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The Future of Opioid Agonist Therapies in Ukraine: A Qualitative Assessment of Multilevel Barriers and Ways Forward to Promote Retention in Treatment

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ABSTRACT

Opioid agonist therapies (OAT) to treat opioid addiction in people who inject drugs (PWID) began in Ukraine in 2004. Scale-up of OAT, however, has been hampered by both low enrollment and high attrition. To better understand the factors influencing OAT retention among PWID in Ukraine, qualitative data from 199 PWIDs were collected during 25 focus groups conducted in five Ukrainian cities from February to April 2013. The experiences of PWID who were currently or previously on OAT or currently trying to access OAT were analyzed to identify entry and retention barriers encountered. Transcribed data were analyzed using a grounded theory approach. Individual beliefs about OAT, particularly misaligned treatment goals between clients and providers, influenced PWID's treatment seeking behaviors. Multiple programmatic and structural issues, including inconvenient hours and treatment site locations, complicated dosing regimens, inflexible medication dispensing guidelines, and mistreatment by clinic and medical staff also strongly influenced OAT retention. Findings suggest the need for both programmatic and policy-level structural changes such as revising legal regulations covering OAT dispensing, formalizing prescription dosing policies and making OAT more available through other sites, including primary care settings as a way to improve treatment retention. Quality improvement interventions that target treatment settings could also be deployed to overcome healthcare delivery barriers. Additional patient education and medical professional development around establishing realistic treatment goals as well as community awareness campaigns that address the myths and fears associated with OAT can be leveraged to overcome individual, family and community-level barriers.

1. Introduction

Despite a 19% decrease in HIV transmission and HIV-related morbidity and mortality globally, Ukraine's epidemic has increased by 25% (UNAIDS, 2013). Ukraine, one of the six largest countries with concentrated HIV epidemics among people who inject drugs (PWID) (UNAIDS, 2014) has had difficulty in meeting its HIV prevention goals, primarily a result of inadequately scaled-to-need, evidence-based HIV prevention programs like opioid agonist treatment (OAT) buprenorphine and methadone, needle/syringe exchange programs (NSPs) and antiretroviral therapy (ART) as prevention (Degenhardt, Mathers, et al., 2014).

Opioid dependence is a chronic relapsing condition (Leshner, 1997; Volkow & Li, 2004) that if left untreated, is associated with poor health and social outcomes, including risky drug injecting practices, transmission of infectious diseases, criminal activity, imprisonment and poor access to and retention in ART and other healthcare services (Degenhardt, Charlson, et al., 2014; Mattick, Breen, Kimber, & Davoli, 2009; Metzger et al., 1993). It is well-documented that the illicit use of opioids is associated with high rates of mortality, premature disability and other adverse consequences that contribute to the global burden of disease (Degenhardt, Charlson, et al., 2014; Degenhardt et al., 2013; Hser, Evans, Grella, Ling, & Anglin, 2015). Treating opioid-dependent PWID

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with OAT is one of the most effective HIV prevention strategies and the most cost-effective (Alistar, Owens, & Brandeau, 2011). In particular, OAT using buprenorphine or methadone maintenance therapy is internationally recognized to be evidence-based HIV prevention and intervention strategies (Altice, Kamarulzaman, Soriano, Schechter, & Friedland, 2010; Dutta et al., 2013; Kerr, Wodak, Elliott, Montaner, & Wood, 2004). Treatment for opioid addiction requires long-term management and OAT provides the most optimal strategy for patients to achieve recovery from opioid addiction (Amato et al., 2004; Bart, 2012). Because opioid use disorders are chronic and relapsing, long-term retention in OAT is crucial to meet recovery needs to decrease drug use and relapse, and improve social functioning, quality of life, and reduced mortality (Bart, 2012; De Maeyer, van Nieuwenhuizen, Bongers, Broekaert, & Vanderplasschen, 2013; Korthuis, Tozzi, et al., 2011; Nosyk et al., 2011; Timko, Schultz, Cucciare, Vittorio, & Garrison-Diehn, 2015). OAT retention has also been associated with improvements in addressing primary care (Haddad, Zelenev, & Altice, 2013, 2015) and HIV treatment outcomes (Altice et al., 2011; Korthuis, Fiellin, et al., 2011).

Buprenorphine was introduced in Ukraine in 2004 as a pilot addiction treatment and HIV prevention program aimed at bringing HIV-infected PWID onto buprenorphine treatment to reduce drug injection and to promote ART services for HIV-infected PWID (Bruce, Dvoryak, Sylla, & Altice, 2007). Methadone maintenance was started in 2008 (Lawrinson et al., 2008) and soon followed by integrating HIV, tuberculosis and OAT (Bachireddy et al., 2014). Despite its proven efficacy and Ukraine's early 12-month OAT retention rates exceeding 80% (Alistar et al., 2011; Schaub, Chtenguelov, Subata, Weiler, & Uchtenhagen, 2010), Ukraine has markedly failed to meet its scale-up projections for the estimated 310,000 PWID in Ukraine. By year-end 2014, just over 8,000 PWID were receiving OAT despite ample funding being provided by the Global Fund to Fight AIDS, Tuberculosis and Malaria and the Ukrainian government's 2009–2013 National Program projection for 20,000 enrolled PWID by 2013 (Berleva et al., 2012; UCDC Ukrainian Centers for Disease Control, 2015).

Multi-level factors, including individual, social, clinical, and structural variables, influence a PWID's pathway to seek and remain adherent with OAT. Demographic characteristics such as younger age, male gender, and unemployment have been found to negatively impact OAT retention (Che et al., 2010; Jiang et al., 2014; Proctor et al., 2015; Strike et al., 2005) while unmarried patients or those without a supportive network were more likely to experience a poor outcome with respect to OAT retention (Che et al., 2010; Yang, 2013). Clinical factors, including addiction severity and medication dosing and type of medication received (methadone vs. buprenorphine/naloxone) were found to be predictors of OAT retention (Bao et al., 2009; Che et al., 2010; Peles, Schreiber, & Adelson, 2006; Proctor et al., 2015). Structural issues such as distance to and accessibility of clinic site have also been shown to predict discontinuation of OAT (Che et al., 2010).

Very little is known about the factors influencing retention in OAT for Ukrainian PWID. In an effort to identify and assess the barriers and facilitators associated with starting and remaining on OAT, the formative phase of a mixed methods implementation science project utilized a qualitative approach to explore perceptions about Ukraine's OAT program for opioid dependent PWID and to identify the multi-level factors that influence their use or non-use of treatment services. This study sought to identify and better understand the most salient barriers that clients must overcome to remain engaged in treatment.

2. Methods

From February through April 2013, extensive, client-centered focus group (FG) discussions were conducted with 199 PWID in 5 major Ukrainian cities (Kyiv, Donetsk, Odesa, Mykolaiv, L'viv). In addition, a set of key informant interviews with OAT program staff was conducted in each city. This is the largest systematic qualitative data collection study conducted with opioid-dependent PWID in Ukraine. In order to gain a deeper understanding of the various factors that influence OAT entry and retention in Ukraine, three specific categories of PWID were recruited:

(1) ON OAT: 86 men and women currently receiving OAT
(2) PREVIOUSLY on OAT: 34 men and women who had previously been on OAT; and
(3) NEVER on OAT: 43 men and women eligible for OAT but have never started it.

Participants on OAT were further divided into recent (<1 year: N = 31) and remote (≥1 year: N = 55) inductions on OAT to address nuances of their experiences entering the program since policy and procedures had changed over the years. WOMEN only focus groups (N = 36) were also included to explore potential gender differences with OAT entry and retention. The WOMEN only groups were mixed and included women currently (<1 year: N = 7 and ≥1 year: N = 21), previously (N = 4) and never (N = 4) on OAT. Local research assistants in each city who were experienced working with PWID and familiar with OAT recruited a convenience sample of participants for each FG with groups ranging from 5 to 11 participants. More detailed information about the recruitment process, informed consent procedures and focus group implementation have been discussed previously (Bojko et al., 2015).

The interview guides covered attitudes and beliefs toward addiction treatment in Ukraine and knowledge of and experiences with OAT. Sample questions included "What types of treatment did you seek for your opioid dependence?" and "How did you find out about OAT and what information helped you decide to pursue (or not pursue) OAT?" Those currently or previously on OAT were asked to describe their experience with OAT including "How did you become involved in the OAT program? What were your OAT treatment expectations?" and "What are some things that make OAT hard/easy?" FG facilitators were instructed to probe participants about factors which influenced their participation (entry/retention) in OAT, challenges they encountered with accessing and staying in OAT (i.e. individual problems; site barriers; issues with clinic staff, family, police; medication concerns) as well as the benefits they feel they received from being in OAT. FG participants were also asked about the best/worst parts of OAT, their suggestions of how to improve and/or change OAT programs and whether they would recommend OAT to others with opioid addiction. The study protocol and interview guides were approved by the Institutional Review Boards at Yale University (USA) and at the Ukrainian Institute on Public Health Policy (Ukraine).

The FGs and interviews were conducted by trained facilitators fluent in Ukrainian and Russian and were audio-recorded. FG participants were instructed to choose a fictitious name to be used during the session so all names appearing in this paper are pseudonyms. The recordings were transcribed, translated into English and back-translated to ensure proper interpretation to allow for data analysis by all research team members (Brislin, 1970). Data analysis utilized an inductive grounded theory approach which provides systematic procedures and guidelines for examining qualitative research and for building conceptual frameworks that can be linked together in theoretical models (Bernard & Ryan, 2010; Glaser & Strauss, 1967; Strauss & Corbin, 1998). Each English transcript was coded independently by two of the authors (MJB, AM, IM, RM) using MAXQDA qualitative data analysis software (VERBI Software – Consult – Sozialforschung GmbH, 1989–2014). A codebook was developed based on initial readings of the transcripts and finalized based on discussions among the research team and review of memos created after coding the first set of transcripts. Meetings to discuss coding queries and reach consensus between the coders were held bi-weekly. A constant comparative approach was used to identify common concepts, themes and domains that emerged from the qualitative data.

Low OAT entry and retention rates contribute independently to suboptimal OAT scale-up. As the main access and entry barriers to OAT in

Ukraine, including registration requirements, fear of police harassment, lack of available spaces, being placed on interminable waiting lists, and fears and misperceptions about OAT medications, have been previously described for Ukraine's PWID (Bojko et al., 2015; Mazhnaya et al., 2015), this paper focuses on the qualitative data analysis of the coded segments related to experiences and beliefs associated with OAT retention since retention in treatment is crucial to achieve optimal treatment benefits for the individual and for society (Gwin Mitchell et al., 2011).

3. Results

The sociodemographic characteristics of focus group participants are shown in Table 1.

Participants were primarily male (66%), on average 37 years old, with 71.3% having completed secondary school education and half of the participants reporting being married or in a steady relationship. Official employment ranged from less than 10% for those recently started on OAT to 35.3% for those previously on OAT. Most participants had been previously arrested, ranging from 71.4% in the women's only group to 97.1% of participants in the previously on OAT group.

It is important to highlight that although we use the newer term opioid agonist treatment (Samet & Fiellin, 2015) to discuss treatment of opioid dependence with methadone and/or buprenorphine, the term "opioid substitution therapy" (OST) was used during the data collection period in Ukraine. As a result, OST, together with the terms "substitution maintenance therapy" (SMT) and "substitution treatment" (ST) which are used interchangeably in Ukraine, appears in the respondents' narratives in order to preserve the accuracy of their words.

Several themes emerged that undermined OAT retention for those who had successfully initiated it and included barriers associated with clinical and provider factors such as unclear treatment plans and dosing concerns as well as structural barriers such as clinic site factors, legal policies and regulations around OAT medication dispensing and societal attitudes toward PWID and OAT services.

3.1. Unclear treatment goals

Important among the obstacles identified is the lack of clarity about a long-term plan for OAT and the expected treatment outcomes. Unclear and misaligned treatment expectations between OAT medical providers and the clients made it difficult for participants to stay in treatment. During discussions, it became apparent that clients and providers differed in their expectations about whether the goal of OAT was becoming fully abstinent from all opioids (going "drug free") or successfully reducing drug use. Some participants anticipated being on OAT for a short time, or even intermittently if they experienced relapses, while others were told it would be for life. In some cases, this misalignment in expectations between client and program resulted in treatment discontinuation.

Many indicated that their treatment goal was to lower their OAT doses and stop OAT as soon as possible, however, they were unclear how long they would have to remain in treatment. As noted by one OAT client from L'viv "*We had discussions, because of course the initial intention is to get off completely….I thought I'd manage to do it in half a year.*" Some participants assumed that they would know when they were ready to stop OAT:

> Nobody told me anything. I was going to the program constantly. All the time…when I first came to the program, I spoke to the doctor at once, the doctor who adjusted the dosage for me. I told her immediately that I would leave. Well, in good time. When I feel it, I will tell you. (Alyona, Mykolaiv, Previous OAT)

Others believed that their doctors would tell them the best time to stop OAT, while consistently lowering the medication dose and monitoring the progress and steps being taken by the client to change their behavior and start to lead a more "normal" life.

> Facilitator: Kolya, did you also have a treatment schedule?
> Kolya: Yeah, sure. Everyone would like to get off it.
> Facilitator: You mean, this was also your aim when you came to the program?
> Kolya: Sure, right. I mean, slowly you realize it and you want to have a normal life.
> Facilitator: So what did you agree upon with your doctor?
> Kolya: Lowering the dose and all that stuff.
> Nina: He (the doctor) said it depends on if you are mentally ready. You can bring it down and down like a hero, and then you feel bad…So are you ready to say that you will never inject in your life? You have to change everything and you need time to do so. (Mykolaiv, On OAT > 1 yr)

The importance of providers discussing treatment timeframes or discharge planning was voiced by several previous OAT clients. Some clients claimed that if they had a clearer picture of how OAT worked and a chance to discuss an individualized treatment plan, they may have been more likely to remain in treatment:

> I'm supporting it (OAT), but, I'll explain to you. If they told me at the moment of joining the program that I would be taking it for five years and not a day longer, I would prepare myself to do it for five years. I would be preparing myself for that and reducing the dose considering the 5-year period. But when I joined it, I said that I would be attending it till I die. My husband was taking it till his death and he died within the program course. But in my case it happened that I left the program. Otherwise, I would have been taking it till my death. (Vita: Kyiv, Previous OAT)

The need to know how long one would be on OAT was often associated with the client's fear that the longer one stayed on OAT, especially methadone, the more harmful it was to their health and could even result in death:

> Zhenya: Well, for me it was like they told me. They just threatened that it is just for three years and then that's all.

Table 1
Demographic Characteristics of Participants by Type of Focus Group.

Participants' characteristics	ON ≥ 1 yr (N = 55) N (%)	ON < 1 yr (N = 31) N (%)	PREVIOUS (N = 34) N (%)	NEVER (N = 43) N (%)	WOMEN (N = 36) N (%)	Total sample (N = 199) N (%)
Men	43 (78.2)	26 (83.9)	25 (73.5)	38 (88.4)	0 (0.0)	132 (66.3)
Mean age	40	33	39	35	38	37
Education						
Less than completed secondary	16 (29.1)	8 (25.8)	6 (17.6)	18 (41.9)	9 (25.0)	57 (28.6)
Completed secondary	28 (50.9)	16 (51.6)	13 (38.2)	14 (32.6)	19 (52.8)	90 (45.2)
Higher than completed secondary	11 (20.0)	7 (22.6)	15 (44.1)	11 (25.6)	8 (22.2)	52 (26.1)
Have official employment	9 (16.4)	3 (9.68)	12 (35.3)	8 (18.6)	7 (19.4)	39 (19.6)
In relationships	19 (34.5)	16 (51.6)	17 (50.0)	20 (46.5)	18 (50.0)	90 (45.2)
Arrested at least once	49 (89.1)	22 (70.9)	33 (97.1)	36 (83.7)	25 (69.4)	165 (82.9)
No income	9 (16.4)	11 (35.5)	3 (8.82)	9 (20.9)	9 (25.0)	41 (20.6)

Facilitator: What do you mean by 'three years and that's all'?
Zhenya: You would drink methadone and then will go to the cemetery. Some people said 'two years'…
Facilitator: Who told you this?
Zhenya: Other people, who, perhaps, were there before, or who just heard about methadone program. (Mykolaiv, Previous OAT.)

Another assumption about long-term OAT was that if clients stayed in OAT for an extended timeframe, providers were automatically increasing their medication dosages. Some clients, like Tania from Odesa, indicated that there needed to be a more individualized strategy: "*As for increasing or decreasing doses, it seems to me that is a personal thing, depends on the doctor's decision*." An individualized approach to developing a treatment strategy was also stressed by the Mykolaiv participants with OAT experience.

Sergey: As for me, it [OAT] is the best option. The only thing is that it should be more individual, that a doctor would kind of devote himself to each patient and discuss whether he wants to go from the program. So that he would convince them to leave program and did not convince to…, well…
Zhenya: To increase the dose.
Sergey: Well, maybe they are not convincing (to increase the dose), but they could have emphasized the exit from the program.

Unclear or dissonant treatment goals between providers and clients, coupled with their beliefs and concerns that being on OAT for an extended period of time is harmful to their health, can dissuade PWID from choosing OAT as a treatment option or interfere with their retention in care. Those clients who have been on OAT for several years, however, claim that it takes time to adapt to the medication and were cognizant that if they left the program without making any major changes in their life situation, they were destined to "*just get into the same environment…and that's all, in principle. And you start using again*" (Zhenya, Mykolaiv, Previous OAT). Igor, a long-term OAT client in Odesa, exemplified the discordance that occurred when unclear treatment goals, misinformation and internal fears collide:

When we first came on the substitution program, the doctor immediately told us: 'It is not a cure', so that you understand it. It was told from the very beginning, that for two or three years and then it is desirable that you leave it. But it took two years…three years have passed, I know that I'll go from this drug – but I will return to a street drug. I do not have such power of will to overcome it and get away from substitution therapy and then not to start again with the street drugs.

Zhenya, a previous OAT client from Mykolaiv, supported OAT and felt that it was only after an extended treatment period that PWID began to feel "normal." He thought that it was important to dispel the myth about extended OAT being harmful by describing his own long-term experience: "*When I had been there for 4 years and did not begin feeling worse… in principle, maybe felt even better. I started to recover…eat normally, live normally*."

3.2. Dosing concerns and challenges

The concerns around changing medication doses or being in OAT for an extended time period highlighted the issue of proper dosing being a barrier to OAT retention. While some clients complained that their initial dosing was either too low or too high, which made them feel ill and unable to continue with OAT, most understood that it may take a few weeks to arrive at their proper dose. Practitioners in Ukraine followed an international standardized induction protocol allowing for an initial dose of medication (25–30 mg of methadone) which could be raised or lowered as needed during the first 1–2 weeks of treatment to stabilize the dose. It was after the induction phase, however, that the procedure to increase or lower OAT dosages became more complicated. Participants discussed the fact that they often felt that their OAT dose was inappropriate and described the struggles they faced getting their dose changed. During the data collection period, requests for dosing modifications not only had to be approved by the narcologist (a Soviet style addiction treatment doctor) but also required the approval of a three-person medical committee that met either weekly or on an as-needed basis. As a result, the dose-changing process was time consuming and cumbersome, as described by the Mykolaiv group:

Ira: Well, two times a month on the first and the fifteenth day, we write a paper and bring it to the doctor. Then they hold a commission to decide to bring it up or down or not.
Facilitator: And what happens, does the doctor satisfy your demands?
Ira: Yes, usually yes.
Facilitator: So if you need to increase your dose, they increase it?
Ira: Yeah, we've got a good doctor.. she's a very good doctor.
Denis: Of course it would be better to do it without this commission. If you feel that you need a higher dose, why do you need the commission? Or if you decide to lower it, you just go to your doctor, why this commission again?
Ira: That's the rule.

Some participants complained that doses were too low and were insufficient to decrease opioid cravings. Inadequate dosing often prompted the use of street drugs, opioids and other substances, especially tranquilizers and sleep medications to alleviate their cravings. A subset spoke of using tranquilizers/sleeping medication to supplement their OAT:

"Sleeping pills *(sonniki)*, mainly the sleeping pills. As he's got not enough… he gets up at five or at four o'clock in the morning and he starts wandering. That's not a healthy sleep, the healthy sleep is 7–8 hours. Right? And here, first you've gotta spend two hours trying to fall asleep, having those nightmares. You ask them to bring your dose up – no, there's no way. (Pavlo, L'viv, Previous OAT)

Many did not feel that their medication dose was effective for the full 24-hour period until they could receive their next dose and some clients wished they could split their daily dose:

Actually it would be good if we could receive half the dose in the morning and half the dose in the evening because sometimes I feel it's not enough. Especially when you get a bit sick, then you wake up at four o'clock in the night and you feel bad. I mean, my nose running and all stuff, and so I hurry up to be at the site at seven. (Ira, Mykolaiv, On OAT > 1 year)

The lack of flexible dosage management combined with the complicated process to change dosage (especially increase their dosage) hindered many from asking for a dosing increase. Some clients were afraid to ask for a higher dose because they did not want to look like they only came to the program to get high. Others, like Tania from Odesa, claimed that "*taking more than 120 milligrams (of methadone) is not allowed…not recommended. While at the same time it does not suffice for some people*." Some practitioners may have claimed that there was a maximum dosage because they did not like to prescribe higher doses of medication because they did not want to be seen as helping PWID stay on drugs. These fears associated with increasing medication doses or being in OAT for too long, both on the part of patient and provider, often resulted in undermedication, which hampered retention efforts.

Some clients attributed the difficulties associated with raising and/or lowering dosages to money and financial payoffs and not what was best for the client as highlighted in the following exchange with previous OAT clients from the Mykolaiv group:

Zhenya: You have to write an application to reduce the dose. And either they do not have time, or something else. But to increase the dose – you are welcome. And they increase it.
Ruslan *(interrupts):* I heard that now, in order to reduce the dose, you need to have connections there. They are increasing your dose kind of forcefully.

Zhenya: Yes, I have a feeling that the longer somebody is taking methadone, the more money they receive. I think so.
Ruslan: Previously people were killing themselves for their own money, and now [they are being killed] by the health care system.

3.3. Treatment Site Factors

Numerous OAT retention barriers resulted from structural and operational factors associated with the treatment site, including inconvenient locations or hours of operation, and even suboptimal space to provide OAT services. In each city, it was common to hear the phrase "*You spend an hour to get there…and an hour back*" (Odesa, Previous OAT). Many of the OAT sites in Ukraine are located in the outskirts of cities, in hidden locations or remote from public transportation. In some regions, there are no sites operating in smaller towns and cities and OAT clients are forced to travel considerable distances to the main city, which may take upwards of 2 hours each way. A number of participants complained that their OAT site locations were inconvenient and the daily time, effort and cost involved in traveling was a major barrier for remaining in treatment. For some, it was their main reason for leaving OAT:

I was on the therapy for 1.5 years. I left it because it was far for me… it took a lot of time to get there. When my child was born, I left it myself. And now I would like to return, but to a closer site. (Sergey, Donetsk, Previous OAT)

Site hours of operation varied. For some, the site was open for too few hours. For others, the site opened too late in the morning, especially for those that worked. Others complained that there were no "afternoon/evening" hours. The most common voiced complaint about the hours of operation was that they were inflexible and interfered with their ability to find and keep employment. For a subset of those who were previously on OAT, this was a primary reason for leaving the program.

The only disadvantage [of the program] is that it's hard to go to work, and you try to find the ways [to combine both]. I tried it many times. And you realize that you need to go to work and it's impossible to go there until you get the medication. (Andrey, Donetsk, Previous OAT)

Another consistent complaint was that most sites were too small and could barely accommodate staff and clients. Oftentimes, there was neither a waiting area nor restrooms available for clients, which made clients feel uncomfortable, especially women and those with co-morbid conditions. Olya, a previous OAT client in Kyiv, stated: "*Can you imagine that there is no place to sit down for those people who stand in line and among them are those on crutches, pregnant women in a tiny corridor*?" The women only group in Donetsk underscored the difficulties they encountered with the lack of basic necessities provided at the OAT site:

Katya: So there are no medical services apart from the pills they give us, and I even take my water with me… And also it's weird, of course, that at this OST site there is no water closet. I have the third group of disability and I can't even go to the toilet.
Vita: If it's raining, there's no waiting area so they throw us out into the street.

OAT clients could not perceive that a healthcare delivery site could lack even basic necessities, including insufficient waiting and clinical space, which not only made it difficult to receive treatment, but also interfered with proper medication administration:

Sergey: As I said we go to this micro store-room, where there is no place to sit. Look here, it said in the package leaflet that it's necessary to take the whole pill without breaking it. OK…so never mind! But besides that it says that I have to sit for 15 minutes but there is no sitting area.
Olya: At least to drink tea.
Sergey: No, it's not about drinking tea. I have to sit to digest the medication. Not being able to spend 5 minutes in the room…and after that, to leave the room, so it will be digested. Well, it's a nightmare. (Kyiv, Previous OAT)

Sergey then went on to point out that the tight space of many OAT sites also made it difficult to maintain any level of privacy or confidentiality, especially for psychosocial assistance:

I wanted to say that there is no place to meet with a psychoanalyst, a psychologist or a social worker or with anyone else with whom it would be possible to share something…To express my feelings which are bothering me very much. They are tearing me apart and there is no room in this program. There is not even a tiny room where people could receive psychological support.

3.4. Legal Policies and Regulations

Ukraine's macro-level legal and political system has created numerous obstacles, mainly around medication procurement and distribution and treatment regulations and policies that are at the core of many of the OAT retention barriers. Currently, methadone and buprenorphine are administered mainly in tablet form.

3.4.1. Daily Observed Therapy

Perhaps the most contested OAT policy is the lack of a clear prescription policy for use outside the OAT site and the differential application of existing policies for narcotic substances (buprenorphine and methadone). As a result, OAT in Ukraine is administered as daily observed therapy with most clients required to visit the program site daily in order to receive their dose. Some private providers have started to prescribe buprenorphine privately where it is dispensed weekly, but this practice is not widespread and methadone tablets were not approved for prescription at the time of data collection. The biggest complaint of most current and previous OAT clients was that of being "leashed" and "tethered" to the program and unable to leave the site area or travel outside the city, even for work or family reasons such as funerals: *Simply, you're leashed, it's (OAT) taking all your time, and work, and the family situation…*(Pasha, Donetsk, Previous OAT). One long-term female OAT client from Mykolaiv endorsed this view and noted that "*The only problem is that it is very hard to get a job. It's a very sore issue, the schedule to take those pills. The other thing is that we can't go away, for a vacation or a funeral, so guys can't get any long-term jobs*."

Even those PWID who had never received OAT claimed that the biggest obstacle keeping them from enrolling in OAT was their fear of being tied to the OAT site and not being able to find employment:

For me, it is an important argument; even if I want to be enrolled, I am afraid that I will be very limited in my movements. I like going some places. I know that I like to travel with my children to different places; I am like everybody else. This is the reason, and also the fear, that I have no job, I fear that they will not employ me, God forbid. Not that the program can be closed; the very enrollment in the program limits and restricts me in many ways. (Mykola, Odesa, Never on OAT)

For some, the daily visit requirement resulted in treatment fatigue, especially for those clients who have been in treatment for many years. While they understand that they need treatment, they come to resent the interference in their daily life. These restrictions on prescription or take-away doses often resulted in discontinuation and withdrawal from the program:

He won't be able to attend it eternally. He will get tired of it. Well, how to put it? He doesn't quite get tired of it, but he loses the perception of this program. He develops a sort of hatred towards it. (Vita, Kyiv, Previous OAT)

Policies which make it difficult to issue prescriptions or transport OAT to other sites (e.g., a nearby hospital) also complicate staff responsibilities for providing care and treatment to OAT clients, especially those with comorbid conditions, such as TB, or who need to be hospitalized. Existing regulations do not provide staff with the flexibility to deal with clients who arrive at the site for treatment and who may expose others and endanger their health.

> Sasha: And the nurses would treat all the people the same way. She would never powder a medication and put it into a glass herself in order to take it to a taxi where a person could drink it. And someone would have to take a person and place him into a chair and then carry him to a room together with the chair. And sometimes such people might have active TB or open wounds, or…
> Andrey: Yes, he might have any disease. (Donetsk, Previous OAT)

While the option exists to provide continuity of OAT care, it is a complicated process and is used at the discretion of the OAT provider. Even bringing the medication just outside the OAT site puts staff and clients at-risk of being harassed by law enforcement officials According to Sasha, a long-term OAT client in Odesa, one reason providers may not be willing to give medications outside the site is because they "*do not have the proper license…or if they have, they do not want to deal with it. They have different audits, by police, and other things.*" The time and paperwork involved to temporarily transfer a client to another site or to transport medications to a hospitalized client make it a hassle to accommodate the clients.

> Nina: Leaving even for two or three days is not possible. We can't go to the Oncology Clinic in Kyiv for a consultation as we need to be away for two days.
> Facilitator: Have you tried to move temporarily to another site?
> Nina: You can do that only for a week.
> Facilitator: You mean, for two days it is not possible?
> Nina: Nope, only for a week and no less, plus only if there are any places available there, at the Kyiv site. (Mykolaiv, On OAT > 1 yr.)

If clients are able to make arrangements with their site for delivery of medications, most must pay for these services which makes it a costly expense for clients who must be hospitalized for longer term.

> They might bring me methadone if I pay them. I had to pay for the taxi for the drug being brought to me. And it was good that I could pay for that. I'll share my personal experience. Last year I had a double pneumonia and I had to stay in the hospital for 21 days. It's a general practice to be hospitalized for 21 days. They wanted to be paid 50 hryvnia [Ukrainian currency: 8 UAH = US$1). And I was paying this amount to them. I'm not stingy. But if you count – 50 hryvnia times 21 days…it makes one thousand [US$125]. (Simon, Kyiv, Previous OAT)

3.4.2. Medication dispensing

Another barrier to retention involved the way in which medication was dispensed. Both methadone and buprenorphine are dispensed as tablets aside from a small pilot program started in 2014 that dispenses liquid methadone to 300 patients. In an effort to prevent diversion of tablets, most sites crush the tablets and dissolve them in water. While this is not an "official" policy, some OAT clinic staff indicated that this method was suggested by law enforcement officials as a way to prevent diversion. Site personnel comply with this request but may not have considered the impact such an action would have on the time involved in dispensing the medications this way (crushing and waiting for tablets to dissolve). Many clients believed that crushing and dissolving the tablets lowered the efficacy of the medications and increased side effects, including tooth decay and gastrointestinal problems. Ira, a Mykolaiv OAT client, in response to a FG comment that "*diluting methadone with hot water, it is such a bad thing for the stomach*" commented that "*hot water destroys teeth even more, it's really terrible. I do it for four years and lost four of my teeth*" while Sonya, a long-term OAT client from Donetsk, described the gastrointestinal problems she associated with crushing the methadone tablets:

> They give us those pills and they crush them down. You can't do it. Like I've got chronic gastritis and I've got this vein…it doesn't work, it aches all the time, I gotta take those pills intact. So why do I have to suffer because someone else takes those pills away from the site? I take them…then I go and feel such a bitter taste and this pain, for some years already.

Related to this method of dispensing medication is the degradation clients reported feeling when the nurses make them open their mouth and raise their tongue to ensure that no pieces of medication remain. Some clients have even reported nurses sticking fingers into the client's mouth to swipe through and check for medication pieces. Tonya, a client previously on OAT in Odesa expressed her frustrations:

> You should adhere to this treatment somehow. When they started with this buprenorphine… even in the leaflet it is said that it is sublingual and that the pill should remain intact. Then they started crushing it for us even though they shouldn't. I tell them, "why do you crush it down into powder?" They say "pour it yourself, under your tongue… Open your mouth… come on, raise your tongue." And so she [nurse] just puts it like this all over the mouth… Just like this, and, of course, I swallow it and then I've got cramps.

For Tonya, and other clients, the perceived side effects that dissolving tablets had on her health and on her patient rights, resulted in her terminating OAT:

> Observing our rights, at least some rights. Not like she [nurse] did, crushing it all to dust, pouring it all over like that, and that's it. I mean, what's the point for me to go there, if it gives me nothing. I went back to the street drug.

3.5. Negative Attitudes, Stigma and Discrimination

Negative attitudes and poor treatment by OAT medical staff were also mentioned as barriers to remaining on OAT. According to participants, some clinic staff members do not believe that OAT is effective, but nevertheless, have been assigned to provide OAT services and work with clients. These providers, despite being medical professionals, are unable to suppress their negative attitudes about OAT and consequently embarrass and humiliate OAT clients, as described by Sasha, an OAT client from Donetsk:

> She says it point blank, not hiding anything from anyone: "God forbid! We were made to work here… not a single person would undertake working with these tablets…she says, that was one heck of an idea! The junkies come in and you feed them with these pills. Picture that!" (chuckles).

Irrespective of location, participants with OAT experience commonly cited that they feel that medical providers do not treat them as human beings:

> This [OAT doctor]…she doesn't treat us as humans. She says: you don't like it – you go back to street drugs. That's how they talk to us. I am serious now. If you go there and just ask something…just as a human being. (Tonya, Odesa, Previous OAT)

> This attitude to us, for the medical workers we are just… not humans, let's say so. We only look like people. That's how it is, right, we only look like people. (Pavlo, L'viv, Previous OAT)

This label of "subhuman" applies to all PWID in Ukraine, even those who are trying to treat their addiction using OAT:

> My opinion about the substitution therapy hasn't changed, and I realized that the attitude of society to drug addicts is negative and categorical. It doesn't matter if you buy the drugs from gypsies or you prepare them by yourself, or even you go on a substitution therapy…anyway you are a drug addict, that's all, you are a subhuman. (Alex, Odesa, Never on OAT)

These negative attitudes, combined with either a lack of understanding or a judgmental perspective about OAT from family, medical providers, community, employers and society further isolate PWID and OAT clients and add to their burden of remaining on OAT. The actual location of OAT sites is inherently stigmatizing with most sites located in narcology (chemical addiction) centers, AIDS Centers, and TB clinics, all diagnoses that are labeled as "socially dangerous" diseases. In addition, because the sites are associated with PWID, some towns have been known to close OAT sites or refuse to open new sites based on the personal beliefs of local politicians:

> Yes, I go there every day. We had a program for two years, near a police station, and in an old building in Ilyichevsk. Then, two years later, the mayor of the town said: "This is our town, we have no drug users." And we were transferred for two weeks to Luzanovka. They said that the license expired and they had to extend it. So, we were transferred here, to Luzanovka, and I have been coming here regularly for four years into which these two weeks turned. (Odesa, On OAT > 1 yr)

The stigma associated with being in OAT forces a subset of clients to not tell others that they are in OAT. Some experience pressure from family members who insist that they complete the treatment and leave the program. Lilia, an OAT client in L'viv stated: "*My sister knows and wants me to leave it…to silently reduce the dose*." A group of men who were previously on OAT in L'viv recounted their experiences of keeping their treatment a secret:

> Pavlo: For example, there are such cases when some dudes don't tell their wives that they are on OST. They just know that they used to inject and then got off, they know their status, and that's it. And how, how can you explain to your wife where you go every morning at 10 o'clock? Okay, today you go to Mykola, tomorrow to Petro and the day after tomorrow to Yura.
> Facilitator: And why don't those guys tell their wives?
> Pavlo: Well, they don't want to.
> Facilitator: And why, in your opinion?
> Pavlo: As their wives think that it's the same drug.
> Andriy: The same chains.

Trying to keep secret that one is on OAT is often associated with the fear that they will be discriminated against, particularly in the workforce.

> It's not a secret that many people, if you explain to them that you are on this medication, they will kick you out in no time. That very instant, no one is even going to talk to you at work. (Denis, Donetsk, On OAT > 1 yr.)

> While trying to get a job, we're often rejected because of HIV-infection. Being HIV-infected in addition to the drug use, even if they are not aware of it, they would require medical certificates. And it turns out that as soon as I show up somewhere and people look at me, doing a sort of a face control, they wouldn't miss it. You understand me? (Sasha, Kyiv, On OAT <1 year)

OAT clients, along with OAT providers, also experience severe discrimination from law enforcement personnel and are often targeted and stigmatized because the OAT programs are viewed and portrayed as "drug dens" where PWID can come for legal drugs provided by the Ukrainian government. OAT participants often are known locally as drug users and have been stopped by police at the sites or on their way to/from the sites. Some were physically harassed and threatened with detention or arrest, as police searched for diverted methadone or buprenorphine tablets.

> We've got a disabled man leaving the site and they knock him down and lay him on the ground. And this disabled man, his hands are paralyzed. They knock him down, they open his mouth, they check… They punch his face, take him to the police station, violating all the rights. The police forget that it is a governmental agency and not some drug den. (L'viv, On OAT >1 yr)

One male OAT client from Odesa described how when he came to the program, "*one of the bosses of Drug Trafficking Police came there, looked at us, stood up and said: 'It is better to take you all, and all your doctors to an island, soak you with petrol and burn you*'."

The fear of police harassment at the OAT site and the discrimination and stigma experienced by OAT clients affected their desire to come to the site and often resulted in their leaving the program. Many participants made reference to the multi-levels of stigma (drug use, HIV, TB, prison) that they experience: *"Wherever you go, whoever you turn to. You wanna get a job – you were in jail plus you are sick"* (Roman, L'viv, Previous OAT). Being on OAT adds another layer of stigma, even though they are making a "positive" step by seeking treatment for their opioid addiction and trying to get back to a normal life:

> The worst thing in our society is terrible discrimination. People here look and see that a person is a drug addict, and what's more, an HIV-positive one, that's it. You walk your way, and no one wants to deal with you whatsoever. You're nobody and nothing. They treat you like that so long as they don't face the same woe. When it so happens, they will run like bunnies – that's 100% true about our authorities. As long as trouble doesn't touch them, you know, they won't lift a finger, guaranteed. (L'viv, On OAT <1 yr)

One wish by participants is that others realize that addiction is an illness and that they be treated like other patients receiving care:

> Tanya: If they had attitude to us like to all other people, accept us as patients. But they do not, they look at us with disgust.
> Lena: They look at us as some disadvantaged people or as some ill people. But this is true, in some way.
> Tanya: In some other countries, drug addicts are considered as ill people and they get pension, and they recover. Here, it is …
> Lena: It is neglected here (Mykolaiv, Women's Group)

4. Discussion

Listening to the discourse of PWID in Ukraine who have personally experienced OAT offers insight into their needs and personal barriers, as well as provides a better understanding of the programmatic and structural barriers that affect treatment retention. To our knowledge, this is the largest qualitative study of such factors from the client perspective in the context of Eastern Europe and Central Asia where post-Soviet healthcare delivery profoundly influences OAT scale-up. Too often policy makers and funding agencies presume to understand the needs of service users and they omit the underlying preferences and lived realities of the patients. Within this sample were PWID who had successfully navigated Ukraine's highly regulated OAT system and were able to enter treatment despite numerous, previously-described OAT entry barriers (Bojko et al., 2015), such as lengthy and cumbersome policies and procedures, including registering as a drug user with narcology services, enduring endless waiting lists, and requirements to fail treatment multiple times prior to starting OAT. Such barriers, particularly "fail first" criteria which require that other therapies be

attempted (and failed) first have been shown to hinder access to and retention in appropriate care (Volkow, Frieden, Hyde, & Cha, 2014).

Once initiating OAT, these same participants found it difficult to fully engage in treatment due to the vagueness about what their OAT treatment plan entailed. Differences in terms of the patients' goals and motivations for seeking treatment from those of the treatment programs and providers, combined with difficulties encountered during the treatment process, often resulted in administrative discharge due to noncompliance including relapse to street drug use (often connected to improper OAT dosing), missing daily visits to the OAT site and disagreements or conflicts with OAT staff.

It is well-documented that healthcare professionals (Lev-Ran, Adler, Nitzan, & Fennig, 2013; Talal et al., 2013; Tracy et al., 2009), including in Ukraine (Polonsky et al., 2015), contribute to the quality of the care that patients ultimately receive. Globally and historically, treatment for opioid dependence has been more influenced by moral biases and prejudices than by scientific evidence (Torrens, Fonseca, Castillo, & Domingo-Salvany, 2013). The finding that responding to OAT dosing, which is clinically indicated for increased craving or polysubstance use, was inflexible and oftentimes misguided by prescribers further supports guideline-based OAT prescribing. There is now considerable evidence that documents higher retention when patients are prescribed methadone rather than buprenorphine and higher methadone doses that exceed 80 mg to 100 mg per day (Bao et al., 2009; Booth, Corsi, & Mikulich-Gilbertson, 2004; Farre, Mas, Torrens, Moreno, & Cami, 2002; Hser et al., 2014; Maxwell & Shinderman, 1999; Peles et al., 2006; Proctor et al., 2015; Simoens, Matheson, Bond, Inkster, & Ludbrook, 2005; Strain, Bigelow, Liebson, & Stitzer, 1999; Wickersham, Zahari, Azar, Kamarulzaman, & Altice, 2013). Instead, Ukrainian clients report that either inadequate or complete lack of response by Ukrainian OAT prescribers interfered (consciously or unconsciously) with the success of a client's treatment plan. In some instances, providers appear to have been under-medicating clients, which either resulted in their direct departure from OAT, or secondarily being dismissed because they had relapsed to drugs.

Incongruent expectations and treatment messages between patients, their families, and medical staff also adversely affected OAT retention with some participants choosing to discontinue OAT. Long-term treatment was rarely discussed, let alone promoted, and patients often expressed the belief that they would be on OAT for several weeks or months and then taper their dose and be “drug free”. Overall, they were inadequately informed about addiction and addiction treatment. Additional retention challenges emerged when this lack of treatment knowledge merged with the negative attitudes and beliefs about OAT medications (especially methadone) held not only by patients and providers but also by policymakers and the general public in Ukraine (Bojko et al., 2015).

As with any medical treatment, a clearly articulated treatment plan is crucial for success. While informed decision-making increases the commitment by patients to succeed with their treatment (Brewin & Bradley, 1989; King et al., 2005; McPherson, Britton, & Wennberg, 1997; Torgerson, Klaber-Moffett, & Russell, 1996), when they effectively engage in a shared decision-making process with their provider, patient treatment outcomes, including retention on treatment, are improved (Elwyn, Edwards, Kinnersley, & Grol, 2000; Mondloch, Cole, & Frank, 2001; Preference Collaborative Review Group, 2008). Creating an individualized treatment plan that is aligned with international OAT prescribing practices would therefore greatly improve the shared responsibility of healthcare providers and patients. Continuing education for medical personnel could focus on discussion of introduction of expectations of OAT such that staff and clients are informed, understand and appreciate the need for long-term treatment. A discussion around treatment goals and creation of individualized treatment plans might reduce some of the mystery behind OAT timelines and dosing concerns voiced by PWID as well as allow providers and patients to establish a relationship and build up trust which is a crucial element for any sort of prescription policy allowing take-home doses of OAT medications. In addition, introduction to peers or use of peer educators who have had positive experiences with OAT to meet with new OAT clients could provide support and encouragement so that they understand the challenges they may face while on OAT and could contribute to retention.

Participants were also faced with daunting daily rituals that manifested themselves as individual barriers to treatment but which were primarily related to programmatic and structural factors. Among these were site barriers including inconvenient location and dispensing hours, suboptimal treatment settings, and lack of ancillary services. While PWID in all cities universally mentioned these hindrances, they voiced their many frustrations with the OAT programs and indicated that these site constraints affected their desire to begin and stay in the program. The feeling of being “chained” to the site and the requirement to make it to the site daily within limited hours created obstacles not only for OAT clients but also for those PWID who understood these realities about OAT and who then avoided seeking OAT services.

Much of the feedback from clients focused on the time and distance involved in getting to an OAT site. Many wished that there were sites closer to their homes, however, the policies associated with opening a new OAT site in Ukraine are very restrictive. Because methadone and buprenorphine are narcotic medications, governmental drug and health policies require that OAT sites have official permits and be equipped according to numerous safety standards including having an alarm system, bars on windows, separate rooms with doors for storage and distribution of medication and special licenses allowing providers to work with and dispense OAT medications.

Central to the restricted expansion of government-funded OAT sites and number of slots is the lack of consistency and political will in allocating need. For over a decade, the OAT program in Ukraine has been funded by international donors, primarily the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFFATM). Now, only approximately 10,000 OAT slots are available throughout Ukraine, of which almost 1500 remained unfilled, primarily a result of subjective national and regional planning policies. Regional Chief Narcologists have been assigned the responsibility of requesting OAT slots for their region as well as allocating and designating their location within their regions. Most often, this process is done with little consideration to the number of PWID in their region and often relying on non-validated methods to assess needs and set priorities. They are allowed to distribute treatment based on their personal beliefs about OAT, which results in the maldistribution of treatment.

This indiscriminate approach to OAT site selection and slot allocation reflects an overall lack of clarity and commitment on the governmental and societal levels as to the overarching goal of scaling-up OAT: Is OAT simply a harm reduction strategy trying to protect those in society from the bad/harmful behaviors of PWID (HIV; drug use, infectious diseases) or is there a recognized longer-term goal of treating addiction as an illness and working toward reintegrating PWID back into society, returning them back to their families and communities as full-fledged working citizens who have a chronic medical condition which may require lifelong medication and mental health/psychosocial reinforcement? Setting national HIV prevention priorities based on objective measures would be a first step towards increasing OAT availability, which remains a major obstacle for retention. A second step would be for providers and lawmakers to recognize that although OAT is an important HIV prevention tool, it is also an evidence-based addiction treatment option which should be mainstreamed into both narcology and primary care settings with adequate slots and resources made available for all opioid-dependent persons seeking treatment. Moving away from the constant association of HIV and OAT could go a long way in reducing OAT stigma and making OAT more attractive and acceptable for a subset of clients who are HIV negative, do not engage in risky behaviors such as needle-sharing, and who want to treat their opioid addiction without an added layer of HIV stigma.

Some of the individual challenges voiced by PWID were often associated with nationally-legislated OAT policies and procedures, such as dosing, daily dispensing restrictions, and lack of flexibility for take-home and prescription doses and created feelings of frustration and resentment toward treatment programs. OAT policies and regulations governing OAT were initially standardized in Ukraine when OAT was introduced over a decade ago. These OAT rules and regulations, however, have been interpreted differently by OAT providers at the regional and local levels to either restrict or adapt treatment options for patients and although local settings have been able to "interpret" the national guidelines more liberally, some constraints will require legislative modification. Ukraine continues to be at the crossroads concerning policies affecting PWID (Bojko, Dvoriak, & Altice, 2013). Central to the future of OAT in Ukraine will be allowing take-home doses, dispensing outside formalized addiction treatment settings (including within primary care, hospital and criminal justice settings), and streamlining transfer of patients to new or more convenient OAT sites as patients become employed, move or are increasingly more mobile due to work or family needs. In addition, given the lack of concerns about abuse and diversion, it is now time for Ukraine to look towards successful OAT models elsewhere. For example, the United Kingdom adopted the cost-cutting measure of healthcare resource task-shifting, a proven strategy to delivering antiretroviral therapy in resource-poor settings (Alamo et al., 2012; Babigumira et al.; Ivers et al., 2011) and applied it to OAT. Community pharmacists there can dispense OAT and supervise its consumption based on dispensing guidelines, which has allowed for safely increasing daily doses, increased flexibility with dispensing hours and convenience and increasing the retention and number of patients treated (Strang, Hall, Hickman, & Bird, 2010). Such approaches will be crucial for OAT's sustainability as international funding for OAT is being transitioned to Ukraine's Ministry of Health (Bachireddy, Weisberg, & Altice, 2015).

Plans to improve entry and retention in OAT programs in Ukraine are also needed to scale-up the availability of treatment and the use of current services. One such evidence-based quality improvement intervention currently being implemented in Ukraine is the NIATx (Network to Improve Addiction Treatment) Model (see http://www.niatx.net) which uses change teams to improve the healthcare delivery setting and effectively reduces waiting times to treatment and improves treatment retention. This rapid-cycle testing intervention involves not only the potential client but also the OAT clinic providers and staff. NIATx works with the treatment providers directly and aims to improve quality using existing resources and legal frameworks in order to fix key problems in the way the OAT programs operate (McCarty et al., 2007).

A final and more troublesome barrier to OAT retention is the negative attitudes toward drug users and OAT recipients expressed by the OAT staff, law enforcement, policymakers and general society. Whether real or perceived, participants experienced targeted negative attitudes of disdain, discrimination, and stigma. Many recanted stories of police harassment that affected their decisions to attend OAT treatment sites. Others expressed feelings of worthlessness imposed by treatment by site personnel. These negative attitudes result in discouragement with treatment and gaps in treatment attendance. Providing OAT in primary care settings could help to reduce the stigma associated with OAT because these sites tend to be closer to where patients live and are locations where they receive routine primary care and thus, can avoid the stigma and police harassment at OAT sites. Several programs to improve retention including integration of OAT treatment into primary care centers and combining OAT with HIV and tuberculosis treatment centers have been initiated in Ukraine (Bachireddy et al., 2014; Morozova, Dvoryak, & Altice, 2013). A widespread introduction of OAT programs into these modes of service delivery should improve clients' retention and reduce the stigma and isolation associated with separate treatment facilities.

5. Conclusions

For many PWID, the physical and psychological effects of addiction are not their "choice": their choice is whether they wish to seek and stay in treatment. This choice is made more complicated and difficult by a programmatic, policy and structural system that impedes their ability to adhere to addiction treatment and by a society that ostracizes and stigmatizes those in need of medical and mental health services, as a result of drug addiction. Understanding the barriers that hinder entry into and retention in OAT for PWID in Ukraine is an important step to designing interventions and informing policies which can be implemented to help scale-up OAT and make treatment accessible for PWID.

Many of the barriers mentioned by PWID are closely intertwined with programmatic factors and governmental policies so that even small changes made by OAT programs can make a difference in OAT treatment experiences of PWID. Programmatic and policy changes that accommodate the experiences of OAT participants will improve commitment to OAT programs and scale-up, as well as improve treatment for PWID in Ukraine. Providers and programs can learn from each other and identify and share experiences to improve OAT services in Ukraine and create OAT best-practices which are relevant to the Ukrainian cultural and treatment contexts. Many of the perceived barriers are amenable to change. For example, some OAT providers have committed to supplying prescription doses of buprenorphine for their longer-term, stable clients. These providers have reviewed Ukrainian legislation and regulations and found that it is not illegal or forbidden, as some claim, to provide prescription doses. Instead, the process requires a commitment of time and resources to complete necessary paperwork to ensure proper distribution and procurement of the prescription doses as well as a level of trust between the clients and providers that the medication will be used for its intended purposes.

This research has jumpstarted the dialogue between all stakeholders involved in OAT in Ukraine: the individual clients, providers, Ukrainian leaders (national, regional, local) as well as international partners. If these discussions can lead to improved delivery of OAT services and increased access and retention in OAT then these models of healthcare delivery can be used as successful examples to improving healthcare services as Ukraine reforms its healthcare system.

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