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# Leaving Buprenorphine Treatment: Patients' Reasons for Cessation of Care

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## Abstract

Many opioid-dependent patients leave treatment prematurely. This study is a planned secondary analysis from a randomized trial of counseling for African Americans (*N*=297) entering buprenorphine treatment at one of two outpatient programs. This study examines: (1) whether patients' initial treatment duration intentions prospectively predict retention; and (2) patients' reasons for leaving treatment. Participants were queried about their treatment duration intentions at treatment entry, and their reasons for leaving treatment at 6-month follow-up. At baseline, 28.0% reported wanting to stay in buprenorphine treatment less than 6 months, while 42.1% actually left buprenorphine treatment within 6 months. However, participants intending short-term buprenorphine at the outset were not at elevated risk of early treatment discontinuation (OR=1.15; *p*=.65). Participants attributed treatment cessation predominantly to conflicts with staff, involuntary discharge, and perceived inflexibility of the program. Future research should examine patient-centered models of buprenorphine treatment that could improve retention.

### Keywords

Buprenorphine; opioid dependence; retention; dropout; patient intentions

## 1. Introduction

Opioid agonist medications like methadone and buprenorphine are effective treatments for opioid dependence (Amato et al., 2005; Mattick, Kimber, Breen, & Davoli, 2008). However, some opioid-dependent individuals view such medications negatively (Hunt, Lipton, Goldsmith, Strug, & Spunt, 1985–1986; Peterson et al., 2010; Rosenblum, Magura, & Joseph, 1991), which could prompt early discontinuation of treatment. Long-term abstinence following discontinuation of maintenance treatment is possible for some patients, but is not



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a typical outcome (Kornør & Waal, 2005; Maddux & Desmond, 1992; Stimmel, Goldberg, Rotkopf, & Cohen, 1977). In a review of 14 studies examining abstinence prognosis following cessation of agonist maintenance treatment, Kornør and Waal (2005) determined that, on average, 33% of patients could be classified as abstinent at follow-up. Abstinence rates were twice as high for patients completing a voluntary "therapeutic detoxification" compared to those leaving treatment involuntarily (Kornør & Waal, 2005). A study in a time-limited, 9-month buprenorphine treatment program found that only 12% of patients were abstinent from all opioids at 2-year follow-up (Kornør, Waal, & Sandvik, 2007).

Thus, although some individuals may remain abstinent after terminating maintenance treatment, the typical prognosis after leaving maintenance treatment is poor (Magura & Rosenblum, 2001). Discontinuation of maintenance treatment has not only been linked with resumption of opioid use (Stimmel & Rabin, 1974; Stimmel et al., 1977; Kornør, Waal, & Sandvik, 2007), but elevated risk of death as well (Caplehorn, Dalton, Cluff & Petrenas, 1994; Clausen, Waal, Thoresen, & Gossop, 2009; Degenhardt et al., 2011; Gibson et al., 2008; Woody, Kane, Lewis, & Thompson, 2007). For example, Caplehorn and colleagues (1994) found that heroin addicts were almost 3 times more likely to die while not enrolled in methadone treatment than while actively enrolled. A study comparing patients who remained in methadone treatment to those who were discharged found that the latter group had 2.8 times higher rates of death (Woody et al., 2007). Likewise, a meta-analysis of studies examining mortality risk among opioid users found that, compared to periods of active enrollment in treatment, the overall pooled mortality rate was 2.4 times higher during out-of-treatment periods, while mortality due to overdose was 3.5 times higher during out-of-treatment periods (Degenhardt et al., 2011).

Despite these risks, many of those who enter agonist maintenance treatment end up leaving treatment prematurely (Reisinger et al., 2009; Winstock, Lintzeris, & Lea, 2011). Research with patients in methadone maintenance treatment suggests that major life events, desire for abstinence, periods of incarceration, conflicts with staff, and non-compliance with program rules contribute to early treatment discontinuation (Mitchell et al., 2009; Mitchell et al., 2011; Reisinger et al., 2009). Moreover, many patients express a desire to stop taking maintenance medication and initiate attempts to withdrawal on their own (Winstock, Lintzeris, & Lea, 2011). Thus, patient intentions regarding treatment duration may play an important role in outcomes.

Patient preferences for shorter treatment duration pose a challenge for clinicians, because the provision of patient-centered care may conflict with the provision of evidence-based care. This issue is particularly salient now given the continuing expansion of buprenorphine treatment. Several studies have found that patients treated with buprenorphine have somewhat higher rates of treatment discontinuation than those treated with methadone (Gryczynski et al., 2013; Mattick et al., 2008; Pinto et al., 2010). A meta-analysis of randomized trials comparing methadone and buprenorphine found that, among the trials with flexible-dosing regimens, methadone was better able to retain patients in treatment through the end of each study (Relative Risk=.85; Mattick et al., 2008). Some studies with samples entering community treatment programs have documented even greater retention differences between these medications within 6 months of admission, with elevated risk of early discontinuation in buprenorphine treatment (Hazard Ratios > 2; Gryczynski et al., 2013; Pinto et al., 2010). However, less is known about why patients leave buprenorphine treatment, or the extent to which their initial treatment duration intentions are related to their actual retention in treatment.

The aims of the present study were to: (1) examine whether buprenorphine patients' intentions regarding medication maintenance duration prospectively predict retention and

length of stay in treatment, and (2) characterize reported reasons for leaving buprenorphine treatment from the patient perspective. We hypothesized that participants' intended length of stay would be associated with their actual length of stay, and that participants intending shorter buprenorphine treatment duration would discontinue the medication sooner than those who preferred a longer maintenance period at the outset.

## 2. Methods

### 2.1. Parent Study

This study used data gathered as part of a randomized clinical trial of two levels of counseling intensity for 300 opioid-dependent African American male and female adults newly admitted to buprenorphine treatment. The study was conducted at two formerly "drug-free" outpatient substance abuse treatment programs that had adopted buprenorphine as part of a larger city-wide initiative to expand the availability of buprenorphine treatment in the local substance abuse service system (Agency for Health Care Research and Quality, 2011). One of the programs was an outpatient buprenorphine treatment program co-located in a large urban community health center. The second site was a free-standing outpatient buprenorphine treatment program located adjacent to a large outpatient community mental health clinic.

Exclusion criteria were pregnancy and an acute medical or psychiatric problem beyond the capacity of the clinic physician to manage (under which circumstances patients would not have been admitted to the programs). Participants in the parent study were randomly assigned to either a standard outpatient (OP) or intensive outpatient (IOP) level of care as normally delivered by each clinic. The conditions varied based on the content, frequency, and duration of counseling services, but there were no differences in buprenorphine doses between conditions. Moreover, no significant differences were found between the conditions on a range of outcomes, including treatment retention (Mitchell et al., 2013).

Participants were interviewed by a research assistant at treatment admission and at 3- and 6-months thereafter. Follow-up interviews were conducted by a trained research interviewing using a battery of measures. Follow-up rates were 96% and 93% at 3 and 6 months, respectively. Over half of those who could not be interviewed at follow-up were determined to be incarcerated using public databases (at 3 months, 5 incarcerated out of 13 not interviewed; at 6 months, 13 incarcerated out of 21 not interviewed). Treatment data, such as buprenorphine dosing records and attendance, were obtained from clinic records. The study was approved by the Friends Research Institute Institutional Review Board (IRB), as well as the IRB of one of the treatment sites. All participants provided written informed consent. Additional details about the design and findings of the parent study can be found elsewhere (Mitchell et al., 2013).

### 2.2. Participants

Of the 300 African American participants enrolled in the parent study, two participants had missing baseline cocaine urine data and one participant had missing buprenorphine dosing data and were excluded from the analyses, leaving $n$=297. The mean age of the analysis sample was 46.6 years ($SD$=6.5), and 38.1% were women. Injection drug use was reported by 23.2%, and 48.8% had a urine drug screening test at baseline that was positive for cocaine. Heroin was the primary opiate of abuse for all participants, and half of the sample had previous experience with buprenorphine treatment (50.5%). There was good balance across the two program sites, with 52.5% of the sample recruited at the community health center.

### 2.3. Variables and Measures

**Aim 1 – Role of patients' intended treatment duration in predicting actual retention—**The variables and corresponding measures used in the inferential analysis of treatment dropout (either as outcome, focal explanatory, or control variables) are described below.

**Retention in Buprenorphine Treatment (Outcome Variable):** The number of days in buprenorphine treatment was obtained from clinic records (1–180 days, after which observations were censored). Because the aim of the buprenorphine treatment programs was to eventually transfer patients to ongoing office-based buprenorphine treatment under the care of a physician, such transfers were classified as remaining in treatment through 180 days if the participant reported successful transfer and enrollment in buprenorphine treatment through the 6-month follow-up. Eight participants who could not be located at 6 month follow-up were assumed to no longer be in treatment.

**Patients' Intended Treatment Duration (Focal Explanatory Variable):** No validated instruments were available to capture intended length of stay in treatment. Instead, a single question with high face validity was developed by our internal panel of experts. This item was included in a study-specific supplemental questionnaire administered at the baseline assessment, and simply asked participants: "*How long do you intend to stay in buprenorphine treatment?"* The interviewer recorded responses in weeks (up to one year, with a code of 53 to signify responses of more than one year or indefinitely). For the purposes of the present analysis, values were truncated at 26 weeks to match the 6-month observation period of the study. [We confirmed that the findings were not sensitive to the coding of this variable].

**Background and Treatment Characteristics (Control Variables):** Control variables included gender, age (in years), injection drug use status (yes *vs.* no), baseline cocaine urine status (negative *vs.* positive), program site (Site 1 *vs.* Site 2), assigned condition in the parent study (intensive outpatient *vs.* standard outpatient), and buprenorphine maintenance dose (in milligrams). Participant characteristics, including gender, age, and injection drug use status, were derived from the Addiction Severity Index ($5^{th}$ edition) administered at study entry (McLellan et al., 1992). The modal buprenorphine dose was obtained from clinic records. Cocaine use was determined by the results of the urine drug screening test administered at study entry.

### Aim 2 – Patients' reasons for leaving treatment

**Reasons for Treatment Discontinuation:** A study-specific questionnaire was developed to capture reasons for treatment discontinuation. At the 6-month follow-up, participants were asked whether they were still in treatment at their original program. If they indicated no, participants were asked their reasons for leaving treatment: "*I'd like to ask you about why you left treatment at [CLINIC]. I'm going to read some reasons that people leave treatment. Please let me know if each reason I read applies to you or not. You can just answer 'yes' or 'no' for each one."* The list of reasons was assembled by the study team based on previous research on dropout from methadone treatment (Mitchell et al., 2009, 2011; Reisinger et al., 2009), and underwent multiple rounds of internal development and refinement. The list contained 14 possible reasons for leaving treatment, as well as an additional open-ended "other" category in which the research assistant recorded participants' responses. These items covered reasons such as: "you finished your treatment successfully", "you didn't like the effects of the medication", "you left because the treatment was too expensive", "you were discharged because you had a disagreement with the staff", and "you were discharged because you missed too many days". Participants were permitted to select more than one

reason. The full list of reasons can be found in Results. Information regarding reasons for leaving treatment was collected for the 139 participants who had discontinued treatment at their original program within 6 months and completed their follow-up interview.

### 2.4. Statistical Analysis

Reasons for treatment discontinuation are presented descriptively. The linear relationship between intended length of stay and actual length of stay was first examined using a Pearson correlation. For the inferential analysis of the effect of patients' intended treatment duration on retention, two analyses were conducted using different operationalizations of retention in treatment: (1) Treatment status at 6 months (in-treatment *vs*. out-of-treatment), and (2) Number of days in treatment. For the first analysis, logistic regression was used to predict treatment discontinuation by 6 months. Control variables in the model included gender, age (in years), injection drug use status (yes *vs.* no), baseline cocaine urine status (negative *vs.* positive), treatment site, assigned condition in the parent study, and buprenorphine maintenance dose. The explanatory variable of interest was whether the participant intended to remain in buprenorphine treatment less than 6 months (< 6 months *vs.* ≥ 6 months). Thus, participants' treatment duration intention was coded with a cut-point to match the dichotomous outcome of the 6-month analysis time frame.

The second analysis used Cox regression to model time-to-dropout from buprenorphine treatment. Participants remaining in treatment through 180 days were considered censored. In this analysis, consistent with the dependent variable of time-to-treatment discontinuation, participants' intended treatment duration at baseline was left as a continuous variable (number of weeks the participant wished to remain in buprenorphine treatment). Diagnostics for the proportional hazards assumption revealed departures from this assumption for age, buprenorphine dose, and program site. Thus, an "extended" Cox model was fit, stratifying on site and interacting age and dose with analysis time (Cleves, Gould, Guitierrez, & Marchenko, 2008; Kleinbaum, 2005). This improved overall model fit but had minimal impact on the findings. The results from the extended Cox model are presented here. The analyses were conducted using Stata software, version SE/12.

## 3. Results

### 3.1. Intended Treatment Duration and Actual Retention

Descriptive statistics on participant characteristics, baseline treatment duration intentions, and retention in treatment are presented in Table 1. Short-term treatment less than 6 months in duration was preferred by a sizable minority of the sample (28.0%). The actual treatment discontinuation rate at 6 months was 42.1%. On average, participants intended to remain in buprenorphine 23.9 weeks, but the actual mean length of stay in treatment was only 18.3 weeks. The raw correlation between participants' intended length of stay at baseline and actual length of stay was weak and not statistically significant (Pearson's $r = .07$; p=.24).

Results of the inferential analyses are presented in Table 2. The logistic regression model shows that the odds of remaining in treatment through 6 months were not significantly different for those who initially intended to remain on buprenorphine less than 6 months vs. those who intended to stay in treatment 6 months or longer (Odds Ratio [OR]=1.15; 95% Confidence Interval [CI]=0.63–2.10; p=.65). The survival analysis using a continuous metric of time-to-dropout echoed these findings. Participants' desired treatment duration with buprenorphine had no significant relationship with time-to-leaving treatment (Hazard Ratio [HR]=1.00; 95% CI=0.97–1.04; p=.81). Thus, in the current sample, baseline participant intentions for treatment duration appear to play no substantive role in predicting actual retention in buprenorphine treatment.

Of the control variables included in the models, participants with a baseline positive cocaine urine test were more likely to leave treatment earlier (HR=1.71; 95% CI=1.18–2.48; p=.004) and to discontinue treatment within 6 months (OR=2.05; 95% CI=1.25–3.35; p=.004). Older age was related to lower risk of early discontinuation in the Cox regression (HR=.95; 95% CI=.91–.997; p=.04). Finally, higher buprenorphine dose was related to lower risk of leaving treatment (HR=.84; 95% CI=.78–.89; p< .001) and of discontinuing treatment within 6 months (OR=.91; 95% CI=.86–.96; p< .001). On average, the modal (i.e., maintenance) dose was 12.56 mg among those who discontinued treatment within 6 months, and 14.31 mg among those who remained in treatment (independent samples t-test: t=3.35; p< .001).

The extended Cox model revealed time-varying effects on retention for buprenorphine dose and age, such that the protective effects of older age and higher buprenorphine doses against treatment discontinuation diminish the longer a participant remains in treatment. In the earlier segments of the treatment episode, older participants and those on higher doses were less likely to be the next to leave treatment. However, as participants accumulated more time in treatment, these factors played a diminished role in predicting subsequent risk of treatment discontinuation. Thus, higher dosing early on may help to reduce dropout, but once the patient is stabilized the dose does not matter as much (presumably because patients have reached a therapeutic maintenance dose).

### 3.2. Reasons for Leaving Treatment

Reasons for discontinuing buprenorphine treatment from the perspective of 139 participants who left treatment within the 6-month study window are shown in Table 3. Although participants were able to select as many reasons as they felt applied to them, the majority attributed their treatment discontinuation to a single reason (84.9%). The single most commonly endorsed reason for treatment discontinuation was a disagreement with the program staff, which was reported by 24% of participants. Discharge following insufficient attendance at the program was cited by 17% as a reason for leaving treatment. Participants also reported leaving treatment because it interfered with life obligations such as employment, education, healthcare, or caring for family members (17%). Only 4% reported that they left the program because they felt they had finished their buprenorphine treatment successfully, whereas 14% left their original treatment program to receive treatment at another provider [and may have continued buprenorphine treatment]. Taken together, the most common reasons for leaving treatment could be considered as some sort of conflict, either with program staff, policies, or expectations. Excluding discharge for missing too many days at the program, 30.2% reported being discharged involuntarily from treatment (when discharge for insufficient attendance is included, the rate of involuntary discharge was 44.6%).

## 4. Discussion

Opioid-dependent individuals seek help for diverse reasons and enter treatment programs with a variety of preconceived expectations, preferences, and intentions regarding their care. Paying attention to patient preferences is an important aspect of patient-centered treatment and quality medical care (Institute of Medicine, 2001). Yet, sometimes patient preferences can run counter to evidence-based practices. Agonist treatment with methadone or buprenorphine can improve outcomes for opioid-dependent individuals (Amato et al., 2005; Mattick et al., 2008), and premature discontinuation of such treatment can be perilous to patient health (Caplehorn et al., 1994; Clausen et al., 2009; Magura & Rosenbaum, 2001).

The current study provides some encouraging evidence that patients' baseline intentions regarding buprenorphine maintenance duration do not necessarily constrain their ability to remain in treatment, at least over the first 6 months. The lack of a relationship between

patients' intended treatment duration and actual length of stay has important clinical implications for addiction medicine. Patients who are reluctant to commit to longer-term buprenorphine maintenance treatment should not be dismissed as being overly ambivalent or at especially high risk of early dropout. Such patients are no less likely to remain in treatment than those who, at the outset, expect to stay in treatment longer. However, the fact that patients' treatment duration intentions do not *prospectively* predict retention does not mean that patient intentions or preferences are inconsequential. It is possible that 6 months is too short a time frame in which to study the impact of patients' intended treatment duration on retention. However, a substantial number of patients discontinue treatment within the first 6 months, over 40% in the current sample. It is also possible that patients recalibrated their treatment duration intentions after experiencing improvements in functioning across a range of domains following enrollment in buprenorphine treatment (Mitchell et al., 2013).

An alternative explanation is that other factors overshadowed patient treatment duration intentions and were more important contributors to treatment discontinuation. The descriptive data regarding patients' stated reasons for dropout support this argument. Conflicts and disagreements with staff, and involuntary discharge for missing too many days, breaking program rules, or continued drug use – were by far the most commonly cited reasons for treatment discontinuation. These findings are consistent with earlier research conducted in methadone treatment programs (Reisinger et al., 2009). Importantly, many of the problems that patients cited as contributing to their early departure from treatment may be, at least to some extent, preventable.

This study has several limitations. An important limitation is that we did not ascertain reasons for participants' intended treatment duration. Often, the underlying reasons for self-imposed time limits on treatment may not be readily apparent at the outset of care, even to the patients themselves. When patients first enter treatment, their initial treatment duration expectations and intentions can be influenced by a range of factors, including motivation for abstinence, ambivalence about treatment, external pressure, or a combination of factors. Some patients may prefer short-term treatment because they seek only a brief respite from drug use or are enrolling in treatment at the behest of family members or the criminal justice system. Others may prefer short-term treatment because they are highly motivated to cease their drug use and desire to be abstinent from all opioids, including medications. Some studies support motivation as a prospective correlate of retention (Booth, Corsi, & Mikulich-Gillbertson, 2004; Simpson & Joe, 1993), while others have not found this relationship (Gryczynski et al., 2012; Gryczynski, Schwartz, O'Grady, & Jaffe, 2009). Unfortunately, the parent study did not include instruments measuring patient motivation. Even though it is unknown why some patients preferred shorter treatment, the fact that initial intentions had no bearing on actual length of stay remains a noteworthy finding. Future research should consider the basis of treatment duration intentions and track how such intentions, expectations, and preferences change during the course of treatment.

Another limitation is that the findings may not be widely generalizable given the patient population (low-income African Americans) and buprenorphine service model (formerly drug-free treatment programs that adopted buprenorphine) in one US city. Replication in other populations and service settings (e.g., primary care-based buprenorphine) is warranted. Even at a standard outpatient level of care, the buprenorphine treatment programs offered and expected patients to attend drug abuse counseling services at a relatively high frequency (Mitchell et al., 2013). This service structure may have elevated participants' perceived treatment burden and created more opportunities for conflicts with the program and staff than may have been the case in other models of buprenorphine treatment delivery. However, participants did not report feeling overly burdened by the requirements of treatment, and perceived burden was actually low (Mitchell et al., 2013). Another limitation is that the

stated reasons for leaving treatment represent the participants' perspectives only, and may not reflect all relevant considerations. For example, continued drug use may have prompted clinic personnel to suggest or require additional services or buprenorphine dose adjustments. A routine and clinically prudent response by the service provider may have been perceived by the participant as a disagreement with program staff that prompted departure from treatment.

Many patients leave buprenorphine treatment prematurely and could benefit from remaining in treatment longer. The current study found that most patients leaving buprenorphine treatment within the first 6 months did so involuntarily or due to perceived incompatibility between life obligations and the requirements of treatment. The relatively high rates of dropout from opioid agonist treatment reduces the likelihood that such treatment reaches its full public health potential. Additional research is needed to identify patient-centered models of service delivery that could reduce premature discontinuation of treatment. Our findings indicate that clinicians should not be discouraged by patients who indicate that they do not intend to remain in treatment for more than a brief period of time. Such patients just might surprise their providers, and themselves, after experiencing the benefits of treatment.

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## Table 1

Participant Characteristics (*N*=297)

| | Percent | Mean (SD) |
|---|---|---|
| **Baseline Characteristics** | | |
| Age (in years) | | 46.6 (6.5) |
| Female gender | 38.1% (*n*=113) | |
| Injection drug user | 23.2% (*n*=69) | |
| Cocaine+ urine at baseline | 48.8% (*n*=145) | |
| Previous buprenorphine treatment experience | 50.5% (*n*=150) | |
| **Buprenorphine Dose** | | |
| Modal Buprenorphine Dose | | 13.6 (4.5) |
| **Expected Treatment Duration** | | |
| Expected Treatment Duration (weeks) | | 23.9 (5.0) |
| Wants to stay on Buprenorphine < 6 m. | 28.0% (*n*=83) | |
| **Actual Treatment Duration** | | |
| Days in Treatment (days up to 180) | | 127.0 (68.9) [in weeks: 18.3 (10.0)] |
| Left treatment within 6 months | 42.1% (*n*=125) | |

## Table 2

Statistical models examining the relationship between intended treatment duration and retention.

| | Days-to-dropout *Cox Regression* *Hazard Ratio (95% CI)* | *p* | 6 month dropout *Logistic Regression* *Odds Ratio (95% CI)* | *p* |
|---|---|---|---|---|
| **Predictor Variables of Interest** | | | | |
| Intended Treatment Duration (weeks) | 1.004 (.97–1.04) | .81 | - | |
| Expects to take buprenorphine < 6 months | - | | 1.15 (.63–2.10) | .65 |
| **Control Variables** | | | | |
| Female Gender | .91 (.63–1.32) | .62 | .99 (.60–1.64) | .97 |
| Age (years) | .95 (.91–.997) | .04 | .99 (.96–1.03) | .68 |
| Injection Drug User | 1.42 (.94–2.13) | .10 | 1.60 (.90–2.86) | .11 |
| Baseline Cocaine+ Urine | 1.71 (1.18–2.48) | .004 | 2.05 (1.25–3.35) | .004 |
| Program Site 2 (ref=Program Site 1) | (stratified) | | 1.01 (.62–1.66) | .97 |
| IOP (ref=Standard Outpatient) | .96 (.67–1.38) | .82 | 1.01 (.62–1.65) | .96 |
| Buprenorphine Dose (in mg) | .84 (.78–1.89) | <.001 | .91 (.86–.96) | <.001 |
| **Time-Varying Covariates** | | | | |
| Buprenorphine Dose (in mg) | 1.002 (1.0008–1.0027) | <.001 | - | |
| Age (years) | 1.0006 (1.00002–1.0012) | .04 | - | |

Note: CI=Confidence Interval; IOP=Intensive Outpatient. Hazard Ratios and Odds Ratios are adjusted for the independent variables in each model. To address violations of the proportional hazards assumption, the Cox model is stratified on Program Site and specified with time-varying covariates for age and buprenorphine dose.

## Table 3

Reasons for leaving buprenorphine treatment from the patient perspective.

| | Percent Endorsing Reason |
|---|---|
| Discharged involuntarily due to disagreement with program staff | 24% (*n*=33) |
| Discharged involuntarily for missing too many days at the program | 17% (*n*=24) |
| Program conflicted too much with life, work, or school obligations | 17% (*n*=23) |
| Left to get treatment at another provider | 14% (*n*=20) |
| Discharged involuntarily due to too many positive urines | 9% (*n*=12) |
| Incarcerated and did not return after release | 7% (*n*=9) |
| Did not like the medication | 4% (*n*=6) |
| Financial (discharged for not paying fees; insurance ended; too costly) | 4% (*n*=6) |
| Left because the provider was too strict | 4% (*n*=6) |
| Left because wanted to keep using drugs | 4% (*n*=6) |
| Finished treatment successfully | 4% (*n*=6) |
| Discharged for breaking program rules | 4% (*n*=5) |
| Moved out of town | 3% (*n*=4) |
| Did not have transportation to get to the program | 3% (*n*=4) |
| Felt addiction recovery was not possible while taking medication | 1% (*n*=2) |

Notes: Data from 139 participants who had dropped out of treatment at their original program and were interviewed at 6 month follow-up. Percentages do not sum to 100 because participants could select multiple reasons. Program interference with life, transportation/distance, and moving were tabulated from responses to the open-ended “other” item.