



Clinical and Psychosocial Characteristics of HIV-Positive and HIV-Negative Females with Opiate Dependence

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Abstract

The objective of the study was to explore the clinical-psychological and social characteristics of injecting drugs women users (IDWU) with opiate dependence with different HIV status living on the territory of the Republic of Belarus based on multi-dimensional assessment of opiate dependence dynamics in order to develop therapeutic measures for relapse prevention and achievement of the long-term remission.

Materials and methods: Totally 217 IDWU were examined. The research cohort was randomized into 2 groups: HIV-positive women (HPW) (104 persons, mean age 30.8 years (SD=4.86) and HIV-negative women (HNW) (113 persons, mean age 29.9 years (SD=6.67). The level of patients social functioning, quality of life, craving for narcotic substances were studied by means of the Scale of the social and functioning, SF-36 and the Scale of the craving for drugs. The particularities of the social functioning and life quality of women with opiate addiction and different HIV status were described.

The results: show that the majority of IDWU were characterized by frequent work replacement and labor skipping (27/25.9% in HPW group vs 30/26.5% in HNW group; $P>0.05$). 21 /20.1% HPW vs 15/13.2% HNW ($P<0.05$) was characterized by low qualification, 43/43.3% HPW vs 41/36.2% HNW ($P>0.05$) - vocational education. HPW have more severely impaired psychosocial parameters compared to HNW. Family climate can be described as hostile aggressive (84/80.7% in HPW group vs 69/61.0% in HNW group; $P<0.05$). For women of both groups were characteristic parental alcohol abuse (18/17.3% in HPW vs 16/14.1% in HNW; $P>0.05$), and high level of parental divorces (24/23.1% in HPW vs 32/28.3% in HNW; $P>0.05$). It was found that the treatment itself allows to diminish the problems associated with drug use and HIV infection. Nevertheless, the short-term treatment course can only provide the clinical improvement but not stabilization of psychosomatic state of HIV-positive patients with opiate dependence.

Conclusion: The results of the study indicates the vast majority of

women who are injecting drug users, living in Belarus, can be characterized by high level of social functioning disturbances including domestic, social and professional relationship. They need for development of specific tactics of management to suit their needs, including the long-term complex treatment and rehabilitation programs.

Key words: women, quality of life, social functioning, complex treatment and rehabilitation programs, opiate dependence, HIV-status.

Relevance of the problem of gender differences among drug users

According to the data presented in the world drug report 2016 of the United Nations Office on drugs and crime, there are significant gender differences among drug users. Thus, men are three times more likely to use cannabis, cocaine and amphetamines than women, and women are more likely to use non-medical tranquilizers and opioids [1]. Women are more likely to use prescription benzodiazepines and narcotic analgesics for non-medical purposes [2; 3]. The use of prescription drugs in women increases with age and reaches a peak by 30 – 40 years. Women use drugs more often in order to overcome stressful situations in their lives; they are prescribed drugs and sedatives more often than men [4; 5].

According to H. A. Whiteford et al. [5], one third of IDUs worldwide are women and girls; the number of injecting drug women users (IDWUs) is approximately 0.11 % of the world's female population.

Risk factors for antisocial behavior and drug abuse among women are sexual coercion in childhood and intimate partner violence. Violence affects women's mental, physical and reproductive health. 20% of women who have experienced violence in the past develop a mental disorder, most often depression or post-traumatic stress disorder [6]. Consumption of surfactants in women more often than in men is accompanied by the development of various mental disorders. Thus, in the EU, comorbid depression develops much more often in women than in men. The prevalence of depression in this group of women is twice that of women in general [7].

In general, women start using drugs later than men. However, in the course of drug abuse the level of consumption of cannabis, opioids and cocaine among women growing faster than among men, before developing disorders on the basis of receiving surfactant, compared with men, women who use heroin, at least use it with the help of injections in smaller doses and for a short time, are younger, and are often influenced by drug-using sexual partners, who often do the first injection of drugs to a woman [6].

The transition to IPRs among women may be due to personal characteristics or external circumstances. This may be a consequence of problems in personal life, affective and anxiety disorders, desire to lose weight, struggle with exhaustion, anesthesia, self-treatment of mental disorders, physical or sexual violence experienced in childhood, involvement in the sex industry and communication with injecting drug users (IDUs) [6].

Many more often than not, women who practice pit report using needles in combination, explain that they are not aware of the risks involved, are unable to buy syringes/needles from pharmacies, or fear of over-policing, using shared needles as a sign of love or trust in a partner. "Dirty" injections can cause damage to the veins and cause serious complications. IDWU are experiencing problems such as fatigue, loss of weight, withdrawal symptoms of pain, depression and a suicide attempt, many of them suffer from sexually transmitted diseases, viral hepatitis. For these women, access to health care is mainly hampered by the fact that society condemns women who inject drugs more than men [6].

Women heroin users, younger age compared with men who rarely consume it by injection in smaller doses and for a shorter time, often under the influence of sexual partners, using drugs that often make the woman the first injection of drugs. Often the transition to injecting drug use (IDU) among women is due to personal characteristics of women or external circumstances due to problems in their personal lives, affective or anxiety disorders, desire to lose weight, fight against exhaustion, anesthesia, self-treatment of mental disorders, physical and sexual violence experienced in childhood, involvement in the sex industry or communication with IDUs [1].

Many women who practice pit report sharing needles, either because they are not aware of the risks, or because they are unable to buy needles from pharmacies, or because they fear the police, or because they share needles as a sign of love or trust in their partner. Lack of IDU experience can lead to vein damage and cause serious complications. IDWU often experience fatigue, weight loss, pains, depression, suicide attempt, many of them suffer from sexually transmitted diseases, hepatitis. Access to health care for them is difficult because of the public condemnation [1].

For the period between 1999 and 2010, mortality among IDWU, in particular the use of opioid analgesics prescription in the USA increased five-fold among men by 3.6 times. More than 15,000 women died from a drug overdose in the United States in 2012. From 2007 to 2008 in England and Northern Ireland, overdose mortality among women increased by 17%, among men by 8% [3].

The purpose of this study is to study the medical and social characteristics of HIV-positive (HPW) and HIV-negative (HNW) women who inject drugs (opioid group) (IDWU).

Materials and methods of research

The study design is defined as an analytical combined (cross-sectional and longitudinal) study with regular monitoring (6-fold) of the monitored parameters before and after treatment, at the stage of follow-up – after 1, 3, 6 and 12 months from the beginning of follow-up.

This study was conducted on the basis of Grodno State Medical University on the instructions of the research program "To develop criteria for clinical and social functioning, to assess the quality of life and maladaptation of injecting drug users (IDUs) suffering from

various stages of HIV infection" (№ State Registration 201501548), with the scientific and methodological support of the National Research Center for Addiction Problems – a branch of the National Medical Research Center of Psychiatry and Narcology named after V. P. Serbsky" Ministry of Health of Russia.

The clinical study was performed in accordance with GCP rules, according to the Protocol using an individual registration data card. To conduct the study was developed by an individual registration form that includes the questions that health and social aspects of IDWU. 217 female patients with dependence on opioids living in the Republic of Belarus and undergoing stationary treatment in health care institutions of psychiatric profile were examined. The examined persons were randomized into 2 groups: group 1 – 104 HIV-positive (HPW) and HIV-negative (HNW) women of middle age 30.8 (SD=4.86) years and group 2 – 113 HNW of middle age 29.9 (SD=6.67) years. The average age of HIV infection in the HPW group was within Me 24.0 (21.0-27.0).

Results and discussion

The study showed a characteristic feature among the majority of surveyed IDWU such as the lack of a stable official position. On a temporary or seasonal job were 18/17.3% of HPW and 20/17.6% HNW; frequent changes of places of work, interruptions were observed in 27/25.9% of HPW and 30/26.5% HNW; not working, not studying, shied away from work 63/60.5% HPW and 53/46.9% HNW; were employed in low-skilled jobs 24/23.1% of HPW and 19/16.8% of HNW. Systematic violations of labor discipline in 16/15.3% HPW and 9/7.9% HNW were shown in the form of frequent layoffs; in 15/14.4% HPW and 9/7.9% HNW – administrative penalties; in 19/18.2% HPW and 16/14.1% HNW – conflict relations /negative attitude to work. Disability had 3/2.88% of HPW and 1/0.88% of HNW.

Without a profession 45/43.2% HPW and 38/33.6% HNW, workers 55/52.8% HPW and 52/46.0% HNW, employees – 6/5.7% HPW and 22/19.4% HNW. Low educational level (incomplete secondary education) was typical for 21/20.1% HPW and 15/13.2% HNW, secondary education – 43/41.3% HPW and 41/36.2% HNW, secondary special education – 36/34.6% HPW and 43/38.0% HNW.

Their own families had 49/47.1% of HPW and 48/42.4% of HNW. Were in primary marriage 31/29.8% HPW and 37/32.7% HNW, repeated – 13/12.5% HPW and 14/12.3% HNW, civil – 18/17.3% HPW and 19/16.8% HNW. Divorced were 20/19.2% HPW and 24/21.2% HNW. Had children 72/69.2% HPW and 73/64.6% HNW. Lived with own family 31/29.8% HPW and 37/32.7% HNW. Most of the time was spent among unfamiliar people, came home only for the night 21/20.1% of HPW and 9/7.6% of HNW ($p<0.05$).

The situation in the family was characterized by the dominance of conflict relations in 84/80.7% of HPW and 69/61.0% of HNW, alcohol abuse of parents or one of them – 18/17.3% of HPW and 16/14.1% of HNW, lack of sufficient means of livelihood, low income in the family – 57/54.8% of HPW and 45/39.8%; of HNW ($p<0.05$), divorce of parents – 24/23.1% of HPW and 32/28.3% of HNW.

Age of the first drug trial was 18.1 (SD=3.4) among HPW and 20.4 (SD=4.8) among HNW. Opiates and opioids were the main drug used in 77/74.0% of HPW and 93/82.3% of HNW. Cannabinoids were used by 10/9.6% HPW and 8/7.0% HNW, psychostimulants – 7/6.7% HPW and 9/7.9% HNW, tranquilizers – 16/15.3% HPW and 1/0.8% HNW ($p<0.001$), barbiturates – 4/3.8% HPW and 2/1.7% HNW ($p<0.05$). The main way the drug is taken at 84/80.7% of HPW and 103/91.1% HNW was only injecting. The combination of different methods of administration of drugs was mentioned by 9/8.6% of HPW and 1/0.8% of HNW ($p<0.01$). At the same time, non-disposable syringes/needles were used by 46/44.2% of HPW and 11/9.7% of HNW ($p<0.001$), ignoring the sterility of the drug or the container in which it was 68/65.3% of HPW and 53/46.9% of HNW ($p<0.05$).

The leading motive of drug abuse in 21/20.1% of HPW and 31/27.4% of HNW was the search for new pleasant sensations and curiosity. The desire to facilitate contact with people, to achieve the realization of sexual desire experienced 10/9.6% of HPW and 9/7.9% HNW, to show his independence – 22/21.1% HPW and 35/30.9% HNW, induce euphoria, a pleasant feeling of altered mood – 41/39.4% of HPW and 49/43.3% (HNW), the desire to neutralize the negative emotional experiences – 24/23.1% of HPW and 27/23.8% HNW, to get out of the apathetic state, to “improve working efficiency” – 26/25.0% HPW and 33/29.2% HNW, the desire to get rid of painful manifestations of withdrawal state – 86/82.6% of HPW and 68/60.1% HNW ($p<0.05$); to take the drug in spite of yourself or others, to protest – 5/4.8% HPW and 5/4.4% HNW.

Preferred to use the drug alone 17/16.3% HPW and 11/9.7% HNW ($p<0.05$), in the criminalized company – 83/79.8% HPW and 89/78.7% HNW. If it is impossible to get the “main” drug, used other psychoactive substances (PAS) 41/39.4% HPW and 41/36.2% HNW, in combination with alcohol or drugs used drugs 44/42.3% HPW and 39/34.5% HNW, a few PAS (surfactants) with the presence of the preferred drug – 3/2.8% HPW and 11/9.7% HNW ($p<0.05$).

The duration of drug use without dependence from 31/29.8% of HPW and 28/24.7% of HNW up to 1 month up to 2 months – 11/10.5% of HPW and 16/14.1% HNW, 3 months – 1/0.9% of HPW and 5/4.4% HNW ($p<0.05$), 6 months – 41/39.4% of HPW and 40/35.3% HNW, more than 6 months – 13/12.5% of HPW and 21/18.5% HNW. The emergence of signs of a withdrawal state from the beginning of the drug up to 1 month recorded at 35/33.6% of HPW and 25/22.1% HNW, up to 2-3 months – 17/16.3% of HPW and 22/19.4% HNW, up to 6 months – 41/39.4% of HPW and 40/35.3% HNW, more than 6 months – 16/15.3% of HPW and 24/21.2% HNW. Illegal drug use in 62/59.6% of HPW and 34/30.0% HNW accounted for more than 10 years; 5-10 years – 30/28.8% of HPW and 38/33.6% HNW, less than 5 year – 7/6.7% of HPW and 22/19.4% of HNW ($p<0.01$).

The main motive for the break in drug use in 32/30.7% of HPW and 26/23.0% of HNW was the desire to reduce the dose of the drug; in 38/36.5% of HPW and 57/50.4% of HNW ($p<0.05$) – the desire to completely abandon drug use, in 62/59.6% of HPW and 61/53.9% of HNW – financial difficulties associated with the acquisition of the drug, 42/40.3% of HPW and 37/32.7% of HNW – forced abstinence, in 49/47.1% of HPW and 37/32.7% HNW – no permanent source of drug, 26/25.0% of HPW and 40/35.3% of HNW – moral pressure of relatives.

Attraction to drug use at 33/31.7% HPW and 60/53.1% HNW was situational, when released into the environment, 16/15.3% HPW – situational due to the “double stigma – HIV-infected female drug addicts”, 42/40.3% of HPW and 55/48.6% HNW – obsessive, escalating in situations of conflict, 68/65.3% HPW and 42/37.1% HNW ($p<0.05$) – compulsive directional search of the drug or its substitutes, desire for contacts with the IDUs to obtain the illegal drug, 16/15.3% of HPW and 16/14.1% HNW – compulsive with a pronounced behavioral component with internal tension, excitability and increased irritability.

More than 10 cases of withdrawal states were noted: 37/35.5% HPW and 23/20.3% HNW, up to 10 – in 30/28.8% HPW and 34/30.0% HNW, up to 5 – in 25/24.0% HPW and 33/29.2% HNW, once – in 8/7.6% HPW and 10/8.8% HNW. The duration of withdrawal status in 5/4.8% HPW was more than 14 days, 14 days – 15/14.4% HPW and 1/0.8% HNW ($p<0.01$), 10 days – 36/34.6% HPW and 27/23.8% HNW ($p<0.05$), 7 days – 40/38.4% HPW and 62/54.8% HNW, 3-5 days – 3/2.8% HPW and 6/5.3% HNW. The severity of withdrawal state was mild in 3/2.8% of HPW and 10/8.8% of HNW ($p<0.05$); 79/75.9% of HPW and 77/68.1% of HNW – moderate and in 18/17.3% of HPW and 13/11.5% of HNW – severe. The main content of a withdrawal state in 82/78.8% of HPW and 76/67.2%

HNW were somatic and neuro-vegetative disorders, tremor, sweating, disorders of the cardiovascular system; in 7/6.7% of HPW and 22/19.4% HNW ($p<0.05$) – psychopathological disorders (fear, anxiety, depression, agitation); in 22/21.1% of HPW and 29/25.6% HNW – pain, convulsive disorders, 22/21.1% of HPW and 17/15.0% HNW – asthenic syndrome (sleep disturbances, general weakness, malaise).

The predominant symptoms in 70/67.3% of HPW and 78/69.0% of HNW in post-abstinent state were asthenic with general weakness, malaise, nausea, dizziness; in 28/26.9% of HPW and 20/17.6% of HNW were dominated by behavioral disorders; in 21/20.1% of HPW and 15/13.2% of HNW – asponaneity. The duration of post-abstinent state was in 15/14.4% HPW and 5/4.4% HNW more than 1 month; in 67/64.4% HPW and 62/54.8% HNW – up to 1 month; in 17/16.3% HPW and 13/11.5% HNW – 14 days; in 4/3.8% HPW and 20/17.6% HNW – 3-7 days ($p<0.01$).

The main type of intoxication when using the drug in 65/62.5% of HPW and 61/53.9% of HNW was “pleasant relaxation”, feelings of peace, deep self-contemplation; in 34/32.6% of HPW and 48/42.4% of HNW – desire for activity, feeling of fullness of life; in 50/48.0% of HPW and 54/47.7% of HNW – euphoria, emotional excitement, elation. However, it was observed modified forms of drug intoxication in the form of the predominance of low mood, sadness at 18/17.3% of HPW; dysphoria and irritability – 4/3.8% of HPW; aggressiveness on the background of emotional arousal – in 5/4.8% HPW vs 1/0.8% HNW ($p<0.05$); demonstrative suicidal tendencies – in 2/1.9% of HPW; losing the sense of tact and shame, tearfulness – in 5/4.8% of HPW vs 1/0.8% of HNW ($p<0.05$).

Total abstinence from drug use was observed in 14/13.5% of HPW and 8/7.1% of HNW, partial – in 58/55.8% of HPW and 45/39.8% of HNW ($p<0.05$), spontaneous – in 8/7.7% of HPW and 3/2.7% of HNW ($p<0.05$); therapeutic remission – in 20/19.2% of HPW vs 26/23.0% of HNW. Early relapse (within 1 month after treatment) was observed in 40/38.5% HPW and 35/31.0% HNW, up to 3 months – in 18/17.3% HPW vs 13/11.5% HNW; 6 months – 7/6.7% HPW vs 21/18.6% HNW ($p<0.05$); up to 12 months – 24/23.1% HPW vs 17/15.0% HNW; more than 12 months – 12/11.5% HPW vs 17/15.0% HNW.

The predominant symptoms in 70/67.3% of HPW and 78/69.0% of HNW in post-abstinent state were asthenic with general weakness, malaise, nausea, dizziness; in 28/26.9% of HPW and 20/17.6% of HNW were dominated by behavioral disorders; in 21/20.1% of HPW and 15/13.2% of HNW – asponaneity. The duration of post-abstinent state was in 15/14.4% HPW and 5/4.4% HNW more than 1 month; in 67/64.4% HPW and 62/54.8% HNW – up to 1 month; in 17/16.3% HPW and 13/11.5% HNW – 14 days; in 4/3.8% HPW and 20/17.6% HNW – 3-7 days ($p<0.01$).

Ability to critically assess the condition, partial criticism, preservation of drug addiction, emotional and volitional disorders, distortion of basic personal qualities were characteristic of 74/71.1% HPW and 84/74.3% HNW; formal superficial attitude to drug intake, the desire to abandon anesthesia, the safety of critical prognostic abilities – 7/6.7% HPW and 22/19.4% HNW ($p<0.01$); understanding of the consequences of intoxication, critical assessment of their condition with the desire to continue taking drugs giving thus “philosophical” justification – 8/7.6% HPW; the desire to take the drug with full awareness of the disease, confidence in the ability to cope with the disease – 7/6.7% of HPW; did not hide the drug, was not treated, did not perform doctor's appointments 3/2.8% of HPW.

Experience of rehabilitation programs in 82/78.8% of HPW and 90/79.6% of HNW was absent. At the addictology stationary units of health institutions rehabilitated 4/3.8% of HPW and 14/12.3% HNW; in the center created by non-governmental organizations – 4/3.8% of HPW and 1/0.8% of HNW ($p<0.05$); in the center, created by the

Christian missions – 4/3.8% of HPW and 5/4.4% HNW: commercial rehabilitation – 10/9.6% of HPW and 1/0.8% of HNW ($p < 0.01$).

Clinical manifestations of HIV infection were characterized in 57/54.8% of HPW during the month by a decrease in body weight for no apparent reason, in 37/35.6% of HPW – persistent causeless fever, in 15/14.4% – diarrhea, in 71/68.3% – an increase in lymph nodes, in 44/42.3% – unexplained constant night sweating, in 24/23.1% – rapid fatigue, leading patients to spend most of the time lying down. 61/58.7% of HPW were receiving antiretroviral therapy.

Comorbid pathology was diverse. Organic mental disorder was revealed in 5/4.8% of HPW, affective disorders – in 34/32.7% of HPW, neurotic disorders – in 21/20.2% of HPW. Diseases of the respiratory system were characteristic for 40/38.5% HPW, cardiovascular system disorders – for 19/18.3% of HPW; gastrointestinal tract pathology – for 28/26.9% of HPW; hepatopathy – for 98/94.2% of HPW; renal pathology – for 9/8.7% of HPW; skin diseases – for 9/8.7% of HPW; malignant neoplasms – for 3/2.9% of HPW; central nervous system diseases – for 2/1.9% of HPW.

The changes of the way of life typical for HPW were diverse, among which 34/32.7% of HPW indicated incomplete education, 41/39.4% – change in habitual lifestyle, social activity, 83/79.8% HPW – communication with persons with antisocial behavior, 59/56.7% HPW – lack of freedom of choice, change of lifestyle, loss of their place in society, 44/42.3% HPW – forced social isolation, lack of the usual circle of communication, friendly relations, 56/53.8% HPW – problems in family relations, inability to start a family, have children, 64/61.5% HPW – increased risk of job loss, employment, frequent change of employment, 80/76.9% of HPW – housing and financial problems, debts, 26/25% of HPW – lack of housing or registration at the place of residence, semi – legal existence, 35/33.7% of HPW – unhygienic lifestyle, malnutrition, 21/20.2% of HPW – loss of documents, difficulty of access to adequate health care, 25/24% of HPW – active continuation, due to despair, drug use and other 20/19, 2% HPW – the need to take antiretroviral drugs at certain hours, not allowing passes, 7/6.7% HPW – the need for food restrictions, 43/41.3% HPW – a decrease in physical activity, 19/18.3% HPW – psycho-physical fatigue from the forced use of antiretroviral drugs, 17/16.3% HPW – the emergence of side effects when performing highly active antiretroviral therapy, 3/2.9% HPW – a sense of "peculiar medicinal smell" from your body, aversion to him, 6/5.8%, VPW held ineffective antiviral therapy, 4/3.8% of HPW the appearance of visible defects in appearance, 2/1.9% of HPW – knowing the terminal stage, the struggle with pain, asthenia.

37/35.6% of HPW have the ability to perform their daily home, social and professional functions. 58/55.8% of HPW experienced difficulties in performing household, social and professional duties could not perform home, social and professional functions 10/9.6% of HPW.

Summary

The results of the study show that the majority of women who inject drugs of the opioid group are characterized by a high level of social functioning disorders, including domestic, social and professional responsibilities, while in IDWU with HIV-positive status these problems are more pronounced. This group of patients needs to develop special management tactics that take into account their medical and social characteristics and needs, including the development of long-term comprehensive treatment and rehabilitation programs.

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