



Published in final edited form as:

Am J Addict. 2012 ; 21(1): 63–71. doi:10.1111/j.1521-0391.2011.00197.x.

Adaptation of the Patient Feedback Survey at a Community Treatment Setting

Monika E. Kolodziej, Ph.D.^{1,2,3,4}, Patrice M. Muchowski, Sc.D.^{1,2,4}, Nayla R. Hamdi, M.A.^{2,3}, Paula Morrisette, Psy.D.^{1,2}, Alicen J. McGowan, Ph.D.^{1,2}, and Roger D. Weiss, M.D.^{2,3,4}

¹AdCare Hospital, Worcester, MA

²New England Consortium Node, National Institute on Drug Abuse Clinical Trials Network

³McLean Hospital, Belmont, MA

⁴Harvard Medical School, Boston, MA

Abstract

The Patient Feedback Survey is a performance improvement measure designed to assess the quality of outpatient substance abuse treatment. We modified and administered this measure to 500 individuals at a multi-site treatment provider. Although the feedback scores were high in general, analyses of variance showed score variability in relation to type and length of treatment. Moreover, respondents who reported any use of marijuana, cravings for substances, or mutual-support group attendance (i.e. Alcoholics Anonymous or Narcotics Anonymous) had lower feedback scores than respondents without these experiences. We highlight the importance of investigating treatment evaluations in the context of other recovery experiences.

Keywords

treatment satisfaction; therapeutic alliance; addiction recovery

Introduction

Evaluations of treatment satisfaction and therapeutic alliance by persons seeking substance abuse treatment are considered to be important performance indicators for addiction treatment programs. Although patients' evaluations of their treatment sessions seem to be at best moderately related to substance use treatment outcomes,^{1,2,3,4,5,6} several authors have written about the value of gathering data on how treatment-seekers evaluate their treatment experience *independent* of their substance use.^{7,8,9} Consideration of patients' level of therapeutic alliance and treatment satisfaction may allow for organizational improvements; these include increased emphasis on building productive partnerships between staff and patients, and in turn promoting a “consumer-friendly” atmosphere and greater treatment retention.^{10,11,12} In addition, facilities are expected to periodically assess patients' perceptions of treatment as part of the accreditation process.¹³

Several existing measures assess treatment satisfaction and therapeutic alliance. Recently, the investigators within the National Institute on Drug Abuse Clinical Trials Network

Corresponding Author: Monika E. Kolodziej, Ph.D., AdCare Hospital, 107 Lincoln Street, Worcester, MA 01605.
monika.kolodziej@umassmed.edu. Telephone: 508-799-9000. Fax: 508-756-0548.

Declaration of Interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the manuscript.

(NIDA CTN) developed the Patient Feedback Survey (PFS), which is a brief measure that assesses both constructs.⁸ The PFS is accompanied by a manual to facilitate performance improvement efforts and to satisfy licensing and accreditation requirements in the United States.¹⁴ In the CTN study, the PFS was administered over time to persons seeking group outpatient treatment for substance-related disorders. The investigators found that, overall, patients had positive assessments of treatment satisfaction and therapeutic alliance, and they noted that it was feasible to implement the PFS procedures in clinical settings on a longitudinal basis.^{8, 15}

The current study took place at a large, urban provider of inpatient and outpatient treatment for substance-related disorders. Our communication with the PFS developers led our institution to modify and implement this measure to address “real-world” performance improvement goals. The modifications focused on broadening the scope of the scale's administration to include persons seeking both group and individual treatment. Moreover, we added questions to examine how patients evaluate their treatment sessions in the context of other experiences pertinent to recovery from addiction. We specifically chose 1) engagement in mutual-support groups,^{16,17} 2) use of medications for substance-related disorders,^{18,19} and 3) cravings for substances.^{20,21,22}

Only a limited number of studies have addressed whether cravings for substances, mutual-support group engagement, or use of medications for substance-related disorders are linked to patients' perceptions of their behavioral treatment sessions. Of these three experiences, mutual-group engagement, especially involvement in Alcoholics Anonymous (AA) or Narcotics Anonymous (NA), has been investigated the most.^{16,17} Specifically, studies suggest that patients who are engaged in AA or NA rate their treatment satisfaction higher than those who do not attend AA or NA, but only when the treatment sessions are led by counselors with shared beliefs about AA or NA²³ or peers in recovery from addiction.²⁴ While Dundon and colleagues² recently investigated the association between therapeutic alliance and substance use outcomes among patients taking naltrexone for alcohol dependence, they did not report whether therapeutic alliance was related to medication adherence. Finally, we do not know of any studies examining the link between cravings for substances and treatment satisfaction evaluations, even though the experience of cravings is considered to be an important risk factor for substance use during and after treatment.^{20,21,22}

The goals of this study, therefore, were to modify and implement the PFS performance improvement measure in a clinical setting in order to evaluate clinical performance, and to explore additional variables that may play a role in patients' evaluations of their treatment. Based on prior findings from studies conducted in substance abuse and mental health treatment settings, we anticipated that patients receiving individual treatment (as opposed to group treatment) and those in treatment for a longer duration would have higher PFS scores than those in group treatment and those in treatment for a shorter duration, respectively.¹⁰ Moreover, we hypothesized that there would be small to moderate associations between substance use and the PFS scores.⁵ We did not make any particular predictions concerning the associations between PFS scores and cravings, mutual-group engagement, or use of medications for substance-related disorders, but rather wanted to examine these potential associations in an exploratory fashion. To our knowledge, this is the first study to a) administer the PFS outside of the CTN research infrastructure, and b) explore how experiences that may promote or challenge recovery relate to patients' treatment session evaluations.

Methods and Materials

Participants

Participants were patients seeking treatment at an accredited, multi-site substance abuse treatment provider that also includes inpatient detoxification and rehabilitation. Over 5000 persons seek outpatient treatment at this facility in any fiscal year. The outpatient clinics are located in urban and suburban settings on the East Coast of the United States. Clinicians apply abstinence-based models in their treatment approaches, and patients are strongly encouraged to engage in mutual-support groups, especially AA or NA, in addition to formal treatment.

Persons who engaged in at least one the following types of outpatient treatment, listed from the most intensive to the least intensive, were asked to participate: a) the Day Program, consisting of two to three groups per day up to 7 days per week, b) the Intensive Outpatient Program, comprised of 2 groups per day, 3 days or evenings per week, c) Early Recovery Groups, weekly 90-minute groups focused on relapse prevention and other aspects of recovery, and d) Individual Treatment, typically consisting of one psychotherapy session per week. It is possible that some respondents who engaged in more than one type of treatment (e.g., a weekly group and individual sessions) completed this questionnaire multiple times.

The methods for this study were approved by the facility's Executive Committee of the Medical Staff and the Board of Directors for the purposes of collecting quality improvement data on services provided by specific clinicians. All of the data were collected anonymously. Completion of the voluntary survey served as indication of informed consent.

PFS Instrument

The modified PFS used in our study is shown in the Appendix. The first portion of the PFS is made up of 7 questions (maximum score = 28) that ask patients to rate their session experience in terms of therapeutic alliance (questions 1 through 4; maximum score = 16) and treatment satisfaction (questions 5 through 7; maximum score = 12). These items had been chosen by CTN investigators based on their brevity and psychometric properties, including their valid representation of the constructs of treatment satisfaction and therapeutic alliance.^{8,15} In the original study, the treatment satisfaction and the therapeutic alliance scales were found to have internal consistencies (Cronbach's alphas) of .78 and .76 respectively.⁸

Our changes to the original PFS consisted of modifying subsequent questions pertaining to treatment duration (question 11) and types of substances used (questions 13 through 17). Also, we added questions that inquire about use of medications for substance-related disorders (question 12), cravings (question 18), and AA/NA attendance (question 19); we also provided space for patient comments (question 20). The content of this modified questionnaire was discussed with two key investigators from the original CTN study.²⁵ No changes were made to the first seven questions about therapeutic alliance and treatment satisfaction.

Procedure

The modified PFS was administered during a five-week period in May and June of 2007 to 500 patients seeking various types of outpatient treatment. Specific administration dates for each of the clinical sites were selected based on discussions with each site's director and administrative staff. The goal was to obtain a representative set of patient evaluations without having the procedure interfere with the sites' daily operations.

The surveys were pre-coded with information concerning outpatient site and type of treatment. Administrators were instructed to insert clinician initials prior to survey distribution and were trained in the study procedures (including via a script to introduce the survey to patients). Nearly all surveys ($n=476$, 95%) were administered by staff other than the clinician whose session was being evaluated. These staff consisted of administrative and “front desk” personnel at each outpatient site. In some cases (e.g., during some evening hours or during a particularly busy time at a clinical site), the clinicians introduced and gave the survey to their own patients. These surveys were marked as having been administered by the clinician. Patients were encouraged to deposit the anonymous surveys in the locked suggestion boxes that were provided for this purpose.

Following the procedures used by the CTN investigators and included in the PFS manual, all clinicians were provided with a confidential, individualized report that listed their scores in relation to the overall scores for the type of treatment that they provided. These reports were distributed to the clinicians, and clinical teams at each site were encouraged to discuss the results for the purpose of service improvement.

Results

Overview

A total of 500 PFS surveys, evaluating group and individual sessions conducted by 33 clinicians, were distributed during a five-week period. Review of the electronic database shows that during this time there were 1632 enrolled patients at the facility's 6 outpatient sites who may or may not have been actively participating in treatment. Some of the surveys contained missing data. Therefore, specific statistical analyses are based on varying numbers of surveys. Total PFS scores on surveys distributed by administrators ($n=454$, $M=24.9$, $SD=4.5$) were lower than the scores on surveys distributed by clinicians ($n=24$, $M=26.9$, $SD=1.4$; $F(1,476) = 4.7$, $p = .03$). Because of this difference in scores, the remaining results are based on 454 surveys administered by persons other than the clinician whose session was evaluated.

Psychometric Properties of the PFS

The PFS scores were very high; all of the items showed high negative skewness ranging from -1.6 to -2.6 , which indicated a positive response bias. Specifically, the average therapeutic alliance score was 14.1 (out of a maximum of 16; $SD=2.7$), the average treatment satisfaction score was 10.7 (out of a maximum of 12; $SD=2.0$), and the average combined feedback score was 24.9 (out of a maximum of 28; $SD=4.5$). Similarly to the CTN study, we observed high internal consistency for the therapeutic alliance items (Cronbach's $\alpha = .89$) and for the treatment satisfaction items (Cronbach's $\alpha = .80$). In this study, therapeutic alliance and treatment satisfaction were highly correlated ($r = .83$, $p < .0001$), with the seven scale items likewise showing high internal consistency (Cronbach's $\alpha = .92$). Therefore, the subsequent results are provided for the combined treatment feedback score.

PFS Scores in Relation to Demographic Characteristics

The PFS scores were analyzed in context of respondents' age, gender, and racial/ethnic background. Respondents ranged in age between 16 and 74 ($M = 41$, $SD = 12$). There was no relationship between age and PFS scores ($r = .07$, $p = .14$). Table 1 displays the PFS scores in relation to respondents' gender and racial/ethnic background. There were no statistically significant differences in the PFS scores based on gender ($F(1, 450) = .9$, $p = .35$), nor racial/ethnic background analyzed for respondents identifying as African-American, Hispanic/Latino, or White ($F(2, 427) = .6$, $p = .54$). Respondents identifying as Asian or

Native American were not included in these analyses due to their small numbers (see Table 1).

PFS Scores in Relation to Treatment Characteristics

The PFS scores were examined in association with treatment type and duration. (see Table 2). Treatment type was associated with PFS scores ($F(3, 439) = 12.0, p < .0001$). Post-hoc Bonferroni comparisons showed that individual sessions were rated higher than any of the group sessions, and that the weekly early recovery groups were rated higher than the intensive outpatient groups held 3 times per week. Treatment duration also was associated with PFS scores ($F(5, 439) = 4.3, p < .001$). After exploratory analyses that led to the collapsing of some of the treatment duration categories, the post-hoc Bonferroni comparisons showed that persons in treatment ranging from 3 to 6 months and those in treatment longer than 6 months rated their sessions higher than the group of persons in treatment for up to 1 month. There were no other associations between treatment duration categories and PFS scores.

PFS Scores in Relation to Medication Use

Only a minority of respondents ($n = 59, 12\%$) reported use of any medications for treatment of substance-related disorders. Of those who reported medication use, acamprosate was reported by 31 respondents, buprenorphine was reported by 19 respondents, naltrexone and disulfiram were each reported by 5 respondents, and clonidine use was reported by 4 respondents. Five out of 59 respondents reported using two medications. Table 2 shows the PFS scores for those who reported and did not report medication use. There was a trend for the association between medication use and the PFS score ($F(1, 450) = 3.3, p = .07$), with respondents who were using medications reporting slightly lower PFS scores than respondents who were not using medications.

PFS Scores in Relation to Experiences in the Past Week

Respondents' PFS scores were examined in relation to their days of substance use, cravings, and AA/NA attendance during the past week (questions 13 through 19). As Table 3 shows, these experiences were analyzed both as continuous variables (average number of days ranging between 0 and 7) and dichotomous variables (with "0 days" scored as "no" and the remaining days ranging from 1 to 7 scored as "yes"). Substance use was analyzed separately for each type of substance as well as through an "any substance use" variable consisting of all the types of substances. Correlational analyses conducted with continuous variables showed that the PFS scores were negatively correlated with days of marijuana use ($r = -.13, p < .01$), any substance use ($r = -.12, p < .05$), cravings ($r = -.21, p < .0001$), and AA/NA attendance ($r = -.14, p < .01$). Analyses of variance conducted with dichotomous variables showed statistically significant associations between PFS scores and marijuana use ($F(1, 430) = 6.4, p < .05$), cravings ($F(1, 426) = 17.4, p < .0001$), and AA/NA attendance ($F(1, 426) = 4.6, p < .05$).

Discussion

The results of the PFS study show that patients seeking outpatient services at a multi-site community treatment program report positive evaluations of their treatment sessions. These findings are similar to the results of the original CTN study.⁸ In general, many studies have found a positive response bias among patients evaluating treatment satisfaction and/or therapeutic alliance,^{1,11,26} even in prison settings where treatment is mandated.²⁷ In the current study, we also found that the PFS scores were higher for patients whose clinicians distributed the surveys than for those who obtained the survey from an administrator,

supporting the notion that social desirability may play a role in how patients evaluate their treatment experience.²⁸

We found that therapeutic alliance and treatment satisfaction were closely correlated, leading us to refer to the PFS in general terms as a measure for patients' "treatment session evaluation." From a conceptual standpoint, treatment satisfaction and therapeutic alliance typically have been treated as independent constructs with some shared characteristics. For example, in a study of adolescents pursuing substance abuse treatment, Tetzlaff and colleagues⁶ found that therapeutic alliance (assessed by the 12-item Working Alliance Inventory) and treatment satisfaction (assessed by the 14-item Treatment Satisfaction Index) had a correlation of .36. It is possible that the high correlation between therapeutic alliance and treatment satisfaction in our study may be attributed to each of the constructs having been measured by relatively few items. A more thorough psychometric evaluation would have to be conducted to further assess these constructs.

Considering the positive response bias, it is noteworthy that there was variability in patients' scores in relation to treatment characteristics and "experiences during the past week." Specifically, patients rated individual sessions higher than group sessions, supporting the notion that individual sessions may allow for greater engagement with the therapist than do group sessions.¹⁰ Despite this finding, group treatment remains the treatment of choice for many outpatient providers; group approaches are considered to be particularly well-suited for persons with substance-related disorders and in some cases fiscal and/or staffing issues may preclude greater use of individual approaches. It would be useful for outpatient providers to identify ways in which patients could receive individual "attention" even if groups remain the modality of choice.

Moreover, patients who reported that they have been in treatment between 3 and 6 months and those in treatment longer than 6 months had higher PFS scores than patients in treatment for up to 1 month. It has been well established that patients are most likely to leave treatment during the early treatment phase, especially if they report treatment dissatisfaction.^{3,12,29} It is notable then that patients in treatment longer than 6 months did not have higher PFS scores than patients in treatment between 3 and 6 months. From a statistical analysis standpoint, these treatment duration categories could have been collapsed further to create a category called "over 3 months of treatment." However, it is important to point out that there appears to be a ceiling effect for the association between treatment duration and treatment session evaluations. Most likely, this is partially attributable to the positive response bias of the individual PFS items. Moreover, it is possible that patients in treatment for longer than 6 months were those who needed to be in treatment for a long time due to a variety of complications such as their relapse history, environmental stressors, and/or other co-occurring disorders, all of which have been linked to lower therapeutic alliance and treatment satisfaction.^{4,5,12} Finally, further studies would have to elucidate how treatment session evaluations may relate to the association between treatment duration and treatment type; exploratory analyses in this study showed that out of 105 patients evaluating their individual sessions, only a minority (n=22, 21%) were in treatment for up to one month.

Most concurrent substance use was not related to the PFS scores. The generally low association between substance use and treatment session evaluations resembles findings of other studies.^{3,4,5} Nevertheless, it is interesting to note that patients reporting marijuana use during the past week had the lowest average PFS score, and that the negative association between marijuana use and the PFS score was statistically significant. Given that marijuana may be considered by some clinicians and/or patients to be a less harmful drug than other substances,³⁰ it is possible that patients perceived marijuana use to not have been addressed

as readily as other substance use. Alternatively, some clinical and empirical evidence suggests that patients using marijuana may be opposed to the abstinence-model approach,^{31,32} and therefore it is possible that these patients were in disagreement with the session content presented by the clinician. It would be useful to further inquire of clinicians and patients how marijuana use was addressed during the treatment sessions.

Interestingly, cravings clearly had a negative association with the PFS scores. Given the simple means of assessing cravings in this study, we cannot be certain of the interpretive meaning of this experience to the respondents.²¹ Nevertheless, it is possible that cravings represented a general sense of affective discomfort and an urge to use substances, as has been reported by other studies of cravings.^{20,22} It would make sense, then, that persons reporting frequent cravings would have lower treatment evaluation scores than persons without cravings. Moreover, patients may have held an expectation that cravings ought to be eliminated by engaging in treatment, and thereby be disappointed by the session if the experience of cravings continued. From a clinical standpoint, greater effort may be made to “normalize” cravings for patients, and to routinely focus on strategies to manage cravings.

In terms of the negative association between PFS scores and AA/NA meeting attendance, it is possible that patients who engaged in AA or NA had a broader comparison base of experiencing alliance and satisfaction with peers in recovery, and compared their treatment session experience to their 12-step meeting experience. It is noteworthy that for the 276 patients who attended AA and/or NA meetings, the average number of meetings in the previous week was 4.4 (SD = 2.2); indeed, 72 respondents (26% of those who attended) reported daily meeting attendance. Thus, this group of individuals seemed to be highly committed to the 12-step philosophy, which may have not been congruent with the treatment session content or the therapist's style^{23,24} or may have overlapped too strongly with the treatment session content (“tell me something I don't know”).

The association between medication use and PFS scores was not statistically significant, but it was of interest that only 12% of patients reported use of medications for substance-related disorders. This finding resembles the results of other studies that report infrequent use of medications in traditional substance-abuse treatment settings.¹⁸ From an organizational standpoint, it would be useful for agencies to collect data about their patients' access to medication, and to learn more about patient and staff perceptions of medication-assisted recovery.

The study findings need to be interpreted in light of several limitations. Most notably, the sample in this study was one of convenience and represented a small portion of all of the patients enrolled in different types of outpatient treatment during this time frame. Moreover, only patients who attended their sessions were asked about the treatment experience. The dissatisfied patients may have dropped out of treatment, further contributing to the observed positive response bias. Using alternative methods, such as the interactive voice response (IVR) that integrates regular telephone networks with computer-administered technology, has been suggested as a method for obtaining information from a greater number of patients with more variable treatment experiences.³

Other limitations of this study include its cross-sectional design, in that it is not possible to ascertain whether the positive treatment session experience was associated with subsequent treatment involvement. Moreover, substance use, cravings, and AA/NA attendance were assessed only on the basis of frequency and not intensity or amount. Also, this portion of the questionnaire had the most missing data, suggesting that these questions need to be revised prior to future administration of the PFS. Finally, due to feasibility concerns, we did not inquire about patient characteristics that that have been found to relate to treatment

satisfaction and therapeutic alliance, such as severity of substance use, co-occurring psychiatric disorders, and motivation for treatment.^{4,5,27}

Due to these limitations, the study findings may have limited generalizability. In addition, it is important to note that a minority of the respondents completed the survey more than once because of pursuing both group and individual therapy. Thus, while these respondents were evaluating different clinicians, their style of responding and other personal characteristics would have been the same, also limiting the generalizability of the findings.

Despite the limitations noted above, conducting the PFS allowed us to obtain general information about patients' evaluations of their outpatient treatment and to explore additional variables that are likely contributors to treatment outcomes and recovery. By modifying the PFS, we were able to obtain clinically-relevant information about patients' experiences of cravings and use of medications for substance-related disorders. Staff willingness to assist with study execution allowed for the distribution of the PFS to 500 persons during a five-week period, thus pointing to the feasibility of administering the PFS at geographically spread-out outpatient sites in a relatively short period of time and with limited resources. Given the brevity of the measure, it was possible to enter the data relatively quickly and to disseminate the findings to appropriate committees throughout the facility so that relevant issues, such as the respondents' reports of infrequent use of medications, could be discussed and addressed further. We conclude that the modified PFS is an efficient measure that has the potential to gain broader applicability.

Acknowledgments

Supported by internal funds from AdCare Hospital and by grants U10 DA15831 and K24 DA022288 from the National Institute on Drug Abuse, Bethesda, MD (Dr. Weiss). The authors thank AdCare's outpatient directors, clinicians, and administrative staff for facilitating survey administration. Portions of this manuscript were presented at the 116th Annual Convention of the American Psychological Association in Boston, MA, August 14-17, 2008.

Appendix: Modified Patient Feedback Survey

Outpatient Site _____ Treatment Type _____ Clinician _____

Thinking about the session you just attended, please answer each question by marking each answer with an X in the box that most applies to your experience. Your individual answers will not be reported to your clinician, and will be analyzed with the answers of others who are seeking treatment. Thanks for helping to improve our outpatient program!

Thinking about THE SESSION YOU JUST ATTENDED: Not at all A little bit Moderately Quite a bit Very much so

1. Did you feel accepted and respected by your clinician?

2. Did you feel that you and your clinician were working together to overcome your problems?

3. Did you feel that your clinician understood what you hoped to get out of treatment?

4. Did you feel confident that through your own efforts and those of your clinician you will gain relief from your problems?

5. Did you feel comfortable raising issues or concerns?

6. Were things explained to you in a way you could understand?

7. Was the session helpful?

Please tell us about you

8. Do you consider yourself (please select only one):

Caucasian/White Hispanic/Latino(a) African American/Black Asian
 American Indian or Alaska Native Native Hawaiian or Pacific Islander

9. Are you: Male Female

10. Please indicate your age: _____

11. Concerning this admission, how long have you been in outpatient treatment?

less than one week 1 week 2 weeks 3 weeks 4 weeks
 1-3 months 3-6 months 6-12 months over 12 months

12. Do you take any of the following medications as part of your treatment for substance use:

Suboxone® (buprenorphine) ReVia® (naltrexone) Campral® (acamprosate)
 Antabuse® (disulfiram) Catapres® (clonidine) Other (specify): _____

Thinking about your PAST WEEK:	Number of Days (mark with an X)							
	0	1	2	3	4	5	6	7

13. How many days did you drink any alcohol?

14. How many days did you use opiates?

15. How many days did you use cocaine or crack?

16. How many days did you use marijuana?

17. How many days did you use other drugs?

18. How many days did you experience any cravings for drugs or alcohol?

19. How many days did you attend AA or NA?

20. Please make any comments or suggestions that you think would be helpful for us to improve our outpatient program (use the back page if you need additional space):

References

1. Bethea AR, Acosta MC, Haller DL. Patient versus therapist alliance: Whose perception matters? J Subst Abuse Treat. 2008; 35:174–183. [PubMed: 18082997]

2. Dundon WD, Pettinati HM, Lynch KG, et al. The therapeutic alliance in medical-based interventions impacts outcome in treating alcohol dependence. *Drug Alcohol Depend.* 2008; 95:230–236. [PubMed: 18329827]
3. Hawkins EJ, Baer JS, Kivlahan DR. Concurrent monitoring of psychological distress and satisfaction measures as predictors of addiction treatment retention. *J Subst Abuse Treat.* 2008; 35:207–216. [PubMed: 18082998]
4. Ilgen MA, McKellar J, Moos R, Finney JW. Therapeutic alliance and the relationship between motivation and treatment outcomes in patients with alcohol use disorder. *J Subst Abuse Treat.* 2006; 31:157–162. [PubMed: 16919743]
5. Meier PS, Barrowclough C, Donmall MC. The role of the therapeutic alliance in the treatment of substance misuse: A critical review of the literature. *Addiction.* 2005; 100:304–316. [PubMed: 15733244]
6. Tetzlaff BT, Kahn JH, Godley SH, Godley MD, Diamond GS, Funk RR. Working alliance, treatment satisfaction, and patterns of post-treatment use among adolescent substance users. *Psychol Addictive Behav.* 2005; 19:199–207.
7. Center for Substance Abuse Treatment. Treatment Improvement Protocol (TIP) Series 46 DHHS Publication No (SMA) 06-4151. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2006. Substance Abuse: Administrative Issues in Outpatient Treatment.
8. Forman R, Crits-Christoph P, Kaynak Ö, et al. A feasibility study of a web-based performance improvement system for substance abuse treatment providers. *J Subst Abuse Treat.* 2007; 33:363–371. [PubMed: 17499954]
9. McLellan AT, Chalk M, Bartlett J. Outcomes, performance, and quality – What's the difference? *J Subst Abuse Treat.* 2007; 32:331–340. [PubMed: 17481456]
10. Connors GJ, Carroll KM, DiClemente CC, Longabaugh R, Donovan DM. The therapeutic alliance and its relationship to alcoholism treatment participation and outcome. *J Consult Clin Psychol.* 1997; 65:588–598. [PubMed: 9256560]
11. Dearing RL, Barrick C, Dermen KH, Walitzer KS. Indicators of patient engagement: Influences on alcohol treatment satisfaction and outcomes. *Psychol Addict Behav.* 2005; 19:71–78. [PubMed: 15783280]
12. Kasarabada N, Hser YI, Boles SM, Huang YC. Do patients' perceptions of their counselors influence outcomes of drug treatment? *J Subst Abuse Treat.* 2002; 23:327–334. [PubMed: 12495794]
13. The Joint Commission. The Joint Commission to Include Patient Satisfaction Data on Quality Check. Oakbrook, IL: Author; 2009.
14. National Institute on Drug Abuse Clinical Trials Network. Patient Feedback: A Performance Improvement Study in Outpatient Settings(Protocol #0016). Bethesda, MD: Department of Health and Human Services; 2003. Retrieved on February 21st, 2009, from <http://www.ctndatashare.org/studies/NIDA-CTN-0016/study-protocol/view>
15. Crits-Christoph P, Ring-Kurtz S, McClure B, Temes C, Kulaga A, Gallop R, Forman R, Rotrosen J. A randomized controlled study of a web-based performance improvement system for substance abuse treatment providers. *J Subst Abuse Treat.* 2010; 38:251–262. [PubMed: 20116964]
16. Donovan, DM.; Floyd, AS. Facilitating involvement in twelve-step programs. In: Galanter, M.; Kaskutas, LA., editors. *Recent Developments in Alcoholism: Vol 18 Research on Alcoholics Anonymous and Spirituality in Addiction Recovery.* New York: Springer; 2008. p. 303-320.
17. Gossop M, Stewart D, Marsden J. Attendance at Narcotics Anonymous and Alcoholics Anonymous meetings, frequency of attendance and substance use outcomes after residential treatment for drug dependence: A 5-year follow-up study. *Addiction.* 2008; 103:119–125. [PubMed: 18028521]
18. Pettinati, HM.; Weiss, RD.; Miller, WR.; Donovan, D.; Ernst, DB.; Rounsaville, BJ., editors. *A Clinical Research Guide for Medically Trained Clinicians Providing Pharmacotherapy as Part of Treatment for Alcohol Dependence.* Bethesda, MD: Department of Health and Human Services; 2004.

19. Mark TL, Kassed CA, Vandivort-Warren R, Levit KR, Kranzler HR. Alcohol and opioid dependence medications: Prescription trends, overall and by physician specialty. *Drug Alcohol Depend.* 2009; 99:345–349. [PubMed: 18819759]
20. Epstein DH, Wilner-Reid J, Vahabzadeh M, Mezghamni M, Lin JL, Preston KL. Real-time electronic diary reports of cue exposure and mood in the hours before cocaine and heroin craving and use. *Arch Gen Psychiatry.* 2009; 66:88–94. [PubMed: 19124692]
21. Heinz AJ, Epstein DH, Schroeder JR, Singleton EG, Heishman SJ, Preston KL. Heroin and cocaine craving and use during treatment: Measurement validation and potential relationships. *J Subst Abuse Treat.* 2006; 31:355–264. [PubMed: 17084789]
22. Weiss RD, Griffin ML, Mazurick C, et al. The relationship between cocaine craving, psychosocial treatment, and subsequent cocaine use. *Am J Psychiatry.* 2003; 160:1320–1325. [PubMed: 12832248]
23. Mavis BE, Stoffelmayr BE. Program factors influencing client satisfaction in alcohol treatment. *J Subst Abuse.* 1994; 6:345–354. [PubMed: 7703712]
24. Sanders LM, Trinh C, Sherman BR, Banks SM. Assessment of client satisfaction in a peer counseling substance abuse treatment program for pregnant and postpartum women. *Eval Program Plann.* 1998; 2:287–296.
25. Crits-Christoph P, Forman R. Personal communication. 2007 Feb.
26. Meier PS, Donmall MC, McElduff P, Barrowclough C, Heller RF. The role of the early therapeutic alliance in predicting drug treatment dropout. *Drug Alcohol Depend.* 2006; 83:57–64. [PubMed: 16298088]
27. Melnick G, Hawke J, Wexler HK. Client perceptions of prison-based therapeutic community drug treatment programs. *The Prison Journal.* 2004; 84:121–138.
28. Fontana A, Rosenheck R, Ruzek J, McFall M. Specificity of patients' satisfaction with the delivery and outcome of treatment. *J Nerv Mental Dis.* 2006; 194:780–784.
29. McKay JR, Weiss RV. A review of temporal effects and outcome predictors in substance abuse treatment studies with long-term follow-ups. Preliminary results and methodological issues. *Evaluation Review.* 2001; 25:113–161. [PubMed: 11317714]
30. Swift W, Copleand J, Lenton S. Cannabis and harm reduction. *Drug Alcohol Rev.* 2000; 19:101–112.
31. Marlatt, GA. *Harm Reduction: Pragmatic Strategies for Managing High-Risk Behaviors.* New York, NY: Guilford; 2002.
32. Steinberg, KL.; Roffman, RA.; Carroll, KM., et al. DHHS Publication No (SMA) 06-4211. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration; 2006. *Brief Counseling for Marijuana Dependence: A Manual for Treating Adults.*

Table 1
PFS Scores in Relation to Respondents' Gender and Racial Background

Respondent Characteristic	Frequency n	PFS Score M (SD)
Gender		
Men	267	24.8 (4.4)
Women	185	25.2 (4.4)
Racial Background		
African-American	33	24.5 (6.1)
Asian	7	27.0 (2.2)
Latino(a)	28	25.8 (4.7)
Native American	3	22.7 (8.4)
White	369	24.9 (4.3)

Table 2
PFS Scores in Relation to Treatment Characteristics

Characteristic	Frequency N	PFS Score M (SD)
Treatment Type ^a		
Daily Group Program	48	23.9 (5.3)
Intensive Group Program	137	23.6 (5.0)
Weekly Group	155	25.0 (4.1)
Individual Session	103	26.9 (3.0)
Outpatient Treatment Duration ^b		
Up to One Month	190	24.1 (4.9)
1-3 Months	106	25.1 (4.1)
3-6 Months	75	26.4 (2.9)
Over 6 Months	74	25.7 (4.1)
Medication Use		
Yes	57	23.9 (5.7)
No	395	25.1 (4.3)

Notes:

^a
 $p < .0001$

^b
 $p < .001$

Table 3

PFS Scores in Relation to Experiences “in the Past Week.”

Type of Experience	Occurrence of Experience		PFS Score M (SD)
	Frequency n ^a	Number of Days M (SD)	
Alcohol Use		0.7 (1.8)	
Yes	84		24.6 (4.8)
No	354		25.0 (4.3)
Opioid Use		0.2 (1.1)	
Yes	21		23.5 (6.3)
No	415		25.0 (4.4)
Cocaine or Crack Use		0.3 (1.2)	
Yes	31		24.5 (5.5)
No	404		24.9 (4.4)
Marijuana Use ^e		0.3 (1.3) ^b	
Yes	32		23.0 (5.3)
No	400		25.0 (4.4)
Other Drug Use		0.2 (1.0)	
Yes	17		24.4 (5.7)
No	409		25.0 (4.4)
Any Substance Use		1.4 (3.9) ^c	
Yes	94		24.4 (4.7)
No	322		25.1 (4.3)
Cravings for Drugs or Alcohol ^f		1.9 (2.4) ^d	
Yes	229		24.1 (4.9)
No	199		25.9 (3.8)
AA or NA Attendance ^e		2.5 (2.6) ^b	
Yes	264		24.5 (4.7)
No	164		25.5 (3.8)

Notes:

^aThere was missing or unclear information for all of the variables listed in this table.^bThe correlation between this continuous variable and the PFS score was statistically significant, $p < .01$.^cThe correlation between this continuous variable and the PFS score was statistically significant, $p < .05$.^dThe correlation between this continuous variable and the PFS score was statistically significant, $p < .0001$.^eThere was a statistically significant difference in the PFS scores between the Yes and No groups, $p < .05$.^fThere was a statistically significant difference in the PFS scores between the Yes and No groups, $p < .0001$.