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CLIENT SATISFACTION WITH OPIOID AGONIST TREATMENT IN ESTONIA

2024

This document is a publication of the Eurasian Harm Reduction Association (EHRA). EHRA is a non-profit, membership-based public organisation that unites and supports harm reduction activists and organisations in Central and Eastern Europe and Central Asia (CEECA). EHRA's mission is to actively unite and support communities and civil society to ensure the rights and freedoms, health and well-being of people who use psychoactive substances in the Central and Eastern European and Central Asian region.

Research team

Principal investigators:

- Anneli Uusküla (MD, PhD), professor of epidemiology at the University of Tartu
- Sigrid Vorobjov (MSc, PhD), senior researcher and head of the Risk Behavior Studies Department at the National Institute for Health Development

Other research team members:

- Anna Markina (MA), researcher at the University of Tartu's Faculty of Law
- Maris Salekešin (MSc), researcher at the Risk Behavior Studies Department at the National Institute for Health Development
- Members of Estonian Association of People who Use Psychotropic Substances "Lunest": Jelena Antonova (chairman of the board), Mart Kalvet (member of the board), Elena Borissenko (specialist), Rita Salin (specialist), Olga Bogdanova (specialist) and Aleksandra Iru (specialist)

Program Coordinator: Maria Plotko, Eurasian Harm Reduction Association (EHRA)

Author and coauthors: Hanna Maria Aavik (MSc), Maarja Pajusalu (MSc), Anneli Uusküla (MD, PhD)

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Acronyms

CI	confidence interval
DALY	disability-adjusted life year
DOT	directly observed treatment
EHRA	Eurasian Harm Reduction Association
HIV	human immunodeficiency virus
IQR	interquartile range
MAT	medication-assisted treatment
NPO	nonprofit organization
OAT	opioid agonist treatment
PWID	people who inject drugs
REDCap	Research Electronic Data Capture
WHO	World Health Organization
WHOQOL-BREF	World Health Organization Quality of Life Brief Version

Introduction

Drug dependence is a complex and multifactorial health disorder rooted in the intricate interplay of biological, psychological, and social factors. Drug use disorders tend to be chronic and relapsing conditions that require ongoing treatment services. The goal of interventions, which range from pharmacological to psychosocial approaches, is to enhance the health and quality of life for individuals with drug use disorders. The ultimate objective is to assist them in achieving recovery to the greatest extent possible (1).

Opioids continue to be the drug group causing the highest level of health harm in terms of deaths and disability-adjusted life years (DALYs), accounting for 69% of deaths due to drug use disorders and 40% of treatments for drug use disorders. Particularly vulnerable are the people who inject drugs (PWID) (2). As patterns of risk, psychological and social problems, and protective factors vary among individuals, no single treatment is effective for all. The rational management of opioid dependence includes a balanced combination of pharmacotherapy, psychotherapy, psychosocial rehabilitation, and risk reduction interventions (3). The pairing of psychosocial intervention with medication is referred to as medication-assisted treatment (MAT). In this report, the term "OAT" (signifying opioid agonist treatment) will be used to represent "MAT," in alignment with the EHRA study protocol and prior reports.

Opioid antagonist therapy (OAT) or opioid maintenance treatment (OMT), is an evidence-based and effective approach for addressing heroin and other forms of opioid dependence. It involves the administration of a prescribed psychoactive substance that is pharmacologically related to the one causing dependence, with specific treatment goals in mind. Suitable agents for opioid dependence are those possessing opioid properties, as they can prevent the emergence of withdrawal symptoms, reduce cravings, and counteract the effects of heroin or other opioids by binding to the brain's opioid receptors. Examples of opioid medications include methadone and buprenorphine, either alone or in combination with naloxone. Furthermore, because these medications are typically taken orally, they also help reduce the risk of infections associated with injection drug use. OAT plays a crucial role in community-based approaches to addiction treatment. Evidence strongly supports its association with significant reductions in illicit opioid use, criminal behaviors, overdose deaths, and activities with a substantial risk of transmitting human immunodeficiency virus (HIV) (3).

OAT is available in nearly every European prison. Providing OAT in prisons has proven to be a highly effective method for treating opioid use disorder. It also significantly reduces the risk of death in the first month after release. The continuous-care approach serves as a promising foundation for addressing other disorders or diseases (4).

As client satisfaction adds an important perspective to the evaluation of treatment programs, the World Health Organization (WHO) strongly advocates for measuring clients' treatment satisfaction to improve addiction treatment services. Furthermore, research suggests that a client's perceived satisfaction with the treatment is a key determinant of treatment success. Research highlights the correlation of client satisfaction with better treatment outcomes and dissatisfaction with prematurely leaving the treatment (1, 3).

Several validated tools have been developed to assess clients' treatment satisfaction with the OAT program. The current study is conducted using a research methodology and instruments developed by Eurasian Harm Reduction Association (EHRA) and focuses on the experiences and satisfaction of individuals receiving OAT. Similar studies carried out in countries like Georgia or Ukraine have shown that approximately 70% of OAT receivers are satisfied with OAT services (5, 6).

Research on the satisfaction with OAT is essential for several reasons. Assessing user satisfaction can provide insights into the effectiveness of OAT. Gathering feedback from OAT recipients allows treatment providers to identify areas for improvement, ultimately enhancing therapy programs to make them more effective and user-friendly. Understanding the perspectives of OAT recipients and addressing their concerns can help reduce the stigma associated with opioid use disorder and its treatment, encouraging more individuals to seek help without fear of judgment. Data on OAT recipient satisfaction can assist providers in tailoring treatment plans to individual needs, increasing the chances of success. Last but not least, focusing on the satisfaction of OAT recipients promotes a patient-centered approach to healthcare, recognizing the importance of involving patients in decisions about their treatment and care.

OAT in Estonia

Estonia is a northeastern European country with a population of 1.3 million people. It is notable for its high prevalence of HIV, injecting drug use, and a correspondingly high overdose mortality rate. The country has faced significant challenges related to substance abuse, particularly intravenous drug use, and the associated health issues. Efforts to combat these challenges have included harm reduction initiatives, such as medication-assisted treatment or OAT.

In Estonia, two general approaches are distinguished in OAT: detoxification and maintenance treatment. Detoxification programs can vary in duration, ranging from short-term (from 2 weeks) to long-term (up to 9 months). While short-term detoxifications are solely carried out in stationary settings, long-term detoxification programs can also be conducted on an outpatient basis. Opioid maintenance programs are ambulatory and available in multiple locations across the country, with ten centers offering these services as of September 2023 (7). As this study focuses on opioid maintenance programs, the term “OAT” is used below to refer to the services associated.

OAT in Estonia is funded through the state budget via the National Institute for Health Development. Additionally, the treatment receives supplementary support from the budget of the Tallinn City Government. Methadone-based substitution treatment is available free of charge to all individuals, including those without health insurance coverage. The methadone used in OAT in Estonia (Methadone; G.L.Pharma) is in the form of a methadone hydrochloride solution concentrate with 1 ml containing 8.95 mg of methadone. The medication is administered orally and should be taken daily. Dosage is adjusted to fit the patient's needs and manifestation of withdrawal symptoms are taken into account (8).

Currently, buprenorphine is available in Estonia in two types of sublingual tablets: Bupensan and Suboxone. The latter, also containing naloxone, is suitable for individuals from 15 years old. Up until 2024 OAT with buprenorphine was self-funded, requiring clients to cover the cost of the medicines themselves. (7) As of 2024, buprenorphine-based medications is provided free of charge for certain patient groups.

In 2018, a report was published that described OAT patients and their adherence to treatment in 2016. Data were collected on all patients treated at ten centers. Services were provided

to 840 clients, with 74% being male and 26% female. The mean age of the participants was 35. At the onset of treatment, 87% of clients primarily used drugs via injection. Approximately 80% of the participants had undergone HIV testing, of whom 76% tested positive. The average duration of OAT treatment was 3.4 years (median 2 years) (9). The majority of OAT patients are diagnosed with mental and behavioral disorders related to opioids (F11), followed by having issues due to using multiple drugs (F19) (7). While latest data regarding OAT clients is lacking, in previous studies among PWID in Estonia, half of the participants stated that their primary source of income was state benefits, such as (disability) pensions or unemployment insurance (10, 11).

In 2022, approximately 650 individuals received OAT in Estonia, and OAT services were provided by a total of 13 institutions, including prisons. Table 1 below presents the community service providers, its respective county, the number of recipients, the proportion of all OAT recipients in the community, and in the last column, the respective number of participants in the current study. In addition to the facilities listed in the table below, treatment is also available at Pärnu Hospital. However, in very limited capacity and the patients are required to cover the costs themselves as it is not government-funded (7).

Table 1. OAT Providers in Community in 2022, the Number of Recipients, the Proportion of All OAT Recipients and Number of Participants in the Current Study

Service provider	County	Number of clients in 2022 (n)	Proportion of all OAT recipients in Estonia (%)	Planned sample size (n)	Final sample size (n)
Recuro Clinic	Harju	33	5,1	13	12
Wismari Hospital	Harju	102	15,8	39	36
West Tallinn Central Hospital, Psychiatric Centre	Harju	34	5,3	13	10
West Tallinn Central Hospital, Infectious Diseases Clinic	Harju	76	11,7	29	34
Health Clinic Elulootus	Harju	174	26,9	67	54
Health Clinic Corrigo	Ida-Viru	87	13,4	34	34
Aasa Clinic	Ida-Viru	24	3,7	10	9
Viljandi Hospital	Viljandi	64	9,9	25	24
Narva Addiction Treatment Center	Ida-Viru	50	7,7	19	20
Tartu University Hospital	Tartu	3	0,5	0	0
Total		**647**	**100**	**250**	**234**

As of the end of 2021, there were a total of 1,774 inmates in Estonian prisons, including five minors. Among the inmates, 4% (n=74) were females. Within the population of offenders, there is a high proportion of drug users, with an estimated ~46% of inmates having a substance use disorder. Estonian prisons have been offering OAT services, including both maintenance and detoxification programs, for over a decade. Currently, these services are available in all three facilities. Table 2 presents the numbers of individuals receiving opioid agonist treatment in prisons in 2022. While individuals can continue treatment initiated outside prison in any incarceration facility, only Tartu Prison provides the opportunity to begin OAT. This facility accommodates the most treatment spots and generally serves incarcerated individuals in need of such care (12).

Table 2. Prisons Providing OAT in 2022, the Number of OAT Recipients, and Participants in the Current Study

Name of the prison	County	Number of recipients (n)	Participants in current study (n)
Viru Prison	Ida-Viru	11	12
Tartu Prison	Tartu	5	7
Tallinn Prison	Harju	18	6
Total		**32**	**25**

The number of PWID with opioid use disorder in Estonia is unknown, but it is estimated to be around 6000. Similarly, the actual need for OAT services is not known, but it's certain that the target group size surpasses the number of OAT clients by several times. The number of recipients of opioid agonist treatment is estimated 800 to 1200 clients per year (considering those who seek treatment multiple times within a year) (13). The comprehensive report from 2016 underscored that for a long time, the main focus has been on expanding client numbers, sidelining critical factors like service quality, accessibility beyond Ida-Virumaa or Tallinn, and shifting client demographics, which received insufficient attention. Inadequate management and supervision of services have resulted in numerous issues. As a result, multiple previous service assessments have highlighted a lack of unified service framework, insufficient communication between entities, inconsistencies in documentation quality, limited treatment availability and capacity, and inadequate or absent psychosocial interventions. Training opportunities for staff are reported to be lacking and the reputation of the services is generally low. Additionally the average methadone quantity administered remains low, potentially impacting treatment effectiveness (12).

The discussion regarding the relatively low methadone dosage in some centers is also present in the clinical audit conducted in 2012, falling short of the recommended threshold of 60 mg in WHO guidelines. (14, 15). The issue was also highlighted in the 2018 report which stated that in 2016, the average initial methadone dose was 45 mg, and the average methadone dose in the final year of treatment was 57 mg. These dosages fell below the recommendations outlined in the international guidelines. Moreover, individuals receiving methadone doses below 60 mg were more likely to discontinue treatment prematurely (9).

In a prison setting, there are numerous issues, including differences in the quality and availability of services among various facilities, emphasizing the need for standardized rules and practices. Thus far the most comprehensive report pointed out a lack of communication between facilities, resulting in disparities between treatment and rehabilitation services in prisons and detention centers, which also differ from services provided outside detention facilities. Moreover, there's a shortage of evidence-based services and trained professionals such as social workers, case managers, and psychologists (12).

While maintenance therapy has been available in Estonia for over 20 years, there has been limited research on client satisfaction with these services. Specifically, there has been no research conducted on the satisfaction of incarcerated individuals receiving opioid maintenance therapy. Despite many programs, including OAT, being conducted in accordance with the latest guidelines, their popularity remains relatively low. It is speculated that this may be due to their perceived low quality, which is crucial for achieving positive treatment outcomes, including adherence to appropriate treatment doses and retention in treatment (16).

Although research of client satisfaction with OAT in Estonia is limited, the study concerning reasons for treatment discontinuation outside of prison included factors such as the absence of desired treatment results, negative attitudes and insufficient knowledge among the staff, the challenge of balancing work and substitution treatment, and instances where the staff did not respect the confidentiality of individuals' health information (12). The 2018 report pointed out that treatment discontinuation was most common in the first two years. Yet, 64% of clients stayed in treatment for at least a year, which was seen as a positive outcome. Treatment adherence didn't differ between men and women. However, individuals aged over 35 were more likely to stay in treatment for at least 12 months. To improve adherence, the report suggests focusing more on those with shorter treatment durations, younger individuals, lower dosage recipients, and those using non-injection methods for drug consumption (9).

Clinical Protocol for OAT in Estonia

The framework for OAT in Estonia is outlined within the clinical protocol, originating from 2013. This document, developed in collaboration with various stakeholders, including service providers, sets forth the guidelines and requisites for the program. Although the protocol designates buprenorphine as the preferred medication in certain cases, clients are responsible for covering the costs of the medication themselves. In other respects, the provided guidelines are considered generally followed. However, it's crucial to note that in Estonia, the actual content and volumes of OAT services for each client in every treatment center are not known. As a result, it's not possible to provide an overview of the overall usage of OAT services. In 2020, the Personalized Drug Treatment Register (NARIS) was launched. The aim of the new registry is to improve treatments for drug users in Estonia by collecting personalized data on treating mental and behavioral disorders caused by drug use (7).

The protocol states that, from the age of 18, substitution therapy with methadone is indicated for opioid dependence. For minors, buprenorphine is the preferred choice of medication. Before the commencement of treatment, a comprehensive evaluation of the patient is conducted. This evaluation encompasses several key aspects: the patient's history of opioid and other psychotropic or narcotic substance use, their physical and psychosocial condition, previous treatment experiences, and their level of motivation. Furthermore, external observation of the patient is carried out. It is advisable for the initial assessment to be completed within one day and to culminate in the development of a documented treatment plan, allowing for the immediate initiation of therapy. This treatment plan should be periodically reviewed and adjusted, with a minimum frequency of every three months. Additionally, a treatment agreement is established in collaboration with the patient (17).

Substitution therapy adheres to the principles of directly observed treatment (DOT). It is recommended to commence substitution therapy in an environment conducive to patient monitoring. The choice of the initial dosage takes into account the severity of the addiction and the patient's tolerance level. The primary objective during the initial two weeks of treatment is to stabilize the patient's condition. Before considering home-based treatment, patients must receive treatment in DOT settings for a minimum of six months. For motivational purposes, home-based methadone administration may be permitted for one or two days per week, and in exceptional

circumstances (e.g., for patients with long-term treatment stability), it may be extended for longer durations. In cases of side effects or inadequate treatment response, a switch from methadone to buprenorphine or vice versa may be necessary (17).

Pharmacological treatment is complemented by psychosocial support, which is provided to all patients undergoing substitution therapy. Psychosocial support encompasses a range of psychological and social interventions. Social interventions may include counseling and assistance with fundamental needs such as nutrition, clothing, accommodation, housing, employment, educational opportunities, as well as guidance in primary healthcare, facilitating social networks, and fostering relationships. Psychological methods may involve cognitive-behavioral therapy, motivational interviewing, and situation management. Institutions offering opioid agonist treatment services are not obliged to provide all the listed activities and services but are required to collaborate with local authorities and other organizations to tailor solutions to meet the specific needs of their patients (17).

The duration of substitution therapy is contingent on the patient's history of opioid use, physical and psychological well-being, and social circumstances. Substitution therapy programs should not impose mandatory treatment durations or maximum treatment lengths. The tapering of treatment doses at the end of therapy is gradual, taking into consideration the potential occurrence of withdrawal symptoms, and dose reduction should be halted if necessary. HIV-infected patients with opioid dependence should be granted priority access to services to prevent the transmission of HIV through contaminated injection equipment (17).

Research Design and Methodology

This study was conducted using the methodology titled "Assessment of Client Satisfaction with Opioid Substitution Program." The research program was initiated and developed in 2019 by the Eurasian Harm Reduction Association (EHRA), the Support, Research and Development Center in Ukraine, and a community of people who use drugs**.** The approach to this methodology is based on an equal partnership between the community of people who use drugs and/or receive OAT and professional researchers. The research methodology proposes a mixed-method approach, integrating both qualitative and quantitative methods. Within this framework, qualitative methods enhance comprehension of the subject and aid in formulating research questions. Furthermore, qualitative methods are employed to test research hypotheses and gain deeper insights into the factors that facilitate the implementation of evidence-based practices. As of 2023, similar studies have been conducted in Western Georgia, Moldova, Ukraine (Kyiv and Kyiv oblast), Belarus and Montenegro (18).

Research Team and Institutions Involved in the Research

The research had two principal investigators: Anneli Uusküla (MD, PhD), a professor of epidemiology at the University of Tartu, and Sigrid Vorobjov (MSc, PhD), a senior researcher and the head of the Risk Behavior Studies Department at the National Institute for Health Development. Both of the principal investigators have a long history of working with people who inject drugs and have authored many publications on the subject, including analyses on the quality of OAT services in Estonia.

Other research team members included Anna Markina (MA), a seasoned researcher at the University of Tartu's Faculty of Law with expertise in qualitative methods and experience in researching PWID and service providers; Maris Salekešin (MSc), a researcher at the Risk Behavior Studies Department at the National Institute for Health Development with extensive experience in working on the subject of risk behavior; and six individuals working at the NPO “Lunest”: Jelena Antonova (chairman of the board), Mart Kalvet (member of the board), Elena Borissenko (specialist), Rita Salin (specialist), Olga Bogdanova (specialist) and Aleksandra Iru (specialist).

The following institutions were involved in the research:

- Estonian Association of People who Use Psychotropic Substances “Lunest“, a nonprofit organization for psychotropic substance users in Estonia, with a mission to represent the interests and human rights and diminish discriminatory attitudes towards individuals who use drugs
- The National Institute for Health Development, a government established research and development body
- The Estonian Ministry of Justice
- Tallinn Prison
- Tartu Prison
- Viru Prison

Phase 1: Qualitative Component of the Study

The objective of the initial phase of the study was to gather contextual information about the requirements and anticipations linked to the OAT program. Gathering contextual information from OAT recipients and service providers contributes to understanding the OAT landscape, including its impact on individuals and the challenges faced by service providers. This data is used to tailor research instruments to the local context, providing researchers with culturally relevant data that ultimately improves the quality and interpretation of quantitative studies. Input is provided for translating the questionnaire into the local language(s) to ensure that: (i) respondents can understand and answer the questions accurately, taking into account colloquialisms; (ii) the questions are culturally sensitive and appropriate for the local population; (iii) the relevance of questionnaire items to the local context is evaluated, with modifications or replacements made to align with the specific experiences, norms, and practices of the Estonian OAT recipient population. The gathered data involved identifying which expectations were met by the treatment, as well as recognizing any issues encountered. Additionally, the communication dynamics between treatment providers and recipients were explored, along with gauging the overall satisfaction with the treatment.

This data was collected through semi-structured interviews conducted with OAT recipients (n=3) and personnel involved in the OAT program (n=4). The interviews were conducted either at the OAT program facilities or in the rooms of the NPO “Lunest”. The choice of location was determined by the interviewees. In all these locations, the interviewees were provided with privacy

and ensured safety. The interviews were carried out either in Estonian or Russian language in autumn 2022. The qualitative aspect of the study was carried out by Anna Markina and Sigrid Vorobjov. The semi-structured interview guidelines for both OAT recipients and personnel involved in the OAT program, as well as the participant information sheet and consent forms, have both been included in the appendices.

At the beginning of each interview, the interviewer briefly introduced themselves and the study. The interviewee was also introduced to their role in the study and their rights. The interviewees were informed that their confidentiality would be guaranteed, and neither their names nor the names they mentioned during the interview would be published. They were emphasized on the importance of their personal perspectives, as there are no right or wrong answers. Additionally, they were explained that if they felt uncomfortable answering any questions, they had the right to leave them unanswered. The interviewees were asked whether they felt comfortable with recording the interviews. If the interviewees declined to be recorded, the researcher took notes by hand. Before each interview, every interviewee signed a consent form indicating they had been introduced to the study and were voluntarily willing to participate in it. The informed consents were also signed by the interviewer. The interviews were conducted in accordance with the instructions. Each interview lasted approximately 40 to 60 minutes. The recordings were later transcribed manually. Participation in the study was compensated with a supermarket voucher worth 15 euros.

- **The OAT recipients** who participated in the initial phase of the study were selected to ensure a diverse range of profiles, accounting for variations in gender, age, and experience with OAT. This included individuals who had temporarily paused their therapy. The selection process was a collaborative effort with NPO" Lunest" and their network of partners. To engage participants in the study, affiliated partners of NPO "Lunest" introduced the research to potential participants. Once potential participants expressed interest, interviews were scheduled at their preferred time and location. At the beginning of each interview, the interviewer explained the principles of confidentiality and the rights of the interviewees. It was emphasized that participation in the study was voluntary. The interviewer and the interviewee jointly reviewed the consent form, and participants were

given an opportunity to become familiar with the study's design and to seek clarification on any questions they had.

The inclusion criteria were as follows:
-Participants must be 18 years or older.
-Participants must be able to provide informed consent to take part in the study.
-Participants must be able to speak either Estonian or Russian.
-Participants must have received OAT.

The exclusion criteria were as follows:
-Participants who, according to the assessment of the study staff, were in any state of impairment (including being under the influence of alcohol or drugs) that prevented them from providing informed consent or participating in the study interview.

- **The personnel engaged in the OAT program** were selected from healthcare institutions, including prisons where detoxification or OAT programs are conducted. These institutions were collaborative partners of NPO “Lunest”. In order to involve individuals in the study, the researchers presented the study to potential candidates. If the personnel expressed interest in participating, interviews were scheduled. To avoid disturbing the personnel during their work, the interviews were not conducted while they were working. The interviewed personnel were recruited from various institutions, with some located in Tallinn and others in Ida-Viru County. Additionally, the institutions varied in terms of the number of clients they catered to, with some providing OAT for over 70 clients while others serviced fewer than 70 clients. The interviews were carried out with the personnel from following institutions: Health Clinic Elulootus (Harju), ReCuro Clinic (Harju), Health Clinic Corrigo (Ida-Viru), Narva Addiction Treatment Center (Ida-Viru).

  The inclusion criteria were as it follows:
  -Participants must be 18 years or older
  -Participants must be able to provide informed consent to take part in the study
  -Participants must be able to speak either Estonian or Russian

-Participants must work in OAT providing institution.

Phase 2: Quantitative Component of the Study

The aim of the second part of the study was to offer a comprehensive description of those undergoing OAT in Estonia, assess their satisfaction with the OAT treatment, and analyze the factors associated with the satisfaction. In the second part of the study, a cross-sectional study was conducted among people who receive OAT. In total, 259 OAT recipients, including 25 incarcerated persons, participated. The study subjects were recruited, and the data collection for the study was conducted from October 2022 to March 2023.

The interviews were conducted by workers from NPO “Lunest” who are experienced in working with OAT recipients. Prior to the interviews, the interviewers participated in training sessions in which the responsible researchers introduced them to the research, the principles of ethics and confidentiality within the study, and the basics of interviewing. "The interviewers were responsible for recruiting individuals to participate in the study. The sample was recruited from facilities providing OAT. It's important to highlight that the OAT-providing institutions did not share any personal information about the individuals receiving OAT at their program/institution with the interviewers. To recruit the participants, contacts from the NPO “Lunest” and its collaboration partners were also utilized. In addition to this, a social network-based snowball sampling method was used.

The research was introduced to potential participants. When OAT recipients were interested in participating in the study, meetings with the interviewers were scheduled. The interviews took place either in the facilities where the OAT program is carried out or in the rooms of NPO “Lunest”. The location of the interview was determined by the interviewee. At all these locations, the interviewees were ensured privacy and safety. To assess whether the potential participant actually received OAT, the interviewer asked specific questions to which only OAT recipients would know the answers. These questions were used to determine if the potential participant met the inclusion criteria for receiving OAT.

The inclusion criteria were as it follows:

-Participants must be 18 years or older.

-Participants must be able to provide informed consent to take part in the study.

-Participants must be able to speak either Estonian or Russian.

-Participants must receive OAT.

The exclusion criteria were as it follows:
-Participants who, according to the assessment of the study staff, were in any state of impairment (including being under the influence of alcohol or drugs) that prevented them from providing informed consent or participating in the study interview.

To participate in the study, each participant was assigned a unique pseudonym to prevent multiple participations. All codes were destroyed after the data gathering phase of the study ended. The participants were also informed about the study's purpose, potential benefits, and any potential risks associated with participation. Additionally, the measures taken to ensure confidentiality were explained. Prior to the interview, both the interviewee and interviewer signed informed consent forms. The interviews were conducted using Computer Assisted Self-Interviewing (CASI), where the interviewees were provided with a tablet to enter their answers directly into the REDCap database which is a secure web application used for creating and managing online surveys and databases.

The used questionnaire was structured, and the instrument used contained multiple-choice answer options and rating scales. Before the interview, the interviewer introduced the device to the interviewee, and during the interview, the interviewer provided assistance whenever questions arose. The interviews were conducted in either Estonian or Russian and typically lasted approximately 30 to 40 minutes. The interviews focused on the subjects' drug use habits, experiences with OAT, and their personal views on their health and quality of life (including questions from WHOQOL-BREF Questionnaire). The interview form, along with the participant information sheet and consent forms, have both been included in the appendices. After the interview, each participant received a supermarket voucher worth 15 euros.

The study within prison facilities was coordinated (schedule organizing, ensuring the safety and security of both the researchers and the inmates, and managing logistics within the prison premises) with the Department of Prisons under the Ministry of Justice and the respective prison administrations. 9,7% of the interviewees (n=25) were incarcerated. As incarcerated individuals are considered a vulnerable group, special precautions were taken to ensure their participation was entirely voluntary. The interviews and informed consent were both obtained from the incarcerated individuals by study interviewers and not prison personnel. Incarcerated individuals were assured

that the information they shared would remain entirely confidential and would not be shared with prison personnel. The incarcerated individuals received a participation bonus of 15 euros' worth of snacks, coffee, and tea. The interviews in the prisons were conducted using pen and paper, and the answers were later entered into the REDCap database by the interviewers.

Data Analysis

Phase 1: Qualitative Component of the Study

The data gathered in the first, qualitative phase of the study was used to provide sufficient background on the issue and to interpret the findings gathered in the quantitative phase of the study. Conducting a non-formal analysis is a more flexible and open-ended approach compared to formal, structured methods. The researchers read through the transcripts multiple times to familiarize themselves with the content. Without a predetermined set of codes, the researchers identified words, phrases, or concepts that stood out and wrote short notes to capture their thoughts. They compared their findings among interviewers and discussed them with the study team.

Phase 2: Quantitative Component of the Study

Descriptive statistics are presented in frequency tables as absolute (n) and relative (%) frequencies. For some characteristics, the median and interquartile range (IQR) are provided instead. Logistic regression was utilized to analyze factors related to treatment satisfaction, calculating odds ratios (OR) with 95% confidence intervals (CI). The analysis was conducted using the data processing program Stata. The main outcome measure was the number of people satisfied with the received OAT services. The clients' perceived satisfaction with the services was measured using question O2., which asked, " How satisfied are you with the OAT service you receive?" The feature was categorized as binary: 1 - satisfied with the services (very satisfied, rather satisfied and moderately satisfied), 2 - not satisfied (rather dissatisfied and completely dissatisfied). The other measures were also researched as the questions elicited information on OAT receivers' demographics, health, drug-using patterns, and experiences with the OAT. The sample size for the qualitative component of the study was calculated based on the expected percentage of OAT receivers satisfied with the services (72%) and the desired estimation accuracy (±4.6%). The planned sample size of 250 is sufficient even if the percentage of OAT receivers satisfied with the services is significantly lower (30% with the estimation accuracy of ±4.6%). In 2022, Estonia had a total of 10 institutions, excluding those in prison settings, that provided OAT services. The goal of the current study is to ensure that individuals from each of these institutions are represented proportionally. The sampling among incarcerated individuals was a convenience sample, as the sample size was determined by those willing to participate in the study from all three prisons offering OAT.

Research Ethics and Confidentiality

The study was conducted in accordance to the international regulations for human research, primarily referencing the Declaration of Helsinki and the Oviedo Convention. Research approval was granted by the Research Ethics Committee of the National Institute for Health Development (protocol № 44, permission № 1121, 10.10.2022).

Participation in the study was entirely voluntary and maintained strict confidentiality. Participants retained the right to withdraw from the study at any point without affecting their treatment arrangements within an opioid agonist treatment facility. Prospective participants were introduced to the study's objectives, and upon enrollment, a comprehensive discussion of the information provided in the informed consent form took place, during which individuals were encouraged to raise any additional questions they had. The process of obtaining informed consent was formalized in writing and included signatures from both parties—the participant and the interviewer.

The researchers assert that the potential risks associated with the study are minimal, while the potential benefits are substantial. The study's burden consisted of responding to the survey. Given the sensitive nature of the subjects covered in the questionnaire, potential harm in the study primarily pertained to psychological discomfort arising from addressing delicate topics and the potential infringement on personal privacy. Concerns included apprehensions about the disclosure of questionnaire responses and research outcomes, as well as possible biased attitudes from external parties. To mitigate these concerns, data collection was carried out anonymously and storaged with confidentiality. Notably, the survey was conducted independently of the staff from opioid agonist treatment facilities. Prior to carrying out the survey, interviewers underwent comprehensive training in the ethical aspects of data collection. They gained the skills to navigate discussions around drug use, the accessibility of opioid agonist treatment, and other health service-related challenges with a nonjudgmental and direct approach.

The collected data was protected in full accordance with the specifications outlined by the Personal Data Protection Act. No personal data was acquired during the survey proceedings. The study ensured absolute anonymity for participants, preventing any collection of personally identifiable information. To ensure confidentiality, every participant was allocated an individualized non-personal code. At the culmination of the data collection process, the generated

codes were securely eliminated and replaced with non-personal equivalents. The consent forms were maintained distinctly from the interviews. Once the data collection phase was finalized, the informed consent documents were eradicated through a method of rendering.

The interviews gathered during the first phase of the study were manually transcribed and digitally stored on the secure server of the University of Tartu. Prior to transcription, the encrypted files were stored on a password-protected hard drive within the University of Tartu's server REDCap.

During the second part of the study, computer-assisted interviewing was employed. Interviewers were granted access to the REDCap system. To enter REDCap, user accounts were established. These accounts had designated roles, and access was authorized through ID cards or Mobile ID. Data access within the system was role-dependent, where a user's role determined the specific data, they could view or modify. Interviewers had access only to the data of the individuals they conducted interviews with. The interviews conducted with incarcerated individuals were documented on paper, and the gathered data was subsequently entered into the REDCap database (by M. Salekešin).

The data collected through the subjects' participation (including decisions to participate, dates, and places of participation) and the questionnaire are stored in encrypted form and password-protected on the hard disk of the University of Tartu's server REDCap. Access to aggregated data is granted only to the responsible researchers (A. Uusküla and S. Vorobjov) and principal investigators (M. Salekešin and A. Markina). The data gathered during the study, except for interview recordings, will be retained indefinitely for the purpose of conducting scientific research.

Results of Phase 1: Qualitative Component of the Study

The qualitative component of this study involved semi-structured interviews conducted with a total of seven participants. These interviews comprised three OAT recipients and four personnel members associated with the OAT program. The data collection took place during the autumn of 2022 and was conducted in either Estonian or Russian. The interviews primarily focused on topics such as available programs, treatment experiences (including enrolling in the program), expectations and shortcomings, and general satisfaction with the treatment. The semi-structured interview guides for both OAT personnel and recipients are accessible in the appendices. From the insights gathered through these seven interviews, the following summary emerged:

The Process of Enrolling in the Program

Most clients learn about the centers through word-of-mouth from fellow users and are motivated to join the program for various personal reasons, such as avoiding custody loss, financial needs, or staying away from criminal activities. The majority of clients hope to become drug-free by participating in the program. Employees emphasize that the client base is diverse, and the primary goal for clients is to alleviate withdrawal symptoms and eventually leave the program.

"We all know each other here. Well, maybe not all of us, but most of us have done some drugs; [...] it's a small town. I asked how to get to the program, they told me how and I just showed up and signed up." (OAT recipient 1)

"Client population is very different, the reasons for participating vary. Although the clients' desire is to be free from abstinence syndrome and leave substitution treatment, it is common for some to stay on methadone maintenance for longer." (Personnel 1)

"The program is a last resort to avoid imprisonment or very bad health." (Personnel 2)

Users describe the process of joining the program as relatively straightforward and easy: individuals need to be sober when they arrive and provide documentation for identity verification. An appointment is then scheduled with the center's psychiatrist, who serves as the gatekeeper for program entry. Seeing the psychiatrist immediately is often not possible due to the queue. During

the psychiatrist's consultation, the client's medical history is gathered, along with additional information about their background, previous legal issues, and past drug use. The psychiatrist also determines the initial dosage of methadone. Furthermore, blood samples are collected during this consultation to test for any traces of drugs in the bloodstream.

"First, the client calls to make an appointment. Due to the typical queue, immediate consultation with the psychiatrist is not possible. [...] A lower dose is initially prescribed, which is gradually increased until appropriate dosage is reached. Also, appointments are scheduled with available specialists: psychiatrist, psychologist, counselor." (Personnel 3)

Initially, clients need to visit the center daily, but the process is relatively efficient: they obtain a queue number, wait briefly, receive their methadone dosage, consume it on-site, sign for it, and then leave. If a client consistently demonstrates adherence, they may eventually receive methadone for home administration. Those with stable employment can receive several days' worth of methadone if they provide proof of their job. Exceptions are also made for special occasions, such as funerals and weddings. The program's guidelines and protocols are displayed on the walls and are explained during each visit, and consent is sought from the clients regularly.

"At the beginning, a client must pay daily visits, and the protocol is strictly followed. If the client has more than 5 absences, cooperation is discontinued. Absence is permitted if the client has a job. However, if the person does not attend due to drug and/or alcohol consumption, methadone is not given due to the high risk of overdose. If a substance is found in the analysis, cooperation is not immediately stopped as it is common for clients to use drugs at the beginning. Clients, in general, are afraid of being expelled from the program." (Personnel 3)

Upon entering the program, patients are referred to a psychologist, and social workers and other consultants involved in the process. Patients have access to the same resources for a limited

time after ending the treatment. In the event of a relapse, the entire process restarts from the beginning.

Expectations and Shortcomings

Similar shortcomings are evident among clients receiving different dosages. Improved psychiatric availability, especially with the option for Saturday appointments, could facilitate the adjustment process. The lack of flexibility in methadone distribution in terms of time and location, poses a significant challenge. The current commute routes to the nearest methadone center can take hours, hindering employment or requiring more flexible working hours. Morning hours are often overcrowded at the centers. It is also noted that unemployed clients attend the centers in the morning hours out of habit. OAT service providers concur that clients with stable employment would benefit from non-stationary rehabilitation programs, where post-rehabilitation services are more accessible and attainable.

"It takes about 45 minutes by bus to get to the OAT center, which is problematic. It's challenging to travel such a distance with a child who doesn't enjoy long bus rides. It's not always possible to leave my baby with their grandmother." (OAT recipient 3)

"If there is a valid reason, methadone will be provided for home use. Those employed will receive a 3-day dose based on a certificate proving employment. In exceptional cases such as weddings or funerals, a 3-day dose will also be provided. The rules are strict." (OAT recipient 2)

Both clients and employees frequently mention the lack of a comprehensive plan to facilitate gradual dosage reduction. This lack of a structured approach can lead to clients attempting to self-adjust their doses, potentially resulting in setbacks, such as increased pain. Simultaneously, there is a pressing need for control and monitoring of concomitantly used other medications such as tizanidine, tramadol, pregabalin among others, and their combined effects with methadone. Users frequently attribute various health problems to methadone consumption and its associated side effects.

"My current methadone dose is 65 units. When the dose was initially prescribed, I wasn't certain about the exact amount. I've received various dosages such as 115 or 76 units. When I receive methadone for home use, I tend to consume less, reserving it for days when the prescribed dose is inadequate and I feel unwell." (OAT recipient 2)

"My current dose is 40 units, which is sufficient. Initially, 25 units were prescribed, but it proved to be insufficient, especially during a crisis. [...] I prefer not to increase the dosage as it is challenging to reduce it later." (OAT recipient 3)

"The doctor gets the dosage about right, but it's always less than you need, it's not enough. You feel bad in the morning, even at night your legs start to twist." (OAT recipient 1)

Employees emphasize the flexibility of the system. It is possible to receive replacement therapy from other centers if the "home" center provides proof of program enrollment. Additionally, it's feasible to work abroad, as the State Agency of Medicines can issue permits for taking methadone in pill form out of the country, with the stipulation that the packaging must be returned. Notably, during the COVID-19 pandemic, methadone dosages were distributed for a week. At the time multiple overdoses occurred, which led to a reversion to the previous distribution system.

"A 4-day dose can be dispensed based on a medical protocol. In exceptional cases, when the patient and dose are stable, a 5-day dose is dispensed. [...] If the patient faces difficulty walking, they can come with a support person or methadone can be dispensed to a support person who must be a non-consumer—usually parents, rarely spouses. Employers have also visited for methadone." (Personnel 2)

"For employed clients, a family member can collect the medication, but this is often not possible for them. Occasionally, a consultant or support worker will deliver the medication to the client. In exceptional cases, official approval allows for deviations. However, there's a risk of other clients discovering this." (Personnel 1)

“We have clients who are working abroad. Clients working in both Finland and Sweden receive Suboxone or Methadone in the form of a pill on prescription. A prescription is issued if the person has been a client for a longer period.” (Personnel 3)

Currently, there is no delivery option available. However, due to an aging population, the prevalence of reduced self-independence, and the absence of supportive relatives, the need for such services is increasing. It is anticipated that the number of clients requiring replacement therapy but unable to access service facilities or lacking support persons will rise. Employees underscore the growing need for support personnel and skill training, given the wide array of social problems clients often present.

Mindsets Towards the Program

Clients’ express feelings of stigmatization and dissatisfaction with the documentation of their opioid maintenance treatment in the e-health register. Migrants, in particular, feel vulnerable due to concerns about potential deportation. Often, the primary way to secure employment is through personal connections or acquaintances. One client highlighted an instance where a child protection officer opposed methadone treatment and pressured the client to decrease their dosage. However, clients generally hold a positive view of the consultants' and employees' work.

"Before tackling obstacles within the system, there's another significant challenge – it's hard for clients to trust the new institution and its people. They anticipate being treated poorly. When people enter with a negative mindset, it's hard to motivate them. [...] Drug addicts face mistreatment; even child protection mistreats those undergoing treatment. Clients undergoing substitution therapy receive threats regarding potential child removal. They feel they are forced to hide their participation and ask the center not to notify child protection services. Too bad; the situation should be other way around." (Personnel 3)

Specialists working in the system acknowledge their job satisfaction but note that salaries are low. There is a lack of societal acceptance and respect for careers in this field. One significant

drawback is the limited availability of training and supervision to enhance personnel's skills in working with clients.

Furthermore, consultants, whose role includes acting as intermediaries providing guidance and advice to both clients and employees to prepare them for interactions with individuals grappling with addiction, frequently encounter difficulties in fully assimilating into the team. Although their contributions are highly appreciated by all stakeholders, building strong foundations and relationships with everyone is viewed as vital. Consultant services are extensively utilized after a proper introduction, with availability from 8 AM to 8 PM. Moreover, clients have the option to make calls outside of regular working hours in emergency situations involving ambulance or police services, among other urgent matters.

Additional Programs

To address their substance misuse problem more efficiently, some clients are simultaneously enrolled in multiple programs or have experimented with different approaches. These may include short-term and long-term detoxification programs, follow-up treatments aimed at preventing setbacks for individuals who have already undergone detoxification or rehabilitation or require support for social reintegration.

Results of Phase 2: Quantitative Component of the Study

In the second phase of the study, a cross-sectional study was conducted among individuals receiving OAT in Estonia. 25 of the 259 study subjects were incarcerated during the study period. The study subjects were recruited, and the data collection for the study was conducted from October 2022 to March 2023. The interviews were conducted either in Estonian or Russian language. In order to carry out these interviews, participants were equipped with tablets with an automated self-administered survey tool. The data collection process was overseen by personnel from the NPO "Lunest", individuals with extensive experience working with this specific cohort who had received additional training. During these interviews, comprehensive data were collected, covering various aspects, including clients' demographics, substance use patterns, experiences with the OAT program, and assessments of their overall health and quality of life. The questionnaire can be found in the appendices. Detailed information about the participating OAT providing sites can be found in the Table 1 and 2 in the previous chapters.

General Characteristics of the Study Subjects

In the following tables, 3 and 4, data from segment B of the questionnaires, titled "Demographic and Socioeconomic Variables," is presented. A total of 234 study subjects from the community and 25 from prisons were recruited for the study. The median age of the study participants was 40, with minimum and maximum ages of 24 and 62, respectively. Out of the study participants, 69.9% (n=181) were men, and 83.6% (n=214) were of Russian nationality. Among the study participants in the community, 44.4% (n=104) of those receiving OAT were currently employed, 83.9% (n=193) had health insurance coverage, and 74.4% (n=174) had a history of ever being incarcerated.

Table 3. General Characteristics of OAT-Receiving Individuals in the Community and in Correctional Settings

Characteristics	OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%
Social and demographic characteristics				
Median age (IQR)	40	(6)	39.5	(6.5)
Gender				
Men	159	67.9	22	88.0
Women	75	32.1	3	12.0
Nationality				
Estonian	23	9.9	2	8.0
Russian	191	82.7	23	92.0
Other	17	7.4	0	0.0
Other characteristics				
Covered with Estonian health insurance* *(yes)*	193	83.9	23	92.0
History of being held up in the detention facility or has ever been arrested *(yes)*	174	74.4	25	100.0
Median age first being held up in the detention facility or being arrested (IQR)	19	(5)	19.5	(7.5)
Total	**234**	**100.0**	**25**	**100.0**

- Other nationalities mentioned in the table 3 included: Ukrainian (n=4), Belarusian (n=2), Polish (n=1), Finnish (n=1), Korean (n=1), Lithuanian (n=1), Ingrian (n=1) and Kyrgyz (n=1)

Table 4. Sociodemographic Characteristics of OAT-Receiving Individuals in the Community

Characteristics	OAT recipients in the community	
	n	%
Current employment status		
Employed (incl. odd or temporary jobs)	104	44.4
Unemployed	50	21.4
Disabled	41	17.5
Other	39	16.7
Disability pension receiver *(yes)*	108	46.2
Perceived financial well-being		
Income is sufficient to live comfortably enough	17	7.4
Income is sufficient to make ends meet	54	23.6
Insufficient income, challenging to make ends meet	96	41.9
Inadequate income, challenging to manage	62	27.1
Primary residence in the last six months		
In one's own or in someone else's residence	194	83.6
In a shelter, social housing, prison or rehabilitation center	28	12.1
Without a fixed residence (residing on the streets)	7	3.0
Other	3	1.3
With whom has the subject been residing with in the last six months		
Alone	57	24.9
With a spouse or a partner	60	26.2
With a spouse or a partner and children	39	17.0
With parents	50	21.9
With friends	14	6.1
Other	9	3.9
Total	**234**	**100.0**

- 4 currently unemployed persons were registered at the Unemployment Insurance Fund. Other employment situations included being a homemaker and taking care of children or other family members (n=10), being a student (n=3) and receiving a pension (n=23)
- In the last six months, 23 individuals had been residing in a shelter or social housing, three in prison and two in a detoxification or rehabilitation center. Subjects also resided in the other cases with work colleagues (n=1) and solely with children (n=2)

History of Illicit Drug Use

In the following table 5, data from segment C of the questionnaires, titled "Drug Use," is presented. The average median age for first opioid use was 17 in OAT-receiving individuals in the community, and 16 for OAT-receiving individuals in correctional settings. It is important to note that none of the incarcerated individuals had injected drugs in the last 30 days nor were currently using medication not prescribed by the doctor.

Table 5. Drug Use in Individuals Receiving OAT in the Community and in Correctional Settings Prior to Incarceration

Characteristics	OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%
Has injected drugs in the last 30 days *(yes)*	92	39.5	0	0.0
Drugs injected in the last 30 days? *				
Amphetamine	54	62.8	14	56.0
Synthetic opioids	46	53.5	16	64.0
Benzodiazepines	27	31.4	3	12.0
Pregabalin	18	20.9	4	16.0
Poppy plant derivatives	6	7.0	5	20.0
Cocaine	6	7.0	2	8.0
MDMA/ecstasy	2		0	0.0
Other	23	2.3	8	32.0
Median number of days in the last 30 days injecting drugs (IQR)	5	(12)	0	(0)
Is currently using drugs not prescribed by the doctor *(yes)*	69	29.5	0	0.0
Non prescribed substances used				
Antidepressants	29	42.0		
Sleeping pills	48	69.6		
Painkillers	37	53.6		
Sedatives	28	40.6		
Other	7	10.1		

*For those in correctional settings, the main drug(s) that individuals used to inject before their incarceration

39.5% (n=92) of the study participants in the community had injected drugs in the last 30 days. The most commonly injected drug among OAT recipients in the community was amphetamine (62.8%, n=54). Before their incarceration, the OAT recipients in correctional settings were most commonly injecting synthetic opioids (64%, n=16).

Other drugs injected in the last 30 days in OAT-recipients in the community included THC, Buprenorphine and Methylphenidate and in 4 cases, individual reported injecting Methadone. Other drugs injected prior to the incarceration included heroin (n=5), Subutex and Methadone (n=2). One participant claimed not injecting drugs prior the incarceration. The individual reported using cocaine and α-PVP (alpha-Pyrrolidinopentiophenone).

Experiences with OAT Program and Additional Questions Regarding the Naloxone Program and OAT with Buprenorphine

In the following tables and figures data from segment O of the questionnaires, titled " Experience with the OAT program" and additional questions regarding the naloxone program and OAT with buprenorphine are presented. The following chapter includes selected specifics due to the abundance of data. Any data not presented in this chapter can be found in the appendices (Tables 1a, 2a, 3a, 4a). In the following Table 6, information about the necessary visits to OAT centers is presented. While OAT receiving incarcerated individuals must consume their daily methadone dose in the presence of personnel, those in the community have the option to receive additional doses in advance.

Table 6. Visiting the OAT Center Among OAT Recipients in the Community

Characteristics	OAT recipients in the community	
	n	%
Frequency of the visits to the OAT site		
Every day	77	32.9
Every 3 days	78	33.3
Every 5 days	35	15.0
Every 7 days	20	8.6
Other	24	10.2
Possible to receive future methadone doses for going on a vacation for 7 to 10 days *(yes)*	91	40.1
Possible to receive future methadone doses for spending the weekend away from OAT site *(yes)*	74	32.6
Possible to receive future methadone doses while on a sick leave *(yes)*	52	22.8
Total	**234**	**100.0**

In Figure 1 below, general characteristics associated with the OAT program are displayed. The first characteristic, regarding the introduction of rules, pertains specifically to the current program the clients are attending, while the other characteristics encompass the clients' experiences with OAT in general. Notably, 26.3% of all participants (65 in the community and three in

correctional settings) reported that the current OAT program they were attending, was their first. The mean number of times other participants had enrolled in the program before was 1.9. Out of those who had participated in the OAT program more than once, 21.7% reported that, in at least one case, they left the previous program voluntarily and 25.9% reported that they left the program because of the personnel who forced them to leave the program.

It's notable that while 77% of the participants in the community reported the introduction of OAT rules upon enrollment in the program, none in the prison settings reported the same. Although clients might have started their treatment in the community and continued it in prison, the situation is noteworthy, considering the potential differences in rules prison and community programs. Furthermore, only 16% of OAT clients in prison settings reported being familiar with the rules for leaving the program, emphasizing the previously highlighted issue. While 70% of OAT participants in the community reported satisfaction with the treatment duration, notably, only 30% in prison settings reported it. Of those dissatisfied with the duration of the OAT program, 94.3% (n=83) preferred a longer duration of the treatment, while 5.7% (n=5) preferred a shorter duration of the treatment. The percentage of OAT clients who have filed complaints about services is low, with only 7.5% in the community and 20% in prisons reporting having done so.

Figure 1. General Characteristics Associated to the OST Program

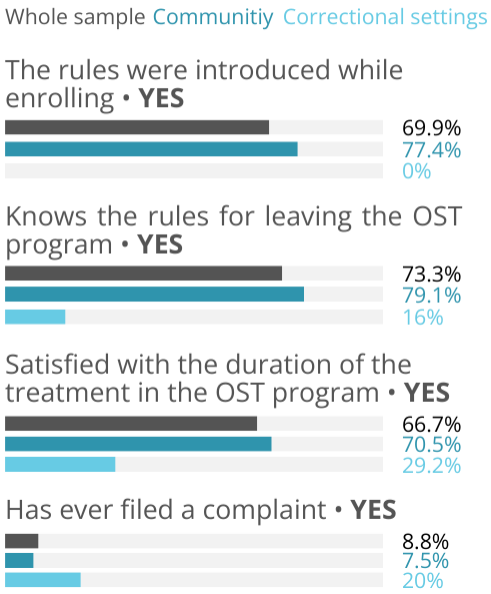


Figure 2 displays characteristics associated with the clients' current OAT program. While 15% of the OAT clients in the community and 44% in correctional settings reported dissatisfaction with their current OAT program, 64% in the community and 36% in correctional settings reported being rather or very satisfied with the program. Additionally, 55% of the OAT clients in the community and a quarter of the clients in correctional settings reported visiting the OAT site or room as convenient.

It is notable, that 7% of the OAT clients in the community and 80% in the correctional settings reported not being informed enough. Differences also occurred between the likelihood of filing a complaint as 22% of the OAT clients in the community and 63% in the correctional settings reported the likelihood to be more than moderate. Noteworthily 46% of the study participants reported not trusting the personnels ability to maintain confidentiality with 42% of the study participants in the and 80% of the study participants in the prisons.

Figure 2. Characteristics Associated to the Current OST Program

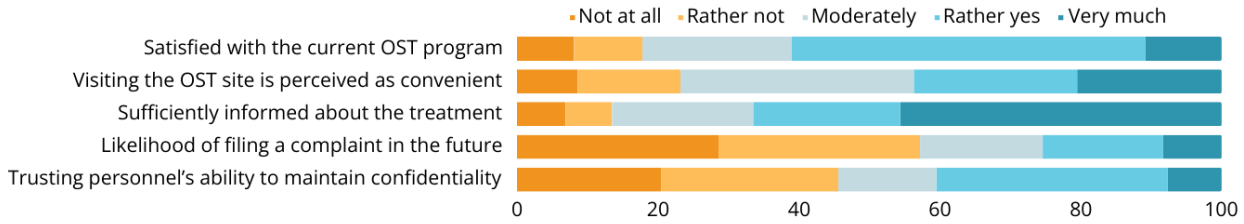
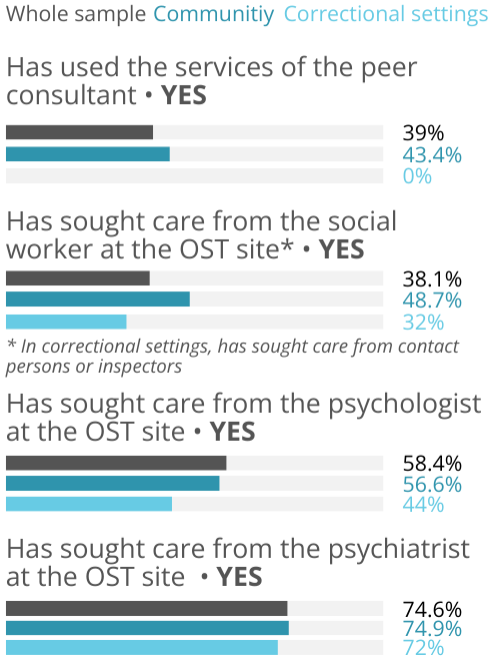


Figure 3 displays the utilization of specialists in the OAT program by OAT clients. None of the participants in the prisons had attended the peer consultants' guided support group, raising questions about whether these services are available in that setting. Additionally, 4.3% (n=10) of participants in the community and 52% (n=13) in prison stated the absence of a social worker, and in the case of prison settings, a contact person or inspectors working at the facility. Among the 57% of the participants in the community and 44% participants in the prison settings, who had utilized psychologist services, 15% and 80% respectively expressed dissatisfaction with these services. Moreover, 25% of OAT clients in the community and 55% in prison settings were dissatisfied with the psychiatrist services.

Figure 3. Utilization of Specialists by OST Clients within the OST Program



In the following Table 7, characteristics associated to the prescribed methadone and other drugs is displayed. The median methadone dose for the whole sample was 55 mg (mean dosage was 53.1 mg with minimum 0 mg and maximum 185 mg. It is important to note that the dosage was self-reported as it might not be in accordance of the real situation. Other medications prescribed in the community included pregabalin in 10 cases and tizanidine in six cases. Other medications prescribed in the correctional setting included pregabalin in nine cases, benzodiazepines in two cases, and antibiotics and antiretroviral therapy in one case.

Table 7. Characteristics Associated to the Methadone and Other Prescribed Drugs

Characteristics	Whole sample		OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%	n	%
Median dose (mg) individual is currently receiving (IQR)	55	(40)	50	(35)	50	(30)
Sufficiency of the prescribed dose						
Completely sufficient	133	51.3	117	50.0	16	64.0
Rather sufficient	64	24.7	62	26.5	2	8.0
Moderately sufficient	50	19.3	47	20.1	3	12.0
Rather not sufficient	11	4.3	8	3.4	3	12.0
Completely insufficient	1	0.4	0	0.0	1	4.0
Taking other medication prescribed by the doctor working in the OAT center *(yes)*	105	40.5	82	35.0	23	92.0
Medication prescribed by the doctor working in the OAT center						
Antidepressants	51	19.7	45	19.2	7	28.0
Sleeping pills	58	22.4	47	20.1	11	44.0
Painkillers	22	8.5	19	8.1	3	12.0
Sedatives	31	12.0	28	12.0	3	12.0
Other	22	8.5	11	4.7	11	44.0
Total	**259**	**100.0**	**234**	**100.0**	**25**	**100.0**

In the following Table 8, data from additional questions at the end of the questionnaire regarding OAT with buprenorphine and naloxone, is presented. Other reasons for discontinuing the buprenorphine-based OAT included the program's unavailability in prisons, challenges stemming from COVID-19, and allergies to the substance. Participants showed disinterest in the program due to their satisfaction with or participation in methadone-based OAT. Many mentioned the limited availability of information about buprenorphine-based OAT or its cost compared to the free methadone-based OAT. A few OAT recipients from Ida-Viru expressed interest in participating in the program but highlighted its unavailability in their region. Three incarcerated individuals reported that naloxone training is not provided in prison, four didn't consider the training necessary. One person mentioned that they had already received the training.

Table 8. Characteristics Associated with OAT with Buprenorphine and Naloxone in Individuals Receiving OAT in the Community and in Correctional Settings

Characteristics	Whole sample		OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%	n	%
Characteristics regarding OAT with buprenorphine						
Aware of the buprenorphine-based OAT program *(yes)*	143	57.7	130	58.3	13	52.0
Has participated in the buprenorphine-based OAT program *(yes)*	37	27.2	35	28.9	2	13.3
Reason(s) for discontinuing the buprenorphine-based OAT program						
Made the choice by oneself	4	17.4	4	19.5	0	0.0
Personnel decided so	2	8.7	2	9.5	0	0.0
The cost of the treatment	12	52.2	12	57.1	0	0.0
Treatment wasn't effective	2	8.7	2	9.5	0	0.0
Unpleasant side effects	1	4.4	1	4.8	0	0.0
Other reasons	4	17.3	2	9.5	2	100.0
Number of respondents	**23**		**21**		**2**	
Reason(n) for not participating in the buprenorphine-based OAT program						
The cost of the treatment	44	50.6	44	57.1	0	0.0
Treatment isn't effective	5	5.8	5	6.5	0	0.0
Unpleasant side effects	9	10.3	9	11.7	0	0.0
Other	31	35.6	21	27.3	10	100.0
Number of respondents	**87**		**77**		**10**	
Characteristics regarding naloxone						
Has participated in the naloxone training program *(yes)*	162	65.3	146	65.5	16	64.0
Currently owns naloxone kit *(yes)*			69	31.5		
Knows where to obtain one* *(yes)*			189	84.0	18	72.0
Is planning to apply for a naloxone kit and training prior the parole *(yes)*					14	58.3
Total	**259**	**100.0**	**234**	**100.0**	**25**	**100.0**

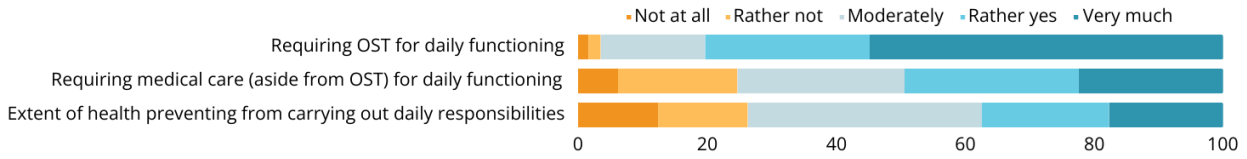
*****Incarcerated individuals were asked whether they knew how to apply for a naloxone kit and training prior the parole

Health and Quality of Life

The upcoming table and figures display data from segment T titled "Health Condition" and W titled "Quality of Life." As before, the following chapter includes only a few selected specifics due to the abundance of data. The information not visible in this chapter can be found in the appendices (Tables 5a, 6a, 7a and 8a).

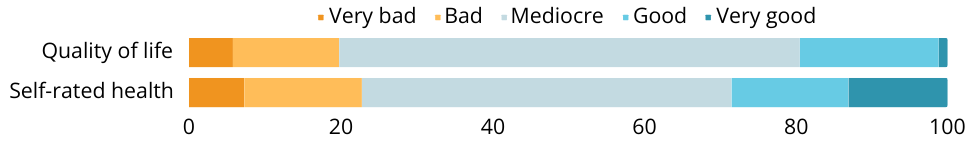
In Figure 4 below, clients' need for medical care and OAT is displayed, along with the extent to which health issues hinder individuals from fulfilling their daily responsibilities. It's apparent that OAT is crucial for clients, as only 3.5% of the respondents believe they do not require it for daily functioning. In contrast, 26% of the respondents reported not needing medical care for daily functioning. Simultaneously, health appears to be a significant concern for OAT clients, with 74% reporting that their health, to some extent, impedes their ability to carry out daily responsibilities.

Figure 4. Client's Need for Medical Care and OST, and Perceived Health-Related Barriers



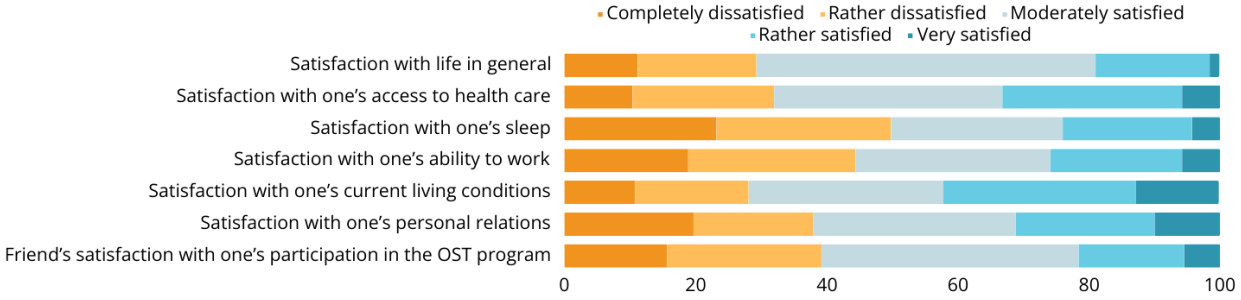
In Figure 5, the quality of life and self-rated health for the entire study sample are depicted. Concerning the quality of life among OAT participants, a majority of the individuals (62% in the community and 52% in correctional settings) reported it as mediocre. Additionally, a significant number of participants rated their self-perceived health as mediocre, with 49% in the community and 44% in correctional settings reporting this.

Figure 5. Quality of Life and Self-Rated Health Among Individuals Receiving OST



In the Figure 6, OAT client satisfaction with aspects related to quality of life, health, and environment is illustrated for the entire sample. Approximately 30% of the study participants expressed dissatisfaction with life in general, with 29% in the community and 32% in prison settings reporting this. Roughly half of the participants indicated moderate satisfaction, comprising 53% in the community and 44% in prison settings.

Figure 6. Satisfaction with Characteristics Associated to Quality of Life, Health, and Environment Among Individuals Receiving OST

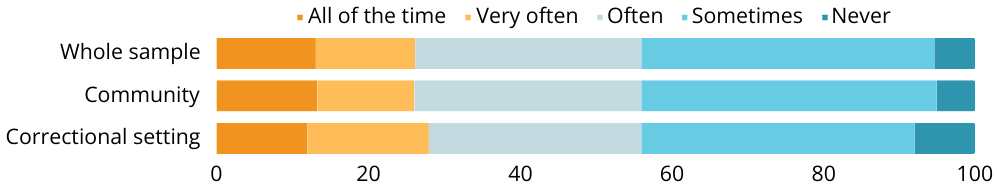


Regarding access to healthcare, 32% of the participants expressed dissatisfaction, with 30% in the community and 52% in correctional settings reporting this. Satisfaction with sleep was notably low, with half of the study participants reporting dissatisfaction (including 51% in the community and 40% in correctional settings). Additionally, dissatisfaction with the ability to work was significant, with about 45% expressing this (50% in the community and 28% in prison settings). The dissatisfaction with living conditions was also notable, reported by 25% in the community and over half in prison settings.

As seen in the Figure 6, about 40% of the study participants expressed dissatisfaction with their personal relationships. Additionally, a significant number reported disapproval from their close ones regarding their program participation, with 37% in the community and 62% in prison settings indicating this. Only 5.5% (n=14) of the study participants reported their friends being very satisfied with their program participation.

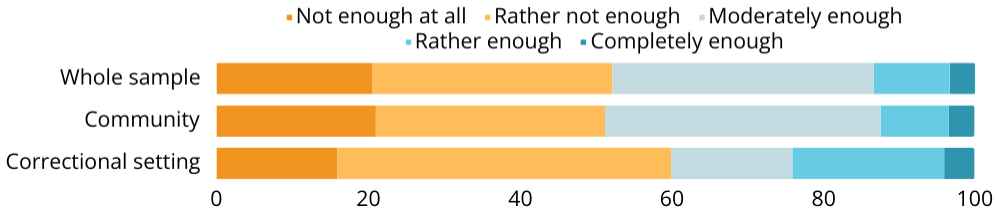
Roughly half of the participants reported insufficient funds to meet their needs, as seen in the following figure, with only 3.5% (n=9) expressing complete contentment with their financial situation. The percentage of individuals reporting insufficient funds was higher in prison settings, reaching 60%, compared to the community, where 51% of the participants reported this issue

Figure 7. Frequency of Occurrence of Negative Emotions Among Individuals receiving OST



In the following figure, the occurrence of negative emotions among study participants in the last 30 days is depicted. It's important to note that about a quarter of the study participants, comprising 26% in the community and 28% in prison settings, reported experiencing these emotions very often or all of the time. There were no notable differences in the occurrence of negative emotions between the community and prison settings.

Figure 8. Sufficiency of Money to Meet One's Needs Among Individuals Receiving OST



The study characteristics related to HIV and its coinfections are presented in Table 9. Among the participants, over half were HIV positive. Although their treatment adherence wasn't assessed, more than 90% reported currently undergoing antiretroviral therapy.

Table 9. Characteristics Associated with HIV, Hepatitis B and Hepatitis C in Individuals Receiving OAT in the Community and in Correctional Settings

Characteristics	Whole sample		OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%	n	%
Characteristics associated with HIV						
Has been tested *(yes)*	233	90.0	208	88.9	25	100.0
Is HIV positive *(yes)*	126	54.1	114	54.8	12	48.0
HIV positive and on antiretroviral therapy *(yes)*	118	94.4	107	93.9	11	100.0
Characteristics associated with hepatitis B						
Has received a vaccine *(yes)*	71	28.0	62	27.1	9	36.0
Vaccine has been offered by the OAT services *(yes)*	42	16.2	41	18.0	2	11.8
Characteristics associated with hepatitis C						
Has been tested *(yes)*	220	84.9	195	83.3	25	100.0
Last result was positive *(yes)*	135	61.4	116	59.5	19	76.0
Has received treatment* *(yes)*	71	54.2	65	56.0	6	40.0
Total	**259**	**100.0**	**234**	**100.0**	**25**	**100.0**

*Among those ever tested positive

Factors Associated with the Satisfaction of the Current OAT Program in the Community

Logistic regression was utilized to analyze factors related to treatment satisfaction, calculating odds ratios with 95% confidence intervals. The main outcome measure was the number of people satisfied with the received OAT services in the community. The clients' perceived satisfaction with the services was measured using question O2., which asked, " How satisfied are you with the OAT service you receive?". The feature was categorized as binary: (i) satisfied with the services (very satisfied, rather satisfied and moderately satisfied), (ii) not satisfied (rather dissatisfied and completely dissatisfied). Out of all the study participants in the community, 85.0% (n=199) were satisfied with the services, while 15.0% (n=35) were dissatisfied.

In Table 9a, which can be found in the appendices, both univariable and multivariable analyses are presented. Statistically significant odds ratios are highlighted in bold. In the univariate analysis, satisfaction with OAT showed significant associations with both individual and OAT-related factors such as service quality, perceived safety at the center, methadone dosage, and length of treatment. The role of personnel was substantial: individuals introduced to the rules upon entry, satisfaction with psychosocial support, trusting personnel to maintain confidentiality, and those satisfied with the services provided by psychologists and psychiatrists, showed higher satisfaction with OAT. Although participants' age was not associated with satisfaction, individuals new to the program and those reporting a better quality of life were more satisfied. It's worth noting that, in the univariate analysis, visiting a psychologist and psychiatrist was not significantly associated with higher odds of satisfaction with OAT, but satisfaction with the received services was.

Indicators from the univariable analysis, demonstrating significance with p-values below 0.2, were incorporated into a multivariable analysis. In the multivariate analysis, satisfaction with OAT was significantly associated with factors related to the OAT only. Specifically, individuals in the program for the first time, those who had the rules explained to them during enrollment, and those who believed that personnel kept shared information confidential had significantly higher odds of being satisfied with the program. Additionally, satisfaction with the OAT program was significantly associated with contentment regarding the dose and the duration of the treatment. Of those dissatisfied with the duration of the OAT program, 94.3% (n=83) preferred a longer duration of the treatment.

Discussion and conclusions

Estonia is a northeastern European country with a population of 1.3 million people. It has faced challenges related to intravenous drug use, particularly among marginalized communities. The issue has been addressed with numerous harm reduction interventions, including opioid agonist treatment (OAT), which has been available in Estonia for 20 years. Treatment with methadone is provided free of charge, regardless of an individual's health insurance status. Nevertheless, the popularity of OAT has remained low. Previous research in the field has identified several areas for improvement. However, the client satisfaction, a factor strongly associated with treatment success, has not been studied before. Besides providing a comprehensive scientific overview of client satisfaction with the services, this study provides the demographic, socio-economic, and health-related characteristics of OAT recipients in Estonia. These insights are crucial for effectively tailoring targeted interventions and support system

In 2022 OAT services were provided by a total of 13 institutions in Estonia, including prisons. The study encompasses proportionally 234 individuals receiving OAT in the community centers, and 25 receiving OAT while incarcerated. According to the study results, the typical OAT recipient is a 40-year-old male primarily of Russian ethnicity. From a socio-economic standpoint, 44% of the OAT recipients are employed, while around 20% are unemployed, and an additional 20% are unable to work due to disability. Moreover, 84% of them are covered by Estonian health insurance. Examining life experiences, 74% of OAT recipients in the community have experienced detention, typically for the first time around the age of 19. Financial challenges are prevalent, with 69% struggling to manage their income, and 3% lacking stable housing. Family ties are significant, with approximately 65% cohabiting with family members, including a spouse, children, or parents. At the same time, about 35% of the study participants admitted that their close ones are not satisfied with their participation in the OAT program. Approximately 70% of the study subjects rated their health as either bad or mediocre, and 75% expressed a need for some level of medical assistance to manage their daily lives. Notably, the percentage of study participants expressing a need for OAT was significantly higher, exceeding 95%

Regarding substance use, approximately 40% of OAT recipients in the community reported injecting drugs within the last 30 days. The most frequently mentioned substances included amphetamines and synthetic opioids, followed by medical drugs such as benzodiazepines and

pregabalin. Additionally, 30% of OAT recipients in the community reported taking medication not prescribed by their doctor, with over half of them taking sleeping pills and painkillers. While none of the study participants in prison reported injecting or taking non-prescribed medicines, 92% of them reported taking medicines prescribed by the OAT doctor, such as antidepressants and sleeping pills, compared to the 35% in the community, who reported the same.

In terms of OAT, the current mean prescribed methadone dose stands at 53.1 mg (median 50 mg). While half of the recipients deemed this dosage completely sufficient, 5% reported it as insufficient. Several previous studies have examined the issue of low methadone dosages in OAT in Estonia. For example, a 2018 report highlighted that a mean methadone dosage higher than 60 mg in the previous year was associated with better retention rates. In contrast, the mean prescribed methadone dose for OAT clients during the same period was 57 mg (median 50 mg). The data available in current research does not allow for an evaluation of dosage dynamics, which is important as the dosage is constantly adjusted during the treatment. Yet, the self-reported mean and median doses remain below 60 mg. Moreover, as highlighted in the 2018 report, lower methadone doses could also correlate with illicit drug use during OAT treatment, a subject addressed in the preceding paragraph.

About 75% of the clients perceived visiting the center as somewhat or very convenient and were satisfied with the physical environment at the site. It's noteworthy that while 85% of the study participants reported feeling safe during their everyday lives, 94%, reported feeling safe at the OAT providing facility. Every tenth client had ever filed a report regarding the services. However, the likelihood of filing a complaint appears to be low, as 57% of clients report that even if there were a need to file a complaint in the future, they would rather not do it.

Regarding knowledge of the program, 7% of OAT recipients in the community reported not being sufficiently informed, while 20% mentioned not receiving the guidelines or rules at the beginning. Similarly, 20% were unaware of the program's exit rules. The issue was more pronounced in prisons, where 80% of respondents lacked sufficient information, 16% were aware of the exit rules, and notably, no one received an introduction to the program rules at the beginning of their treatment.

While OAT facilities are expected to provide psychosocial services, they are not mandated to have the specialists providing these services employed in the centers, and the availability of

mentioned services is unknown. However, the self-reported utilization of specialists within the OAT seems to be low: 25% of the respondents reported never using psychiatrist services, 45% never using psychologist services, approximately half never utilizing social worker services, and 60% never using peer consultants' services. Additionally, half of the OAT recipients in prison mentioned there is no inspector or contact person working at the facility. Moreover, in prisons, none of the OAT recipients reported ever attending support groups led by peer consultants, indicating that these services are likely not offered. Nonetheless, the impact of personnel seems substantial, as 75% of the clients highlighted their significant role in program continuity. However, simultaneously, 45% mentioned they do not trust the personnel's ability to maintain confidentiality.

About 60% of the study participants had ever heard of the buprenorphine-based OAT, and 30% had ever tried it. According to the clinical protocol for OAT in Estonia, buprenorphine is the preferred medication in some cases; however, its cost might make it unattainable for many. Additionally, some study participants claimed that buprenorphine-based treatment is unavailable in their region. There are hopes that buprenorphine-based OAT will become free of charge in the future, which might change the OAT landscape in the coming years.

As for satisfaction with the current OAT, 82%, including 85% of the study participants in the community and 56% in prisons, were satisfied with their current OAT program. Satisfaction with OAT closely links to operational characteristics of the programs. Key factors encompass the clear communication of program rules upon entry, perceived service quality, a sense of safety at facilities, receipt of psychosocial support, and confidence in the secure handling of personal information by service providers. Additionally, individuals are more likely to be satisfied when they receive the optimal dose and duration of treatment and are first-time OAT clients. Although factors associated with OAT satisfaction had not been previously studied in Estonia, the study's results align with a previous investigation into treatment discontinuation, where factors such as the absence of desired treatment results, negative attitudes, insufficient knowledge among the staff, and instances where the staff did not respect the confidentiality of individuals' health information.

In considering the strengths and limitations of the study, the representative sample size, which includes a significant portion of OAT clients in Estonia, is worth highlighting. Regarding the limitations, while the opinions and experiences of OAT clients are highly valuable, certain aspects might be forgotten due to the potential prevalence of recall bias.

While engaging with OAT clients in prison, specific set of problems emerged. For example, some individuals hesitated to inquire about the naloxone program due to fears of early parole denial. Additionally, incarcerated individuals felt that being accepted into open prisons while undergoing OAT was impossible. These observations align with past reports that highlight inadequate communication between various correctional levels and the community, thus hindering the treatment objectives of incarcerated individuals. Furthermore, previous studies in Estonia have highlighted significant differences among service providers. For instance, individuals are less likely to discontinue their treatment in centers with fewer clients, or those that also offer antiretroviral therapy. Moreover, considerable variations in documentation and service quality among different centers have been emphasized. However, the current study does not examine these differences, and the data does not specifically focus on service providers. Instead, it provides a comprehensive depiction of clients' profiles and perspectives that can be applicable in any setting.

Based on the results of this study, the following concluding remarks are drawn:

- Collaboration and the exchange of experiences between service providers in community and prison settings are pivotal in fostering effective OAT services. This collaborative approach enhances the consistency of care, promotes the adoption of best practices, and ensures a seamless continuum of support for individuals transitioning between community and correctional settings.
- Updating and sharing OAT treatment guidelines are vital to staying current with the latest evidence, adapting to changing contexts, maintaining consistent care, optimizing outcomes, and fostering collaboration among service providers.
- Investing in the development, training, and support of staff providing OAT is an essential component to ensure the quality, safety, and effectiveness of addiction treatment services. It contributes to cultivating a more informed, compassionate, and skilled workforce capable of meeting the diverse needs of individuals undergoing OAT.
- Empowering staff providing involves fostering a supportive environment, offering opportunities for professional growth, and recognizing the significance of their role in the treatment process, which is needed for improved outcomes for individuals undergoing opioid agonist treatment.

Recommendations by The Estonian Association of People who Use Psychotropic Substances "Lunest"

Members: Jelena Antonova (chairman of the board), Mart Kalvet (member of the board), Elena Borissenko (specialist), Rita Salin (specialist), Olga Bogdanova (specialist) and Aleksandra Iru (specialist)

The Estonian Association of People who Use Psychotropic Substances "Lunest" has almost ten years of experience in defending the rights of people who use drugs. Their goal to reduce discriminatory attitudes towards people who use drugs has been noticed, leading to partnerships with various organizations in the field. The association has been instrumental in establishing support for the study within the community of service providers and service users. It played a significant role, particularly in the recruitment and conducting interviews during the quantitative phase of the current study. Leveraging their extensive experience and the study's findings, the following practical recommendations have been proposed to modernize and enhance the system, offering more evidence-based and human-centered services.

1. To ensure consistent and evidence-based care aligned with the latest recommendations, the **Clinical Protocol** for OAT from 2013 requires updating to ensure it aligns with evidence-based practices, maintains transparency, and remains applicable to real-world clinical and organizational settings. The guideline should explicitly delineate internal regulations governing the operations within OAT centers, as well as articulate guidelines or rules specifically intended for the patients. To maintain quality standards and facilitate the continuity of care, it's crucial to follow the Clinical Protocol for OAT in all facilities providing these services, whether in community settings or within prisons or detention centers. Also, internal regulations within the facilities must be aligned with and should not contradict the Clinical Protocol.

2. In **compliance with the United Nations Office on Drugs and Crime document** "Establishing and delivering evidence-based, high-quality opioid agonist therapy services" from 2022 (19), the following changes should be implemented:

    - *Drug use during treatment should not be a basis for discontinuing treatment.* While urine drug tests, with the patient's consent, can be a standard clinical intervention, it

should not be used for punitive measures or as a threat to the continuation of OAT, as it has been so far in Estonia. A positive drug test should be the basis of a discussion between a provider and a patient regarding whether the (methadone) dosage is appropriate.

- *Programs should be based on a maintenance approach, with no limitations regarding the length of treatment.* More than 30% of current study participants express dissatisfaction with the treatment duration which is associated to their overall satisfaction with OAT. Presently, there seems to be an expectation for patients to be on OAT for a limited duration of time.

3. To improve **service quality and reduce discrimination**, OAT provision sites personnel should have professional education and receive ongoing training on modern treatment approaches in OAT, human rights, and contemporary drug policy. Training should include prison staff, fostering improved attitudes, reducing discrimination, dispelling misconceptions, and enhancing access to OAT for those in need (20). Currently, personnel training is managed by The National Institute for Health Development. In the future, community representatives with OAT experience should be involved as well.

4. Ensuring the **patients' right** to be informed about the services is crucial and shouldn't be overlooked by the personnel.

    - The current study statistics, indicating that 70% of individuals were introduced to the program's rules upon program entry and only 65% feel sufficiently informed, raise significant concerns that demand attention. The issue was particularly noticeable in prison settings, where none of the individuals receiving OAT had the rules explained to them at the beginning of OAT. The program rules should be conveyed to participants through face-to-face interactions. Although the rules for the program participation are usually displayed on the centers' walls, they remain difficult for clients to comprehend.

It's crucial for the personnel to acknowledge that clients require assistance and explanations to navigate the system effectively.

- Currently, OAT facilities primarily emphasize rules with punitive measures, but there's a need to transition towards recognizing patients' rights. Individuals with substance use disorders, a vulnerable group, often encounter discrimination. Highlighting the importance of their rights helps establish a supportive environment, crucial for them to seek assistance and access resources without fear of judgment or mistreatment. The matter is especially critical in prison settings, given the heightened vulnerability of individuals in these environments. For example, it's crucial to inform patients about how their participation in OAT could impact their chances of transferring to open prisons or obtaining early parole.

- The study revealed that only 9% of the study participants had ever lodged a complaint, and more than half of the patients perceived the likelihood of filing a complaint as low. Informing patients about their rights should encompass their right to file complaints. Patients should be able do it anonymously without facing repercussions. This is especially crucial for individuals in extremely vulnerable positions, such as those in prisons. Additionally, addressing complaints should be handled in a respectful and effective manner.

5. According to international **recommendations for** OAT **in custodial settings**, patients adhering to the rules outlined in their therapeutic agreements should have the same privileges as other prisoners (20). Guidelines in Estonia suggest that obtaining early parole or transferring to open prisons is possible for prisoners with substance use disorder receiving drug treatment, but certain exceptions exist. For instance, individuals with drug addiction are not allowed placement in open prisons when their sentence lasts less than a year (21). During interviews for the study, some imprisoned individuals expressed feeling denied early parole or access to open prisons entirely. It's uncertain whether these individuals are misinformed about their rights, experiencing discrimination, or both. Nevertheless, this issue highlights the urgent need for clear communication and concerted efforts to reduce stigma and discrimination within prison settings

Roughly half of the recipients in prison reported that there is no designated contact or inspector within the prison dealing with the services. This absence implies inadequate oversight of services, leaving prisoners without a point of contact for addressing their treatment-related concerns. To improve services in prison facilities, it's essential to have appropriate personnel for overseeing and managing these services.

6. Despite the Clinical Protocol for OAT mandating that all facilities offering OAT should provide variety of psychosocial services, the accessibility and quality of these interventions differ significantly. In some cases, these services may even be insufficient or entirely absent. Ensuring access to peer counselors, social workers, or mental health professionals such as psychiatrists and psychologists is crucial. These services need to be of high quality and easily accessible. Also, encouraging patients to seek help is important, and it's essential to address any potential stigmas associated with doing so.

7. Although initial training and team involvement are necessary for providing **peer support** as a service, the experiences of peer supporters within the OAT system may be inadequate. To ensure quality care, individuals offering peer support should possess firsthand experience within the OAT services. It's crucial to acknowledge and fortify their role as they significantly aid OAT clients, guiding them through the system and providing vital emotional support. Access to peer counselling should be available regardless of whether individuals are receiving OAT in community or prison settings.

8. Both OAT facilities and OAT **service content should be better tailored to meet the specific needs** of vulnerable patient groups. There are numerous examples supporting this sentiment, such as:
    - The physical environment should be compatible with the aging client base, providing opportunities for sitting. This is crucial as some clients might need to rest their legs before and after commuting far from home.

    - It should be acknowledged that women addicted to drugs constitute a particularly vulnerable group, facing a higher risk of experiencing violence or abuse, economic

instability, and challenges associated with parental responsibilities. Services should implement necessary measures to support this group and address their needs, for instance, through increased meetings with a social worker.

- OAT clients with custody of children, irrespective of their gender, require a personalized approach as traditional treatment approaches may not support their navigation within childcare, work, and OAT participation. Special arrangements should be provided as necessary. Measures should be taken to assist with childcare and OAT, such as creating special waiting areas for individuals with children. If necessary, amenities like baby changing stations or nursing rooms may also need to be added.

- Prisoners should be provided a comfortable space and privacy to take medications. According to the OAT guidelines for custodial settings, other prisoners, or even staff, should not know of others OAT participation it as it might lead to negative consequences. However, informing properly trained guards and other staff involved in work can be useful (20).

References

1. World Health Organization and United Nations Office on Drugs and Crime. International Standards for the Treatment of Drug Use Disorders. 2020.
2. UNODC. World Drug Report 2022. 2022.
3. World Health Organization, United Nations Office on Drugs and Crime, and UNAIDS. WHO/UNODC/UNAIDS position paper: substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention. 2004.
4. Stöver H. Promoting professional behaviour change in prevention and health promotion. Oral presentation at European Conference on Addictive Behaviours and Dependencies. 2022.
5. Javakhishvili et al. Survey of Client Satisfaction with Opioid Substitution Program in Western Georgia. Eurasian Harm Reduction Association, Ilia State University. Vilnius, Lithuania. 2021.
6. EHRA. Survey of client satisfaction with opioid maintenance therapy (OMT) services among patients of OMT programs in Kyiv and the Kyiv Oblast region. Pilot study report. Vilnius: EHRA; 2020.
7. Tervise Arengu Instituut. Narkomaaniaravi. 2022. Available from: https://www.tai.ee/sites/default/files/2022-05/TAI_Narkomaaniaravi%20_210x297.pdf
8. Eesti Ravimiregister. Methadone G.L.Pharma. Ravimi omaduste kokkuvõte. 2017. Available from: http://ravimiregister.ravimiamet.ee/Data/SPC/SPC_1739954.pdf
9. Vorobjov, S, Salekešin, M. Metadoonasendusravil olevad kliendid ning nende ravijärgimus, 2016. Tallinn: Tervise Arengu Instituut; 2018.
10. Salekešin M, Vorobjov, S. HIVi levimuse ja riskikäitumise uuring narkootikume süstivate inimeste seas Kohtla-Järvel 2020. Tallinn: Tervise Arengu Instituut; 2021.
11. Vorobjov S, Salekešin M. HIV levimuse ja riskikäitumise uuring Tallinna narkootikume süstivate inimeste seas 2017. Tallinn: Tervise Arengu Instituut; 2018
12. Keskus TÜ sotsiaalteaduslike rakendusuuringute. Narkosõltlastest õigusrikkujate sõltuvusravi ja rehabilitatsioon Eestis. 2016.
13. Rahlin B, Redlich K, Lehtmets A, Juus E, Kiivet R-A. Buprenorfiini kasutamine opioidsõltuvuse ravis. TTH46. Tartu Ülikooli peremeditsiini ja rahvatervishoiu instituut; 2020.
14. Keldrima T, Eik E. Metadoon – asendusravi teenuse kliiniline audit. Tervise Arengu Instituut, 2013
15. World Health Organization (WHO), Department of Mental Health, Substance Abuse, World Health Organization, International Narcotics Control Board, United Nations Office on Drugs, and Crime. Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence. WHO Press; 2009.
16. Corsi KF, Lehman WK, Booth RE. The effect of methadone maintenance on positive outcomes for opiate injection drug users. Journal of Substance Abuse Treatment. 2009;37:120–126.

17. Tervise Arengu Instituut. Opioidsõltuvuse asendusravi: kliiniline protokoll. 2013.
18. EHRA. Assessment of client satisfaction with OAT program. [Internet] Available from: https://harmreductioneurasia.org/harm-reduction/OAT/OAT-assessment-methodologies/assessment-of-client-satisfaction-with-OAT-program
19. United Nations Office on Drugs and Crime, World Health Organization. Establishing and delivering evidence-based, high-quality opioid agonist therapy services: An operational tool for low- and middle-income countries. UNODC, Vienna; 2022.
20. Stöver H, Kastelic A, Pont J. Opioid substitution treatment in custodial settings: a practical guide. 2012.
21. Sisekaitseakadeemia. Korrektsiooniline sotsiaaltöö: rakenduskõrgkooli õpik. Tallinn: Sisekaitseakadeemia; 2017.

Appendix I: Semi-Structured Interview Guide for OAT recipients

Please, tell me about yourself and your family. Are you currently employed? If yes, where are you working? What has been your experience with drug use?

Treatment-Related Needs and Expectations

Please, tell me how you came to the OAT program. What was happening in your life during that period? Where did you get information regarding OAT? Did you have any experiences with using medications, including opioid substitution medications, for non-medical purposes before seeking OAT services?

Did you have any experiences with addiction treatment before participating in the OAT program? Have you needed any other treatment in addition to OAT?

Please, elaborate on the process of joining the OAT program. Did anyone (family, friends, acquaintances, social workers, healthcare professionals) assist you in joining the program? What were your initial experiences? What obstacles did you encounter? Did anything (good or bad) happen when joining the program that you did not expect?

What did your relatives/close ones think about you starting substitution treatment? Did they support you or oppose the idea? Did you have any expectations regarding your employment, education or qualifications?

Relationships with Personnel and Other Patients

Please, describe in more detail how you receive your substitution treatment. How does it work? How do you visit the OAT site? How and with whom (doctors, social workers, fellow patients) do you communicate while at the facility? How do you spend your time after taking the substitution medication? How would you prefer to spend time after taking the medication?

Please, tell me more about your interactions with the nurses, doctors, and social workers at the OAT site. Do you receive any additional services at the facility in addition to substitution treatment? Have you approached the facility's personnel or visited social workers with any

additional questions or requests? If yes, please elaborate. Have you heard of any other patients requesting additional services? If so, what were they, and how did the personnel react?

Please, explain how do you understand the OAT process. Has anyone explained to you how the treatment takes place, what are the objectives of participating in the program, and possible deadlines? What are the options for voluntary discontinuation of treatment services? Is there an opportunity to be referred to other programs? What do you know about these programs?

Patient Satisfaction/Dissatisfaction with OAT During Treatment

Please, explain how your medication dose was determined. Is the prescribed dose currently sufficient for you or was it sufficient at the time it was prescribed? Have you ever wished to receive a different medication or to have it dispensed differently? Have you made such a request to the personnel? If yes, please elaborate. If your requests were granted, why do you think that happened? If they were denied, why do you think that happened? How did you personally resolve the issue? How do other patients handle similar problems?

Please, tell how patient behavior is controlled at the OAT site? Is it easy or difficult for you or other patients to comply with existing rules? Why is it so? Do you have personal experiences with violating these rules? If yes, please elaborate. Are the rules at the OAT site standardized or informal? In your opinion, does the personnel sometimes break any of these rules?

Have you sought external help to resolve problems that have arisen at the OAT site? Please elaborate.

Participation in Specific Services Provided by the OAT Program / Refusal to Participate

Please, talk about your experiences with discontinuing OAT or other services offered at the facility. Was the decision to discontinue the service your own, or made by the personnel? Please elaborate on the topic. What happened afterward? Did you resume drug use? Did discontinuing the service lead to remission (i.e., did your symptoms disappear or weaken)? Did you seek rehabilitation services? Did you return to OAT? How do you perceive whether your experience with discontinuing treatment is unique, or do other people face similar issues?

Changes Over Time in Expectations/Needs/Perceptions Related to Participation in OAT Program

To what extent does your current participation in the OAT program align with your initial expectations? Have you been able to fulfill the expectations you had before starting the substitution treatment? Which expectations have been successfully met, and which have not? Have new needs emerged? Do you think other patients are in similar or different situations? Is there anything you would like to change about the program? Are there any services that, in your opinion, should be added to the program to better meet your own and your fellow patients' needs?

Would you recommend opioid-using acquaintances, friends, or relatives to seek opioid substitution treatment services? Why? Who would you recommend the services to, and who would you not recommend them to?

This concludes our conversation.

Thank you very much.

Appendix II: Semi-Structured Interview Guide for OAT personnel

Please, tell us what you do, where you work, and what is your experience in working with people who use drugs?

Patients' Treatment Needs and Expectations

How would you characterize the people who seek OAT? At what stage of their lives do they seek it? How do they become aware of it? What circumstances motivate them to seek treatment? How are patients' close relatives and/or family members involved in the treatment process? How does the referral from one substitution treatment service to another work? Is it in your opinion satisfactory or not?

In your opinion, what are the expectations and needs of patients joining the OAT program at the time of enrollment? To what extent does the program meet these expectations? What needs can OAT programs, in your opinion, satisfy?

Initiation Process of OAT program

Please, provide more details on the initiation process in the OAT program. What are the most common obstacles that patients encounter during this time, and how can they be overcome? How is the dosage of medication determined? How does it change over time?

What internal regulations are in place at the OAT site, and how are they introduced to the patients? In your opinion, is it easy or difficult for patients to comply with these rules?

Could you elaborate on the topic of OAT course? What are the options or deadlines for discontinuing participation in the OAT program? What options are there for voluntary termination of treatment or for referring patients to other services? What organizations or programs do you collaborate with? Do you believe it's possible to change or improve this, and what would be needed for that?

Please, explain how you communicate with patients and other individuals interested in the service (patients' relatives, friends, social workers, doctors, etc.). What questions are asked of you? What requests are made of you? Do you help resolve current issues for patients? If so, how?

Patient Satisfaction with Participation in Opioid Substitution Treatment

To what extent does the OAT program help satisfy the needs of patients? What specific needs can be met by participating in the program, and which ones cannot? In your opinion, are the services offered in OAT programs sufficient? What would you like to add, remove, or change?

This concludes our conversation.

Thank you very much.

Appendix III: Participant Information Sheet and Consent Form for the Phase 1

PARTICIPANT INFORMATION SHEET AND CONSENT FORM

You are invited to join a study aimed at evaluating the satisfaction of participants in substitution treatment programs with the services they receive.

This study is funded by the Eurasian Harm Reduction Association. In Estonia, the study is conducted in collaboration between the Estonian Association of People who Use Psychotropic Substances “Lunest“, the Institute of Health Development, and the Institute of Family Medicine and Public Health at the University of Tartu.

In Estonia, in 2022, approximately 650 individuals receive OAT, and the treatment is provided by 10 different institutions. In order for researchers to better understand the experiences of both OAT recipients and providers, individual interviews are conducted. The aim of these interviews is to gather information regarding experiences, evaluations, and the health and quality of life of those involved in OAT. Such information is crucial for the assessment and improvement of the opioid substitution treatment service.

You are invited to participate in this study.

To decide whether you wish to participate in the study, you need to understand what it means for you. The possible risks and benefits associated with such participation are explained. This will help you make an informed decision about whether you want to take part in the study. You will receive comprehensive information about the research, and the interviewers will be ready to answer your questions. Afterward, you can decide whether you want to participate in the study. If you are certain you want to participate, you will be asked to sign a consent form, which will also be signed by the interviewer.

It is very important to know that the participation in the study is voluntary.

What Happens if you Decide to Participate in this Study?

To participate, you are asked to take part in an interview and discuss the topics presented in the interview guide. The conversation that takes place during the interview will be recorded with an

audio recording device. Based on the recordings, the interview will be transcribed (written down), after which the interview recording will be destroyed. The interview transcript does not contain information that would allow personal identification. The transcripts are securely stored on the University of Tartu's server, to which external users do not have access. The interview is expected to last approximately 40-60 minutes. If you are employed, the survey will be conducted at a time suitable for you outside of working hours.

Are there any Potential Benefits in Participating in the Study?

Participating in the study may not offer you immediate benefits. However, the information collected within the research can help improve the quality of OAT services provided in Estonia. The results of the study may contribute to a better understanding of how to offer better counseling and treatment to individuals receiving treatment.

To cover potential time and travel expenses associated with participation in the study, you will be provided with a 15€ gift voucher for the Maxima grocery store. The compensation will be given to you after the survey is completed. If either party has to discontinue the survey for any reason, the compensation will still be provided in full.

Participant Rights in the Study

Participating in the study, in no way, restricts your rights. You have the right to ask questions from the research team members and receive answers from them.

Voluntary Participation in the Study / Withdrawing from Participation in the Study

Your participation in this study is entirely voluntary. You have the authority to withdraw your participation at any stage of the interview. Giving informed consent to participate in the study does not affect your legal rights in any way. If you choose not to participate in the study, all information provided by you up to that point will not be used in the study.

Risks

The risks associated with participating in the study are related to your anonymity and the confidentiality of the collected data. Participation may also be associated with psychological risks

since the study addresses sensitive topics, such as drug use and participation in opioid substitution treatment services or other healthcare services. Below, the measures implemented by the research team to ensure your privacy and reduce potential discomfort associated with participating in the study are listed.

Participation in the study is anonymous. Data that could be used to identify you will not be collected. The interviews are conducted by researchers from the Institute of Health Development and the University of Tartu, who are not involved in the day-to-day operations of the OAT centers.

Regarding confidentiality, all necessary measures have been taken to protect the confidentiality of the information you share. In all stages of data processing, each participant has been assigned an individualized non-personal code to ensure confidentiality.

To minimize potential discomfort that may be associated with discussing drug use and the use of opioid substitution treatment services, interviewers received training on data collection ethics before the start of the study. They have learned to discuss drug use, the use of services provided by OAT, and other healthcare-related issues openly and without judgment.

Whom to Contact for Questions or Concerns?

Jelena Antonova, the chairman of the board of the Estonian Association of People who Use Psychotropic Substances “Lunest“, is available to answer questions regarding this study. You can reach her by phone at [*xx xxx xxx*]

Once you have read this informed consent form or it has been read to you, and you have received answers to all your questions, and you agree to participate in the study, please write your name, signature, and the date in the space provided below the document.

Participant's Signature

_____

Date:

Name and Signature of the Employee Accepting the Consent Form

_____

Date:

Appendix IV: Participant Information Sheet and Consent Form for the Phase 2

PARTICIPANT INFORMATION SHEET AND CONSENT FORM

You are invited to join a study aimed at evaluating the satisfaction of participants in substitution treatment programs with the services they receive.

This study is funded by the Eurasian Harm Reduction Association. In Estonia, the study is conducted in collaboration between the Estonian Association of People who Use psychotropic Substances “Lunest“, the Institute of Health Development, and the Institute of Family Medicine and Public Health at the University of Tartu.

In Estonia, in 2022, approximately 650 individuals receive OAT, and the treatment is provided by 13 different institutions, including prisons.

The study will involve around 250 individuals receiving OAT. The objective of the study is to collect information regarding the experiences and evaluations related to OAT, as well as the health and quality of life of those receiving treatment. This information is highly important for the assessment and enhancement of the OAT.

You are invited to participate in this study.

To decide whether you wish to participate in the study, you need to understand what it means for you. The possible risks and benefits associated with such participation are explained. This will help you make an informed decision about whether you want to take part in the study. You will receive comprehensive information about the research, and the interviewers will be ready to answer your questions. Afterward, you can decide whether you want to participate in the study. If you are certain you want to participate, you will be asked to sign a consent form, which will also be signed by the interviewer.

First, it is essential to know the following:
-Participation in the study is voluntary
-Some individuals may not be suitable for the study due to information that has emerged during the suitability assessment

What happens to you if you decide to participate in this study?

To participate, we ask you to respond to a questionnaire in an interview format. Answering the questionnaire will take approximately 30-40 minutes.

Are there any Potential Benefits in Participating in the Study?

Participating in the survey may not provide you with immediate benefits. However, the information collected as part of the research can help improve the quality of opioid substitution treatment services offered in Estonia. The results of the study can help understand how to provide better counseling and treatment for individuals receiving treatment.

To cover potential time and travel expenses associated with participation in the study, you will be provided with a 15€ gift voucher for the Maxima grocery store. *

Your voluntary and confidential participation in the study allows for impartial feedback on the quality and deficiencies of OAT services, which can contribute to future improvements in the quality of these services in Estonia.

Participant Rights in the Study

Participating in the study in no way restricts your rights. You have the authority to ask questions to the research team members and receive answers from them.

Voluntary Participation in the Study / Withdrawing from Participation in the Study

Your participation in this study is entirely voluntary. You have the authority to withdraw your participation at any stage of the interview. Giving informed consent to participate in the study does not affect your legal rights in any way. If you choose not to participate in the study, all information provided by you up to that point will not be used in the study.

Risks

The risks associated with participating in the study are related to your anonymity and the confidentiality of the collected data. Participation may also be associated with psychological risks since the study addresses sensitive topics, such as drug use and participation in OAT services or

other healthcare services. Below, the measures implemented by the research team to ensure your privacy and reduce potential discomfort associated with participating in the study are listed.

Participation in the study is anonymous. Data that could be used to identify you will not be collected.

Regarding confidentiality, the information collected from you is safeguarded through the use of a unique code, rather than your name, which is solely needed for the organization of data collection within the study. This code will be securely destroyed once data collection is complete and replaced with a new anonymous code. An anonymous code is assigned to all participants and is used at every stage of data processing. The collected data is indefinitely stored on the University of Tartu's secure server for research purposes. The informed consent form for participating in the study will be securely disposed of after the completion of data collection.

The survey is conducted by an employee of the NPO "Lunest". To ensure a respectful and non-judgmental approach when discussing drug use and OAT, all interviewers have received ethics training related to data collection prior to the commencement of the study. They have been trained to address topics such as drug use, the use of OAT services, and other healthcare-related issues with directness and sensitivity.

Whom to Contact for Questions or Concerns?

Jelena Antonova, the chairman of the board of the Estonian Association of People who Use Psychotropic Substances "Lunest", is available to answer questions regarding this study. You can reach her by phone at [*xx xxx xxx*]

Once you have read this informed consent form or it has been read to you, and you have received answers to all your questions, and you agree to participate in the study, please write your name, signature, and the date in the space provided below the document.

Participant's Signature

_____

Date:

Name and Signature of the Employee Accepting the Consent Form

_____

Date:

*The OAT recipients in prisons were presented with a similar, but not the same consent and information form, as they were not compensated with a store gift card; instead, they were provided with approximately 15 euros in compensation in the form of consumables (sweets, tea, coffee, etc.).

Appendix V: Questionnaire used in both community and prison settings

QUESTIONNAIRE

2022

A. INTERVIEW AND RESEARCH SUBJECT INCLUSION INFORMATION

A1. Identification number _____

A2. Facility where the interviewed patients receives OAT _____ [*name of the facility*]

A3. Location where the interview is conducted _____

A4. Interviewer's name _____ [*first name, surname*]

A5. Date of the interview (day/month/year) ____/____/_____

A6. Preferred language of the interview

☐ Russian

☐ Estonian

B. DEMOGRAPHIC AND SOCIOECONOMIC VARIABLES

D1. What is your gender?

☐ Woman

☐ Man

☐ Other _____

D2. How old are you?

_____ years old

E1. What nationality are you?

☐ Russian

☐ Estonian

☐ Other [please specify _____]

D19. What is your current employment situation? [*you can choose from more than one answer*] *

☐ Full-time work (40 hours per week or more)

☐ Part-time work

☐ Temporary work (including odd jobs)

☐ Unemployed

☐ Unable to work (disabled)

☐ Housewife/housekeeper (caring for children or other family members)

☐ Student

☐ Retired

☐ Other

☐ I prefer not to answer

D20. Do you receive a disability pension? *

☐ Yes

☐ No

E2. How would you describe your current financial well-being? *

☐ My current income allows me to live comfortably enough

☐ My current income is sufficient to make ends meet

☐ My current income is insufficient, as it is challenging to make ends meet

☐ My current income is inadequate, as it is very challenging to manage

E3. Are you covered by Estonian health insurance? *

☐ Yes

☐ No

PRISON E3. Did you have Estonian health insurance before your incarceration? **

☐ Yes

☐ No

E4. In the last six months, where have you primarily been residing? [*Choose one option that best describes your situation*] *

☐ I don't have a fixed residence (on the streets, in parks)

☐ In a rented residence

☐ In a residence owned by me or my partner

☐ In someone else's residence (owned by parents, relatives, or a friend)

☐ In a shelter or social housing

☐ In a prison

☐ In a detoxification or rehabilitation center

☐ Other [please specify _____]

E5. In the last six months, with whom have you been residing? [*Choose the option that best describes your situation*] *

☐ Alone

☐ With a spouse or partner

☐ With a spouse or partner and children

☐ With parents

☐ With friends

☐ Other [please specify _____]

D21. Have you ever been held in a detention facility or been arrested (including temporary detention)? *

☐ Yes

☐ No

D22. How old were you when you first ended up in a detention facility or were arrested (including a temporary detention)?

_____ years

D23. How many times have you been in a detention facility or have been arrested (including a temporary detention)?

_____ times

D24. In total, how long have you spent in detention facilities (including temporary detention)?

_____ years

_____ months

_____ days

D25. When was the last time you were released? *

_____ month _____ year

PRISON D25.V. When were you incarcerated? **

_____ month _____ year

C.DRUG USE

D4. How old were you when you first used opioids (non-injecting or injecting)?

___ years old

PRISON D4.V. What was the primary drug you used to inject prior to incarceration? **

☐ I was not injecting drugs

☐ Amphetamine

☐ Synthetic opioids (fentanyl, nitazene)

☐ Benzodiazepine (Xanax, Rivotril)

☐ Pregabalin (Lyrica)

☐ Poppy plant derivative (anhydrous poppy seed derivative)

☐ Cocaine

☐ MDMA/ecstasy

☐ Other [please elaborate]

PRISON D4.V What was the primary drug you used prior to incarceration through other means than injection? **

☐ I was using drugs by injecting only

☐ Amphetamine

☐ Synthetic opioids (fentanyl, nitazene)

☐ Benzodiazepine (Xanax, Rivotril)

☐ Pregabalin (Lyrica)

☐ Poppy plant derivative (anhydrous poppy seed derivative)

☐ Cocaine

☐ MDMA/ecstasy

☐ Other [please elaborate]

D26. How many days within the last 30 days have you used any injecting drugs?

_____ days (no more than 30)

D26.a Which of the following drugs have you injected in the last 30 days?

☐ Amphetamine

☐ Synthetic opioids (fentanyl, nitazene)

☐ Benzodiazepine (Xanax, Rivotril)

☐ Pregabalin (Lyrica)

☐ Poppy plant derivative (anhydrous poppy seed derivative)

☐ Cocaine

☐ MDMA/ecstasy

☐ Other [please elaborate]

D27. Are you presently using any medications that have not been prescribed by your healthcare provider? (Please exclude any medications prescribed by the doctor affiliated with the OAT program)

☐ Yes

☐ No

D28. If yes, which of the following substances are you using?
[you can choose more than one answer]

☐ Antidepressants

☐ Sleeping pills

☐ Painkillers

☐ Sedatives

☐ Other [please elaborate]

O. EXPERIENCE WITH THE OAT PROGRAM

O1. How would you rate your overall experience with the OAT program?

☐ Very bad

☐ Bad

☐ Neither bad nor good

☐ Good

☐ Very good

D3. How many previous OAT programs have you participated in?

___ [number of times]

[*if your current treatment is your first, enter 0*]

O28. If you have participated in more than one OAT program, have you voluntarily discontinued your participation in the program at least once?

☐ Yes

☐ No/I do not know

☐ I prefer not to answer

O29. If you have participated in more than one OAT program, did the personnel force you to discontinue the program at least once?

☐ Yes

☐ No/I do not know

☐ I prefer not to answer

O30. Are you satisfied with the duration of the OAT treatment?

☐ Yes

☐ No

O31.1. If not satisfied with the duration of the OAT treatment, would you prefer it to be longer or shorter?

☐ Longer

☐ Shorter

O31. Do you know the procedures and rules for leaving the OAT program?

☐ Yes

☐ No

O32. Have health care workers opposed your attempt to leave the OAT program?

☐ Yes

☐ No

☐ I prefer not to answer

O33. Do you feel confident about the safety and confidentiality of your personal information shared with the OAT personnel?

☐ Not confident at all

☐ Rather not confident

☐ Rather confident

☐ Quite confident

☐ Absolutely confident

Now some questions about the OAT you are currently attending to *

PRISON Now some questions about the OAT/detoxification program you are currently receiving or going under in prison **

PRISON D5.V In your current situation within the prison you are **

___ receiving OAT

___ undergoing detoxification

D5. When did you last enroll in the OAT program?

☐ ___ months and ___ years ago

O27. Were you introduced to the rules of the OAT program when you enrolled? *

☐ Yes

☐ No/I do not know

☐ I prefer not to answer

PRISON O27. Were you introduced to the rules of the prison OAT program when you enrolled? **

☐ Yes

☐ No/I do not know

☐ I prefer not to answer

D5.1. How many days or months was the process from the first visit to getting the referred dose (the time including waiting, giving samples and waiting for the doctor's appointment)?

___ months

___ days

D7. How frequently must you visit the OAT providing institution? *

☐ Every day

☐ Every 3 days

☐ Every 5 days

☐ Every 7 days

☐ Other [specify ___]

As an OAT client, is it possible to receive future methadone doses in the following cases:

E01. You are going on a vacation that lasts 7 to 10 days? *

☐ Yes

☐ No

☐ I haven't tried to get methadone for this reason

E02. You are spending the weekend away from the OAT site? *

☐ Yes

☐ No

☐ I haven't tried to get methadone for this reason

E03. You are on a sick leave? *

☐ Yes

☐ No

☐ I haven't tried to get methadone for this reason

PRISON D8.V. Which medication are you receiving currently? **

____ Methadone

____ Buprenorphine

D8.1. What is the daily dosage of methadone you are currently receiving?

____ (mg)

D9. Are you currently taking any other medication prescribed by the OAT center physician (psychiatrist)? *

☐ Yes

☐ No

☐ I prefer not to answer

PRISON D9. Are you currently taking any other medication prescribed by the prison physician (psychiatrist)? **

☐ Yes

☐ No

☐ I prefer not to answer

D9.1 If yes, what medication are you prescribed by the OAT center physician (psychiatrist)? *

☐ Antidepressants

☐ Sleeping pills

☐ Painkillers

☐ Sedatives

☐ Other [specify ___]

PRISON D9.1 If yes, what medication are you prescribed by the prison physician (psychiatrist)? **

☐ Antidepressants

☐ Sleeping pills

☐ Painkillers

☐ Sedatives

☐ Other [specify ___]

O2. How satisfied are you with the current OAT service you receive?

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

O3. How much do you rely on OAT for daily functioning?

☐ Very much

☐ Rather much

☐ Moderately

☐ Rather not

☐ Not at all

O4. How does OAT staff behavior towards you influence your continuing program participation?

☐ Strongly

☐ Somewhat

☐ Neutral

☐ Not much

☐ Not at all

O5. How important is the attentive attitude of OAT staff to you in order to continue with the program?

☐ Very important

☐ Important

☐ Neutral

☐ Not important

☐ Not important at all

O6. How well are you informed about the treatment?

☐ Completely sufficient

☐ Sufficient

☐ Moderately

☐ Not sufficient

☐ Not sufficient at all

O7. How safe do you feel at the OAT providing facility? *

☐ Very safe

☐ Rather safe

☐ Moderately safe

☐ Rather unsafe

☐ Not safe at all

PRISON O7. How safe do you feel while receiving the OAT in the prison? **

☐ Very safe

☐ Rather safe

☐ Moderately safe

☐ Rather unsafe

☐ Not safe at all

To what extent do you agree to the following statements about the OAT providing facility you visit? *

PRISON To what extent do you agree to the following statements about the OAT provided by the prison? **

O8. The facility is spacious

☐ Completely

☐ Rather

☐ Moderately

☐ Rather not

☐ Not at all

O9. It is possible to lock the door of the toilet?

☐ Yes

☐ No

O10. The facility's rooms are clean

☐ Completely agree

☐ Agree

☐ Moderately

☐ Rather not agree

☐ Do not agree at all

O11. Is it possible to take a seat in the room where the doctor counsels me on the OAT?

☐ Yes

☐ No

O12. How satisfied are you in general with the physical settings of the OAT site, including factors like the facility's size, the presence of a well-functioning toilet equipped with a door latch, and comfortable waiting areas? *

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

PRISON O12. How satisfied are you in general with the physical settings of the room, where OAT is provided, including factors like the room's size, the presence of a well-functioning toilet equipped with a door latch, and comfortable waiting areas? **

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

O13. Is the OAT medication dosage that you receive sufficient for you?

☐ Completely sufficient

☐ Rather sufficient

☐ Moderately sufficient

☐ Rather not sufficient

☐ Completely insufficient

O14. How convenient is it for you to visit the OAT site? *

☐ Very convenient

☐ Rather convenient

☐ Moderately convenient

☐ Rather inconvenient

☐ Very inconvenient

PRISON O14. How convenient is it for you to visit the room where OAT is provided? **

☐ Very convenient

☐ Rather convenient

☐ Moderately convenient

☐ Rather inconvenient

☐ Very inconvenient

O15. How do you assess the quality of care at the OAT site? *

☐ Very bad

☐ Rather bad

☐ Neither bad nor good

☐ Good

☐ Very good

PRISON O15. How do you assess the quality of care at the room where OAT is provided? **

☐ Very bad

☐ Rather bad

☐ Neither bad nor good

☐ Good

☐ Very good

O16. How often have you sought care from a social worker at your OAT site over the last six months? *

☐ There is no social worker at this site

☐ Never sought care

☐ Sought care 1–3 times

☐ Seeking care on a regular basis

PRISON O16.V How often have you sought care from an inspector or a contact person regarding the OAT over the last six months? **

☐ There is no inspector or a contact person on the prison

☐ Never sought care

☐ Sought care 1–3 times

☐ Seeking care on a regular basis

O17. How satisfied are you with the social and psychological support that you receive at the OAT site? *

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ More or less satisfied

☐ Rather satisfied

☐ Very satisfied

PRISON O17.V How satisfied are you with the support you receive from the OAT inspector or the contact person working in the prison? **

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ More or less satisfied

☐ Rather satisfied

☐ Very satisfied

O20. On a scale from 1 to 10, where 1 means “feeling distressed/anxious” and 10 means “feeling relaxed/at peace,” please indicate how you generally feel while attending the OAT site? *

0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

PRISON O20. On a scale from 1 to 10, where 1 means “feeling distressed/anxious” and 10 means “feeling relaxed/at peace,” please indicate how you generally feel while attending the room where you receive your OAT treatment? **

0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

O21. On a scale from 1 to 10, where 1 means "feeling distressed/anxious" and 10 means "feeling relaxed/at peace," please indicate how you generally feel while receiving OAT medication from the personnel

0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

O22. On a scale from 1 to 10, where 1 means "feeling distressed/anxious" and 10 means "feeling relaxed/at peace," please indicate how you generally feel on average while consulting with the physician at the OAT facility

0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

O23. On a scale from 1 to 10, where 1 means "feeling distressed/anxious" and 10 means "feeling relaxed/at peace," please indicate how you generally feel on average while consulting with the social worker at the OAT site *

0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

EO4.1 Have you ever had to collect urine analysis in the OAT facility in the presence of the working personnel? *

☐ Yes

☐ No→ E05

PRISON EO4.1 Have you ever had to collect urine analysis in the prison in the presence of the working personnel? **

☐ Yes

☐ No→ E05

EO4. On a scale from 1 to 10, where 1 means "feeling distressed/anxious" and 10 means "feeling relaxed/at peace," please indicate how you generally feel on average while giving the urine analysis in the presence of the working personnel?

0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

EO5. When was the last time you had counseling by a psychologist provided by the OAT program? *

☐ Never→EO7

☐ In the last 30 days

☐ ___ months ago

PRISON EO5. When was the last time you had counseling by a prison psychologist while receiving the OAT? **

☐ Never→EO7

☐ In the last 30 days

☐ ___ months ago

EO6. How satisfied are you with the psychological counseling provided by the OAT program? *

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ More or less satisfied

☐ Rather satisfied

☐ Very satisfied

PRISON EO6. How satisfied are you with the psychological counseling in the prison? **

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ More or less satisfied

☐ Rather satisfied

☐ Very satisfied

EO7 Have you ever used the services of the peer consultant provided by the OAT program? *

☐ Yes

☐ No→ E09

PRISON EO7. During your OAT treatment in prison, have you ever attended the support group led by the peer consultant? **

☐ Yes

☐ No→ E09

EO8. How satisfied are you with the services of the peer consultant provided by the OAT program? *

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ More or less satisfied

☐ Rather satisfied

☐ Very satisfied

PRISON EO8. How satisfied are you with the services of the peer consultant provided by the prison? **

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ More or less satisfied

☐ Rather satisfied

☐ Very satisfied

EO9. When was the last time you had an appointment with a psychiatrist within the OAT program? *

☐ Never→O25

☐ In the last 30 days

☐ ___ months ago

PRISON EO9. When was the last time you had an appointment with a psychiatrist within the prison? **

☐ Never→O25

☐ In the last 30 days

☐ ___ months ago

EO10. How satisfied are you with the psychiatrist working within the OAT program? *

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ More or less satisfied

☐ Rather satisfied

☐ Very satisfied

PRISON EO10. How satisfied are you with the psychiatrist working within the OAT program? **

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ More or less satisfied

☐ Rather satisfied

☐ Very satisfied

O25. Have you ever filed an official complaint regarding the OAT program? *

☐ Yes

☐ No

PRISON O25. Have you ever filed an official complaint regarding the OAT services in prison? **

☐ Yes

☐ No

O26. How likely are you to file a complaint in the future regarding the OAT program?

☐ Very unlikely

☐ Rather unlikely

☐ Maybe

☐ Rather likely

☐ Very likely

T. HEALTH CONDITION

W2. At the moment, how would you assess your health?

☐ Very good

☐ Good

☐ Neither good nor bad

☐ Bad

☐ Very bad

W3. To what extent is your health preventing you from carrying out your daily responsibilities?

☐ Very much

☐ Much

☐ A moderate amount

☐ Not much

☐ Not at all

W7. How would you rate your ability to concentrate?

☐ Very bad

☐ Bad

☐ Neither bad nor good

☐ Good

☐ Very good

W15. How convenient is your commute to the places you need to go, or how would you rate your mobility?

☐ Very good

☐ Good

☐ Neither good nor bad

☐ Bad

☐ Very bad

W4. To what degree do you require different forms of medical care (aside from OAT) to maintain normal functioning in your daily life?

☐ Very much

☐ Rather much

☐ A moderate amount

☐ Rather not

☐ Not at all

W26. During the last 30 days, how frequently have you experienced negative emotions such as a bad mood, despair, anxiety, or depression?

☐ Never

☐ Sometimes

☐ Often

☐ Very often

☐ All of the time

D10. Have you ever been tested for HIV?

☐ Yes

☐ No

☐ I prefer not to answer

D11. What was the test result? (If you have been tested multiple times, please provide the result from the most recent test)

☐ I was told that I do not have HIV

☐ I was told that I have HIV

☐ I was told that the result is unclear

☐ I do not know

☐ I prefer not to answer

D12. When did you find out about your HIV diagnosis?

___ months

___ years ago

D13. Are you currently on antiretroviral therapy?

☐ Yes

☐ No

☐ I prefer not to answer

ED13. On a scale from 0 to 100, how consistently have you adhered to your antiretroviral therapy in the last six months? Where 0 means not at all, 50 means half of the time, and 100 means taking antiretroviral therapy exactly according to the plan

0 ------ 10 ------ 20 ------ 30 ------ 40 ------ 50 ------ 60 ------ 70 ------ 80 ------ 90 ------ 100

☐ ____ (number on the scale from 0 to 100)

☐ I do not know

ED14. When was your most recent HIV viral load blood test conducted?

☐ ___ months and ___ years ago

☐ I have not had it done

☐ I do not know

D14. What is your HIV viral load? (If you have been tested multiple times, please provide the result from the most recent test)

☐ ___ copies/ml

☐ I do not know

D15. Have you ever been tested for Hepatitis C?

☐ Yes

☐ No

☐ I prefer not to answer

D16. What was the test result? (If you have been tested multiple times, please provide the result from the most recent test)

☐ I was told that I do not have Hepatitis C

☐ I was told that I have Hepatitis C

☐ I was told that the result is unclear

☐ I do not know

☐ I prefer not to answer

D17. Have you ever taken medication for Hepatitis C? (e.g., oral antiviral drugs like Maviret)

☐ Yes, I am currently taking medication

☐ Yes, but it was within the last three years

☐ Yes, I took medication more than three years ago

☐ No, I have never taken any medication

☐ I do not know

☐ I prefer not to answer

DE19. Have you received the Hepatitis C vaccine?

☐ Yes→DE19a

☐ No→D18

☐ I prefer not to answer→D18

DE19a. When did you receive your Hepatitis C vaccine?

___ months

___ years ago

DE19b. Have you been offered a Hepatitis C vaccine by your OAT service provider?

☐ Yes

☐ No

☐ I prefer not to answer

D18. During the last 30 days, have you experienced any of the following health issues? [You can choose more than one answer]

☐ Hepatitis C

☐ Tuberculosis

☐ Pancreatitis

☐ Stomach or intestinal ulcers

☐ Issues with teeth

☐ Issues with veins

☐ Strong headaches

☐ Diabetes

☐ Depression

☐ Anxiety

☐ Malignant tumor or cancer

☐ Other [please elaborate: _____]

W. QUALITY OF LIFE

W1. How would you rate your quality of life?

☐ Very Bad

☐ Bad

☐ Mediocre; neither good nor bad

☐ Good

☐ Very good

W5. How satisfied are you with your life?

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately

☐ Rather satisfied

☐ Very satisfied

W6. To what extent do you feel your life to be meaningful?

☐ An extreme amount

☐ Very much

☐ A moderate amount

☐ A little

☐ Not at all

W8. How safe do you feel in your daily life?

☐ An extreme amount

☐ Very much

☐ A moderate amount

☐ A little

☐ Not at all

W9. In general, how healthy do you think the environment in which you live is (e.g., buildings, roads, parks)? *

☐ Very healthy

☐ Healthy

☐ A moderate amount

☐ Unhealthy

☐ Completely unhealthy

PRISON W9. In general, how healthy do you think the environment in which you live is (e.g., buildings, cells, walking areas)? **

☐ Very healthy

☐ Healthy

☐ A moderate amount

☐ Unhealthy

☐ Completely unhealthy

W10. Do you have enough energy for daily life? *

☐ Completely enough

☐ Rather enough

☐ A moderate amount

☐ Rather not enough

☐ Not enough at all

PRISON W10. Do you have enough energy to pursue your interests? **

☐ Completely enough

☐ Enough

☐ A moderate amount

☐ Not enough

☐ Not enough at all

W11. Are you satisfied with your appearance?

☐ Very satisfied

☐ Rather satisfied

☐ Moderately satisfied

☐ Rather dissatisfied

☐ Completely dissatisfied

W12. Do you have enough money to meet your needs?

☐ Completely enough

☐ Enough

☐ Moderately

☐ Not enough

☐ Not enough at all

W13. How accessible to you is the information that you need in your day-to-day life? (opening and closing times of different institutions, public transport schedules, weather report, local news etc.) *

☐ Easily accessible

☐ Sufficiently accessible

☐ Moderately accessible

☐ Insufficiently accessible

☐ Completely inaccessible

PRISON W13. How accessible to you is the information that you need in your day-to-day life? (news, information about activities etc.) **

☐ Easily accessible

☐ Sufficiently accessible

☐ Moderately accessible

☐ Insufficiently accessible

☐ Completely inaccessible

W14. To what extent do you have opportunities to rest and do leisure activities?

☐ Completely enough

☐ Enough

☐ Moderately

☐ Not enough

☐ Not enough at all

W16. How satisfied are you with your sleep?

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

W17. How satisfied are you with your ability to perform your daily living activities?

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

W18. How satisfied are you with your abiltiy for work?

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

W19. How satisfied are you with yourself?

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

W20. How satisfied are you with the personal relationships you have?

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

W21. How satisfied are you with your sex life?

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

W22. How satisfied are you with the support you get from your friends?

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

O18. How satisfied are your close ones with your participation in the OAT?

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

O19. How satisfied are you with the way you are getting along with your close friends?

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

W23. How satisfied are you with your living conditions? *

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

PRISON W23. How satisfied are you with your living accommodations in prison? **

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

W24. How satisfied are you with your access to health care services

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

W25. How satisfied are you with the transport you use? *

☐ Completely dissatisfied

☐ Rather dissatisfied

☐ Moderately satisfied

☐ Rather satisfied

☐ Very satisfied

There are some additional questions

E6. Are you familiar with the Suboxone (buprenorphine)-based OAT program that requires self-payment?

☐ Yes

☐ No→E9

E7. Have you participated in a Suboxone (buprenorphine)-based OAT program?

☐ Yes→E8

☐ No→E9

E8. You have participated in the Suboxone (buprenorphine)-based OAT program. What were the reasons for discontinuing the treatment? (You may select more than one answer)

☐ I made the choice by myself

☐ The choice was made by the OAT personnel

☐ The OAT program was too expensive

☐ The Suboxone (buprenorphine)-based OAT wasn't effective enough for me

☐ The Suboxone (buprenorphine)-based OAT caused unpleasant side effects

☐ Other [please elaborate _____]

E9. You have not participated in the Suboxone (buprenorphine)-based OAT. What are the reasons for that? (You may select more than one answer)

☐ The Suboxone (buprenorphine)-based OAT program is too expensive

☐ The Suboxone (buprenorphine)-based OAT is not effective enough for me

☐ The Suboxone (buprenorphine)-based OAT causes unpleasant side effects

☐ Other [please elaborate _____]

E9. Have you received training on naloxone administration (been taught how to use naloxone)?

☐ Yes

☐ No

E10. Do you currently possess a naloxone kit? *

☐ Yes

☐ No

E10. Are you aware of where one can obtain a naloxone kit? *

☐ Yes

☐ No

PRISON E10.V Do you know how to request naloxone training and a naloxone kit before your release from prison? **

☐ Yes

☐ No

PRISON E11.V Are you planning to request a naloxone training before your release from prison? **

☐ Yes

☐ No

PRISON E12.V If not, please specify the reasons **

_____

That concludes the questionnaire. Thank you!

** Question asked only from not incarcerated patients*

*** Question asked only from incarcerated patients*

Appendix VI: Tables Containing Rest of the Results of Phase 2

Table 1a. Overall Experiences with the OAT Program in the Community and in Correctional Settings

Characteristics	Whole sample		OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%	n	%
Overall experience with the OAT program						
Very bad	9	3.5	7	3.0	2	8.0
Bad	18	7.0	16	6.8	2	8.0
Neither bad nor good	92	35.5	80	34.2	12	48.0
Good	114	44.0	105	44.9	9	36.0
Very good	26	10.0	26	11.1	0	0.0
Satisfied with the duration of the treatment in the OAT program *(yes)*	172	66.7	165	70.5	7	4.1
Has ever filed a complaint regarding the services *(yes)*	22	8.8	17	7.5	5	20.0
Possibility of filing a complaint in the future						
Very unlikely	72	28.6	70	30.7	2	8.4
Rather unlikely	72	28.6	70	30.7	2	8.3
Maybe	44	17.4	39	17.1	5	20.8
Rather likely	43	17.1	35	15.4	8	33.3
Very likely	21	8.3	14	6.1	7	29.2
Confidence in personnel safeguarding confidential information						
Not confident at all	53	20.5	37	15.8	16	64.0
Rather not confident	65	25.1	61	26.1	4	16.0
Rather confident	36	13.9	36	15.4	0	0.0
Quite confident	85	32.8	80	34.2	5	20.0
Absolutely confident	20	7.7	20	8.5	0	0.0
Knows the rules for leaving the OAT program *(yes)*	189	73.3	185	79.1	4	16.0
Medical staff has resisted the attempts to leave the program *(yes)*	63	24.4	51	21.8	12	50.0
Total	**259**	**100.0**	**234**	**100.0**	**25**	**100.0**

Table 2a. Characteristics Associated to the Current OAT Program in Individuals Receiving OAT Therapy in the Community and in Correctional Settings

Characteristics	Whole sample		OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%	n	%
Characteristics associated with current OAT program in general						
Satisfaction with the current OAT program						
Completely dissatisfied	21	8.1	14	6.0	7	28.0
Rather dissatisfied	25	9.7	21	9.0	4	16.0
Moderately	55	21.2	50	2.3	5	20.0
Rather satisfied	130	50.2	121	51.7	9	36.0
Very satisfied	28	10.8	28	12.0	0	0.0
Perceived quality of the care at the OAT site						
Very bad	9	3.5	3	1.3	6	25.0
Rather bad	26	10.1	20	8.6	6	25.0
Neither bad nor good	59	22.9	49	20.9	10	41.7
Good	119	46.1	117	50.0	2	8.3
Very good	45	17.4	45	19.2	0	0.0
Level of needing the OAT for daily functioning						
Very much	142	54.8	126	53.8	16	64.0
Rather much	66	25.5	59	25.2	7	28.0
Moderately	42	16.2	42	18.0	0	0.0
Rather not	5	1.9	3	1.3	2	8.0
Not at all	4	1.6	4	1.7	0	0.0
Level of convenience visiting the OAT site						
Very convenient	52	20.5	52	22.2	0	0.0
Rather convenient	59	23.2	54	23.1	5	25.0
Moderately convenient	84	33.1	81	34.6	3	15.0
Rather inconvenient	37	14.6	32	13.7	5	25.0
Very inconvenient	22	8.6	15	6.4	7	35.0
Perceived level of security visiting the OAT site*						
Very safe	101	39.2	100	42.7	1	4.0
Safe	78	30.2	72	33.8	6	24.0
Moderately	47	18.2	47	20.1	1	4.0
Rather unsafe	21	8.1	8	3.4	13	52.0
Not safe at all	11	4.3	7	3.0	4	4.0

Characteristics associated with physical settings of the OAT facility						
Satisfaction with the physical settings of the OAT site						
Completely dissatisfied	32	12.5	27	11.5	5	21.7
Rather dissatisfied	28	10.9	25	10.7	3	13.0
Moderately	45	17.5	39	16.7	6	26.1
Rather satisfied	110	42.8	102	43.6	8	34.8
Very satisfied	42	16.3	41	17.5	1	4.4
Agreeing with the sentient that the facility is spacious						
Completely	106	41.1	105	44.9	1	4.2
Rather yes	51	19.8	43	18.4	8	33.3
Partly	41	15.9	38	16.2	3	12.5
Rather not	38	14.7	28	12.0	10	41.7
Not at all	22	8.5	20	8.5	2	8.3
Agreeing with the sentient that the rooms at the OAT facility are clean						
Completely	150	58.1	144	61.5	6	25.0
Rather yes	67	26.0	54	23.1	13	54.2
Partly	23	8.9	20	8.6	3	12.5
Rather not	14	5.4	12	5.1	2	8.3
Not at all	4	1.6	4	1.7	0	0.0
It is possible to take a seat in the room where the doctor provides treatment consultations *(yes)*	241	93.8	217	93.1	24	100.0
The toilet door in the facility can be locked (yes)	170	66.4	167	72.0	3	12.5
Characteristics associated with being informed about the treatment						
The rules were introduced while enrolling *(yes)*	181	69.9	181	77.4	0	0.0
Level of being informed about the treatment						
Completely sufficiently	118	45.6	116	49.6	2	8.0
Sufficiently	54	20.8	52	22.2	2	8.0
Moderately	52	20.1	51	21.8	1	4.0
Not sufficiently	17	6.6	13	5.6	4	16.0
Not sufficiently at all	18	6.9	2	0.8	16	64.0
Total	**259**	**100.0**	**234**	**100.0**	**25**	**100.0**

*In correctional settings it was asked whether the individual feels safe being on the program

Table 3a. Characteristics Associated with the Personnel Working at the OAT Site in the Community and in Correctional Settings

Characteristics	Whole sample		OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%	n	%
Influence of OAT staff behavior towards the participant on program continuation						
Very much	37	14.3	34	14.5	3	12.0
Somewhat	89	34.3	83	35.5	6	24.0
Neutral	66	25.5	65	27.8	1	4.0
Not much	39	15.1	32	13.7	7	28.0
Not at all	28	10.8	20	8.5	8	32.0
Has used the services of the peer consultant or attended the support group *(yes)*	96	39.0	96	43.4	0	0.0
Level of satisfaction with the peer consultant at the OAT site*						
Completely dissatisfied			10	10.5		
Rather dissatisfied			9	9.5		
More or less satisfied			22	23.2		
Rather satisfied			31	32.6		
Very satisfied			23	24.2		
Has sought care from the social worker at the OAT site in the last six months*						
No social worker at this site	23	8.9	10	4.3	13	52.0
Never sought care	114	44.0	110	47.0	4	16.0
Sought care 1–3 times	101	30.0	94	40.2	7	28.0
Seeking care on a regular basis	21	8.1	20	8.5	1	4.0
Level of satisfaction with the support from OAT site ***						
Completely dissatisfied	29	11.8	23	9.8	6	50.0
Rather dissatisfied	28	11.4	28	12.0	0	25.0
More or less satisfied	103	41.9	100	42.8	0	0.0
Rather satisfied	63	25.6	60	25.6	3	25.0
Very satisfied	23	9.3	23	9.8	0	0
Has sought care from the psychologist at the OAT site						
Never	112	44.6	98	43.3	14	56.0
In the last 30 days	77	33.7	71	31.4	6	24.0
More than a month ago	62	24.7	57	25.2	5	20.0
Level of satisfaction with the psychologist at the OAT site*						
Completely dissatisfied	15	10.7	8	6.2	7	70.0
Rather dissatisfied	13	9.4	12	9.3	1	10.0

More or less satisfied	46	33.1	45	34.9	1	10.0
Rather satisfied	45	32.4	44	34.1	1	10.0
Very satisfied	20	14.4	20	15.5	0	0.0
Has sought care from the psychiatrist at the OAT site						
Never	64	25.4	57	25.1	7	28.0
In the last 30 days	119	47.2	107	47.1	12	48.0
More than a month ago	69	27.4	63	27.8	6	24.0
Level of satisfaction with the psychiatrist at the OAT site*						
Completely dissatisfied	32	16.9	24	14.0	8	44.4
Rather dissatisfied	20	10.6	18	10.5	2	11.1
More or less satisfied	57	30.2	55	32.2	2	11.1
Rather satisfied	58	30.7	52	30.4	6	33.3
Very satisfied	22	11.6	22	12.9	0	0.0
Total	**259**	**100.0**	**234**	**100.0**	**25**	**100.0**

* Individual has used the services at least once
** In correctional settings, has sought care from contact persons or inspectors
***In correctional settings, level of satisfaction with the support received from the OAT inspector or contact person

Table 4a. Levels of Anxiety Associated with Situations in the OAT Program on the Scale from 1 ("Feeling Distressed/Anxious") to 10 ("Feeling Relaxed/at Peace"), in OAT Receiving Study Participants in Community and in Correctional Settings

Situations	Whole sample		OAT recipients in the community		OAT recipients in correctional settings	
	Median	IQR	Median	IQR	Median	IQR
Being at the facility or room where OAT is provided	7	3	7	3	5	6
Methadone is dispensed by health care worker	7	4	7	4	4	5
Receiving a physician consultation*	7	4	7	4	7	7
Receiving a consultation by a social worker*			7	4		

*Individual has used the services at least once

Table 5a. Quality of Life and Physical Health of Individuals Receiving OAT in the Community and in Correctional Settings

Characteristics	Whole sample		OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%	n	%
Quality of life						
Very bad	15	5.8	14	6.0	1	4.0
Bad	36	14.0	32	13.8	4	16.0
Mediocre	156	60.7	143	61.7	13	52.0
Good	47	18.3	40	17.2	7	28.0
Very good	3	1.2	3	1.3	0	0.0
Self-rated health						
Very good	34	13.1	31	13.2	3	12.0
Good	40	15.4	35	15.0	5	20.0
Mediocre	126	48.7	115	49.2	11	44.0
Bad	40	15.5	37	15.8	3	12.0
Very bad	19	7.3	16	6.8	3	12.0
The extent to which one requires medical care (aside from OAT) to function in daily life						
Very much	58	22.4	49	20.9	9	36.0
Rather much	70	27.0	66	28.2	4	16.0
A moderate amount	67	25.9	61	26.1	6	24.0
Rather not	48	18.5	43	18.4	5	20.0
Not at all	16	6.2	15	6.4	1	4.0
Energy levels to carry out daily activities						
Completely enough	40	15.4	34	14.5	6	24.0
Rather enough	53	20.4	49	20.9	4	16.0
A moderate amount	83	32.1	79	33.8	4	16.0
Rather not enough	61	23.6	52	22.2	9	36.0
Not enough at all	22	8.5	20	8.6	2	8.0
Ability to move/mobility						
Very good	50	19.3	41	17.5	9	36.0
Good	76	29.4	66	28.2	10	40.0
Neither good nor bad	91	35.1	87	37.2	4	16.0
Bad	29	11.2	28	12.0	1	4.0
Very bad	13	5.0	12	5.1	1	4.0
Extent of health preventing from carrying out daily responsibilities						
Very much	46	17.7	43	18.4	3	12.0
Much	51	19.7	48	20.5	3	12.0

A moderate amount	94	36.3	90	38.4	4	16.0
Not much	36	13.9	29	12.4	7	28.0
Not at all	32	12.4	24	10.3	8	32.0
Satisfaction with one's sleep						
Completely dissatisfied	60	23.2	52	22.2	8	32.0
Rather dissatisfied	69	26.6	67	28.6	2	8.0
Moderately satisfied	68	26.2	66	28.2	2	8.0
Rather satisfied	51	19.7	42	18.0	9	36.0
Very satisfied	11	4.3	7	3.0	4	16.0
Satisfaction with one's ability to carry out daily activities						
Completely dissatisfied	32	12.4	30	12.8	2	8.0
Rather dissatisfied	52	20.1	49	20.9	3	12.0
Moderately satisfied	100	38.6	96	41.1	4	16.0
Rather satisfied	65	25.1	52	22.2	13	52.0
Very satisfied	10	3.9	7	3.0	3	12.0
Satisfaction with one's ability to work						
Completely dissatisfied	49	18.9	45	19.2	4	16.0
Rather dissatisfied	66	25.5	63	29.9	3	12.0
Moderately satisfied	77	29.7	73	31.2	4	16.0
Rather satisfied	52	20.1	42	18.0	10	40.0
Very satisfied	15	5.8	11	4.7	4	16.0
Total	**259**	**100.0**	**234**	**100.0**	**25**	**100.0**

Table 6a. Psychological Health of Individuals Receiving OAT in the Community and in Correctional Settings

Characteristics	Whole sample		OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%	n	%
Satisfaction with life in general						
Completely dissatisfied	29	11.2	26	11.1	3	12.0
Rather dissatisfied	47	18.1	42	18.0	5	20.0
Moderately satisfied	134	51.7	123	52.5	11	44.0
Rather satisfied	45	17.4	39	16.7	6	24.0
Very satisfied	4	1.5	4	1.7	0	0.0
Satisfaction with one's appearance						
Very satisfied	26	10.0	25	10.7	1	4.0
Rather satisfied	91	35.1	81	34.6	10	40.0
Moderately satisfied	79	30.5	73	31.2	6	24.0
Rather dissatisfied	47	18.2	39	16.7	8	32.0
Completely dissatisfied	16	6.2	16	6.8	0	0.0
Satisfaction with oneself						
Completely dissatisfied	36	13.9	35	15.0	1	4.0
Rather dissatisfied	50	19.3	48	20.5	2	8.0
Moderately satisfied	92	35.5	83	35.5	9	36.0
Rather satisfied	61	23.6	50	21.3	11	44.0
Very satisfied	20	7.7	18	7.7	2	8.0
Extent of life having a purpose or meaning						
An extreme amount	32	12.4	30	12.8	2	8.0
Very much	57	22.0	46	19.7	11	44.0
A moderate amount	104	40.1	96	41.0	8	32.0
A little	45	17.4	43	18.4	2	8.0
Not at all	21	8.1	19	8.1	2	8.0
Ability to concentrate						
Very bad	17	6.6	17	7.3	0	0.0
Bad	30	11.6	28	12.0	2	8.3
Neither bad nor good	103	39.9	95	40.6	8	33.3
Good	82	31.8	77	32.9	5	20.8
Very good	26	10.1	17	7.2	9	37.5
Negative emotions (e. g. anxiety, depression) in the last 30 days						
Never	14	5.4	12	5.1	2	8.0
Sometimes	100	38.6	91	38.9	9	36.0

Often	77	29.8	70	29.9	7	28.0
Very often	34	13.1	30	12.8	4	16.0
All of the time	34	13.1	31	13.3	3	12.0
Total	**259**	**100.0**	**234**	**100.0**	**25**	**100.0**

Table 7a. Social Relationships of Individuals Receiving OAT in the Community and in Correctional Settings

Characteristics	Whole sample		OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%	n	%
Satisfaction with one's personal relations						
Completely dissatisfied	51	19.7	47	20.1	4	16.0
Rather dissatisfied	47	18.2	42	17.9	5	20.0
Moderately satisfied	80	30.9	73	31.2	7	28.0
Rather satisfied	55	21.2	47	20.1	8	32.0
Very satisfied	26	10.0	25	10.7	1	4.0
Satisfaction with getting along with close friends						
Completely dissatisfied	30	11.6	28	12.0	2	8.3
Rather dissatisfied	44	17.0	41	17.5	3	12.5
Moderately satisfied	65	25.1	62	26.5	3	12.5
Rather satisfied	78	30.1	66	28.2	11	45.8
Very satisfied	42	16.2	37	15.8	5	20.8
Satisfaction with one's sex life						
Completely dissatisfied	37	14.3	37	15.8	0	0.0
Rather dissatisfied	60	23.2	57	24.4	3	12.0
Moderately satisfied	69	26.6	65	27.8	4	16.0
Rather satisfied	62	23.9	45	19.2	17	68.0
Very satisfied	31	12.0	30	12.8	1	4.0
Satisfaction with support received from friends						
Completely dissatisfied	43	16.6	38	16.2	5	20.0
Rather dissatisfied	65	25.1	61	26.1	4	16.0
Moderately satisfied	85	32.8	77	32.9	8	32.0
Rather satisfied	50	19.3	43	18.4	7	28.0
Very satisfied	16	6.2	15	6.4	1	4.0
Friend's satisfaction with one's participation in the OAT program						
Completely dissatisfied	40	15.7	34	14.5	6	28.6
Rather dissatisfied	60	23.5	53	22.6	7	33.3
Moderately satisfied	100	39.2	95	40.6	5	23.8
Rather satisfied	41	16.1	39	16.7	2	9.5
Very satisfied	14	5.5	13	5.6	1	4.8
Total	**259**	**100.0**	**234**	**100.0**	**25**	**100.0**

Table 8a. Environment of the Individuals Receiving OAT in the Community and in Correctional Settings

Characteristics	Whole sample		OAT recipients in the community		OAT recipients in correctional settings	
	n	%	n	%	n	%
Perceived level of security						
Very safe	24	9.2	20	8.5	4	16.0
Safe	73	28.2	63	26.9	10	40.0
Moderately	122	47.1	115	49.2	7	28.0
Rather unsafe	31	12.0	27	11.5	4	16.0
Not safe at all	9	3.5	9	3.9	0	0.0
Perceived environmental health status						
Very healthy	30	11.6	29	12.4	1	4.0
Healthy	92	35.5	78	33.3	14	56.0
A moderate amount	105	40.5	102	43.6	3	12.0
Unhealthy	22	8.5	18	7.7	4	16.0
Completely unhealthy	10	3.9	7	3.0	3	12.0
Having enough money to meet one's needs						
Completely enough	9	3.5	8	3.4	1	4.0
Enough	26	10.0	21	9.0	5	20.0
Moderately	89	34.4	85	36.3	4	16.0
Not enough	82	31.7	71	30.3	11	44.0
Not enough at all	53	20.6	49	21.0	4	16.0
Accessibility of the information needed for day-to-day life						
Easily accessible	72	27.9	72	30.8	0	0.0
Sufficiently accessible	98	38.0	91	38.9	7	29.2
Moderately accessible	61	23.7	57	24.4	4	16.7
Insufficiently accessible	21	8.1	13	5.5	8	33.3
Completely inaccessible	6	2.3	1	0.4	5	20.8
Opportunities for resting and leisure						
Completely enough	47	18.2	41	17.5	6	24.0
Enough	60	23.2	54	23.1	6	24.0
Moderately	99	38.2	90	38.4	9	36.0
Not enough	41	15.8	39	16.7	2	8.0
Not enough at all	12	4.6	10	4.3	2	8.0
Satisfaction with one's current living conditions						
Completely dissatisfied	28	10.8	22	9.4	6	25.0
Rather dissatisfied	45	17.3	38	16.2	7	29.2

Moderately satisfied	77	29.7	72	30.8	4	16.7
Rather satisfied	76	29.3	70	29.9	6	25.0
Very satisfied	33	12.7	32	13.7	1	4.2
Satisfaction with one's access to health care						
Completely dissatisfied	27	10.4	21	9.0	6	24.0
Rather dissatisfied	56	21.6	49	20.9	7	28.0
Moderately satisfied	90	34.8	82	35.0	8	32.0
Rather satisfied	71	27.4	68	29.1	3	12.0
Very satisfied	15	5.8	14	6.9	1	4.0
Satisfaction with transportation						
Completely dissatisfied			17	7.3		
Rather dissatisfied			49	20.9		
Moderately satisfied			61	26.1		
Rather satisfied			80	34.2		
Very satisfied			27	11.5		
Total	**259**	**100.0**	**234**	**100.0**	**25**	**100.0**

Appendix VII: Univariable and Multivariable Analysis of Factors Associated with OAT

Table 9a. Univariable and Multivariable Analysis of Factors Associated with Opioid Substitution Therapy (OAT) Satisfaction in its Recipients in Estonia, 2022

Characteristics	Satisfied/ total (n/N)	% satisfied	Univariable analysis		Multivariable analysis*	
			OR	(95% CI)	AOR	(95% CI)
Characteristics associated to the individual						
Age						
(by 1 year)			0.97	(0.91–1.02)		
Gender						
Male	135/159	85.3	1			
Female	64/75	84.9	1.03	(0.48–2.24)		
Nationality						
Estonian	19/23	82.6	1			
Other	177/208	85.1	1.20	(0.38–3.77)		
Working status*						
Unemployed/other	116/141	82.3	1		1	
Employed	83/93	89.3	1.79	(0.82–3.92)	0.98	(0.32–2.96)
History of incarceration						
Yes	145/174	83.3	1			
No	54/60	90.0	1.8	(0.71–4.58)		
Covered with Estonian health insurance						
No	32/37	86.4	1			
Yes	164/193	85.0	0.88	(0.32–2.46)		
Quality of life						
Bad	35/46	76.1	1		1	
Good and 50/50	164/186	88.2	**2.34**	**(1.04–5.27)**	1.58	(0.47–5.36)
Self-rated health						
Bad	46/53	86.8	1			
Good and 50/50	153/181	84.5	0.83	(0.34–2.03)		
Has injected drugs in the last 30 days						
No	122/142	85.9	1			
Yes	77/92	83.7	0.84	(0.41–1.74)		
Characteristics associated to the OAT						
First time OAT client						
No	140/169	82.8	1		1	
Yes	59/65	90.8	2.04	(0.80–5.16)	**3.89**	**(1.03–14.78)**

The rules of the program were introduced upon entering						
No/unsure	28/47	59.6	1		1	
Yes	167/181	92.3	**8.09**	**(3.64–17.98)**	**6.2**	**(1.93–19.94)**
Frequency of necessary visits to the OAT site						
Every day	64/77	83.1	1			
Every 2-7 days	135/157	86.0	1.25	(0.59–2.63)		
Convenience of visiting the OAT site						
Inconvenient	38/47	80.9	1			
Convenient	161/187	86.1	1.47	(0.64–3.38)		
Perceived quality of the OMT services						
Bad	10/23	43.4	1		1	
Good	189/211	89.6	**11.17**	**(4.38–28.45)**	1.93	(0.39–9.66)
Feels safe at the OAT facility						
No	6/15	40.0	**1**		1	
Yes	193/219	88.1	**11.13**	**(3.66–33.83)**	2.91	(0.50–16.82)
Satisfied with the physical environment at the OAT facility						
No	40/52	76.9	1		1	
Yes	159/182	87.4	2.07	(0.95–4.52)	1.27	(0.38–4.26)
Satisfied with the psychosocial support received from the OAT center						
No	32/51	62.8	1		1	
Yes	167/183	91.3	**6.2**	**(2.88–13.32)**	2.64	(0.79–8.82)
Believes the OAT personnel upholds the confidentiality of information shared with them						
No	68/98	69.4	**1**		1	
Yes	131/136	96.3	**31.56**	**(4.30–31.14)**	**4.88**	**(1.41–16.92)**
Satisfied with the received dose						
No	41/55	74.6	1		1	
Yes	158/179	88.3	**2.57**	**(1.20–5.49)**	**4.13**	**(1.27–13.42)**
Satisfied with the length of the treatment						
No	46/69	66.7	1		1	
Yes	153/165	92.7	**6.38**	**(2.95–13.79)**	**3.05**	**(1.03–9.02)**
Has used the services of the peer consultant at the OAT site						
No	107/125	85.6	1			
Yes	83/96	86.5	1.07	(0.50–2.32)		
Satisfied with the services of the peer consultant						
No	15/19	79.0	1			
Yes	67/76	88.2	1.98	(0.53–7.31)		
Has visited the psychologist at the OAT site						

No	81/98	82.7	1		1	
Yes	114/128	89.1	1.71	(0.80–3.66)	0.94	(0.32–2.77)
Satisfied with the psychologist at the OAT site**						
No	14/19	73.7	1			
Yes	98/107	91.6	**3.89**	**(1.13–13.28)**		
Has visited the psychiatrist at the OAT site						
No	50/57	87.7	1			
Yes	145/170	85.3	0.81	(0.33–1.99)		
Satisfied with the psychiatrist at the OAT site**						
No	31/41	75.6	1			
Yes	114/129	88.4	**2.45**	**(1.00–5.99)**		

* Indicators from the univariable analysis, showing significance with p-values below 0.2, were integrated into a multivariable analysis

** Multivariable analysis was conducted only among individuals who had used the services