (9) reveals that childbearing women have a decline in social support, psychological and environmental domains, and execution domains. Tracy (9) highlights the importance of living environment and social support, the impacts of which are amplified in the presence of symptoms and trauma (violence against women). According to De Maeyer (10), the support of family members during recovery and the support of friends during abstinence are consistently related to the quality of life in all four domains. De Maeyer also emphasises the significance of psychosocial maladaptation, especially the inability to change one's own life situation. Under such conditions, the presence of at least one exceptional buddy and planned daily activities may have a substantial and positive impact on life quality. Additionally, Lin corroborated the effect of emotional, physical, and sexual abuse on differences in psychological domain life quality (4). De Maeyer (10) observed that the existence of a social network and close friends prepared to give aid to the addict had a protective effect. Providing social aid to addicts influences their quality of life (11).

The health characteristics of addicts significantly impact their quality of life. In this context, the influence of comorbidities, chronic diseases, psychological distress, depression, and HIV infection on disparities in quality of life across particular groups is highlighted (12).

According to Tracy (9), the prevalence of symptoms and trauma may explain inequalities in quality, especially in the physical and psychological domains. Alcohol usage (amount drank during the past 30 days) may explain variations in the environment domain. According to De Maeyer (8), the level of psychological distress and the usage of psychotropic medicines are related to a poor quality of life. According to Wang (12), HIV+ patients received significantly worse quality of life ratings in the areas of physical health and functional abilities, as well as in the domain of overall health-related quality of life.

Widespread consensus exists that the addict's addiction features (drug type, quantity of abused substances, their combination, duration of drug addiction, and frequency of drug use) have a significant influence on the addict's current quality of life and expected changes. Bawor (3) discovered that there are differences in the results of male and female addicts, which may be ascribed to the idiosyncrasies of opioid use and initial treatment characteristics. Lin (4) observed that age at first drug use (injection episode) was significantly correlated with quality of life in the physical domain. Abuse of sedatives, cocaine use, duration of cocaine use, and use of a large number of substances in the previous month are all significantly associated with the psychological domain of quality of life. Nevertheless, they all concur that disparities in the physical and psychological aspects of quality of life cannot be solely explained by pharmaceutical effects. According to De Maeyer (13), heroin use has no direct effect on life quality. In addition to other (personal and environmental) elements, drugs have an effect (life situation, financial situation, changes, perspective, participation in free and social activities, support of the environment).

Numerous research have investigated the effect of therapy on the quality of life of opiate addicts. Feelemayer (14), reporting the results of a meta-analysis, asserts that opioid substitution therapy may increase the quality of life and lower

the ASI index among treatment patients over time, but fails to explain the causes of these improvements. When researching the effect of methadone treatment on drug users' quality of life, De Maeyer (10,13) observed statistically significant changes in the WHOQOL-BREF index across all four domains. Prior to enrolling in a treatment programme, the addict's quality of life is a significant predictor of early quality of life improvement and longer retention in the methadone maintenance programme. Dehghan (15) discovered that individuals with a worse health-related quality of life before commencing treatment saw a greater increase in quality of life throughout the first six months of therapy. Only the quality of life before treatment and its early changes are statistically significantly associated with a minimum treatment length of six months. Others (14, 5) identify the first treatment as an indication of poor programme retention. The length of treatment has an impact on life quality. Some research contends that the quality of life diminishes with time (4, 8, 10), whilst others claim the opposite (16-19). The majority of research agrees that the advantages of methadone treatment are greatest in the first three months (20, 21), while the programme continues to have some (positive) effects thereafter. However, methadone maintenance does not affect all facets of life quality in the same manner. Various studies have shown that methadone treatment is more beneficial in the psychological domain (20), the physical and social domains (21), and the physical, psychological, and environmental domains (22, 23, 24). A negligible number of studies demonstrate a significant improvement in all four categories of quality of life (24, 25). Whether the treatment is based on methadone or buprenorphine, Sacerdote (26) and Marinković (27) found that significant improvements in quality of life may be gained. There is no statistically significant association between the length of methadone maintenance and quality of life, according to some researchers (17). In addition, there is no consensus on the dose of methadone. While some claim that a higher dose of methadone has a significantly greater potential to improve quality of life and reduce the number of unmarried occurrences during treatment (5, 28), others emphasize that the dosage of pharmacological medications cannot be correlated with quality of life improvements (18).

The existence of a substantial positive correlation between the quality of life in the physical, psychological, and social domains, and the importance of the intermediate outcomes, demonstrates that the development of any component may influence other elements of health, i.e., quality of life (6). Not only is continuous, uninterrupted treatment statistically associated with drug abstinence, but it is also the strongest predictor of changes in quality of life (5, 6). Significantly enhanced psychological and social functioning (6) Parmenter relates to the duration of replacement treatment. Other study findings also demonstrate the need for continuous protection and provide justification for a strategy adapted to the patient's specific needs and circumstances (13).

Research on the quality of life of addicts is unusual in our country. Thus, the focus of professional attention has changed from clinical efficacy to meaningful care for addicts and the addict community. The objective of the study on the viewpoint and quality of life of opiate addicts was to demonstrate the existence of treatment-related discrepancies between different groups of addicts and to examine the processes behind these differences.

This study seeks to determine if demographic, socioeconomic, and health parameters of respondents, as well as their environment, addiction, and treatment characteristics, have a predictive influence on the quality of life of opiate addicts.

Method

The research was done as an epidemiological cross-sectional study (cross-sectional study) with 70 respondents divided into two groups. The units of observation were opiate addicts with diverse (demographic, socioeconomic, and health) features who were treated at the Clinic for Mental Health Protection of the University Clinical Center in Niš and selected at random.

The research included two groups: the first group consisted of 35 opiate-dependent patients receiving methadone treatment, while the second group consisted of 35 opiate addicts treated with buprenorphine. When selecting participants for the second group, the matching method was used to ensure that all groups of addicts had comparable demographic characteristics, thereby removing the chance of confounding impacts.

The study's power was assessed using data from the scientific literature about the relationship between quality of life and length of methadone treatment. Utilizing the G Power programme and the study's power settings for medium impact strength, data on the 70 required participants were gathered in order to uncover the quality of life indicators with less impact using this approach.

The collection of data in 2020 was undertaken in accordance with the Helsinki Declaration and with the agreement of the Ethics Committee of the Faculty of Medicine in Kragujevac.

An eye-related demographic questionnaire was used to collect data on the respondents' characteristics.

Cross face-to-face interviews with respondents in a health facility to collect data on demographic, socio-economic and health characteristics (gender, age, level of education, employment, marital status, children, number and type of illness), environmental characteristics (housing conditions, living conditions,

characteristics of the family and family functioning, number of friends and relationships with friends), and characteristics of health care (presence of a choose-a-path questionnaire, type of health insurance coverage, and type of health insurance coverage).

The WHO Health Status Questionnaire (WHO EQ-5D, Version 4.0, 2011) was used to collect data on health status (health-related quality of life). A descriptive system (EQ-5D- 5L) that focuses on five dimensions of health (mobility, self-protection, usual activities, presence of pain/discomfort, and anxiety and/or depression) and a visual analogue scale (EQ-5D-VAS) on which the respondent rates his or her health from the worst possible level (0) to the best possible level (100) were utilised in this study (29). Euro QoL was evaluated using the gathered Index EQ-5D data, a quantitative evaluation of healthcare treatment outcomes and an aggregate measure of health and quality of life (30).

The ASI questionnaire (Addiction Severity Index, McLellan, 1992) was used to document the severity of the impacts of addiction in seven domains (health, professional, social, family, legal, addictive, and mental) functioning in the last 30 days and during the respondent's whole life (31). Based on the collected data, the following scores were calculated: Employment Composite Score (ECS), Medical Composite Score (MCS), Psychiatric Composite Score (PCS), Alcohol Composite Score (ACS), Drug Composite Score (DCS), Legal Composite Score (LCS), Family Composite Score (FCS), and Legal Composite Score (LCS) (ECS).

The overall quality of life is represented by the total of the individual's perceived quality of life and the degree of quality of life measured in four unique categories, according to the results of this research (physical functioning, psychological functioning, social functioning, environment).

To generate the WHOQOL – BREF index (32), which analyses the overall quality of life based on the judgments of respondents whoinput their own standards, norms, and expectations, a standardized questionnaire was used to collect data on quality of life. The index provides the respondent's evaluation of his condition, functionality, and contentment with 26 aspects of life on a five-point Likert scale.

Statistical data processing

The frequency distribution of responses by the perception of quality of life category for the two examined groups gives a graphical depiction of quality of life. Using a t-test, it was determined whether or not the differences were statistically significant. Multiple linear regression and correlation were used to investigate and assess prospective factors of relevance for the perceptions and levels of quality of life among addicts. The null hypothesis was performed at $p < 0.05$. Statistical analysis was done in SPSS 16.0.

Results

When compared to addicts who were treated with other methods, those who participated in methadone maintenance programs reported a much worse quality of life view. The differences between the two groups were highly statistically significant ($\chi^2 = 29.86$ DF = 8 $p = 0.000$).

The values of the level of quality of life in the physical health and environment domains were assessed to be somewhat higher among addicts who were participating in the methadone program as compared to addicts who were not participating in the program. Higher quality of life values were assessed in the areas of psychological health and social connections among addicts who were not enrolled in the methadone program. The disparities in quality of life between the different groups investigated did not show statistical significance in any field (Table 1).

Table 1. Life quality descriptive statistical parameters

CATEGORY	DESCRIPTIVE STATISTICAL PARAMETERS						
	X	SD	Cv (%)	Med	SE	Min	Max
Domain: Physical health							
Group A	34.52	3.57	15.05	24	0.63	16	32
Group B	34.48	3.35	15.14	22	0.593	15	29
Domain: Mental health							
Group A	18.78	4.35	23.16	19	0.768	10	27
Group B	20.53	4.41	21.48	20.5	0.780	10	30
Domain: Social relations							
Group A	9.40	2.82	30.00	9.5	0.497	4	15
Group B	10.22	2.35	22.99	10	0.416	6	15
Domain: Environment							
Group A	28.03	4.77	17.02	27.5 0	0.843	17	38
Group B	27.44	4.75	17.31	27.00	0.839	21	39

The analysis of predictors for the perception of quality of life determined the predictive significance of demographic (gender), socio-economic (level of education, type of settlement), and health characteristics of respondents such as functional status (mobility, ability to care for themselves, ability to perform daily tasks), presence of symptoms (irritability/depression), and perception of health, as well as household characteristics (number of household members, number of children). MCS, DCS, LCS, FCS, and PCS can be considered as predictors of quality of life, except for self-care (p = 0.055) (Table 2).

The analysis of predictors for quality of life in the domain of physical health determined the predictive significance of demographic (gender), socio-economic (level of education, marital status, type of occupation, monthly income, type of settlement) and health characteristics of the respondents such as the functional status (ability to perform daily tasks), perception of health, and characteristics of health care, primarily continuity (non-interrupted care) (area of living space per household member, method of heating the living space). In the realm of physical health, determinants of quality of life included features of addiction (ASI indices that describe specific effects related to the type of psychoactive substance used—ACS, DCS, as well as drug addiction experience—how long they took the drug). In terms of an individual's physical health and quality of life, the treatment parameters revealed predictive potential (Table 3). The analysis of predictors for quality of life in the domain of mental health determined the predictive significance of demographic (gender), socio-economic (level of education, type of occupation, monthly income, type of settlement in which he lives), health characteristics such as the functional status of the respondent (mobility, ability self-care), presence of symptoms (pain/discomfort, irritability/depression), relationship, perception of health, health care, above all continuity (number of visits to the general practitioner), as well as household characteristics (number of household members, building where they live, area of living space per household member, method of heating the living space).

According to the findings of the study, the features of addiction were classed as predictors of quality of life in the field of mental health (ASI indices that describe the various effects and consequences of addiction, apart from the effects on employment—MCS, ACS, DCS, LCS, FCS, PCS, as well as the length of drug addiction experience—number of years on drugs) (Table 4).

The duration and frequency of methadone treatment interruptions as the aspects of addiction treatment exhibited a predictive influence on quality of life in the area of mental health.

Table 2. Model of multiple linear regression for the sense of life quality

INDEPENDENT VARIABLES	B	SE	Beta	T-test	P
Medical composite score	-3.789	1.114	-0.884	-2.442	0.033
Comrade composite score	-11.321	3.441	-0.799	-2.113	0.044
Legal composite score	-12.889	3.322	-2.599	-3.431	0.022
Family composite score	11.543	3.665	1.411	3.932	0.011
Psychiatric composite score	-9.663	2.677	-2.299	-3.612	0.022
Mobility	-3.998	1.921	-1.587	-2.432	0.044
Self-care _	-10.112	2.354	-2.599	-3.234	0.055
Everyday activities	-2.012	0.588	-0.444	-2.765	0.044
Irritability/depression	3.002	0.599	1.555	3.432	0.022
Health condition scale	-0.032	0.0440	-1.552	-3.667	0.032
Number of months spent in methadone treatment	0.103	0.023	2.977	4.458	0.007
Number of household members	2.164	0.704	4.245	3.978	0.011
The type of settlement in which they live	2.915	1.019	0.981	2.860	0.035
Number of children	-0.774	0.296	-0.808	-2.619	0.047
Education	1.529	0.480	1.403	3.187	0.024
Gender	-4.175	0.939	-1.753	-4.448	0.007
A constant	10.611	2.831		3.748	0.013

Table 3. Multiple linear regression model for quality of life in the domain of physical health

INDEPENDENT VARIABLES	B	SE	Beta	T-test	P
Alcohol composite score	-176.021	2.993	-1.300	-49.367	0.011
Comrade composite score	21.022	1488	0.398	11.992	0.040
Everyday activities	-7.991	0.209	-0.641	-48.054	0.023
Health condition scale	0.113	0.007	1.033	21.301	0.038
The main reason for visiting a doctor (general medicine. occupational medicine)	3.038	0.122	1.091	24.824	0.026
Number of visits to the general practitioner	0.818	0.034	0.948	24.030	0.026
Living space heating	1.659	0.109	0.625	15.197	0.042
Area of the living space (m^2)	-0.112	0.009	-0.703	-13.168	0.048
The type of settlement in which they live	-5.345	0.387	-0.444	-13.794	0.046
How long have they been taking drugs? Number of years on drugs	-0.539	0.019	-0.724	-28.189	0.023
Type of occupation	-2.539	0.071	-1.061	-35.968	0.018
Monthly income	2.655	0.119	0.990	22.255	0.029
Marital status	1.665	0.073	0.784	22.907	0.028
Education	4.678	0.135	1.053	34.759	0.018
Gender	-10.943	0.270	-1.031	-43.095	0.015
A constant	-10.836	1.440		-7.526	0.048

Table 4. The development of a multiple linear regression model for evaluating quality of life

INDEPENDENT VARIABLES	B	SE	Beta	T-test	P
Medical composite score	-21.022	0.887	-1.443	-21.998	0.022
Alcohol composite score	-160.720	3.991	-1.112	-33.332	0.044
Comrade composite score	-61.002	3.221	-0.998	-23.223	0.033
Legal composite score	-84.991	2.334	-3.223	-35.665	0.022
Family composite score	81.023	2.997	1.665	28.776	0.033
Psychiatric composite score	-50.998	1.777	-2.332	-29.001	0.044
Mobility	-38.184	1.120	-2.565	-34.082	0.019
Self-care	-70.290	1.447	-3.028	-37.531	0.017
Pain/discomfort	-7.577	0.250	-0.871	-30.312	0.021
Irritability/depression	12.027	0.376	1.709	32.028	0.020
Health condition scale	-0.184	0.014	-0.795	-13.099	0.049
Methadone maintenance treatment interruption	-3.284	0.128	-0.755	-25.623	0.025
Number of months spent in methadone treatment	0.451	0.015	2.310	29.325	0.022
Number of visits to the general practitioner	0.692	0.053	0.649	13.047	0.049
Number of household members	12.608	0.357	4.896	35.330	0.018
Living space heating	2.791	0.170	0.850	16.402	0.039
Area of the living space (m^2)	0.250	0.013	0.976	18.794	0.034
The living facility	4.914	0.234	1.109	20.986	0.030
The type of settlement in which they live	14.031	0.604	0.942	23.230	0.027
How long have they been taking drugs? Number of years on drugs	0.463	0.030	0.503	15.537	0.041

Type of occupation	-2.410	0.110	-0.815	-21.898	0.029
Monthly income	2.396	0.186	0.723	12.884	0.049
Education	6.965	0.210	1.269	33.197	0.019
Gender	-17.504	0.396	-1.334	-44.224	0.014
A constant	39.681	2.244		17.680	0.036

Using an analysis of predictors for quality of life in the domain of social relations, the predictive significance of functional status (the capacity to care for oneself) and environmental characteristics was determined. This domain is concerned with the quality of one's interpersonal interactions (number of household members). The predictive value of other variables (demographic, socio-economic, and health factors of the responder, as well as health care characteristics) was not demonstrated. The investigation included the repercussions of addiction as one of the determinants of life quality in the area of social health (ASI indices that describe specific effects, such as ACS, DCS, LCS, FCS).

The treatment features showed no prognostic influence on social relations-related quality of life (Table 5).

The analysis of predictors for the quality of life in the domain of the environment established the predictive significance of the characteristics of the respondent's socio-economic position (marriage status, type of settlement in which he resides), the characteristics describing the respondent's health care, most notably continuity (number of visits to the general practitioner, main reason for the visit), as well as the characteristics of the household (owning and using a car, number of children in the household, and number of pets). All variables included in multivariate model (Table 6) did not have a significant predictive influence on the circulatory domain of quality of life.

Table 5. Multiple linear regression model for social connection domain and quality of life

INDEPENDENT VARIABLES	B	SE	Beta	T-test	P
Alcohol composite score	-82.334	28.223	- 0.765	-3.998	0.111_
Legal composite score	-26.344	15.323	-1.322	-1.132	0.212_
Family composite score	18.556	16.667	0.404	1.987	0.321_
Self-care	-21.887	9.898	-1.221	-2.223	0.123
Number of household members	4.554	3.999	2.565	1.876	0.113_
A constant	-6.232	12.011		-0. 232	0.332 _

Table 6. Model of multiple linear regression for the circulatory domain of quality of life

INDEPENDENT VARIABLES	B	SE	Beta	T-test	P
Employment composite score	4.991	7.778	0.111	0.499	0.666
Alcohol composite score	7.889	70.665	0.032	0.221	0.779
Comrade composite score	-18.798	35.332	-0.443	- 0.443	0.431
Legal composite score	-50.993	35.221	-1.999	-1.221	0.456
Family composite score	19.1889	38.112	0.221	0.332	0.688
Psychiatric composite score	-24.991	25.334	-1.321	-0. 887	0.113
Methadone maintenance treatment interruption	-4.192	1.898	- 0.892 _	-2.208	0.271
Number of visits to the general practitioner	1.663	0.786 _	1.443	2.116	0.281
Availability of access to computers and the Internet	-4.077	2.342	- 0.772 _	-1.740	0.332
The type of settlement in which they live	14.570	8.947	0.905 _	1.628	0.351
How long have they been taking drugs? Number of years on drugs	0.648 _	0.442 _	0.651 _	1.466	0.381
Marital status	-3.705	1.678	-1.306	-2.208	0.271
A constant	30.469	33.246		0.916 _	0.528

Discussion

Although there are no factual differences in any area of quality of life between methadone maintenance programme users and those treated with buprenorphine, the perception is that methadone addicts have a far worse quality of life. Despite the need for more research, it seems that the causes of dissatisfaction are psychological and social in origin.

In terms of purchasing power and quality of life, respondents with a lower score of physical and mental consequences, drug-related consequences, and legal troubles (lower MCS, PCS, DCS, LCS) perceive better scores, regardless of the family implications (higher FCS). These results are similar with the findings of other research (3, 4, 27) on the influence of various addiction-related outcomes on life quality, regardless of whether this impact occurs in conjunction with other respondent characteristics (4) or independently of them (3). Those with fewer difficulties in terms of mobility, ability to care for oneself, and completion of daily duties, and in whom irritability and depression occur less often, report a greater quality of life while ranking their own health less highly. This supports the findings of De Maeyer (8) and Tracy (9) about the connection between health and quality of life (9, 27). Those who have engaged in the methadone maintenance treatment for a longer duration have a higher life quality. This corroborates the results of the vast majority of investigations that reached the same conclusion (5–8, 10, 14–28). In this survey, city-dwelling respondents with a larger family size and fewer children, a higher education level, and a male gender rated the quality of life as better. The results of this study supported those of prior research on the effect of the environment—the household (4, 8, 9), children (1, 2), and social networks (4, 9, 10).

According to the claims of other authors, those with a lower ACS, a higher DCS, and a shorter history of drug dependency should have a better physical health-related quality of life (9, 8). There is a correlation between the reported findings regarding the determining influence of symptoms and chronic problems on physical domain quality of life (12, 9, 8) and the established significance of less frequent difficulties in performing daily activities, higher health ratings, more frequent doctor visits, and more regular control. The outcomes of this research also show the significance of living situations (8, 5, 9). Addicts who dwell in smaller apartments, are heated by steam heating, reside in smaller locations, have non-sedentary employment, better salaries, are married or cohabiting, and belong to groups with a higher degree of education have a superior physical quality of life. Living circumstances give the gender-specific environment (1–3), which may assist to explain the predictive significance of gender, i.e., the superior quality of life experienced by male addicts.

In the domain of mental health, the level of life quality is determined by a relatively different collection of qualities. The length of drug dependency and the severity of its ramifications, as well as the urban setting, have a considerable predictive impact. Subjects with fewer addiction-related consequences should have a superior quality of life in this area (lower MCS, ACS, DCS, LCS, PCS, even when FCS is higher). Psychological quality of life is higher for addicts who have less issues with mobility and self-care, who suffer less pain and discomfort, and who have a more positive self-perception of their health. Respondents with a longer history of drug addiction, who have been in the methadone programme for a longer period of time, who have left the programme less often, and who act protectively in other ways have a higher quality of life in terms of mental health (they turn to a doctor for help more often). Numerous studies have shown that this result is supported by the contribution of the duration and relevance of continued methadone therapy (18, 19). A higher quality of life in the psychological domain is also determined by numerous features of the urban socioeconomic position (higher level of education, higher income, employment, residing in the city, living in bigger conventionally heated residences, a larger number of household members) and by gender (male). From a gender perspective, the predictive function of gender is explicable. Our results reflect the findings of De Maeyer (13) about the impact of drugs, which is realised in combination with other (personal and environmental) factors (life situation, financial situation, changes, perspective, participation in free and social activities, environmental support).

It has also been shown that alcoholism and family support are important determinants of quality of life in the social realm (1, 2, 4, 8, 9, 10, 32). Individuals with lower ACS and LCS, a greater FCS, fewer self-care difficulties, and larger households are more likely to have better social health and quality of life.

It is anticipated that respondents with lower DCS, LCS, and PCS, and higher ECS, ACS, and FCS, who have a longer history of drug addiction, who interrupt their participation in the methadone programme less frequently, who normally seek help from a doctor, who do not have access to a computer, who reside in urban areas, and who are married or in an extramarital relationship, will have a higher quality of life in the domain of environment. Moreover, these findings validate the prior assertions.

Conclusion

The psychological quality of life is higher for addicts who have fewer issues with mobility and self-care, who suffer less pain and discomfort, and who have a more positive self-perception of their health. Respondents with a longer history of drug addiction, who have been in the methadone programme for a longer duration, who have left

the programme less often, and who exhibit other protective behaviors had a greater mental health quality of life (they turn to a doctor for help more often).

Variations in the perception and degree of quality of life across several variables cannot be accounted for by a single predictor. There are several determining elements, and their effect is complex.

Health characteristics, socioeconomic position characteristics of respondents, and other addiction-related outcomes are the most prominent drivers of the degree of quality of life. The relationship between treatment and the level of life quality exists, but it is not obvious.

Participation in the methadone programme affects the addict's outlook and psychological and environmental quality of life. The duration and frequency of methadone treatment interruptions were the most predictive of all treatment characteristics. The impact of methadone treatment characteristics on physical and social quality of life is negligible.

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FAKTORI KOJI DEFINIŠU KVALITET ŽIVOTA U POPULACIJI ZAVISNIKA OD OPIJATA

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Samo razumevanje faktora koji utiču na kvalitet života zavisnika od opijata može poboljšati i kvalitet terapije i njenu efikasnost. Postoji povezanost između načina lečenja i organizacije kompletne zdravstvene službe, što rezultira promenljivim kvalitetom života ovih bolesnika. Osim karakteristika same bolesti zavisnosti, na kvalitet života zavisnika mogu uticati i drugi aspekti života, kao što su demografija, socio-ekonomski status i zdravlje samog zavisnika. Svrha ovog istraživanja bila je da se utvrdi da li određene karakteristike zavisnika, sama bolest zavisnosti i način lečenja imaju prediktivni uticaj na kvalitet života opijatskih zavisnika koji su lečeni korišćenjem dvaju najčešćih pristupa.

Epidemiološko istraživanje studija preseka urađeno je 2020. godine na slučajnom uzorku od 70 opijatskih zavisnika lečenih u Univerzitetskom kliničkom centru Niš (35 zavisnika u programu održavanja metadonom i 35 zavisnika lečenih buprenorfinom). Koristeći standardizovane instrumente za merenje zdravstvenog statusa (engl. *World Health Organization instruments for measuring health status* – WHO EQ-5D), težine posledica zavisnosti (engl. *Addiction Severity Index*–ASI) i kvaliteta života (engl. *standardized World Health Organization quality of life* – WHOQOL), neophodne podatke prikupili smo preko intervjua „licem u lice" sa ispitanicima i to na osnovu nezavisno razvijenog upitnika na osnovu kojeg su izračunati indeksi zdravlja (EQ-5D Index), težina posledica zavisnosti i kvaliteta života (WHOQOL) (WHOQOL-BREF Index). Podaci su kategorisani uz pomoć odgovarajućih tehnika deskriptivne statistike, a grupne razlike procenjene su korišćenjem χ^2 (Hi-kvadrat) testa i T-testa. Koristeći višestruku regresiju i korelaciju, izdvojili smo prediktore.

U pogledu vrednosti indeksa kvaliteta života, ne postoji značajna razlika između zavisnika koji se leče metadonom i zavisnika koji se ne leče metadonom. S druge strane, zavisnici koji se leče metadonom navode da imaju mnogo lošiji kvalitet života od zavisnika koji se ne leče metadonom. Zdravstvene navike, karakteristike socio-ekonomskog položaja ispitanika i drugi ishodi vezani za zavisnost najistaknutiji su faktori sa značajnim stepenom uticaja na kvalitet života. Efekti lečenja postaju sve manje primetni. Metadonski tretman ima prediktivni uticaj na zavisnikov pogled na život, kao i na stepen zadovoljstva (svojim psihičkim zdravljem odnosno okolinom) zavisnika. Trajanje metadonske terapije i bilo kakav prekid u nezi zavisnika dva su najvažnija indikatora. Posledice metadonske terapije, kako na sam organizam, tako i na društvo, sveukupno su blage.

Nemoguće je da se jedan prediktor računa i kao stepen i kao percepcija kvaliteta života u nizu različitih karakteristika. Broj razmotrenih aspekata prilično je velik, a implikacije koje iz toga proizilaze su složene.

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***Ključne reči**: zavisnici od opijata, lečenje, kvalitet života, prediktori*