The Role of Patient Satisfaction in Methadone Treatment

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Abstract

Background—Patient satisfaction surveys, widely used in health care delivery systems, may provide useful data for improving patient retention and outcomes.

Objectives—This study examined the relationship between methadone patients' treatment satisfaction at three months post admission and their 3-month treatment outcomes and 12-month treatment retention.

Methods—New methadone treatment admissions ($N = 283$) were assessed at 3 months post admission for satisfaction with their counselors and programs. Correlations examined the relationship between 3-month satisfaction and Addiction Severity Index (ASI) scores. Regression analysis assessed the relationship between satisfaction and drug testing at 3 months and was used to predict whether participants were retained in treatment at 12 months.

Results—Participants who were more satisfied with their counselors and programs had lower Drug and Legal ASI composite scores at 3 months. Participants who were more satisfied with their programs remained in treatment for at least 12 months.

Conclusions—Treatment programs should consider administering the CEF to their patients at 3 months post admission to identify patients with low satisfaction scores who may be at risk for prematurely leaving treatment.

Scientific Significance—Measuring patient satisfaction during treatment may help programs meet patients' needs and improve retention.

Keywords

Methadone maintenance; opioid addiction; patient satisfaction; substance abuse; retention

1. Introduction

Patient satisfaction with drug-abuse treatment is increasingly viewed as an issue of significance in both clinical treatment and research. (1) The World Health Organization recommends that drug programs use patient satisfaction measures to guide program improvement efforts. (2) Some countries routinely use patient satisfaction surveys to assess their public health systems. (3) In Australia and the United Kingdom, there have been reports of methadone patient satisfaction data, (4) although they have not examined the relationship between satisfaction

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and outcomes and their findings may not be generalizable to the US. Thus, more research on patient satisfaction would be of utility to both programs and patients.

Patient satisfaction can include views of the program environment, the providers, and whether patient needs were addressed. (5) Patients indicating that they received needed services during drug-abuse treatment have reported higher satisfaction, (6) and drug treatment patients with unmet physical and social needs may be at an increased risk for relapse. (7)

The measurement of methadone patient satisfaction and its relationship with methadone treatment outcomes has received scant attention in the US. (8) In a comparison of counseling strategies within methadone treatment, it was found that an experimental counseling strategy, reported by treatment providers as leading to greater counselor-client rapport, was associated with greater retention and more positive treatment outcomes. (5) Another study found that methadone patient satisfaction was associated with increased attendance at counseling during the first 3 months of treatment. (9) Finally, Joe and Friend (10) found a marginally significant positive relationship between patient satisfaction and methadone treatment retention.

The purpose of the present study was to assess the relationship between patient satisfaction with their methadone treatment program and counselor and outcomes. It was hypothesized that patient satisfaction with the program and the counselor would be positively correlated with retention in treatment and negatively correlated with drug use and illegal activity. Finally, it was hypothesized that patients with greater treatment needs would have worse outcomes in terms of treatment retention, drug use, and criminal behavior.

2. Methods

2.1. Participants

The study sample consisted of 283 opioid-addicted individuals newly enrolling in one of six Baltimore area methadone maintenance treatment programs between November 2004 and November 2007 as part of a study of Entry and Engagement in Methadone Maintenance Treatment. (11,12) Data from 12 participants who stopped attending treatment because of incarceration or hospitalization prior to the 3-month assessment were omitted from analysis given the purposes of the present study.

Eligibility for participation in the parent study required participants to be at least 18 years of age and meet the criteria for methadone maintenance treatment at the time of recruitment. All study participants provided written informed consent in keeping with the Friends Research Institute's Institutional Review Board approval of the study.

2.2. Measures

Study participants were administered the ASI (13) at treatment entry to obtain participants' demographic and background data. The ASI was also administered at 3 months post treatment entry to obtain composite scores ranging from 0 (no problem) to 1 (extreme problem) for each of the seven domains. Selected individual items regarding past 30-day drug use and criminal behavior at 3 months were obtained from the ASI as well.

The Texas Christian University Client Evaluation Form (CEF) (14) was administered 3 months post treatment entry. The CEF is a self-report instrument derived from the Client Evaluation of Self and Treatment (CEST) assessment form utilized to monitor drug abuse treatment delivery and to provide useful information about the treatment program's functioning. (15) For this study, participants completed a form consisting of 23 self-rated items scored on a 5-point Likert scale with 5 indicating the most positive rating. Responses were summed to provide scores for three subscales: 1) Treatment Needs (5 items), which measures the patients'

perception of need for individual and group drug counseling, educational and vocational training, medical care and services, and help with emotional troubles; 2) Treatment Satisfaction (7 items), which measures the patients' overall satisfaction with the program, as well as their satisfaction with specific aspects of the program such as location, convenience, staff, and program organization; and 3) Counselor Services (11 items), which measures the patients' evaluation of the counselor, including their views of their counselor in such areas as dependability, motivation, respect, and encouragement.

Additional data collection included urine drug testing results (collected at the 3-month interview) analyzed by enzyme multiplied immunoassay technique (EMIT) and information from program records regarding participants' program attendance and dates of participants' discharge through 12 months post admission.

2.3. Statistical Analysis

2.3.1. CEF subscales—In order to examine the reliability of the three subscales, coefficient α was computed for each of the 3-month CEF subscales.

2.3.2. ASI composites and self-report drug use and illegal activity—Pearson product-moment correlations were calculated to examine the relationship between the 3-month CEF subscales and ASI composite scores, number of days used heroin and used cocaine in the past 30 days, and number of days of illegal activity in the past 30 days at 3 months post treatment entry.

2.3.3. Drug testing—Logistic regression analysis was utilized to examine the relationship between the 3-month CEF subscales and 3-month urine drug testing results. Each of the following three dichotomous outcome measures (0 = negative; 1 = positive) were separately regressed onto the three CEF subscales: 1) heroin-only drug test result; 2) cocaine-only drug test result; 3) drug test result for both heroin and cocaine. Each regression analysis held constant gender, age, ethnicity, marital status, and years of education.

2.3.4. Retention in treatment—Logistic regression was used to predict whether patients remained in treatment at 12 months post treatment entry. Retention in treatment (0 = not retained at 12 months; 1 = retained at 12 months) was regressed onto the 3-month CEF subscales. This analysis held constant gender, age, ethnicity, marital status, years of education, and the seven 3 month ASI composite scores.

3. Results

3.1. Participants

Of the 283 participants, there were 146 men (51.6%) and 137 women (48.4%), and 78.4% of the total sample were categorized as African American/other (including 219 African-American participants, 1 Asian or Pacific-Islander participant, 1 Hispanic participant, and 1 American-Indian participant). The mean age was 41.6 years, the mean number of years of education was 11.3 years, and 65 participants (23%) were married. All of the participants had reported using opiates, 70% reported using cocaine, 24% reported using marijuana, and 11% reported using benzodiazepines in the 30 days prior to treatment entry.

3.2. CEF subscales

Descriptive statistics for each of the three CEF subscales at 3 months were as follows: For the Treatment Needs subscale (5 items; scale range 5 - 25), α was .76, and the mean was 16.2 (SD = 4.0). For Treatment Satisfaction (7 items; scale range 7 - 35), α was .72, and the mean

was 26.9 (*SD* = 4.2). The Counselor Services subscale (11 items; scale range 11 - 55) showed an α of .93 and a mean of 44.0 (*SD* = 7.5).

3.3. Relationship of CEF subscales with ASI composites and self-report drug use and illegal activity

Pearson correlations between 3-month CEF subscales and 3-month ASI composite scores showed significant inverse relationships between the CEF Treatment Satisfaction subscale and the ASI Drug and Legal composites, as well as between the CEF Counselor Services subscale and the ASI Drug and Legal composites (see Table 1 for means and standard deviations). The CEF Treatment Satisfaction subscale additionally showed a significant positive relationship with the ASI Employment composite, and the CEF Treatment Needs subscale was significantly and positively related to the ASI Psychiatric composite.

Regarding 3-month drug use and illegal activity, both the CEF Treatment Satisfaction and Counselor Services subscales showed significant inverse relationships with number of days used heroin and number of days used cocaine in the past 30 days reported on the ASI (see Table 1). The CEF Treatment Satisfaction subscale was also significantly and inversely related to the number of days of illegal activity in the past 30 days.

3.4. Drug testing results

Logistic regression analysis (see Table 2) of the 3-month drug testing results indicated that participants who reported greater treatment needs were significantly more likely to yield drug tests that were positive for the combination of heroin and cocaine (*OR* = 1.12, *95% CI* = 1.01 - 1.24, *p* = .028). Participants who indicated that they were more satisfied with their treatment programs were less likely to yield drug test results that were positive for the combination of heroin and cocaine (*OR* = .88, *95% CI* = .79 - .98, *p* = .015).

3.5. Retention in treatment

Analysis of retention in treatment was restricted to the 246 participants who had remained in treatment for at least 90 days and who had had opportunity to be in treatment for 12 months at the time of analysis. Of the 246 participants, 179 (73%) were in treatment for at least 12 months. Results of logistic regression analysis indicated that participants who were still in treatment at 12 months were more satisfied with their treatment programs at 3 months (*OR* = 1.14, *95% CI* = 1.03 - 1.25, *p* = .01). Treatment Needs and Counselor Services subscales were not significant (*ps* = .77 and .68, respectively). Demographic variables and 3 month ASI composites were not significant in this analysis.

4. Discussion

Findings from this study suggest a positive association between patient satisfaction and measures of treatment outcome and retention. Thus, satisfaction with the program and the counselor at 3 months was negatively related to the concurrent self-reported use of cocaine and heroin, to illegal activity, and to drug tests positive for the combination of heroin and cocaine, and positively related to retention at 12 months. It needs to be emphasized that the 3-month data indicate an association only and, therefore, it cannot be inferred that patient satisfaction leads to the positive treatment findings. Consequently, it is possible that patients' perceptions of their progress in treatment can lead to their greater satisfaction with treatment. It is plausible that initial satisfaction may contribute to a greater investment in the treatment process leading thereby to positive behavior change, which leads to still greater satisfaction and further change. It is also possible that decreased satisfaction leads to patient drop-out. In brief, the 3-month data suggest a role and importance for patient satisfaction, but leave unclear the specifics of that role or the extent of its importance.

The finding of a positive relationship between patient satisfaction with the treatment program at 3 months and retention in treatment assessed at 12 months is of particular importance as research from large multi-site, longitudinal studies have found that retention in methadone treatment for at least 12 months is associated with positive patient outcomes. (16,17) Additionally, satisfaction with treatment in this study was found to be predictive of retention in treatment at 12 months controlling for 3 month ASI composites, indicating that satisfaction was predictive of treatment retention independent of clinical severity. Thus, the findings that patient satisfaction with treatment is predictive of whether patients have greater opportunity to receive an adequate therapeutic exposure to methadone treatment should provide important impetus to make patient satisfaction a concern of providers.

Study findings also indicated that patients who reported more treatment needs had greater coincident drug use and psychiatric problems. Prior research has shown that patients who received more of these services with regards to type and intensity stayed in treatment longer and showed better outcomes than patients who did not receive these services. (7) Patients with co-morbid psychiatric conditions and greater psychosocial problem severity may especially benefit from such services. (18) In spite of this need for services, the recent rise of managed health care has been accompanied by a decrease in services provided in terms of variety and intensity in drug-abuse treatment. (19) Findings from this study reiterate the importance of the availability of these services to address patients' needs and increase their satisfaction with treatment, and ultimately improve outcomes and retention.

This study has several limitations. First, some of the results were based on self-reports from the ASI, which may be subject to some inaccuracy. (20) Second, the findings were obtained from only one city with a large African-American population and an endemic heroin problem. Finally, because of the exploratory nature of the study, significance was determined using alpha levels set at .05 for all analyses, which could lead to an inflation of Type I error due to the relatively large number of tests.

Given the increased risk of overdose death, HIV and hepatitis infections, and participation in illegal activity faced by heroin-addicted individuals who drop out of drug treatment, it is of considerable importance to improve treatment retention. Those patients who have more needs and patients who are dissatisfied with treatment have an increased risk of drop out. Programs should find more effective ways of assessing their patients' needs and satisfaction soon after admission to provide the most appropriate services and ensure their retention and recovery. More research is needed to examine how patient satisfaction can be integrated into drug treatment program practice.

Acknowledgments

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Table 1

Simple Pearson product-moment correlations of 3-month CEF subscales with 3-month ASI composites and 3-month drug use and illegal activity in the past 30 days ($N = 283$)

| Variable | CEF subscales at 3 months | | | | |
	Treatment Needs	Treatment Satisfaction	Counselor Services	Mean	SD
ASI composite (at 3 months)					
Medical	.113	−.023	−.053	.15	.30
Employment	.098	.180**	.042	.79	.26
Alcohol use	.089	−.075	−.002	.08	.15
Drug use	.082	−.150*	−.135*	.09	.11
Legal	.113	−.170**	−.137*	.07	.15
Family/Social	.113	−.081	−.059	.05	.13
Psychiatric	.147*	−.018	−.004	.09	.17
Past 30-days item (at 3 months)					
Days of heroin use	.067	−.196**	−.144*	2.52	6.78
Days of cocaine use	.095	−.162**	−.182**	4.28	7.85
Days of illegal activity	.109	−.145*	−.065	2.00	6.58

*
$p < .05$;

**
$p < .01$.

Note: All past 30-day items are adjusted for number of days spent in the community (i.e., not in a controlled environment) by dividing the number of days used drugs or committed crime while in the community by the number of days in the community then multiplying by 30 (maximum possible number of days = 30).

Table 2

Results of logistic regression analyses of 3-month drug testing results and 3-month CEF subscales ($N = 265$)

Variable	Odds ratio	95% *CI*
Treatment Needs		
Heroin-only drug test	1.04	(.92, 1.19)
Cocaine-only drug test	.97	(.91, 1.04)
Drug test for both heroin and cocaine	1.12[*]	(1.01, 1.24)
Treatment Satisfaction		
Heroin-only drug test	1.10	(.92, 1.31)
Cocaine-only drug test	1.02	(.95, 1.11)
Drug test for both heroin and cocaine	.88[*]	(.79, .98)
Counselor Services		
Heroin-only drug test	1.01	(.92, 1.12)
Cocaine-only drug test	.98	(.93, 1.02)
Drug test for both heroin and cocaine	1.00	(.94, 1.06)

[*]
$p < .05$.

Note: The reference category for each drug test was the negative result. The concomitant variables (covariates) in all models were: age, gender, ethnicity (Caucasian *v*. African American/other), marital status (married *v*. not married), and years of education. All concomitant variables were nonsignificant (all *p*s > .05). $N = 265$ because urine test results were missing for 7 participants due to incarceration/hospitalization at time of interview and 11 participants due to refusals/missing data.