FRN Research Report October/November 2014: Helping Patients Remain in Treatment Supports Positive Long-Term Outcomes

Introduction

Length of stay in substance abuse treatment is a predictor of treatment outcomes, with longer stays associated with lower relapse and recidivism. Foundations Recovery Network (FRN) facilities recognize the importance of remaining in treatment in order to achieve the best possible long-term outcomes. During early treatment, the patient and his or her treatment team develop a treatment timeline. For addiction treatment, most patients require a treatment stay ranging from 28 days to 90 days in a residential facility to work through both the physical and emotional changes that sobriety requires. Many patients may have also experienced previous trauma or multiple issues of addiction, family conflict or emotional distress. In the integrated treatment model, these issues must be adequately treated in order to help prevent relapse and ensure patient success for long-term recovery. Therefore, it is highly recommended that patients stay in treatment and participate fully for the entire prescribed amount of time.

A study was recently conducted using data collected from patients attending treatment at FRN facilities. Through analysis of patient data, FRN was able to identify important factors which allow for early identification of patients "at risk" for leaving treatment prior to completion. In doing so, FRN is able to implement interventions that address these factors, support treatment completion and ultimately affect the greater likelihood of positive long-term outcomes following treatment. This paper describes the process and results of this study.

FRN Research Model

Patients who enter treatment at Foundations' facilities have the opportunity to participate in an ongoing study. Participants must sign Institutional Review Board approved consent prior to participation, and the follow-up study includes interviews at intake and again at 30 days, six months and one year post-discharge.

Data is collected using validated instruments, including the Addiction Severity Index, Treatment Service Review and University of Rhode Island Change Assessment (URICA – Readiness for Change Instrument). Responses from the research instruments are designed to assess several aspects of a patient's mental and physical functioning and all other aspects affecting a patient's life, including alcohol use, drug use, psychiatric symptoms, legal issues, family/social relationships, medical issues and employment issues.

FRN's Study of ACA Discharges

For this study, intake questionnaires from FRN's integrated treatment program were used to assess which patient thoughts and behaviors were more closely associated with an ACA discharge. In a data set of 993 patients at Michael's House, the facility experienced 94 ACA discharges. With the support of previously published data, and the aforementioned questionnaires, FRN built a preliminary profile of what kind of patients leave integrated treatment ACA so that the chances of treatment retention could be improved in the future.

It is important to assess which characteristics result in patients requesting discharge ACA so that treatment facilities and personnel can address them. In a review published by Brook et al. (2006), the authors aggregate data from forty-three previous studies. They noticed that the prevalence of ACA

discharges ranged from 3 to 51% and that the mean prevalence for patients requesting discharge ACA was 17%. By comparison, the ACA rate for the population used in FRN's study was just less than 10%.

However, more relevant than the mean percentage of ACA discharges are the patient factors that lead to it. The authors found that several patient factors were associated with an increased ACA risk. For example, those of a young age, male gender and single marital status were more likely to leave ACA. Perhaps most significant, however, was the interesting finding that a comorbid diagnosis of a personality and substance abuse disorder was also one of these factors. This means that patients involved in FRN's integrated treatment program are already in a greater risk group for ACA discharge.

Patients Who Leave Against Clinical Advice

A number of studies have investigated predictive factors that may hint toward who exactly leaves programs associated with mental health and why. These factors can be categorized into one of two groups: patient factors and provider factors.

Patient factors are those that are determined by the patient. Numerous studies have indicated that one of the most common patient factors is age. The younger the patient, the more likely he or she is to request discharge ACA (Greenberg et al., 1994; Heinssen & McGlashan, 1988; Tehrani et al., 1996). Results on factors such as gender are divided, with different results saying that being male (Pages et al., 1998), and being female (Brush & Kaelbling, 1963) may be predictive. Similarly, different factors are associated with remaining in treatment for each gender (Choi, MacMaster, Morse and Adam, *in press*).

There are also numerous diagnostic patient factors that have been shown to indicate an increased likelihood of ACA discharge, the largest of which is very important for this investigation: substance abuse. It has been shown that the drug-using population are much more likely to leave psychiatric treatment ACA than those who do not use drugs (McNeil et al., 2014). This is significant due to the fact that those who take part in FRN's treatment program all have a history of substance abuse. Research from FRN databases has demonstrated that different types of substance use predict varying degrees of retention in treatment (Choi, Adams, MacMaster & Seiters, 2013). For example, individuals with cannabis and opioid use disorders were less likely to remain in treatment than their counterparts without the same use disorders.

Other diagnostic patient factors that have been shown to be predictive of ACA discharge include depressive symptoms (Brush & Kaelbling, 1963) and psychotic symptoms (Planansky & Johnston, 1976). Another diagnostic factor associated with leaving ACA is the previous duration of illness at admission (Heinssen & McGlashan, 1988).

Provider factors also influence patient decisions to leave treatment early. Provider factors are those that are determined by the healthcare and clinical professionals conducting the patients' treatment. One particular example is a difficult or confrontational relationship between the physician and the patient (Lauritsen & Friis, 1996). Another factor is inadequate or irregular staffing patterns (Siegel et al., 1982).

While a number of factors have been previously identified as risk factors for patients leaving ACA, it is not clear that these factors remain constant over time and between institutions. Factors that have been identified over a range of time and in a range of facilities and hospitals, such as comorbid drug use, are probably constant factors. Other factors, however, such as marital status, age and ethnicity, tend to depend on the historical, social and geographical context of the studies that identified them. Patient factors can also interact with provider factors. Therefore, FRN sought to identify those factors most likely predictive in our population of patients and specific to our programs. The goal of this was

to find out who exactly is at risk of leaving ACA, and what we should look for at intake to prevent the ACA conversation if possible.

How This Data Was Gathered

Data collected as part of the intake process was analyzed to determine if there were predictive items that could be identified early in treatment. Early identification allows the treatment team to intervene early, thus improving the probability of remaining in treatment. Data collected using the Addiction Severity Index (ASI) were included in this analysis (McClellan et al., 1992). The ASI was developed to measure problem severity in each of seven potential problem areas that include: medical, employment, alcohol, drug, legal, family/social and psychiatric problems. The ASI is administered by trained intake personnel within the first 72 hours following admission.

Results

Analysis against actual patient discharge data revealed that several questions from the initial interview were strongly associated with the leaving treatment ACA. Data were then analyzed to determine the predictive value of each question by the patient's answer to the question. The results are summarized in the following tables. The odds of discharging against clinical advice (ACA) are listed based on the type of answer given by the patient at intake. For example, the odds of discharging ACA are nearly 2.5 times greater for a patient who believes that treatment for his or her alcohol problem is not important.
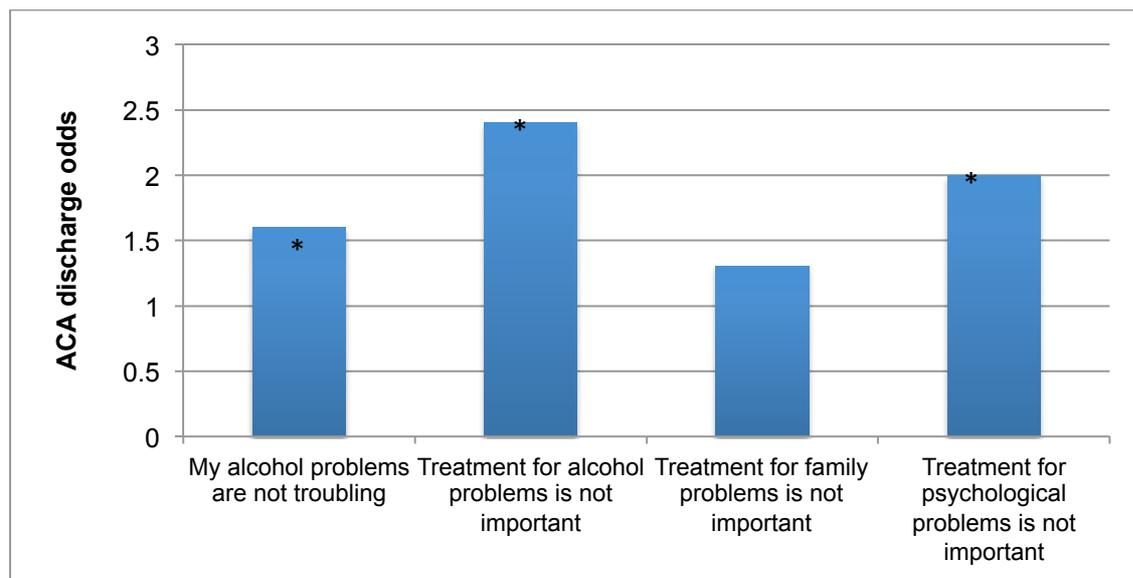

Figure 2: Odds of ACA discharge for "no" answers in the first part of the intake questionnaire

The results can be summarized as follows:

- Those who were not troubled at all by their alcohol problems were 1.6 times more likely to leave treatment than those who were troubled.
- Those who viewed treatment for their alcohol problems as not important at all were 2.4 times more likely to leave treatment than those who viewed treatment important.
- Those who viewed treatment for family problems as not important at all were 1.3 times more likely to leave treatment than those who viewed treatment as important.
- Those who viewed treatment for psychological problems as not important at all were 2.0 times more likely to leave treatment than those who viewed treatment as important.

In addition to this data, risk factors associated with drug use prevalence in the past 30 days were also assessed. These results are based on the second part of the questionnaire and are shown in Figure 3 with the results summarized below.
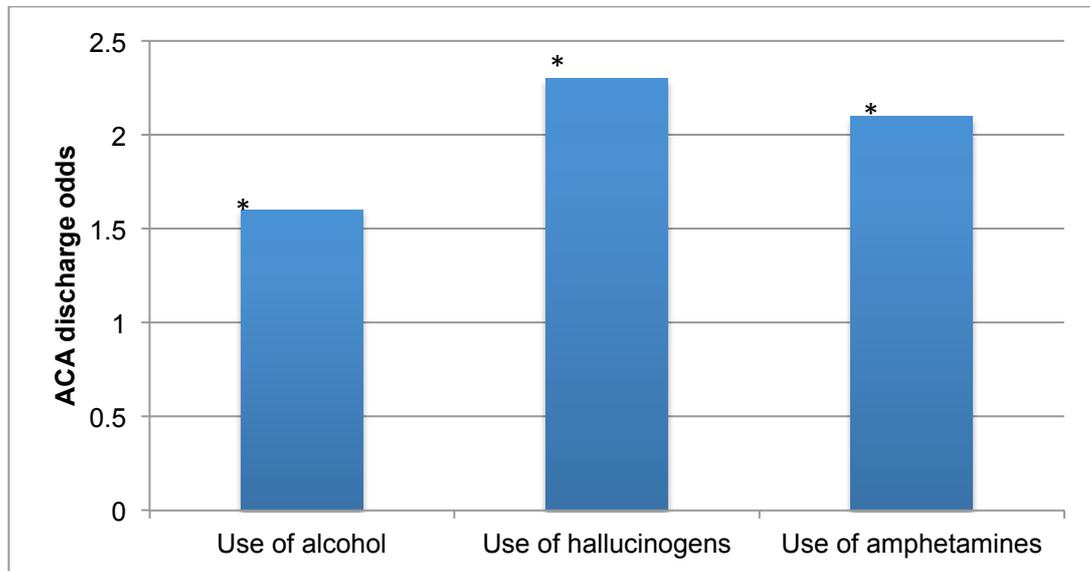

Figure 3: Odds of ACA discharge for self-proclaimed drug users in the past 30 days

This data set indicates the following important findings:

- Patients who had been intoxicated by alcohol in the past 30 days were 1.6 times more likely to leave ACA.
- Patients who had used hallucinogens in the past 30 days were 2.3 times more likely to leave ACA.
- Patients who had used amphetamines in the past 30 days were 2.1 times more likely to leave ACA.

Summary and Conclusions

Our findings demonstrate that the patient's beliefs associated with the importance of treatment are strong predictors of their decisions to remain in treatment. Those who believe that treatment is not important are more likely to leave treatment ACA. This finding allows staff at FRN facilities to identify these patients and to work with them during the early stage of treatment to amend these beliefs. Findings associated with recent substance use patterns also allow staff to identify and intervene early in the treatment process.

Recognizing patients who could be at risk is an important step in the treatment process. Early intervention leads to improved outcomes. By identifying and intervening in the early stages of treatment, FRN is able to support patients in achieving treatment plan goals. The results are positive long-term outcomes for patients and their families.

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