

# Training Needs Assessment of Specialists Who Provide Care to People with Substance Use Disorders in Ukraine

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**Citation** | Yachnik, Y., Pinchuk, I., Myshakivska, O., Pinchuk, A., Boltonosov, S., Pievskaya, J., Gluzman, S., Korol, I., & Johnson, K. (2021). Training needs assessment of specialists who provide care to people with substance use disorders in Ukraine. *Adiktologie*, 21(4), 239–249. <http://doi.org/10.35198/01-2021-004-0006>

**BACKGROUND:** In Ukraine, substance use disorders (SUDs) and rates of HIV infection are growing, the number of specialists does not meet country's addiction treatment demands, and the quality of the care is often insufficient and does not cover the current treatment needs. A necessary first step to improving care for people with SUD in Ukraine is training needs assessment of addiction specialists. **METHODS:** A survey instrument, "Training Needs Survey for SUD Specialists," developed by the Substance Abuse Mental Health Services Administration (SAMHSA), an agency of the United States Department of Health and Human Services, was translated and adapted by the Ukrainian team of researchers. All institutions and organizations that identified as providing treatment for SUDs received the survey. This article details the training needs of people working with patients with SUDs based on a representative sample of addiction specialists at different

types of treatment organizations in all regions of Ukraine (except the occupied territories). **RESULTS:** Different specialty groups had different training needs based on the individual's role in the treatment process. Addiction counselors expressed the greatest overall need for training. Compared to other specialists, the managers for social, educational, and psychological work with incarcerated individuals expressed a lower need for training. Training in medication-assisted therapy was not a high priority for respondents from any specialty group. **CONCLUSIONS:** The survey assessing the training needs of people working with patients with SUDs identified a wide range of interests that varied by the respondent's role and profession. Existing training courses and programs often do not cover complex issues of interest to specialists or reflect a multidisciplinary approach. Therefore, current training courses require changes that align with modern concepts of addiction treatment.

**Keywords** | Training Needs Assessment – Substance Use Disorders – Addiction Treatment – Ukraine Work Force

**Submitted** | 19 April 2021

**Accepted** | 14 September 2021

**Grant affiliation** | The following study was performed by Ukrainian Psychiatric Association and funded through the Contract HHSP233201700093A "Assessment of Drug Addiction Treatment (ADAT) in the Ukrainian Context: Development, Effectiveness and Options for SAMHSA Involvement/support" (19.05.2017 – 18.05.2018).

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## ● 1 BACKGROUND

The need to assess the training needs of addiction treatment specialists in Ukraine relates to the increasing prevalence of substance use disorder (SUD) in Ukraine, the HIV epidemic, the insufficient number of addiction psychiatrists and related professionals, and the absence of accreditation of non-medical specialists who provide care to people with SUD (Lekhan et al., 2015; Kiriazova et al., 2015; Pedersen & Sayette (2020).

According to the 2020 report on the drug situation in Ukraine 62,579 people with SUDs received care (National Report on the Drug Situation in Ukraine 2018). The workforce in Ukraine of 3.0 physicians and 6.7 nurses and midwives per 1,000 residents (World Bank Group, 2021), does not meet country's treatment demands. Prevalence of alcohol use disorder in Ukraine is 5.47%; drug use disorders, 0.7 % (Global Burden of Disease, 2017). There is also evidence of the increasing use of amphetamine-type and new psychoactive substances (Lezhentsev et al., 2020).

After graduation from a medical university in Ukraine, future specialists must pass a two-year training in psychiatry and six-month training in addiction medicine to become narcologists. A separate two-year master's programme in clinical psychology is available. It takes three to four and a half years to receive healthcare social worker accreditation (Klos, 2017). Since 2019, postgraduate education in Ukraine has included continuing medical education (CME) or continuing professional development (CPD), and each year medical doctors need to receive 50 CME points for certification. From 2019 to 2021, many different courses were available, mostly in the non-governmental sector in Ukraine. These courses covered topics such as motivational interviewing, brief interventions, contingency management, and treatment of addictions for practitioners engaged in addiction treatment, care, rehabilitation, and harm reduction. The current treatment model in Ukraine is biologically oriented, with a relatively small proportion of psychological and social help (Gluzman et al., 2018). An extensive network of institutions and organizations of various forms of ownership (state/municipal institutions, non-state commercial, and non-governmental nonprofit organizations) provides a wide range of medical and psychosocial services to persons with SUDs, including 530 state and 566 non-state institutions and organizations (Gluzman et al., 2018). Staff engaged in the field of addiction treatment, care, rehabilitation, harm reduction for patients with SUDs consist of narcologists, psychiatrists, doctor psychotherapists and doctor psychologists, intensive care physicians, other doctors, nurses, psychologists, social work specialists and social workers, as well as case managers. No accreditation is required for addiction counselors and related official programs. The non-state commercial sector is represented mainly by private medical institutions and offices providing medical and psychosocial services with a variety of therapeutic approaches. Non-governmental, non-profit institutions provide a wide range of psychosocial support but they are not licensed by state as addiction treatment providers. The National Survey of Addiction Treatment Services (Gluzman et al., 2018) showed that state facilities have relatively more medical staff than non-state ones and many fewer specialists who

provide psychosocial support. Non-state noncommercial organizations providing residential services have a large share of staff without special education and equal to equal support with a total share of 54.1%. The proportion of non-medical staff in such institutions is 91.5%, compared to 8.5% of medical staff. A unique feature of low-threshold organizations is the involvement of a relatively large number of doctors from other specialties as consultants (11.6%) and a balanced distribution of non-medical personnel with special education (about 46.2%) and without such education (28.4%; Gluzman et al., 2018).

A review of training needs is a prerequisite for creating relevant and in-demand training programs (Brown, 2002) for addiction professionals. This research evidence is essential for making choices among the various programs, based on the type and prevalence of drug problems and the availability and structure of the country's health and social services (Muscat et al., 2014). Existing training courses and programs often do not cover the complex issues of interest to specialists and require changes in accordance with modern concepts of treatment of dependence (Patterson et al., 2017).

University curricula are a crucial part of the educational process (Wijngaards-de Meij, 2016). However, they are not updated simultaneously with the worldwide approved global curriculum, based on current scientific evidence (Sparapani et al., 2014). Frequently, this is due to limited university resources, difficulties in accessing materials, lack of quality translations, or lengthy and bureaucratic implementation. Training in SUD treatment in most low- and middle-income countries, including Ukraine, is often inadequate, short-term, focused on a narrow set of aims, and planned with little consideration of future training needs (Arya et al., 2020). Consequently, most Ukrainian universities still use outdated practices that provide only basic knowledge of addiction and do not bridge that gap between education and effective clinical practice (Vlasenko et al., 2017). In 2019, the Universal Treatment Curriculum (UTC) was implemented into Ukraine's current university training programs along with the UTC trainer's preparation process. Building a highly effective SUD treatment workforce requires changing and improving existing curricula and creating multidisciplinary training programs, along with changes to the regulatory framework to implement training programs for non-professional consultants.

The goal of the study was to assess the current training needs of specialists who provide addiction treatment or rehabilitation services and identify opportunities for additional training support.

## ● 2 METHODS

The survey was conducted among 1,008 doctors, psychologists, social workers, nurses, and addiction counselors at different treatment organizations in all regions of Ukraine (except the occupied territories) for four months (December 2017–April 2018). The study used the SAMHSA questionnaire "Training Needs Survey for Specialists who Provide Help to People with Substance Use Disorders (SUD)," translated and adapted by the Ukrainian research team. The questionnaire included

the following sections: general information, work experience, frequency and ease of use of knowledge and skills, need for knowledge and skills, and desired training mode. The questionnaire was completed on paper or online. Informed consent was obtained from participants. All institutions and organizations received emails from the management announcing the survey, and letters of support from the authorities.

The reminder letters to complete the survey were sent after the first and third weeks following the email request, followed by telephone calls to the organizations that did not respond after the fourth week. Paper copies of the questionnaires were also provided with an appeal from the management that included references to letters of support from the authorities. In addition, the research team conducted field visits to increase the number of responses.

Data were collected at public health institutions, institutions of non-state forms of ownership that provide SUD treatment, and penitentiary service institutions in 24 oblasts of Ukraine and Kyiv city for four months (December 2017 – April 2018). Questionnaire results were processed using IBM SPSS Statistics software, IBM SPSS Text Analytics for surveys, and RDS-Analyst software using various data analysis methods, including Univariate and Bivariate (for two variables/parameters) Analysis.

## ● 3 RESULTS

### 3.1 Social and demographic characteristics of respondents interviewed

For the study “Assessment of training needs among specialists who work in the sphere of addiction treatment or rehabilitation,” 1,008 questionnaires were received. The majority of respondents (62.6%) work at public health institutions (narcological, psychiatric, multi-profile, and specialized hospitals); 14.7% at non-state rehabilitation centers, and 22.7% at criminal justice settings.

Respondents worked in the following roles: 16% of the interviewed specialists were managers in addiction treatment and rehabilitation facilities (chief doctor, director of the rehabilitation center; head of the department); 32.3% were medical doctors (psychiatrists, narcologists, intensive care physicians, infectious disease doctors); 20.6% were engaged in nursing care; 13.1% were engaged in social and psychological work (psychologist, practical psychologist, social worker, social work specialist); 12.6% were engaged in social and psychological work in penitentiary facilities (head of social and psychological services, deputy head of the institution of social, educational and psychological work, senior inspector for preparation for release); and 5.4% were engaged in addiction counseling and volunteer work. The vast majority of the surveyed specialists (94%) reported working full-time.

By gender, 53% of respondents were female, and 47% were male. The average age was  $45.05 \pm 13.5$  years (median 43; mode 34), and 79% of the respondents were between 30 and 69 years old.

The survey assessed the average time working in the addiction treatment and rehabilitation field. Average time in the field for managers in addiction treatment and rehabilitation facilities was 19.86 years; for doctors, 19.87 years; nurses, 13.24 years; psychologists and social workers, 8.61 years; addiction counselors, 2.57 years; and for specialists in social and psychological work in penitentiary facilities, 12.5 years.

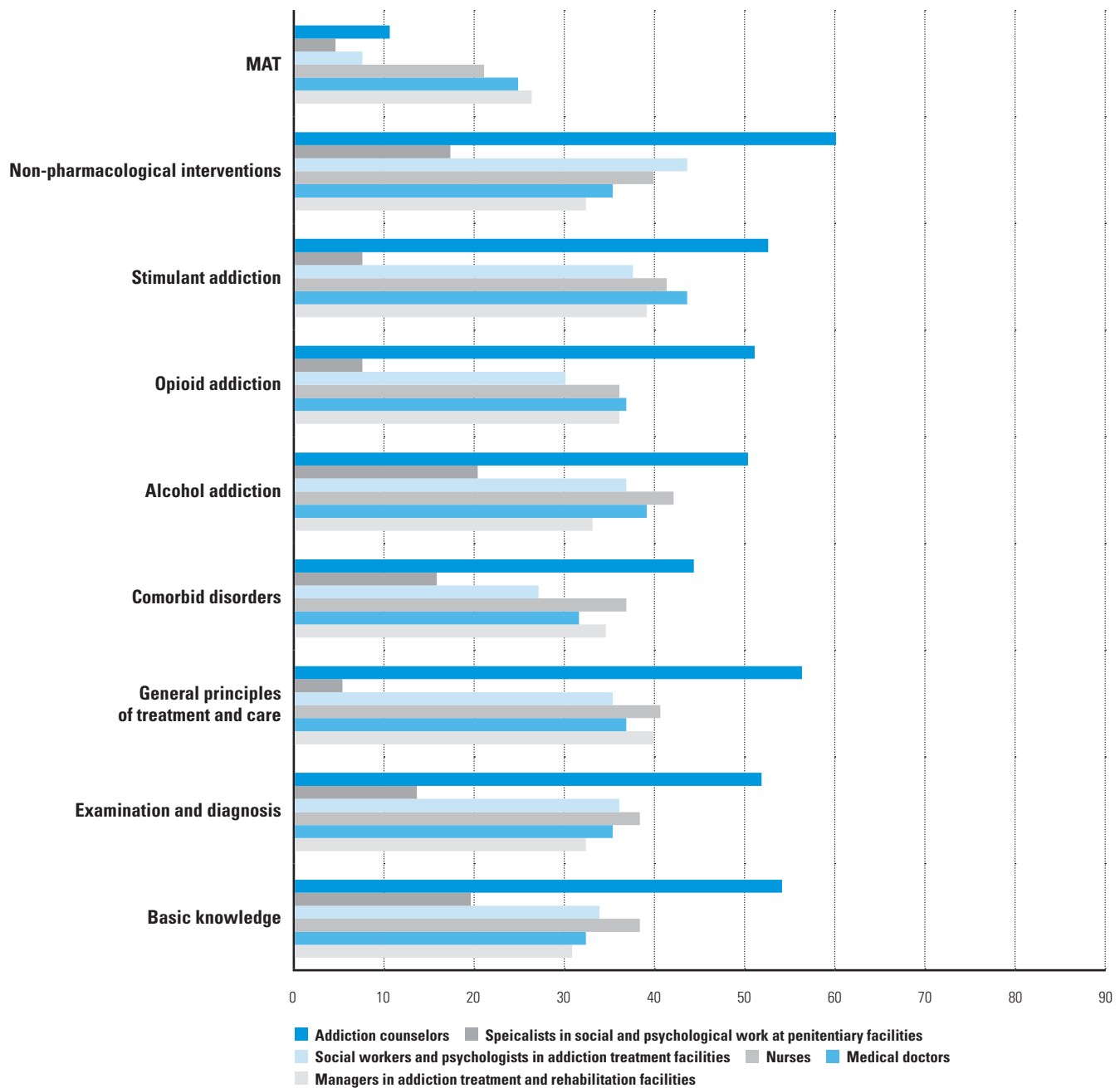
Regarding medication-assisted treatment (MAT), 15% of respondents (156) worked at MAT program sites, and 35% worked with MAT clients (348). More than half of the specialists (54%) received additional training on SUD in the previous five years. Twenty-five percent of specialists completed the “Initial Course on Medication Assisted Therapy” training. In HIV-related topics, 39% of specialists were trained, of which 86% passed the training course “Voluntary Counseling and Testing Program,” 20% passed the course “Antiretroviral Therapy,” 11% completed other courses, and 5% did not answer the question.

### 3.2 Preferred training needs

The survey grouped specific training topics into nine categories: basic knowledge on SUD and HIV, assessment and diagnosis, general principles of treatment and care, comorbid disorders, alcohol addiction, opioid addiction, stimulant addiction, non-pharmacological interventions, and MAT. In general, needs regarding knowledge on alcohol addiction (49%), amphetamine addiction (50%), and non-pharmacological interventions (48%) prevail, but the picture differs among groups of specialists (*Figure 1*).

Addiction counselors expressed the greatest need for training. In comparison with other specialists, specialists in social and psychological work in penitentiary facilities expressed somewhat lower training needs. The interest in training among nurses, doctors, psychologists, and social workers was comparable. The doctors were most interested in the topics of stimulant (58%), alcohol (52%), opioid (49%) addiction, and general treatment issues (49%). Nurses expressed high interest in all topics, with low priority concerning alcohol (56%) and stimulant (55%) addiction, general treatment issues (54%), and non-pharmacological interventions (53%). Social workers and psychologists wanted to master skills in non-pharmacological interventions (58%) and expand their knowledge regarding stimulant (50%) and alcohol addiction (49%). Managers in treatment and rehabilitation facilities were most interested in the principles of addiction treatment (53%) and stimulant (52%) and opioid (48%) addiction. The specialists in social and psychological work in penitentiary facilities expressed high interest in the issues of alcohol addiction (27%) and basic knowledge of addictions (26%). Addiction counselors were most interested in studying non-pharmacological interventions (80%), general treatment issues (75%), and basic knowledge concerning addictions (72%).

The analysis of training needs on specific topics (*Table 1*) showed that the managers in addiction treatment and rehabilitation facilities have the greatest interest in the following

**Figure 1** | Training preferences on generalized topics among groups of specialists (%)

topics: treatment of opioid addiction in the world and Ukraine (67%), fundamentals of legislation on psychoactive substances (59%), examination and identification of comorbidities (59%), development of a comprehensive treatment plan (60%), and treatment of amphetamine-type stimulant addiction (57%). Doctors' interests centered on the following topics: treatment of opioid addiction in the world and Ukraine (62%), treatment of amphetamine-type stimulant addiction (61%), fundamentals of legislation on psychoactive substances (57%), treatment of special groups (e.g., pregnant women, patients with comorbidities; 57%), and use of amphetamine-type stimulants: influence and consequences (57%).

Nurses identified the following as priorities for training: treatment of special groups (e.g., pregnant women, patients with co-

morbidities; 68%), fundamentals of legislation on psychoactive substances (63%), development of a comprehensive treatment plan (63%), use of amphetamine-type stimulants: influence and consequences (63%), and overdose prevention (including naloxone; 62%).

The following topics were of the greatest interest among social workers and psychologists: psychological characteristic of persons with SUD (68%), motivational interviewing skills (65%), social and psychological assessment (64%), definition and mechanisms of addiction (64%), and counseling skills (62%).

Addiction counselors prefer training in counseling skills (87%), motivational interviewing skills for (87%), classification of psychoactive substances (83%), psychological characteristics of

**Table 1** | Training preferences on a specific topic (%)

<b>Training topics</b>	<b>All specialists</b>	<b>Managers in addiction treatment and rehabilitation facilities</b>	<b>Specialists in social and educational work in penitentiary facilities</b>	<b>Medical doctors</b>	<b>Nurses</b>	<b>Social workers and psychologists in addiction treatment and rehabilitation facilities</b>	<b>Addiction counselors</b>
General summary of HIV epidemic	38%	35%	36%	33%	50%	31%	56%
Basic knowledge on HIV/AIDS	40%	32%	35%	35%	51%	41%	59%
Harm reduction (general knowledge)	37%	32%	29%	40%	40%	31%	59%
Classification of psychoactive substances	38%	32%	21%	39%	35%	40%	83%
Fundamentals of legislation on psychoactive substances	53%	59%	21%	57%	63%	37%	81%
Definition and mechanisms of addiction	49%	48%	10%	46%	59%	64%	80%
Psychological characteristics of persons with SUD	53%	49%	31%	49%	58%	68%	83%
Differences between opioid withdrawal syndrome and intoxication syndrome	44%	44%	17%	48%	48%	45%	72%
Treatment of opioid addiction in the world and in Ukraine	54%	67%	7%	62%	54%	58%	72%
Influence and consequences of opioid addiction	43%	46%	18%	46%	49%	39%	61%
Diagnostics by ICD-10	39%	35%	5%	42%	49%	40%	69%
Assessment of opioid withdrawal syndrome	39%	42%	6%	47%	41%	34%	69%
Assessment of opioid intoxication syndrome	41%	42%	6%	47%	48%	34%	69%
Definition of tolerance to opioids and risk factors	40%	48%	5%	46%	46%	34%	65%
Examination and identification of comorbidities	45%	59%	6%	50%	49%	39%	67%
Common comorbidity and HIV-related issues	43%	54%	11%	47%	50%	38%	56%
Development of a complex treatment plan	54%	60%	11%	56%	63%	56%	83%
Management of common clinical situations	39%	52%	5%	39%	38%	44%	72%
Overdose prevention (including naloxone)	44%	49%	6%	49%	62%	28%	57%
Treatment of special groups (e.g., pregnant women, patients with comorbidities ....)	52%	52%	16%	57%	68%	45%	57%
Use of amphetamine-type stimulants: influence and consequences	51%	49%	14%	57%	63%	48%	72%
Alcohol use: influence and consequences	46%	38%	29%	49%	52%	48%	65%
Examination and assessment of persons using amphetamine-type stimulants	48%	49%	10%	55%	53%	47%	65%

Training topics	All specialists	Managers in addiction treatment and rehabilitation facilities	Specialists in social and educational work in penitentiary facilities	Medical doctors	Nurses	Social workers and psychologists in addiction treatment and rehabilitation facilities	Addiction counselors
Examination and assessment of persons using alcohol	47%	41%	27%	51%	53%	45%	65%
Treatment of amphetamine-type stimulant addiction (information review)	51%	57%	6%	61%	48%	56%	72%
Treatment of alcohol addiction (information review)	53%	52%	25%	55%	62%	55%	72%
Antiretroviral therapy (information review)	37%	33%	26%	35%	47%	30%	61%
Tuberculosis treatment (information review)	35%	35%	29%	32%	48%	23%	50%
Hepatitis B, C treatment (information review)	39%	43%	29%	36%	48%	29%	57%
Screening for use of other psychoactive substances	45%	51%	12%	51%	52%	40%	65%
Screening for common mental disorders	48%	51%	21%	52%	53%	48%	61%
Review and assessment of patients with mental disorders	49%	49%	22%	51%	51%	59%	61%
Overview of non-pharmacological interventions	44%	51%	5%	46%	49%	54%	61%
Total care and model for psychoactive substance addiction treatment	47%	52%	6%	48%	50%	58%	83%
Counseling skills	51%	39%	29%	48%	60%	62%	87%
Motivational Interviewing skills	48%	40%	28%	47%	47%	65%	87%
Social and psychological assessment	48%	38%	35%	45%	51%	64%	83%
Management of patients who use several psychoactive substances	48%	51%	5%	52%	58%	47%	80%
Preventive counseling aimed at reducing health risks and strengthening the healthy behavior	50%	43%	31%	49%	57%	51%	83%

persons with SUD (83%), and development of a comprehensive treatment plan (83%). Specialists in social and psychological work in penitentiary facilities see the need to learn the following topics: a general summary of the HIV epidemic (36%), social and psychological assessment (35%), basic knowledge on HIV/AIDS (35%), preventive counseling aimed at reducing health risks and strengthening the healthy behaviors (31%), psychological characteristics of persons with SUD (31%), and counseling skills (29%).

### 3.3 Preferred training needs regarding MAT

In general, among all specialists who completed the survey, the need for training in MAT was lower than that for other top-

ics (Table 2). Specialists were most interested in the regulatory framework of MAT programs (30%), treatment of opioid addiction with naltrexone (31%), with buprenorphine (28%), interaction methadone and some common medications (30%), and methadone programs' relationships with other addiction treatment programs. (29%).

Managers in treatment and rehabilitation facilities (33%) and doctors (33%) expressed the greatest need for training on MAT. On the other hand, specialists in social and psychological work in penitentiary facilities (6%) and social workers and psychologists (10%) expressed the lowest need.

The most interesting topics for managers in treatment and rehabilitation facilities were the following: interactions between meth-

**Table 2 |** Training preferences on MAT topics (%)

<b>Training topics</b>	<b>All specialists</b>	<b>Managers in addiction treatment and rehabilitation facilities</b>	<b>Specialists in social and educational work in penitentiary facilities</b>	<b>Medical doctors</b>	<b>Nurses</b>	<b>Social workers and psychologists in addiction treatment and rehabilitation facilities</b>	<b>Addiction counselors</b>
Regulatory framework of MAT programs	30%	37%	8%	40%	38%	11%	19%
Organizational, operational characteristics, and control of work of MAT clinic	23%	35%	6%	30%	27%	7%	11%
Recommendations/guidelines for treatment with methadone	27%	36%	6%	35%	30%	12%	19%
Methadone programs and relations with other health services and programs for addiction treatment	29%	43%	8%	36%	33%	16%	19%
Pharmacology of methadone: pharmacokinetics, pharmacodynamics, side effects, indications, and contraindications	26%	31%	6%	36%	29%	9%	20%
Primary examination and assessment	26%	30%	12%	34%	24%	20%	15%
Examination at the induction and stabilization stages	23%	28%	4%	34%	24%	13%	11%
Determination of maintenance dose, assessment of maintenance dose, and need for changing the maintenance dose	24%	35%	4%	37%	25%	6%	7%
Split dose (divided dose): prescription and technique	24%	37%	4%	36%	24%	5%	7%
Management of common side effects in patients undergoing methadone treatment	26%	38%	6%	37%	25%	10%	9%
Interaction of methadone and some common medications in patients with opioid addiction	30%	48%	7%	41%	26%	13%	13%
Evaluation and management of clinical symptoms of medication interaction	29%	41%	5%	41%	31%	10%	11%
Reduction, treatment cessation, and re-treatment	27%	35%	6%	39%	29%	11%	11%
Situations requiring counseling for patients undergoing treatment with methadone	28%	36%	9%	37%	27%	19%	13%
Treatment with methadone during pregnancy	26%	37%	7%	35%	32%	7%	7%
Treatment of opioid addiction with buprenorphine	28%	40%	4%	37%	33%	13%	15%
Treatment of opioid addiction with naltrexone	31%	40%	6%	40%	34%	15%	33%
Functions and responsibilities of the personnel in the MAT clinic	25%	33%	10%	32%	33%	8%	11%
Knowledge required, attitude and behavior of physicians in the MAT clinic	26%	36%	6%	34%	26%	12%	22%

Training topics	All specialists	Managers in addiction treatment and rehabilitation facilities	Specialists in social and educational work in penitentiary facilities	Medical doctors	Nurses	Social workers and psychologists in addiction treatment and rehabilitation facilities	Addiction counselors
Knowledge required, attitude and behavior of counselors in the MAT clinic	28%	31%	25%	27%	28%	30%	22%
Knowledge required, attitude and behavior of pharmacists in the MAT clinic	20%	27%	6%	24%	26%	5%	11%
Standard procedures for methadone maintenance and methadone program management	21%	32%	6%	27%	27%	4%	11%
Reporting and request for methadone	18%	25%	5%	24%	26%	4%	7%
Transfer and receipt of methadone	19%	23%	5%	24%	27%	5%	11%
Storage of methadone	19%	23%	5%	23%	27%	4%	11%
Dispensing of methadone	19%	23%	6%	25%	28%	5%	11%
Record keeping, use of forms and medical records in methadone treatment programs	22%	27%	5%	30%	28%	5%	11%

adone and some common medications for patients with opioid addiction (48%), evaluation and management of clinical symptoms of medication interaction (41%), methadone programs' relations with other health services and programs for addiction (43%), treatment of opioid addiction with naltrexone (40%), and treatment of opioid addiction with buprenorphine (40%).

Doctors considered the following topics as the most interesting: interactions between methadone and some common medicines in patients with opioid addiction (41%), evaluation and management of clinical symptoms of medication interaction (41%), the regulatory framework for MAT programs (40%), treatment of opioid addiction with naltrexone (40%), and reduction, treatment cessation and re-treatment (39%).

For the specialists in social and psychological work in penitentiary facilities, the most interesting topics were knowledge required, attitudes and behavior of counselors in MAT clinics (25%), primary examination and assessment (12%), functions and responsibilities of the MAT clinic personnel (10%), situations requiring counseling for patients undergoing treatment with methadone (9%), and the regulatory framework of MAT programs (8%). For the social workers and psychologists, the most interesting topics were knowledge required, attitudes and behavior of counselors (psychologists, social workers, etc.) in MAT clinics (30%), primary examination and assessment (20%), situations requiring counseling for patients undergoing treatment with methadone (19%), methadone programs' relations with other health services and programs for addiction treatment programs (16%), and treatment of opioid addiction with naltrexone (15%). The nurses selected the following education priorities: regulatory framework of MAT programs (38%), treatment of opioid

addiction with naltrexone (34%), methadone programs' relations with other health services and programs for addiction treatment (33%), treatment of opioid addiction with buprenorphine (33%), and functions and responsibilities of personnel in MAT clinics (33%).

The priority topics for addiction counselors were treatment of opioid addiction with naltrexone (33%), the knowledge required, attitudes and behavior of physicians and counselors; MAT clinics (22%); pharmacology of methadone: pharmacokinetics, pharmacodynamics, side effects, indications and contraindications (20%), and the regulatory framework of MAT programs (19%).

### 3.4 Preferred training needs of specialists working on MAT sites and/or MAT clients

Working at MAT sites was noted by 15.5% of interviewed specialists. The number of specialists who indicated that they work with MAT clients but do not work in the program/on the MAT site was 19%. The following topics are the most relevant for the specialists working in MAT sites: treatment of opioid addiction in the world and Ukraine (74%), treatment of special groups (e.g., pregnant women, patients with comorbidities; 63%), fundamentals of legislation on psychoactive substances (62%), and treatment of amphetamine-type stimulant addiction (60%). The lowest interest was expressed for following topics: basic knowledge on HIV/AIDS (28%), classification of psychoactive substances (29%), general summary of the HIV epidemic (30%), harm reduction (31%), and diagnostics by ICD-10 (33%). Specialists who work with MAT clients, but not at MAT sites or in MAT programs, chose the following as



topics of highest priority: treatment of opioid addiction in the world and in Ukraine (72%), treatment of amphetamine-type stimulant addiction (information review; 70%), development of a comprehensive treatment plan (70%), examination and assessment of persons using amphetamine-type stimulants (69%), and screening for common mental disorders (69%). The least popular topics were a general summary of the HIV epidemic (46%), tuberculosis treatment (information review; 46%), antiretroviral therapy (information review; 9%), hepatitis B, C treatment (information review; 51%), and classification of psychoactive substances (55%).

Concerning the training needs on MAT-related topics, specialists working at MAT sites were most interested in the following topics: interaction between methadone and some common medications in patients with opioid addiction (67%), evaluation and management of clinical symptoms of medication interaction (61%), split dose (divided dose) prescription and technique (60%), management of common side effects in patients undergoing methadone treatment (58%), and situations requiring counseling for patients undergoing treatment with methadone (58%).

The specialists working with MAT clients but not at sites or in MAT programs found the following topics to be of greatest interest: treatment of opioid addiction with naltrexone (44%), the interaction between methadone and some common medications in patients with opioid addiction (42%), methadone programs' relation to other health services and programs for addiction treatment (42%), situations requiring counseling for patients undergoing treatment with methadone (41%), and knowledge required, attitudes and behavior of counselors in MAT (39%).

### 3.5 Preferred training characteristics

When organizing the training process, most specialists found the following important: consulting at the workplace after training (74%), evidence-based interventions (72%), practical orientation (72%), and exchange of ideas with other programs (72%). In addition, 31% of specialists consider optimal training at the workplace; 30%: training in their region, 30%: online training, and 14%: training courses at medical universities. The specialists identified the main obstacles to attending training or implementing the topics covered during the training as insufficient budget to attend the training (69%), workload (49%), and limited resources (44%). *Table 3* shows the summarized data on the main obstacles in training or implementing the topics covered during the training.

## 4 DISCUSSION AND CONCLUSIONS

The Assessment of Training Needs among specialists who provide care to people with SUDs revealed the main needs and areas of interests and differences in training needs between groups of specialists.

**Table 3** | Main perceived obstacles in training or implementing the topics covered during the training

Obstacles	Number of responses	Percent of responses
<b>The workload negatively affects motivation for training</b>	496	49%
<b>The budget does not allow most employees to attend training as often as it needed</b>	700	69%
<b>The topics presented at recent training seminars were too limited</b>	147	15%
<b>The quality of trainers at recent seminars and conferences was low</b>	86	9%
<b>The training activities take too much time from the main work</b>	258	26%
<b>It is often too complicated to adapt the training materials to practical work</b>	289	29%
<b>Limited resources (such as office space or budget) make it difficult to accept new treatment ideas</b>	439	44%
<b>Previous experience and personnel training limit the possible changes in treatment</b>	228	23%
<b>There are not enough rewards for trying to change the treatment or other procedures</b>	348	35%

Actual interests in stimulant and alcohol addiction reflect current drug use trends in Ukraine (National Report on the Drug Situation in Ukraine, 2018). Therefore, they should be considered when updating existing curriculums.

Along with the existence of non-evidence-based methods of addiction treatment in Ukraine (Gluzman et al., 2018), specialists, especially psychologists and social workers, demonstrate high interest in evidence-based non-pharmacological interventions. More than 700 psychologists and social workers are currently working in addiction treatment in Ukraine, though, in reality, this figure may be several times higher (Gluzman et al., 2018). At the same time, systemic postgraduate training in this topic is limited (Klos, 2017; Mykhailov, 2017).

Governmental and non-governmental organizations promote MAT training in Ukraine. It is affordable, accessible, and free for professionals in various fields (Ukrainian Institute of Public Health Policy, online course for health professionals "Treatment of opioid dependence"). According to this study, the need for additional training on this topic is the lowest for all specialists compared to other topics.

Nurses show high interest in additional training in pharmacological and non-pharmacological interventions. Existing training programs for nurses in Ukraine aim to form a "universal"

specialist and devote insufficient time to developing practical skills (Nikolaev, 2019). There is no specialization of nurses in psychiatry, and opportunities for postgraduate training are limited (Nikolaev, 2019).

Despite the highest training need demonstrated by addiction counselors, that specialty is not yet officially registered in Ukraine. Therefore, there are no official training courses or certifications for them.

According to International standards for SUD treatment, a multidisciplinary approach is a priority (International standards for the treatment of drug use disorders, 2020). However, according to this study, a significant part of the training needs overlap for specialists of different specialties, but at the same time, interdisciplinary training programs are limited (Sosin et al., 2014).

The social and psychological service of penitentiary institutions should provide social, educational, and psychological care to people in conflict with the law according to their correctional programs, including the detection of mental disorders and their correction (Law on Organization of social educational and psychological work with convicts of the Ministry of Justice of Ukraine, 2300/5, 2013). At the same time, the training programs of penitentiary psychologists do not sufficiently cover the issues of mental disorders, including substance use-related problems (Lytvynenko, 2018). Despite this gap, interest in studying the topic of addiction among penitentiary professionals is low and focuses on the basic topics of detecting and understanding addiction.

Thus, based on the results of this study, the following recommendations can be formulated for changing or creating training programs for professionals who provide care to people with SUDs:

- Training programs should be evidence-based, practically oriented, and accessible.
- Training programs should reflect current trends in substance use in the country and worldwide.
- Training on evidence-based non-pharmacological interventions for SUD treatment for all specialists should be expanded.
- Training programs should emphasize a comprehensive treatment approach and be interdisciplinary, if possible.
- Specialized training programs for psychologists, social workers, and nurses on addiction care and treatment should be developed.
- The need for training programs on addiction identification and care in penitentiary settings should be advocated, and training programs should be expanded by including mental health and drug use topics.

- The need for addiction counselor specialty should be advocated, and a universal curriculum for addiction counselors should be developed.

### Limitations

The main study limitation was an unequal number of specialists from the state and non-governmental organizations and, thus, a small sample of addiction counselors. This limitation was heightened by the complexity of preliminary sample size calculation for non-governmental organizations due to the lack of a unified registry of such organizations, the lack of data on the number of specialists in these organizations, and the low response rate from the non-governmental organizations that were sent questionnaires. To collect data from non-governmental organizations, the questionnaires were sent by email and letters to all identified private and public organizations dealing with addiction rehabilitation, together with a questionnaire for institutions providing treatment and rehabilitation to persons with SUDs, and follow-up reminder letters and telephone calls.

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### Authors' contributions:

IP, YY, JP, SG, IK designed the study and proposed study design. AP, SB, JP, IK performed the statistical analysis and participated in data interpretation and manuscript preparation. YY designed the initial form of the manuscript. OM conducted a literature review and summary of related work. IP, SG, and KJ supervised the data analysis and participated in the manuscript preparation. All

authors contributed to the article development and approved the final version of the manuscript.

### Declaration of interest:

No conflict of interest

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