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Acceptability of non-abstinent treatment outcome goals among addiction treatment providers in Ukraine

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Abstract

We examined whether acceptability of non-abstinence treatment outcome goals varied as a function of a patient's severity of diagnosis (ICD-10 Harmful Use vs. Dependence Syndrome), finality of outcome goal (intermediate vs final), and type of substance (e.g., tobacco, alcohol, cannabis), among addiction treatment providers in Ukraine. We surveyed 44% of Ukrainian treatment providers ($n=446/1023$; $M_{\text{age}} = 40.4$, $SD=8.6$; Male = 67%; $M_{\text{YearsOfExperience}} = 10.2$; $SD=7.2$). For tobacco use, most respondents (78%–93%) rated non-abstinence as acceptable, regardless of diagnostic severity or finality of outcome goal (i.e., intermediate, final). Most respondents also rated non-abstinence as acceptable as an intermediate or final goal for patients with Harmful Use of alcohol (70%–86%) or cannabis (71%–93%); however, non-abstinence was less commonly indicated by respondents as an intermediate goal for patients with a Dependence Syndrome (alcohol = 52%; cannabis = 68%). Regarding other drug use, although most rated non-abstinence acceptable as an *intermediate* goal for patients with Harmful Use of opioids (68%) or sedatives (64%), fewer rated non-abstinence acceptable as a *final* goal (26%–33%), particularly for patients with a Dependence Syndrome (10%–27%). Very few providers (5%–15%) rated non-abstinence acceptable for other substances. Patients in Ukraine who wish to moderate cannabis or tobacco use will find that their provider is typically accepting of this goal; however, providers are mixed regarding whether alcohol and opioid moderation is appropriate, particularly for those with dependence. Findings support education and research efforts to better understand how provider and patient alignment regarding goals impact patient outcomes following substance use treatment in Ukraine.

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Keywords

substance use disorders; non-abstinence; acceptability; Ukraine

Introduction

Global public health efforts to reduce substance use and related harms have focused on several approaches (MacCoun, 1998; Marlatt, Larimer, & Witkiewitz, 2012), including demand reduction (e.g., abstinence-based education or psychotherapy), supply reduction (e.g., through drug interdiction efforts, control of prescription privileges, age limits for substance use/purchase), and harm reduction (e.g., needle exchange programs, medication-assisted treatment). One approach that serves as both demand and harm reduction is helping patients diagnosed with a substance use disorder (SUD) to reduce or moderate/control their use of alcohol or drugs, either as an intermediate goal on the way towards abstinence or as a final goal. Definitions of moderate/controlled use – also referred to as non-abstinence – typically include two elements: a) a reduction in the quantity and/or frequency of use compared to one's current or problematic level of use, and b) a reduction in the number or severity of use-related problems (e.g., legal, medical, occupational, social, or familial problems) (Rosenberg, 1993).

Not only does this approach help reduce consumption and substance-related problems (Dunn & Strain, 2013), it also supports a patient's autonomy and helps to build rapport/therapeutic alliance. These features are also consistent with a recovery-oriented systems of care model (Sheedy and Whitter, 2009; White, 2008), which is focused on long-term healing, recognizes that there are many pathways into recovery, and has been suggested as a promising approach for treating those experiencing addiction and mental health problems in the United States (US) (Moller & Fornili, 2016; Surgeon General's Report 2016). Supporting non-abstinence is also consistent with behavioral theories wherein people are more likely to achieve a goal when they have selected it for themselves compared to when a goal is prescribed for them (Bandura, 1986; Brehm and Brehm, 1981; Deci and Ryan, 1985), which is reinforced by the notion that SUD interventions will be more effective if they match the substance use goal of the patient.

Although supporting non-abstinence has several therapeutic and public health advantages, there is limited evidence regarding the prevalence of successful moderation among patients with a SUD. The strongest evidence reveals that controlled drinking occurs frequently among patients with less severe alcohol use problems, and is infrequent – but about as common as complete abstinence – among those with alcohol dependence (e.g., Maisto et al., 2007; Rosenberg, 1993; Saladin & Santa Ana, 2004; van Amsterdam & van den Brink, 2013). Additionally, compared to patients with a drinking goal of total abstinence, patients who pursue non-abstinence also experience reductions in alcohol use and related consequences and improvement in mental health following intervention (Dunn & Strain, 2013; Hasin et al., 2017; Witkiewitz, 2013). Moreover, patients who reduce their drinking to non-risky levels have similar outcomes as those who achieve abstinence in that both groups significantly improve in functioning compared to heavy drinkers (Witkiewitz et al., 2017).

Although there are notably few studies from which to interpret the rates of successful moderation of illicit substances, similar to alcohol, moderation of cannabis use appears more common among those with less severe cannabis use problems (Stea, Yakovenko, & Hodgins, 2015), and moderation of other illicit substances seems to be less prevalent than moderation of alcohol among patients with a SUD (Martens et al., 2012).

Despite the therapeutic, public health, and positive clinical outcomes associated with supporting reductions in substance use, accepting and encouraging patients who choose to pursue non-abstinence remains controversial, as evidenced by rates of acceptability among agency administrators and treatment providers in several countries. For example, research conducted in North America (Rosenberg & Davis, 2014; Davis & Rosenberg, 2012; Rosenberg & Davis, 1994; Brochu, 1990; Rush & Ogborn, 1986; Rosenberg, Devine & Rothrock, 1996), Western Europe (Robertson & Heather, 1982; Rosenberg, Melville, Levell, & Hodge, 1992; Rosenberg & Melville, 2005; Klingemann & Rosenberg, 2009), and Australia (Donovan & Heather, 1997; Dawe & Richmond, 1997) has found non-abstinence is more acceptable to agencies and providers in these parts of the world (e.g., 40%–90% view these goals acceptable) compared to the United States (US; e.g., 9%–44%). However, rates vary considerably depending on the type of substance a patient chooses to consume (alcohol vs drugs), severity of their SUD (abuse vs dependence), treatment setting (outpatient or residential), or finality of their outcome goal (initial/intermediate or a final goal).

Although much is known about the acceptability of non-abstinence in predominately English-speaking countries, and a few non-English speaking countries in Western Europe, much less is known about the acceptability of such goals in Eastern Europe, where the World Health Organization (WHO) reports that substance use (especially alcohol use) and related problems are a major public health concern (WHO, 2014). The only study that we could find assessing acceptability of non-abstinence in this region was conducted in Poland (Klingemann, 2016). Findings revealed that 77% of alcohol treatment providers found non-abstinence acceptable for patients with alcohol abuse and 36% believed non-abstinence was acceptable for patients diagnosed with alcohol dependence, which is similar, albeit slightly less acceptable than it is in Western European countries and more acceptable than it is in the US. Additionally, non-abstinence was more acceptable for Polish patients who selected this as an intermediate goal compared to a final goal, and younger professionals and women therapists were more in favor of non-abstinence compared to other providers (Klingemann, 2016). Although this study increases understanding of the acceptability of non-abstinence in one country in Eastern Europe, prior studies found that acceptability varies by country, thus supporting the need to examine this question among providers in other Eastern European countries.

Therefore, we set out to examine the rates of acceptability of non-abstinence in the neighboring country of Ukraine. Highlighting the importance of this topic in this region, alcohol-attributable mortality risk is 7 times higher in Eastern Europe than it is in other parts of Europe (WHO, 2016). Specific to Ukraine, the prevalence of heavy episodic drinking (22.6%) and alcohol use disorder (4.9%), and the average amount of alcohol consumption per capita (13.9 litres) are higher than most other European countries, and the risk to

mortality and morbidity are also very substantial (WHO, 2014). According to recent WHO data, Ukraine ranks sixth in the world in rate of alcohol consumption. Not surprisingly, rates of alcohol use are higher among Ukrainian males compared to females (WHO, 2014). Moreover, over half of men and just over 10% of women in Ukraine are current, regular tobacco smokers, 47% to 62% of whom evidence dependence symptoms (Webb et al., 2007), and approximately 76,000 Ukrainians were registered as ‘drug users’ in 2014 (Bureau of International Narcotics and Law Enforcement Affairs, 2015). Although over half a million Ukrainians are diagnosed with alcohol or drug dependence, only about one-half were provided with treatment in 2016 (Ministry of Health, Personal Communication), underscoring the need for adequate access to addiction treatment. Because current monitoring and treatment practices are typically reserved for those with the most severe SUDs, efforts for early screening and brief or other outpatient interventions for those in earlier stages of substance use problems are neglected, which limits the possibility of diverting a problematic substance use trajectory.

Current Study

Given the recent efforts from the WHO to reduce harms associated with alcohol use across this region (WHO, 2012), and the importance of adopting early screening and brief interventions for Ukrainians with less severe alcohol use in order to prevent future problems, understanding the rates of acceptability of non-abstinence is an important step in identifying possible education and training needs for providers in this country which could enhance the provision of early interventions in Ukraine. Therefore, the current study has two primary aims: 1) examine the rates of acceptability of non-abstinent treatment outcome goals among addiction treatment providers in Ukraine, and 2) examine whether acceptability of non-abstinence varies as a function of three key variables: the type of substance consumed by the patient (e.g., alcohol, opioids, cannabis, etc.), the severity of a patient’s SUD (International Statistical Classification of Diseases and Related Health Problems – Tenth Edition; [ICD-10] Harmful Use vs. Dependence Syndrome; 1992), and the finality of their treatment outcome goal (intermediate goal vs final goal). Based on prior research (Davis & Rosenberg, 2014; Rosenberg & Davis, 2015; Klingemann, 2016), we hypothesized that acceptability of non-abstinence would be higher for those patients diagnosed with less severe substance use problems and for those who chose non-abstinence as an intermediate goal compared to those patients with severe SUD and who chose this as a final goal. Based on data showing that rates of acceptability vary depending on the specific type of substance one chooses to consume (Rosenberg & Davis, 2014), we also hypothesized that Ukrainian providers would find it more acceptable for a patient to pursue non-abstinence from alcohol or cannabis than for other substances (e.g., opioids, hallucinogens, methamphetamine, cocaine).

Because the primary reason that people receive addiction treatment in Ukraine is related to alcohol use, this study also has a secondary aim of evaluating whether acceptability of non-abstinence for alcohol use varies as a function of providers’ geographic region, professional title, personal history of substance use problems, age, gender, or number of years working in the addiction treatment field. Based on findings from Klingemann (2016), we hypothesized that younger professionals and women would be more accepting of non-abstinence compared to older, and male professionals.

Method

Survey

The survey for this study was developed based on previously-published questionnaires designed to assess the acceptability of non-abstinence goals by British and American administrators and counselors working in addiction treatment agencies (Davis & Rosenberg, 2013; Rosenberg & Davis, 2014; Davis, Rosenberg, & Rosansky, 2017; Rosenberg & Melville, 2005; Rosenberg & Phillips, 2003). Each respondent was asked to rate how acceptable (Completely Acceptable = +2; Somewhat Acceptable = +1; Somewhat Unacceptable = -1; Completely Unacceptable = -2) it would be for a patient to pursue non-abstinence (defined as “moderate or controlled use of a substance”) as their *intermediate* or *final* outcome goal when they were diagnosed with one of 20 different types of substance use disorders: 10 types of substance-specific SUDs (alcohol, cannabis, opioids, sedatives, synthetic cathinones, methamphetamine, hallucinogens, tobacco, synthetic cannabis, cocaine) × 2 levels of diagnostic severity (ICD-10 Harmful Use, ICD-10 Dependence Syndrome; see column headings of Table 2). We also included questions evaluating respondents’ demographic (e.g., age, gender, geographic region: Northern, Central, Western, Eastern, Southern) and educational/occupational characteristics (e.g., number of years providing services to patients with SUDs, education, field of training, types of patients treated). Respondents also answered questions about the client characteristics they considered when deciding whether non-abstinent treatment goals were acceptable, whether they considered the survey biased, and whether they had a personal history of substance use problems.

Survey Translation

Because prior surveys had been developed in English, the survey for this study was first created in English and then translated into Ukrainian. The translation process consisted of four steps: 1) a Ukrainian member of the study team translated the survey from English into Ukrainian, 2) the survey was translated back into English by a faculty member at a university in the US who is fluent in both English and Ukrainian and licensed as a professional translator, but who was otherwise uninvolved with survey development, 3) this “back-translation” was compared to the original English version of the survey, and 4) discrepancies and any confusing phrases were re-translated by the study team to maximize clarity of expression/meaning. Both versions of the survey are available upon request from the corresponding author.

Recruitment and Procedure

The Ukrainian Ministry of Health maintains an electronic database of the identity and contact information for all addiction treatment providers in Ukraine. According to the Ministry of Health there are 1023 registered addiction treatment providers across the country. Of these, 712 providers on this list have an email address and 311 have a postal address as their primary method of contact. Ukrainian providers work in treatment facilities across all five major regions in Ukraine (Central, Northern, Eastern, Southern, and Western), and the facilities are mostly comprised of providers with one of four major professional roles: Narcologist (i.e., professional who is primarily responsible for managing substance

detoxification and providing pharmacological treatment), Psychologist (i.e., professional who is primarily responsible for providing individual and group therapy), Social Worker (i.e., professional who is primarily responsible for providing case management and social support in the community, and accessing occupational or financial resources), and Peer Support Specialist (i.e., paraprofessional with prior history of alcohol or drug problems who have achieved long-term abstinence and help with leading 12-step programs or religious activities).

We developed a recruitment strategy to obtain a sample of approximately one-half (i.e., 500/1023) of all Ukrainian providers, distributed across each geographical region, professional role, and notification method (email or standard mail). Our primary recruitment method involved a representative from the Ukraine Ministry of Health sending an email recruitment script several times per week for approximately five weeks (during May and June 2017) to the 712 addiction treatment providers with access to reliable email. In this recruitment email, potential respondents were informed about the purpose of the study, that it would take approximately 20 minutes to fill out the survey (see description below), and that their participation was voluntary and anonymous. As an incentive to participate, potential respondents were also notified that we would provide \$15 (USD) in compensation to each person who completed the electronic survey. We restricted the total possible sample size from email recruitment method to 400 respondents in order to reserve 100 surveys (and incentives) for providers without reliable access to email. After a potential respondent clicked the secure link to the screening website (hosted by [Qualtrics.com](https://www.qualtrics.com)) they were asked to report in which region they lived and their professional role. We used this information to determine if a potential respondent was eligible to participate based on two quotas that we electronically programmed into the survey software. Specifically, a provider was eligible if they were one of the first 80 providers from their region (in order to obtain a sample comprised of 20% of providers from each of 5 regions in Ukraine). Additionally, a potential respondent was eligible if they were one of the first 40 Narcologists (50% of sample), 16 Psychologists (20% of sample), 16 Social Workers (20% of sample), or 8 Peer Support Specialists (10% of sample) from their region (for a total of 80 participants from each of 5 regions in Ukraine). If a provider met these criteria they were automatically sent to a second secure website (hosted by [redcap.com](https://www.redcap.com)) to provide informed consent and complete the full survey. After completing the study, each respondent was provided \$15 (USD) in compensation.

Our secondary recruitment method targeted rural providers who either did not have access to reliable email or who provided only a postal address to the Ministry of Health. We obtained a list of 100 addresses for treatment providers (of the 311 on their list) to complete a paper version of the survey. Providers were randomly chosen based on region and professional title (20 providers from each of 5 regions; a total of 50 Narcologists, 20 Psychologists, 20 Social Workers, and 10 Peer Support Specialists from across the country). We then sent by postal mail a paper copy of the recruitment script, informed consent document, survey, a paid return envelope and we provided them with the \$15 (USD) incentive as a way to encourage them to complete and return the materials. Surveys received by the study staff were then entered into the electronic survey software. The study was approved by the IRB at the first author's institution in the United States and at the second author's institution in Ukraine.

Data Analysis Plan

Primary Aims—We conducted a series of frequency counts and descriptive analyses to summarize the demographic (e.g., age, gender) and occupational (e.g., years of professional experience, work environment, patient population served) characteristics of the sample. Next, we conducted 4 repeated measures ANOVAs to examine whether mean ratings of acceptability of non-abstinence differed as a function of the type of substance a patient chose to moderate (i.e., alcohol, cannabis, opioids, sedatives, synthetic cathinones, hallucinogens, methamphetamine, tobacco, synthetic cannabis, cocaine), and level of SUD severity (ICD-10 Harmful Use vs ICD-10 Dependence Syndrome), within both types of categories for the finality of the outcome goal (i.e., intermediate goal on the way towards abstinence or as a final goal). For each ANOVA we conducted followup post hoc tests of mean pairwise comparisons, and we used Bonferroni corrected alphas ($\alpha = .05/4 = .00125$) to evaluate statistical significance of these post-hoc tests. We then conducted frequency counts to summarize the ratings of importance for each of 19 client characteristics respondents considered when determining whether non-abstinence was acceptable.

Secondary Aims—We conducted 4 repeated measures ANOVAs to evaluate whether acceptability of non-abstinence for alcohol (Harmful Use/Intermediate Goal; Harmful Use/Final Goal; Dependence Syndrome/Intermediate Goal; Dependence Syndrome/Final Goal) differed as a function of geographical region of the respondent (Central, Northern, Eastern, Southern, Western). We then conducted 4 repeated measures ANOVAs to evaluate whether acceptability of non-abstinence for alcohol (Harmful Use/Intermediate Goal; Harmful Use/Final Goal; Dependence Syndrome/Intermediate Goal; Dependence Syndrome/Final Goal) differed as a function of professional title of the respondent (Narcologist, Psychologist, Social Worker, Peer Support Specialist). In each of these two sets of 4 ANOVAs we conducted follow-up post hoc tests of mean pairwise comparisons (Bonferroni corrected alphas $.05/4 = .0125$). Next, we conducted 4 t-tests to examine whether there were differences in mean ratings of acceptability of non-abstinence for alcohol (Harmful Use/Intermediate Goal; Harmful Use/Final Goal; Dependence Syndrome/Intermediate Goal; Dependence Syndrome/Final Goal) as a function of whether a respondent endorsed a personal history of substance use problems (Bonferroni corrected alphas $.05/4 = .0125$) or as a function of gender (Bonferroni corrected alphas $.05/4 = .0125$). Lastly, we calculated Pearson product-moment correlation coefficients to determine whether there were any significant associations between respondents' age, number of years working in the addiction treatment field and mean ratings of acceptability of non-abstinence (Bonferroni corrected alphas $.05/6 = .008$). All analyses were conducted using SPSS versions 22 & 24.

Results

Following electronic mail recruitment, 576 people had clicked a secure link to our online survey and 427 (81%; 427/576) screened eligible and were presented with the informed consent document. Of these, 400 (69%; 400/427) consented to participate, completed the survey, and were provided with compensation. Following postal mail recruitment, 46 (46% of providers on the list; 46/100) had consented and returned the completed survey to the study site. Thus, the final sample was comprised of 446 respondents (44% of all registered

providers in Ukraine; 446/1023). Total response rate was 55% (446/812). As Table 1 reveals, the majority of the sample reported they were male (67%), had a university degree (75%), and were middle-aged ($M = 40.4$; $SD = 8.6$), and had been in the addiction treatment field for approximately 10 years ($M = 10.2$, $SD = 7.2$). A series of t-tests and two-proportion z-tests revealed that there were no significant differences in demographic (age, gender) or occupational (years of professional experience, populations served) characteristics as a function of whether a respondent completed an electronic or paper version of the survey (data not presented, but available upon request to the corresponding author).

Acceptability of non-abstinence as an intermediate goal for ICD-10 Harmful Use by type of substance

The first analysis revealed that mean ratings of acceptability of non-abstinence as an intermediate outcome goal for clients diagnosed with Harmful Use (range -2 to 2) differed as a function of substance type among the 10 substances assessed, $F(3.7, 1649.6) = 1011.4$, $p < .001$, $\eta_p^2 = .69$, $M_{\text{Tobacco}} = 1.6$ ($SD = 1.0$), $M_{\text{Cannabis}} = 1.1$ ($SD = 0.9$), $M_{\text{Alcohol}} = 1.0$ ($SD = 1.1$), $M_{\text{Opioids}} = 0.3$ ($SD = 1.2$), $M_{\text{Sedatives}} = 0.2$ ($SD = 1.2$), $M_{\text{SynthCannabis}} = -1.5$ ($SD = 1.1$), $M_{\text{Cocaine}} = -1.6$ ($SD = 1.0$), $M_{\text{SynthCathinones}} = -1.6$ ($SD = 1.0$), $M_{\text{Methamphetamine}} = -1.7$ ($SD = 1.0$), $M_{\text{Hallucinogens}} = -1.7$ ($SD = 1.0$). Post-hoc tests of mean pairwise comparisons revealed that non-abstinence from tobacco was significantly more acceptable than for any other substance. Additionally, there were no differences in the acceptability of non-abstinence for alcohol and cannabis relative to each other, but both were more acceptable than non-abstinence from both opioids and sedatives. Findings also revealed that there were no differences between ratings of non-abstinence for the remaining five substances: synthetic cathinones, synthetic cannabis, hallucinogens, methamphetamine, and cocaine, and that non-abstinence was rated significantly more unacceptable for these five substances compared to all others. Moreover, as Table 2 (column 2) shows, a majority of respondents (between 64% and 93%) rated non-abstinence at least somewhat or completely acceptable for clients diagnosed with Harmful Use and who wanted to pursue non-abstinence from alcohol, cannabis, opioids, sedatives, or tobacco as an intermediate goal on the way towards complete abstinence.

Acceptability of non-abstinence as a final goal for ICD-10 Harmful Use by type of substance

The second analysis revealed that mean ratings of acceptability of non-abstinence as a final outcome goal for clients diagnosed with Harmful Use (range -2 to 2) differed as a function of substance type, $F(4.0, 1764.2) = 780.7$, $p < .001$, $\eta_p^2 = .64$, $M_{\text{Tobacco}} = 0.9$ (1.0), $M_{\text{Alcohol}} = 0.3$ (1.2), $M_{\text{Cannabis}} = 0.3$ (1.1), $M_{\text{Opioids}} = -0.5$ (1.1), $M_{\text{Sedatives}} = -0.7$ (1.1), $M_{\text{SynthCannabis}} = -1.7$ (0.8), $M_{\text{SynthCathinones}} = -1.8$ (0.7), $M_{\text{Methamphetamine}} = -1.8$ (0.7), $M_{\text{Hallucinogens}} = -1.8$ (0.7), $M_{\text{Cocaine}} = -1.8$ (0.8). Post-hoc tests of mean pairwise comparisons revealed that non-abstinence from tobacco was significantly more acceptable than for any other substance. Additionally, there were no differences in the acceptability of non-abstinence for alcohol and cannabis, which were both more acceptable than non-abstinence from opioids and sedatives. Further, acceptability of non-abstinence was significantly lower for opioids compared to sedatives. Findings also revealed that there were no differences between ratings of non-abstinence for the remaining five substances

(synthetic cathinones, synthetic cannabis, hallucinogens, methamphetamine, and cocaine), and non-abstinence was rated the significantly more unacceptable for these five substances compared to all other substances. Moreover, as Table 2 (column 3) shows, a majority of respondents (between 70% and 90%) rated non-abstinence at least somewhat or completely acceptable for clients with Harmful Use and who wanted to pursue non-abstinence from alcohol, cannabis, or tobacco as a final goal.

Acceptability of non-abstinence as an intermediate goal for ICD-10 Dependence Syndrome by type of substance

The third analysis revealed that mean ratings of acceptability of non-abstinence as an intermediate outcome goal for clients diagnosed with Dependence Syndrome (range -2 to 2) differed as a function of substance type, $F(4.1, 1889.2) = 683.3, p < .001, \eta_p^2 = .61, M_{\text{Tobacco}} = 0.9 (0.9), M_{\text{Cannabis}} = 0.3 (1.2), M_{\text{Alcohol}} = -0.1 (1.2), M_{\text{Opioids}} = -0.6 (1.1), M_{\text{Sedatives}} = -0.8 (1.1), M_{\text{SynthCannabis}} = -1.6 (1.0), M_{\text{Cocaine}} = -1.6 (1.0), M_{\text{SynthCathinones}} = -1.7 (1.0), M_{\text{Methamphetamine}} = -1.7 (1.0), M_{\text{Hallucinogens}} = -1.7 (0.9)$. Post-hoc tests of mean pairwise comparisons revealed that non-abstinence from tobacco was significantly more acceptable than for any other substance. Additionally, there were differences in the acceptability of non-abstinence for cannabis, alcohol, opioids, and sedatives (in descending order of acceptability), all four of which were significantly more acceptable than non-abstinence from any of the remaining substances. Findings also revealed that there were no differences between ratings of non-abstinence for the remaining five substances (synthetic cathinones, synthetic cannabis, hallucinogens, methamphetamine, and cocaine). Moreover, as Table 2 (column 4) shows, a majority of respondents (between 52% and 91%) rated non-abstinence at least somewhat or completely acceptable for clients diagnosed with Dependence Syndrome and who wanted to pursue non-abstinence of alcohol, cannabis, or tobacco as an intermediate goal.

Acceptability of non-abstinence as a final goal for ICD-10 Dependence Syndrome by type of substance

The fourth analysis revealed that mean ratings of acceptability of non-abstinence as a final outcome goal for clients diagnosed with Dependence Syndrome (range -2 to 2) differed as a function of substance type, $F(3.9, 1714.2) = 553.0, p < .001, \eta_p^2 = .55, M_{\text{Tobacco}} = 0.5 (1.1), M_{\text{Cannabis}} = -1.2 (1.1), M_{\text{Alcohol}} = -1.4 (1.0), M_{\text{Opioids}} = -1.5 (1.0), M_{\text{Sedatives}} = -1.5 (0.9), M_{\text{SynthCathinones}} = -1.8 (0.7), M_{\text{Methamphetamine}} = -1.8 (0.8), M_{\text{Hallucinogens}} = -1.8 (0.7), M_{\text{SynthCannabis}} = -1.8 (0.8), M_{\text{Cocaine}} = -1.8 (0.8)$. Post-hoc tests of mean pairwise comparisons revealed that non-abstinence from tobacco was again significantly more acceptable than for any other substance. Additionally, there were no differences in the acceptability of non-abstinence for alcohol, cannabis, opioids, and sedatives, all of which were more acceptable than non-abstinence from other substances. Findings also revealed that there were no differences between ratings of non-abstinence for the remaining five substances (synthetic cathinones, synthetic cannabis, hallucinogens, methamphetamine, and cocaine). Moreover, as Table 2 (column 5) shows, tobacco was the only substance for which a majority of respondents (78%) rated non-abstinence at least somewhat or completely acceptable for clients diagnosed with Dependence Syndrome and who wanted to pursue non-abstinence as a final goal.

Client characteristics and acceptability of non-abstinence

We assessed the importance of 19 listed patient characteristics that respondents might consider when deciding whether non-abstinence goals were acceptable. Examination of Table 3 reveals that over one-half and sometimes over 90% of the sample reported that the patient's own choice of treatment goal, rapport/therapeutic alliance, motivation of the patient, social support network, emotional stability, co-occurring PTSD/trauma, family support for controlled use, and co-morbid psychiatric diagnoses were "very important" considerations when determining whether non-abstinence was acceptable. Most respondents rated all of the remaining characteristics (e.g., previous history of controlled use, homelessness) as "a little important", with the exception gender, which most rated as "not important" when determining whether non-abstinence was acceptable.

Differences in acceptability for pursuing non-abstinence from alcohol as a function of respondents' characteristics

As a secondary aim we examined whether there were differences in acceptability of non-abstinence as a function of respondents' geographic region, professional title, personal history of having substance use problems, age, gender, and number of years working with patients diagnosed with a SUD. First, we found that mean ratings of acceptability of non-abstinence from alcohol differed significantly as a function of geographic region within each variable pairing (e.g., Harmful Use/Intermediate Goal; Dependence Syndrome/Final Goal, etc.; see test results in Table 4). Overall, post-hoc tests of mean pairwise comparisons revealed that there were relatively few differences in acceptability of non-abstinence for patients with a Dependence Syndrome and who chose to pursue controlled alcohol use as an intermediate or final outcome goal. However, mean ratings of acceptability of non-abstinence, for patients with Harmful Use of alcohol and who chose to pursue non-abstinence as an intermediate goal, were significantly lower in the Eastern region compared to the Central, Southern, and Western regions and there were no significant differences in acceptability across all other regions. Moreover, mean ratings of acceptability of non-abstinence, for patients with Harmful Use of alcohol and who chose to pursue non-abstinence as a final goal, were significantly lower in the Eastern and Southern regions compared to the Central region.

In the next analysis, we found that mean ratings of acceptability of non-abstinence differed significantly as a function of respondents' professional title (Psychologist, Narcologist, Social Worker, Peer Support Specialist; see test results in Table 5). Overall, post-hoc tests of mean pairwise comparisons revealed few differences in ratings of non-abstinence for patients with Harmful Use or a Dependence Syndrome who pursue non-abstinence as an intermediate or final goal, but when they were significantly different it was typically Peer Support Specialists and Social Workers that were the least accepting of these goals compared to Psychologists and Narcologists.

We also found significant differences between rates of acceptability as a function of whether providers did (n=50) or did not (n=348) report having a personal history of substance use problems. Specifically, we found significant difference in mean ratings of acceptability for patients diagnosed with Harmful Use of alcohol who pursue this as an intermediate goal

($M_{\text{SubstanceHistory}} = -0.3, SD=1.3$ vs $M_{\text{SubstanceNoHistory}} = 1.2, SD=1.0$), $t(396) = 9.94, p < .001$, or final goal ($M_{\text{SubstanceHistory}} = -0.9, SD=1.2$ vs $M_{\text{SubstanceNoHistory}} = 0.5, SD=1.1$), $t(396) = 8.12, p < .001$. Additionally, there were differences in mean ratings of acceptability for patients diagnosed with a Dependence Syndrome who pursue this as an intermediate goal ($M_{\text{SubstanceHistory}} = -0.9, SD=1.3$ vs $M_{\text{SubstanceNoHistory}} = 0.1, SD=1.1$), $t(396) = 5.67, p < .001$, but *not* for those patients who pursue non-abstinence as a final goal ($M_{\text{SubstanceHistory}} = -1.6, SD=1.0$ vs $M_{\text{SubstanceNoHistory}} = -1.4, SD=1.0$), $t(396) = 1.47, p = .144$. In each of these cases, it was those respondents with a history of substance use problems who rated non-abstinence goals as significantly less acceptable compared to those without a history of substance use problems.

We found only one of four statistical tests were significant when examining differences in acceptability as a function of gender. Specifically, we found no differences (null findings not presented but available upon request from the corresponding author) between those male ($n=293$) and female ($n=143$) providers in their mean ratings of acceptability of non-abstinence for patients diagnosed with Harmful Use of alcohol who pursue this as an intermediate or final goal. Additionally, there were no differences in their mean ratings of acceptability for patients diagnosed with a Dependence Syndrome who pursue this as an intermediate goal, but there was a significant provider gender difference in acceptability for patients who pursue non-abstinence as a final goal ($M_{\text{Female}} = -1.2, SD=1.2$ vs $M_{\text{Male}} = -1.5, SD=0.9$), $t(434) = -3.10, p = .002$, indicating that women were slightly more accepting of non-abstinence compared to men. Taken together, there was very little variability in the rates of acceptability of non-abstinence as function of gender.

Lastly, we found no significant and clinically meaningful ($r > .30$) associations between respondents' age or number of years working with patients diagnosed with SUDs, and mean ratings of acceptability of non-abstinence (data not presented but available upon request from the corresponding author).

Discussion

A nationwide sample of 446 addiction treatment providers in Ukraine completed a survey designed to assess whether acceptability of limited or moderate substance use (i.e., non-abstinence) varied as a function of a patient's substance-specific SUD (e.g., alcohol, cannabis, tobacco), level of SUD severity (ICD-10 Harmful Use vs. Dependence Syndrome), or the finality of their treatment outcome goal (intermediate vs. final). With the exception of cannabis, most providers rated non-abstinence as somewhat or completely unacceptable for patients who choose to consume illicit substances (i.e., synthetic cathinones, synthetic cannabis, methamphetamine, cocaine, hallucinogens), regardless of SUD severity or finality of their outcome goal. Results also indicated that most respondents believed non-abstinence was acceptable for patients who use tobacco, regardless of SUD severity or finality of the outcome goal. Similarly, most respondents rated non-abstinence acceptable as an intermediate or final goal for patients with Harmful Use of alcohol or cannabis, or rated non-abstinence acceptable as an intermediate goal for patients with an alcohol or cannabis dependence; however, providers were split whereas non-abstinence was acceptable for cannabis dependence and alcohol dependence. Although many providers rated non-

abstinence acceptable as an intermediate goal for patients diagnosed with Harmful Use of opioids or sedatives, very few rated this as an acceptable final goal, or rated it acceptable for patients with a Dependence Syndrome.

With very few exceptions, these findings provide further evidence that agency administrators and addiction treatment providers across regions in both Eastern Europe (Klingemann et al., 2016) and Western Europe (Duckert, 1989; Klingemann & Rosenberg, 2009; Rosenberg & Melville, 2005; Rosenberg, Melville, & Hodge, 1992) believe that non-abstinence treatment outcome goals are generally acceptable, but more so for patients who are diagnosed with less severe disorders, which is consistent with the evidence supporting the efficacy of non-abstinence in reducing alcohol use and consequences in this population (Dunn & Strain, 2013; Hasin et al., 2017; Witkiewitz, 2013; Witkiewitz et al., 2017). Nevertheless, rates of acceptability differ slightly by country. For example, although the rates of acceptability of non-abstinence for patients with Harmful Use of alcohol in Ukraine were similar to those from a sample of alcohol treatment providers in Poland (Klingemann, 2016), compared to Ukrainian providers, almost twice the proportion of Polish treatment providers believed that non-abstinence goals were acceptable for those patients with alcohol *dependence* who choose to pursue non-abstinence as a *final* goal. There are several possible explanations for this difference. For one, Poland has more indicators of social, economic and political stability compared to Ukraine (The Fund for Peace, 2017); it is thus possible that Polish providers, and the larger Polish treatment system have more access to financial and educational resources which influence the types of treatment approaches taught or offered. These economic advantages might also influence the amount of time that providers can spend working with a patient experiencing a severe alcohol use disorder and who decide to pursue non-abstinence, thereby making these goals more acceptable. A second explanation is that the level of alcohol abuse and dependence across the Ukrainian population is higher than it is in Poland (WHO, 2014), and therefore the danger of persons pursuing non-abstinence in Poland could be less threatening to providers because they have not so often seen substance use deteriorate into severe problems.

Although our findings were largely consistent with studies conducted in Europe, they are to some degree inconsistent with studies conducted in North America (Davis & Rosenberg, 2013; Rosenberg & Davis, 2014). For example, a recent study found that approximately 30%–58% of providers in the US rated non-abstinence acceptable for patients diagnosed with alcohol abuse (Davis & Rosenberg, 2013; Rosenberg & Davis, 2014). Conversely, approximately twice the proportion of Ukrainian providers (70%–86%) viewed these goals acceptable for patients with harmful alcohol use. These differences could be influenced by several factors, including the infrequency with which interventions are provided to those with less severe alcohol problems in Ukraine compared to the US, and the strong history of abstinence-oriented treatment in the US (Tracy, 2005). Additionally, a larger proportion of Ukrainian providers rated non-abstinence acceptable as an *intermediate* goal for patients with severe alcohol use problems, but rates of acceptability of non-abstinence as a *final* goal are the same among providers in both countries (12%). Despite the evidence suggesting that reductions in alcohol consumption are associated with positive clinical outcomes, most providers in the US and Ukraine report that reduction goals are unacceptable when alcohol use problems are severe, likely reflecting beliefs that the biomedical, psychological, and

social risks of continued drinking outweigh any advantages of supporting reduced use. Conversely, it could simply be a lack of education and knowledge about the benefits of reduced drinking and lack of skills to support such goals, thus underscoring the need for continued education among treatment providers in both countries.

Because most studies examined the rates of acceptability of non-abstinence for patients diagnosed with an alcohol use disorder, there is very little data from which to compare our findings regarding the rates of acceptability of non-abstinence for patients with specific illicit drug use disorders. Nevertheless, a comparison of our data with data from a recent study in the US (Rosenberg & Davis, 2014), reveals striking similarities between providers in both countries. For example, rates of acceptability for cannabis use moderation were higher in the Ukraine when a patient was described as having less severe cannabis use problems, but rates in both countries declined as severity of cannabis use disorder increased and as the goal transitioned from intermediate to final. Additionally, when rates of acceptability differed between these two countries, it was typically providers in the US that rated non-abstinence slightly more acceptable for patients with harmful use or dependence on synthetic cannabis, synthetic cathinone, methamphetamine, cocaine, or hallucinogens who pursue this as an intermediate goal (20%–27%) compared to providers in Ukraine (8%–15%). Conversely, Ukrainian providers rated non-abstinence more acceptable for patients with Harmful Use of opioids who pursue non-abstinence as an intermediate (64%) outcome goal compared to US providers (25%). Moreover, 9%–12% of US providers rated non-abstinence acceptable as a final goal for patients diagnosed with amphetamine, heroin, cocaine, or ecstasy dependence, and 5%–10% of providers in Ukraine rated non-abstinence acceptable as a final goal for patients diagnosed with an opioid, sedative, synthetic cannabis, synthetic cathinone, methamphetamine, cocaine, or hallucinogen dependence syndrome. Although conclusions from these studies can be influenced by recruitment methodology, representativeness of the samples, and other characteristics, taken together, these data suggest that there may be few differences in rates of acceptability of non-abstinence for patients who use illicit substances in the US and Ukraine.

Several methodological limitations should be considered when evaluating the findings from the present study. For example, we recruited most respondents using an email overture sent by the Ukrainian Ministry of Health, and some respondents may have been unwilling to participate or share their true beliefs due to fear of repercussions from the government. However, our attempts to guarantee anonymity of study data possibly attenuated this concern. Additionally, although we recruited approximately one-half of all providers in Ukraine (stratified based on region and professional role in the addiction treatment system), there were no demographic data from which to compare our sample to the larger population of providers in order to determine representativeness. Similarly, we contacted a randomly-chosen group of 100 rural providers who did not have reliable access to email in order to recruit a hard-to-reach segment of the workforce, and we cannot rule out the possibility that views differ among providers we did not contact or who decided not to return a completed survey. However, that this study is the first comprehensive survey of addiction treatment providers in Ukraine, it thus provides a substantive foundation to inform future research. Furthermore, we did not ask respondents about the use of medication-assisted therapies (e.g., naltrexone, methadone, buprenorphine) that may be used for treatment of alcohol and

opioid use disorders. We recommend that future research examine this question given that use of such therapies might influence providers' beliefs about the acceptability, or actual success, of non-abstinent outcome goals.

To the degree that our sample is representative of all addiction treatment providers in Ukraine, patients who wish to moderate their use of alcohol, cannabis, or tobacco, will typically find that their treatment provider is accepting of this goal, especially when this is a temporary goal on the way towards total abstinence in the future. However, most providers will find it *unacceptable* if the patient wants to continue using almost any of the illicit substances we listed on the questionnaires, regardless of the finality of the outcome goal or the severity of their SUD. Moreover, although there were several small, albeit statistically significant, differences in acceptability of non-abstinence as a function of geographical region, professional discipline, and gender, the acceptability of non-abstinence across providers in Ukraine is generally consistent and thus patients in these regions will likely face similar obstacles if they choose to pursue non-abstinence regardless of provider or geographical characteristics.

Given the numerous challenges faced by those with severe SUDs, it is not surprising that large majorities of Ukrainian providers reported that non-abstinence goals were unacceptable. Although treatment providers may be thinking about the patient's health and well-being when they decline to support a patient who wishes to pursue non-abstinence, acceptance of non-abstinence respects the autonomy of the patient and could attract and engage in treatment those clients who might eventually be open to abstaining if they are unable to moderate successfully (Ambrogne, 2002). Furthermore, accepting non-abstinence goals is consistent with a recovery-oriented systems of care model (Sheedy & Whitter, 2009), with behavioral theory suggesting that patients will be more successful when they select their own goals (Bandura, 1986; Brehm and Brehm, 1981; Deci and Ryan, 1985), and with clinical outcomes suggesting that patients who pursue reductions in substance use will also experience reductions in related consequences, and experience improvements in mental health functioning, following intervention (Dunn & Strain, 2013; Hasin et al., 2017; Witkiewitz et al., 2017). Therefore, we recommend that education and research efforts are needed to better understand how provider and patient alignment regarding goals impacts patient outcomes following substance use treatment in Ukraine. These efforts may benefit from further dissemination of evidenced-based approaches that recognize the autonomy of the patient to choose which outcome goals are consistent with their values (e.g., Motivational Interviewing).

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Table 1Demographic and occupational characteristics of the sample (n=446^a).

Characteristic/Variable	M(SD) or %
Respondent Age	40.4(8.6)
Gender	
Male	67%
Highest Educational Degree	
University	75%
Vocational	16
High School	8
Middle School	2
Professional Title	
Psychologist	21%
Narcologist	47
Social Worker	21
Peer Support Specialist	11
Years of substance use disorder treatment experience	10.2 (7.2)
Reside in which Ukraine Region	
Central	21%
Northern	20
Eastern	20
Southern	21
Western	19
Primary Theoretical Orientation	
Cognitive-Behavioral Therapy	40%
Do not know	21
12-step principles	19
Family Systems therapy	9
Motivational Interviewing	4
Person-centered Therapy	4
Psychodynamic	3
Other(e.g., eclectic/combination of therapies)	1
Levels of care offered at clinical setting	
Rehabilitation	92%
Case Management	90
Inpatient treatment	89
Detox	82
Intensive outpatient treatment	47
Outpatient treatment	43
Other	12
Pharmacological treatments offered	
Psychiatric medications	87%

Characteristic/Variable	M(SD) or %
Methodone	61
Buprenorphine	61
Other	6
Psychological treatments offered	
Harm Reduction	84%
Supportive therapy	62
Cognitive behavioral therapy	35
Motivational Interviewing	35
Other	7
Patient Populations Served	
Primarily adults (18+)	76%
Both adults and adolescents/young people	23
Primarily adolescents/young people (younger than 18)	1
Proportion of time spent working with patients from each substance category	
Harmful use/dependence syndrome: Alcohol	
None	6%
1–25%	13
26–50%	6
51–75%	6
75–100%	70
Harmful use/dependence syndrome: Opioids	
None	1%
1–25%	68
26–50%	12
51–75%	8
75–100%	11
Harmful use/dependence syndrome: Cannabis	
None	6%
1–25%	78
26–50%	15
51–75%	1
75–100%	1
Harmful use/dependence syndrome: Cocaine	
None	31%
1–25%	68
26–50%	1
51–75%	0
75–100%	1
Harmful use/dependence syndrome: Synthetic Cathinones	
None	58%
1–25%	39
26–50%	1

Characteristic/Variable	M(SD) or %
51–75%	1
75–100%	1
Harmful use/dependence syndrome: Hallucinogens	
None	42%
1–25%	56
26–50%	1
51–75%	1
75–100%	1
Harmful use/dependence syndrome: Sedatives	
None	15%
1–25%	77
26–50%	8
51–75%	1
75–100%	1
Harmful use/dependence syndrome: Tobacco	
None	35%
1–25%	12
26–50%	41
51–75%	11
75–100%	1
Harmful use/dependence syndrome: Synthetic Cannabis	
None	63%
1–25%	34
26–50%	2
51–75%	1
75–100%	1
Harmful use/dependence syndrome: Methamphetamine	
None	38%
1–25%	58
26–50%	2
51–75%	2
75–100%	1
Proportion of time working with people who have co-occurring PTSD/trauma	
None	14%
1–25%	49
26–50%	33
51–75%	3
75–100%	1
Beliefs about survey bias	
Was neutral	76%
Survey supported a controlled use policy	21
Survey opposed a controlled use policy	3

^aNumber of respondents ranged from 428–446 due to missing data

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Table 2

Proportions of respondents (n=446) who rated non-abstinence completely or somewhat acceptable as a function of substance, diagnosis (i.e., ICD-10 harmful use or dependence syndrome), and finality of treatment outcome goal (i.e., intermediate or final goal).

Substance	Harmful Use		Dependence Syndrome	
	<u>Intermediate</u>	<u>Final</u>	<u>Intermediate</u>	<u>Final</u>
Tobacco	93%	90%	91%	78%
Cannabis	93	71	68	16
Alcohol	86	70	52	12
Opioids	68	33	27	10
Sedatives	64	26	23	10
Synthetic Cannabis	15	8	10	7
Synthetic Cathinones	12	6	9	5
Methamphetamine	11	6	10	7
Cocaine	11	7	11	7
Hallucinogens	10	6	8	5

Table 3

Proportions of respondents (n=442–446) who rated specific patient characteristics as important considerations when determining if non-abstinence goals were acceptable.

Client Characteristic	Not important	A little important	Very important
Client's own choice of treatment goal	1%	4%	96%
Rapport/Therapeutic alliance	1	6	93
Motivation of the patient	2	8	90
Social support network	1	19	80
Emotional stability	4	17	77
Co-occurring PTSD/trauma	4	32	64
Family support for controlled use	5	40	55
Co-morbid psychiatric diagnoses	5	44	52
Co-occurring illness	10	47	43
Previous history of controlled use	7	55	39
Homelessness	14	60	27
Way of administering the drug	9	65	26
Number of previous treatment episodes	19	56	25
Criminal history	21	61	18
Employment status	16	68	16
Having children	32	61	7
Age	39	57	5
Relationship status	47	48	5
Gender	57	41	2

Table 4

Examination of differences in mean ratings of acceptability of non-abstinence for alcohol as a function of geographical region of respondents (n=446).

Region	HU – Intermediate ^a M(SD)	HU – Final ^b M(SD)	DS – Intermediate ^c M(SD)	DS – Final ^d M(SD)
Central	1.3(0.9)	0.7(1.0)	-0.1(1.1)	-1.4(0.8)
Northern	1.0(1.1)	0.4(1.1)	-0.3(1.2)	-1.6(0.7)
Eastern	0.5(1.4)	-0.1(1.4)	-0.3(1.3)	-1.4(1.0)
Southern	1.1(1.1)	0.0(1.3)	0.3(1.2)	-1.0(1.3)
Western	1.1(1.1)	0.4(1.1)	0.0(1.3)	-1.4(1.0)
Post-hoc tests	E<C=S=W	C>E=S	S>N=E	N>S

Note. HU = ICD-10 Harmful Use; DS = ICD-10 Dependence Syndrome

^a $F(4, 445) = 6.31, p < .001$, partial eta squared = .05

^b $F(4, 445) = 7.05, p < .001$, partial eta squared = .06

^c $F(4, 445) = 3.92, p = .004$, partial eta squared = .03

^d $F(4, 445) = 4.23, p = .002$, partial eta squared = .04

Table 5

Examination of differences in mean ratings of acceptability of non-abstinence for alcohol as a function of professional title of respondents (n=446).

Professional Title	HU – Intermediate M(SD)	HU – Final M(SD)	DS – Intermediate M(SD)	DS – Final M(SD)
Psychologist	1.2(1.0)	0.6(1.0)	0.0(1.2)	-1.2(1.0)
Narcologist	1.4(0.9)	0.6(1.0)	0.2(1.1)	-1.4(0.9)
Social Worker	0.6(1.2)	-0.3(1.4)	-0.2(1.4)	-1.3(1.2)
Peer Support Specialist	-0.2(1.2)	-0.7(1.1)	-1.2(1.0)	-1.8(0.6)
Post-hoc tests	P=N>SW>PS	P=N>SW=PS	P=N=SW>PS	P>PS

Note. HU = ICD-10 Harmful Use; DS = ICD-10 Dependence Syndrome

^a $F(3, 445) = 42.19, p < .001$, partial eta squared = .22

^b $F(3, 445) = 30.59, p < .001$, partial eta squared = .17

^c $F(3, 445) = 18.16, p < .001$, partial eta squared = .11

^d $F(3, 445) = 4.39, p = .005$, partial eta squared = .03