

ARTICLE

Client Engagement in Drug Treatment

ROBERT FIORENTINE, PhD, JOHN NAKASHIMA, PhD, AND M. DOUGLAS ANGLIN, PhD

Neuropsychiatric Institute, Drug Abuse Research Center, University of California, Los Angeles, CA

Abstract—*Client engagement in drug abuse treatment is associated with favorable treatment outcomes, but it is not completely understood why some clients are more likely to engage in treatment. This study examines a wide array of client characteristics and treatment experiences potentially associated with engagement. Findings from the Los Angeles Target Cities Project, funded by the Center for Substance Abuse Treatment, indicate that the predictors of treatment engagement are generally confined to current treatment experiences. For both women and men, the perceived utility of treatment, ancillary services, and the client–counselor relationship are the strongest predictors of client engagement in treatment. Client characteristics are generally not strong predictors of treatment engagement. Concerning the client–counselor relationship, the findings suggest that women may respond more favorably to an empathic counseling style, whereas men may respond to a more utilitarian style. The findings contradict popular stereotypes about the treatment-“receptive” client, identify possible directions for treatment improvement, and highlight the need for more research examining the treatment experience of the client. Other research, clinical, and policy implications are discussed.* © 1999 Elsevier Science Inc. All rights reserved.

Keywords—client engagement in drug treatment; drug treatment retention; drug treatment effectiveness; drug treatment experience.

INTRODUCTION

AN EMPIRICAL DISJUNCTURE remains in drug treatment effectiveness research. Evidence from a number of large-scale evaluations and clinical investigations indicates that drug treatment is generally effective in treating abuse, reducing crime, and improving social functioning, but the specific components associated with effective

tive treatment are not well understood (Anglin & Hser, 1990, 1992; Gerstein & Harwood, 1990; Hubbard et al., 1989). Treatment is generally effective, but it is not clear what makes it effective.¹

There is evidence, however, that client engagement in treatment is significantly associated with positive treatment outcomes (Fiorentine & Anglin 1996a, 1997; Simpson, Joe, Rowan-Szal, & Greener, 1995). Conceptualizing engagement along behavioral lines, client engagement may be viewed in terms of *intensity* and *duration* of treatment participation. High engagers would be clients who participate frequently in counseling and other activities (*intensity*), and they complete treatment or, at least, stay in treatment for a relatively long period (*duration*).

This research was supported by the National Institute of Drug Abuse (NIDA) Research Scientist Development Award, DA00301 and NIDA grants DA11195 and DA11047 (to R. Fiorentine), and by grants from the Robert Wood Johnson Foundation, 028801 (to M.D. Anglin) and the Center for Substance Abuse Treatment, OT-90-1 (to M.D. Anglin).

Appreciation is extended to Maureen Hillhouse and the UCLA Drug Abuse Research Training Center Journal Club for their review of earlier drafts of the article.

Requests for reprints should be addressed to Robert Fiorentine, PhD, UCLA Drug Abuse Research Center, 1640 S. Sepulveda, Suite 200, Los Angeles, CA 90025. E-mail: fiore@ucla.edu

¹For literature reviews of the client, program, and other characteristics associated with treatment effectiveness, see Anglin and Hser (1992) and Egertson, Fox, and Leshner (1997).

Although it is known that client engagement in treatment is associated with favorable treatment outcomes, it is not completely understood *why* some clients are more likely to engage in treatment. There is, however, a large body of research that examines the correlates of treatment duration. This research indicates that marital status (Allison & Hubbard, 1985; McLellan, 1983), employment status (Allison & Hubbard, 1985; Joe & Simpson, 1975; McLellan, 1983), criminality (Allison & Hubbard, 1985; McLellan, 1983), and drug treatment history (Gainey, Wells, Hawkins, & Catalano, 1993; Joe & Simpson, 1975) are associated with treatment retention.²

Only a few studies to date have specifically examined the intensity of client participation in treatment. Simpson and et al. (1995) found that frequent participants in counseling during the first 3 months of methadone maintenance were more likely to be White and employed, and more likely to be viewed by their counselors as having higher levels of rapport and motivation in the first month of treatment. They found, also, that counseling that emphasized problem-solving was associated with higher session attendance.

Fiorentine and Anglin (1996a) found that frequency of group and individual counseling significantly predicted posttreatment drug use whether or not the client completed the planned 6-month outpatient treatment regimen. Further, increasing the opportunity for group and individual counseling in outpatient drug treatment programs increased client participation in counseling, which, in turn, enhanced overall program effectiveness (Fiorentine & Anglin, 1997). Finally, women were more likely than men to engage in treatment, which lowered their rate of relapse to drug use, despite having more psychological relapse risk factors (Fiorentine, Anglin, Gil-Rivas, & Taylor, 1997).

The purpose of this study is to add to the understanding of client engagement in drug treatment. It is possible that both client characteristics and treatment experiences are associated with engagement. Treatment engagers may be those individuals who are receptive to, or personally compatible with, treatment. Or, it could be that the nature and quality of treatment services facilitates client engagement. Treatment engagers, then, may be those individuals who believe that the treatment services are helpful or worthwhile. And, of course, treatment engagers may be those individuals who are both receptive to treatment and believe that treatment services are helpful.

Understanding why some clients engage in treatment could point to ways to improve the effectiveness of drug treatment. It is consistent, also, with the call by Leukefeld, Pickens, and Schuster (1991, p. 401) for further

research that will offer a "more concise characterization of patients, programs, and outcome results," and with the urging of London (1990) for more studies investigating the role of counseling in the treatment of drug abuse.

METHOD

This study is part of a larger research effort funded by the Center for Substance Abuse Treatment to evaluate the effectiveness of the Los Angeles site of the Target Cities Treatment Enhancement Project. The general goal of the Target Cities Project was to improve the accessibility and effectiveness of drug treatment in cities with severe drug problems. This study was folded into the evaluation of the final 2 years of the 5-year project.³

Design

A retrospective/prospective longitudinal study of clients entering all metropolitan Los Angeles County outpatient drug-free programs was conducted. A sample of clients from the participating programs were interviewed at treatment intake and again at approximately 8 months after intake.

Sampling

The sample population included all clients who entered any of the 25 Los Angeles metropolitan outpatient treatment facilities between July and the end of September, 1994. Slightly more than 400 clients entered treatment during this time period ($N = 419$). Only 2 clients refused to participate in the study, leaving 417 respondents who completed client intake interviews. A \$10 payment was given for participation.

Eight months after the intake interview, 360 clients were located for a follow-up interview. Of these clients, one was in a detention facility that did not permit interviewer access, and three clients refused to participate. Interviews were completed for 356 clients (85%). A \$25 payment was given for follow-up participation.

Nineteen of these clients participated in a treatment modality other than outpatient drug treatment, and 35 did not return to treatment after the initial intake assessment. These cases were eliminated from the analysis, leaving a sample of 302 clients.

The characteristics of the follow-up sample did not differ from the intake sample. About 66% were female, 43% were African American, 30% were European American, 23% were Latino, and 4% were either Asian/

²For a more complete review of the treatment retention literature, see Stark (1992).

³See Fiorentine and Anglin (1996b) and Fiorentine, Gil-Rivas, and Hillhouse (1997) for evaluations of the Los Angeles Target Cities project.

Pacific Islanders or Native Americans. Client ages ranged from 18 to 55 years, with a mean of 34.1 years. Average years of education was 11.8. More than half (58%) were married or involved in a committed relationship. About one quarter (26%) of the respondents were employed and more than half (52%) were receiving General Relief or Aid to Families with Dependent Children (AFDC). About two thirds (66%) had been convicted of a crime at some time.

Crack cocaine was the most often reported drug used in the year prior to treatment (56%) followed by methamphetamine (49%), marijuana (46%), cocaine (19%), and heroin (11%). Some 25% of the respondents drank heavily (averaging at least six drinks a day) and 56% were polydrug users. Nearly two thirds (65%) had at least one previous drug treatment episode.

The sample is somewhat unusual in one respect. The participating Target Cities programs, as well as some of the comparison outpatient programs, had implemented new services for women, or had enhanced existing services. This effort seems to have attracted more women into treatment during the time period of the study. As a result, the sample includes an unusually high percentage of women. The data analyses conducted and the generalizations offered need to consider the possible influence of the gender composition of the sample.

Instrument and Administration

The UCLA Client Needs-Services-Outcomes Questionnaire (CNSOQ) was developed by the senior author (Fiorentine & Gil-Rivas, 1996), pretested on a small number of subjects participating in outpatient drug treatment, and modified to increase construct validity and ease of administration. The measurement domains of Part I of the CNSOQ include: (a) psychosocial background information, (b) barriers to treatment and treatment utilization, (c) treatment needs, (d) drug and alcohol use, (e) criminal activity, (f) family and social functioning, (g) ancillary health and human service needs, and (h) attitudes and values. Part I of the CNSOQ was administered by trained interviewers within 1 week of entry at the treatment facility. Each interview lasted about 1 1/2 hours.

Part II of the CNSOQ was administered approximately 8 months after the intake interview. Efforts were taken to locate and interview all clients interviewed at intake. When the client was located, his or her identity was verified from information privy only to the client and the interviewer. Once verified, the client was administered a 1-hour telephone interview, usually by the same interviewer who administered the intake interview. The measurement domains of Part II include: (a) treatment needs, (b) services received, (c) drug and alcohol use, (d) criminal activity, (e) employment, vocational training, and education, (f) psychosocial functioning, (g) family functioning, (h) health status, and (i) pertinent psychological attitudes and constructs.

Variables

Engagement was measured as the product of the average number of weekly group and individual counseling sessions ($M = 3.6$) in which the client participated multiplied by the number of weeks spent in treatment ($M = 27.7$). The possible engagement values range from 0 to 313, with a mean of 100.

Ten categories of predictor variables measuring client background characteristics and treatment experiences were included in the investigation. The client characteristics included: (a) demographics, (b) pretreatment drug and alcohol use, (c) treatment history, (d) criminal history, (e) mental health, and (f) attitudes and expectancies. The treatment experience variables included: (g) barriers to treatment utilization, (h) perceived utility of treatment, (i) perceived utility of ancillary services, and (j) client-counselor relationship. The operationalization and measurement of these variables are identified in Table 1.

The following standardized mental health and attitude and expectancy scales were used in the analyses: The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), Rosenberg Self Esteem Scale (Rosenberg, 1979), Beck Hopelessness Scale (Beck, Weissman, Lester, & Trexler, 1974), Anticipated Consequences of Continued Drug Use Scale (Fiorentine & Gil-Rivas, 1996), and the Circumstances, Motivation, Readiness and Suitability Scale (CMRS; De Leon & Jainchill, 1986; De Leon, Melnick, Kressel, & Jainchill, 1994). Each scale was used in its entirety with the exception of the Beck Hopelessness and the CMRS scales. Due to space limitations in the survey, and the multiple goals of the current research, abridged Hopelessness (10 items) and CMRS scales (13 items) were used. The alpha reliabilities of the abridged Hopelessness and CMRS scales were .81 and .84, respectively. Alpha reliabilities of the other scales are listed in Table 1.

Analysis Strategy

It was necessary to conduct analyses separately for females and males for two reasons. First, the sample is overrepresented by females. Conducting separate analyses for females and males may allow appropriate generalizations in spite of the sampling concern. Second, previous research indicates that the personal characteristics and drug treatment experiences are very different for females and males (Fiorentine, Anglin, Gil-Rivas, & Taylor, 1997). Not only are females more likely to engage in treatment, the specific predictors of engagement may be dissimilar for males and females. Aggregate analyses may mask these important differences.

Two analyses were conducted. Analysis 1 presents bivariate associations between the predictor variables and treatment engagement separately for females and males. This will allow the magnitude of associations for all of

TABLE 1
Correlation Analysis: Correlates of Client Engagement in Treatment

Variable	Women (<i>n</i> = 201) ^a	Men (<i>n</i> = 101) ^a
Client characteristics		
Demographic		
Ethnicity		
African American	.06	.05
European American	.04	.19*
Latino	-.12*	-.22**
Other	.05	.04
Age	.06	.05
Years of education	.07	.06
Married or in committed relationship	-.06	-.02
Employed	-.04	.02
Receiving general relief or AFDC	.02	.16
Pre-treatment drug and alcohol use ^b		
Number of drugs used in year prior to treatment	-.03	-.20**
Marijuana	.01	-.17*
Crack	.01	-.06
Cocaine	-.07	-.04
PCP		
Methamphetamine	-.06	-.18*
Heroin	-.05	-.16
Number of alcoholic drinks/week in year prior to treatment	.21***	.07
Treatment history		
Number of previous drug treatments	-.11	.12
Criminal history		
Number of lifetime arrests	.13*	-.03
Ever convicted of a crime	-.02	-.07
Committed any crime in year prior to treatment	.01	-.20**
Mental health		
Diagnosed with chronic mental illness	.01	-.18*
Trouble concentrating or remembering	-.12*	-.16
Number of emotionally troubled days in month prior to treatment	-.07	-.16
CES-D score ($\alpha = .91$)	-.04	-.04
Attitudes and expectancies		
De Leon CMRS Scale (abridged, $\alpha = .84$)	.16**	.14
Rosenberg Self-Esteem Scale ($\alpha = .84$)	.11	.10
Beck Hopelessness Scale (abridged, $\alpha = .81$)	-.04	.05
Fiorentine Anticipated Consequences of Continued Drug Use Scale ($\alpha = .93$)	.16**	.12
Current treatment experiences ^c		
Treatment barriers		
Childcare problem	-.07	-.02
Transportation problem	-.07	-.00
Work schedule conflict	-.01	-.04
Medical barrier	-.02	-.15
Any other barrier	-.03	-.09
Total number of barriers	-.01	-.12
Perceived utility of treatment services ^d		
Alcohol and drug education	.09	.23**
Relapse prevention	.22***	.26***
Life skills	.27***	.16
Parenting skills	.16**	.18*
Domestic violence groups	.16**	.21**
Health education	.20***	.26***
HIV education	.18***	.22**
Perceived utility of ancillary services ^d		
Vocational/employment services	.06	.20**
Medical services	.33****	.34****
Childcare services	.15**	.18*
Transportation services	.20***	.35****
Financial/income assistance	.18**	.30***

continued

TABLE 1
Continued

Variable	Women (<i>n</i> = 201) ^a	Men (<i>n</i> = 101) ^a
Relationship with counselor		
Counselor cares a lot about client ^f	.26****	.14
Counselor helped a lot ^c	.21***	.37****
Counselor understands client ^e	.18**	.24**
Client satisfaction with counselor (e.g., would return to same counselor) ^c	.21***	.24**

Note. Biserial and product-moment correlations computed for dichotomous and continuous variables, respectively.

AFDC = Aid for Families with Dependent Children; CES-D = The Center for Epidemiologic Studies Depression Scale; CMRS = Circumstances, Motivation, Readiness, and Suitability Scale; HIV = human immunodeficiency virus; PCP = phencyclidine.

^aThe *n* may vary by as many as four cases for some correlations as a consequence of missing values.

^bUse of specific drugs measured as number of months of use in year before treatment.

^cResponses coded for all variables: yes = 1; no = 0.

^dResponses coded for all variables: very or somewhat helpful = 1; not helpful or did not receive service = 0.

^eResponses coded for all variables; somewhat or strongly agree = 1; somewhat or strongly disagree = 0.

**p* < .10.

***p* < .05.

****p* < .01.

*****p* < .001.

the predictor variables to be discerned in preparation for Analysis 2.

Analysis 2 presents the results of a stepwise linear regression analysis. In order to determine the most important predictors of engagement, and to measure the possible effects of these variables apart from their intercorrelations with other variables that may predict engagement, all variables from Analysis 1 that were associated with engagement at least at the .10 level were entered into separate equations for females and males. A backward stepping process was performed in that variables that were not significant at the .05 level were sequentially removed from the equation until no more variables could be removed. The final step represents the more parsimonious models of treatment engagement for females and males.

RESULTS

An initial *t*-test revealed that, similar to previous research, treatment engagement was associated with in-treatment and posttreatment drug use (Fiorentine & Anglin, 1996a, 1997; Simpson et al., 1995). Clients who lapsed or relapsed between the intake and follow-up interview attended an average of 80 counseling sessions, as compared to 110 for those who did not lapse or relapse ($t = 3.35$, $df = 300$, $p < .001$). Also consistent with previous research (Fiorentine, Anglin, et al., 1997), women were more likely than men to engage in treatment ($t = 2.27$, $df = 300$, $p < .05$).

Analysis 1: Engagement Correlates

The findings indicate striking differences in the categories of variables that are associated with treatment engagement for women and men. Generally, current treatment experience variables were more likely to be associated with treatment engagement than were client background

characteristics. Specifically, perceived utility of treatment, the perceived utility of ancillary services, and the empathy or helpfulness of the counselor were consistently associated with treatment engagement for both women and men. By contrast, variables in the categories of demographic, pretreatment drug and alcohol use, treatment history, criminal history, mental health, and attitudes and expectancies were less likely to be associated with treatment engagement.

Analysis 2: Modeling

Regression analyses determined that only a limited number of client background and current treatment experience variables remained significant predictors of engagement in the final step of a backward stepwise regression analysis (Table 2). For female clients, engagement was related to three pretreatment client characteristics and three treatment experience variables. Female engagers reported more pretreatment arrests, higher pretreatment alcohol consumption, and were less likely to report trouble concentrating or remembering. Concerning treatment experiences, female engagers were more likely to say that life skills and medical services were helpful and that their counselors "cared a lot about them."

The most powerful predictor of female treatment engagement was perceived helpfulness of medical services ($\beta = .31$, $p < .001$) followed by level of pretreatment alcohol use ($\beta = .24$, $p < .001$) and perceived concern of the counselor ($\beta = .20$, $p < .01$). Collectively, the final model explains about 30% of the variance in treatment engagement for women ($r^2 = .30$). Further analysis revealed that slightly less than 10% of the variance in female treatment engagement is explained by client background characteristics and the remaining 21% is attributable to treatment experience variables.

TABLE 2
Stepwise Regression Analysis: Models Predicting Treatment Engagement for Women and Men

Variable	Women (<i>n</i> = 193) ^a			Men (<i>n</i> = 100) ^a		
	<i>B</i>	(<i>SE</i>)	β	<i>B</i>	(<i>SE</i>)	β
Client characteristics ^b						
Trouble concentrating or remembering	28.2	(10.3)	-.17**			
Number of lifetime arrests	.6	(0.3)	.12*			
Weekly alcohol consumption	.4	(0.1)	.24***			
Treatment experiences						
Life skills	25.9	(10.1)	.16*			
Relapse prevention				26.5	(13.1)	.18*
Medical services	61.8	(12.2)	.31***	48.8	(17.1)	.25**
Transportation services				40.1	(12.9)	.27**
Counselor cares a lot	36.2	(11.2)	.20**			
Counselor very helpful (Constant)	51.3	(11.0)		33.6	(14.0)	.23*
				25.7	(12.7)	
Explained variance (<i>r</i> ²)						
Client characteristics	.09			0		
Treatment experiences	.21			.27		
Complete model	.30			.27		

^a*n* reflects listwise deletion of missing values.

^b Analyses utilize same response coding as identified in Table 1.

**p* < .05.

***p* < .01.

****p* < .001.

For male clients, *no* pretreatment client characteristics were retained in the final regression equation. Rather, perceived helpfulness of medical services ($\beta = .25, p < .01$), transportation services ($\beta = .27, p < .01$) and relapse prevention training ($\beta = .18, p < .05$) were positively associated with engagement. Additionally, male high engagers were more likely to say that their counselor helped them ($\beta = .23, p < .05$). Overall, the final model for men explains about 27% of the variance in treatment engagement ($r^2 = .27$).

DISCUSSION

Toward the goal of understanding client engagement in treatment, 10 categories of client characteristics and treatment experiences potentially associated with engagement were assessed. The most striking finding, perhaps, is the limited number of categories that are associated with engagement. Equally as striking is the finding that the predictors of treatment engagement are generally confined to current treatment experiences. For both women and men, the perceived utility of treatment and ancillary services, along with the client–counselor relationship, explain more variance in treatment engagement than do client characteristics.

It should be noted, however, that the regression models explained only about 27 to 30% of the variance in treatment engagement. This suggests the possibility that client,

treatment, or other variables not included in this study may have an important effect on treatment engagement.

Still, these findings contradict a popular stereotype of the drug treatment process. It is often assumed that the clients themselves are the most active force in treatment engagement, and in the more general process of recovery. Treatment programs, by contrast, are viewed as receptive to the clients' needs, but nevertheless limited in their ability to engage the client. The findings of this study indicate the opposite. Rather than a treatment–“receptive” client who engages in treatment due to intrinsic or other individual characteristics, the findings suggest that the perceived utility, or helpfulness, of the services, along with a favorable client–counselor relationship actively engages the client in treatment.

These findings contradict, or possibly extend, the conclusions of existing treatment duration literature indicating that client characteristics such as marital status (Allison & Hubbard, 1985; McLellan, 1983), employment status (Allison & Hubbard, 1985; Joe & Simpson, 1975; McLellan, 1983), and drug treatment history (Gainey et al., 1993; Joe & Simpson, 1975) are associated with treatment retention. Although some of these client characteristics were associated with treatment engagement at the bivariate level in this study, they were not significant predictors in multivariate analyses that included both client characteristics and treatment experiences. This suggests that existing research on treatment retention may have overestimated the possible influence of client back-

ground characteristics, and underestimated the possible effect of treatment experiences.

Our findings, however, are consistent with another body of research. Although client motivation to enter and remain in treatment is frequently assumed to be a robust predictor of treatment retention and posttreatment outcomes, studies using seemingly well-designed indices of treatment motivation find that the predictive value of motivation is modest (De Leon, 1996; De Leon et al., 1994; Simpson & Joe, 1993). As a possible explanation of this conceptual-empirical conundrum, our findings indicate that what clients “bring” into treatment is frequently less important than what they find when they get there. Individuals typically enter treatment with an array of serious legal, family, financial, health, and other life problems (Gerstein & Harwood, 1990); and, as suggested by the evidence of the current study, they will engage in treatment when they believe that treatment, ancillary services, and counselor activities will address these life problems. This explanation may be applicable, also, to the seemingly counterintuitive finding that legally coerced treatment appears to be as effective as voluntary treatment (Anglin, Brecht, & Maddahian, 1990; Leukefeld & Tims, 1990; Simpson & Friend, 1988).

The clinical implication of these findings are both compelling and encouraging. That treatment experiences are associated with client engagement in treatment suggests the potential for treatment improvement. If client characteristics rather than treatment experiences explain most of the variance in treatment engagement, then little can be done on the part of the agency or treatment program to increase client engagement in treatment (Kleinman et al., 1992). However, because client engagement in treatment seems to be associated primarily with treatment experiences, policy-makers and treatment providers can alter service delivery in ways that may increase client engagement in treatment, which, in turn, can increase the overall effectiveness of treatment. The findings from this and previous research (Fiorentine & Anglin, 1996b; Fiorentine & Anglin, 1997) suggest that increasing the opportunity for counseling, providing transportation services to clients who need them, providing useful treatment and ancillary services, and strengthening the client–counselor relationship, may improve the effectiveness of drug treatment.

More than suggesting the possibilities for treatment improvement, the findings may also offer something of a demonstration that modifying drug treatment services can actually increase engagement in drug treatment. One of the program elements associated with the Los Angeles Target Cities Treatment Enhancement Project was mandatory medical assessments coupled with on-site and referred health care. The evaluation determined that this program element increased the delivery of health-care services, improved health-care outcomes, and increased client satisfaction with the medical services received during the treatment period (Fiorentine, Gil-Rivas, & Hill-

house, 1997). The findings of the current study suggest that the utility or helpfulness of these services also assisted in increasing client engagement in treatment.

Another program element of the Los Target Cities Project involved enhancing services for female clients by implementing or expanding the life-skills curriculum. The findings of the current study indicate that providing these services may have increased treatment engagement for women.

Finally, the Los Angeles Target Cities Project provided taxi vouchers, bus tokens, and van pools to combat the pervasive transportation barrier to treatment utilization in the Los Angeles area. The findings from the current study indicate that providing transportation services may have increased treatment engagement for men. It is not clear why transportation services did not have the same effect for women; however, anecdotal evidence indicates that women in this study were more likely than men to develop informal networks with other female treatment participants, which involved assisting each other with child care and transportation.

Once again, the findings indicate that the social-psychological backgrounds and treatment experiences may differ widely for women and men in treatment (Fiorentine, Anglin, Gil-Rivas, & Taylor, 1997). The current study suggests two notable differences. For males, only the perceived utility of services and the relationship with the counselor predicts treatment engagement. For females, by contrast, some client characteristics in addition to the perceived utility of services and the relationship with the counselor predict treatment engagement. Client characteristics include the number of lifetime arrests, pretreatment alcohol consumption, and no self-reported trouble in concentrating or remembering. Further analysis does not offer a clear explanation as to why these client characteristics are associated with treatment engagement for women but not for men.

The other gender difference highlighted by the findings involves the nature of the client–counselor relationship. Although it is assumed that an empathic counselor may be crucial to successful drug treatment (Lovejoy et al., 1995; Rohrer, Thomas, & Yasenchak, 1992), our findings suggest the possibility that women and men in drug treatment benefit from differing counseling styles. Women may respond more favorably to an empathic style that is personal and warm, whereas men may respond more favorably to a utilitarian style that emphasizes problem-solving. There are no published studies that empirically support these gender differences, however, the suggestion that women prefer a more empathic counseling style is consistent with the view that women respond more favorably than men to treatment that is less structured and less confrontational (Grella, Perry, & Anglin, 1996; Hodgins, El-Guebaly, & Addington, 1997). In any event, the findings from this study suggest that the client–counselor relationship is an important factor in client engagement in treatment for both women and men.

More detailed and comprehensive studies of the client–counselor relationship may offer important insights into treatment engagement and the recovery process.

More generally, these findings point to the potential benefits of a slightly altered research focus in understanding client engagement in treatment and treatment outcomes. Although the possible effects of client characteristics and treatment services should continue to be the purview of investigations, further research may benefit from a more concerted focus on the *treatment experience* of the client.

REFERENCES

- Allison, M., & Hubbard, R.L. (1985). Drug abuse treatment process: A review of the literature. *International Journal of the Addictions*, **20**, 1321–1345.
- Anglin, M.D., Brecht, M.L., & Maddahian, E. (1990). Pre-treatment characteristics and treatment performance of legally coerced versus voluntary methadone maintenance admissions. *Criminology*, **27**, 538–557.
- Anglin, M.D., & Hser, Y.-I. (1990). Treatment of drug abuse. In M. Tonry & J.Q. Wilson (Eds.), *Drugs and crime* (pp. 393–460). Chicago, IL: University of Chicago Press.
- Anglin, M.D., & Hser, Y.-I. (1992). Drug abuse treatment. In R.R. Watson (Ed.), *Drug and alcohol abuse reviews: Vol. 3. Treatment of drug and alcohol abuse* (pp. 1–36). Totowa, NJ: Humana Press, Inc.
- Beck, A.T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The hopelessness scale. *Journal of Consulting and Clinical Psychology*, **41**, 861–865.
- De Leon, G. (1996). Integrative recovery: A stage paradigm. *Substance Abuse*, **17**, 51–63.
- De Leon, G., & Jainchill, N. (1986). Circumstance, motivation, readiness and suitability as correlates of treatment tenure. *Journal of Psychoactive Drugs*, **18**, 203–208.
- De Leon, G., Melnick, G., Kressel, D., & Jainchill, N. (1994). Circumstances, motivation, readiness, and suitability (The CRMS scales): Predicting retention in therapeutic community treatment. *American Journal of Drug and Alcohol Abuse*, **20**, 495–515.
- Egerton, J.A., Fox, D.M., & Leshner, A.I. (Eds.) (1997). *Treating drug abuse effectively*. Cambridge: Blackwell Publishers of North America.
- Fiorentine, R., & Anglin, M.D. (1996a). More is better: Counseling participation and the effectiveness of outpatient drug treatment. *Journal of Substance Abuse Treatment*, **13**, 341–348.
- Fiorentine, R., & Anglin, M.D. (1996b). *Enhancing drug treatment: Evaluation of the Los Angeles Target Cities Project (Years 1–3)*. (Available from the UCLA Drug Abuse Research Center, 1640 S. Sepulveda Blvd., Suite 200, Los Angeles, CA 90025).
- Fiorentine, R., & Anglin, M.D. (1997). Does increasing the opportunity for counseling increase the effectiveness of outpatient drug treatment? *American Journal of Drug and Alcohol Abuse*, **23**, 369–382.
- Fiorentine, R., Anglin, M.D., Gil-Rivas, V., & Taylor, E. (1997). Drug treatment: Explaining the gender paradox. *Journal of Substance Use and Misuse*, **32**, 653–678.
- Fiorentine, R., & Gil-Rivas, V. (1996). *CNSOQ: The UCLA client needs-services-outcomes questionnaire*. (Available from the UCLA Drug Abuse Research Center, 1640 S. Sepulveda Blvd., Suite 200, Los Angeles, CA 90025).
- Fiorentine, R., Gil-Rivas, V., & Hillhouse, M.P. (1997). *Enhancing drug treatment: Evaluation of the Los Angeles Target Cities Project (Years 4–5)*. (Available from the UCLA Drug Abuse Research Center, 1640 S. Sepulveda Blvd., Suite 200, Los Angeles, CA 90025).
- Gainey, R.R., Wells, E.A., Hawkins, J.D., & Catalano, R.F. (1993). Predicting treatment retention among cocaine users. *International Journal of the Addictions*, **28**, 487–505.
- Gerstein, D.R., & Harwood, H.J. (Eds.) (1990). *Treating drug problems: A study of the evolution, effectiveness, and financing of public and private drug treatment systems* (Vol. 1). Washington, DC: National Academy Press.
- Grella, C.E., Perry, S.M., & Anglin, M.D. (1996). Treatment programs for women: Client characteristics, program characteristics, and treatment outcomes. (Available from the UCLA Drug Abuse Research Center, 1640 S. Sepulveda Blvd., Suite 200, Los Angeles, CA 90025.)
- Hodgins, D.C., El-Guebaly, & Addington, J. (1997). Treatment of substance abusers: Single or mixed gender programs? *Addiction*, **92**, 805–812.
- Hubbard, R.L., Marsden, M.E., Rachal, D.V., Harwood, H.J., Cavanaugh, E.R., & Ginzburg, H.M. (1989). *Drug abuse treatment: A national study of effectiveness*. Chapel Hill, NC: University of North Carolina Press.
- Joe, G.W., & Simpson, D.D. (1975). Retention in treatment of drug users: 1971–1972 DARP admissions. *American Journal of Drug and Alcohol Abuse*, **2**, 63–71.
- Kleinman, P.H., Kang, S., Lipton, D.S., Woody, G.E., Kemp, J., & Millman, R.B. (1992). Retention of cocaine abusers in outpatient psychotherapy. *American Journal of Drug and Alcohol Abuse*, **18**, 29–43.
- Leukefeld, C.G., Pickens, R.W., & Schuster, C.R. (1991). Improving drug abuse treatment: Recommendations for research and practice. In R.W. Pickens, C.G. Leukefeld, & C.R. Schuster (Eds.), *Improving drug abuse treatment*. (NIDA Monograph 106, pp. 394–406). Rockville, MD: National Institute of Drug Abuse.
- Leukefeld, C.G., & Tims, F.M. (1990). Compulsory treatment for drug abuse. *International Journal of the Addictions*, **25**, 621–640.
- London, P. (1990). Research priorities for psychotherapy and counseling in the treatment of drug abuse: The psychotherapy research perspective. In L.S. Onken & J.D. Blaine (Eds.), *Psychotherapy and counseling in the treatment of drug abuse*. (NIDA Research Monograph 104, pp. 121–127). Rockville, MD: National Institute of Drug Abuse.
- Lovejoy, M., Rosenblum, A., Magura, S., Foote, J., Handelsman, L., & Stimmel, B. (1995). Patients' perspective on the process of change in substance abuse treatment. *Journal of Substance Abuse Treatment*, **12**, 269–282.
- McLellan, A.T. (1983). Patient characteristics associated with outcome. In J.R. Copper, F. Altman, B.S. Brown, & D. Czechowicz (Eds.), *Research on the treatment of narcotic addiction: State of the art* (DHHS Publication No. LADM 83-1281). Washington, DC: Government Printing Office.
- Radloff, L.S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, **1**, 385–401.
- Rohrer, G.E., Thomas, M., & Yassenchak, A.B. (1992). Client perceptions of the ideal addictions counselor. *International Journal of the Addictions*, **27**, 727–733.
- Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books.
- Simpson, D.D., & Friend, J. (1988). Legal status and long-term outcomes for addicts in the DARP follow-up project. In C.G. Leukefeld & F.M. Tims (Eds.), *Compulsory treatment of drug abuse: Research and clinical practice* (NIDA Research Monograph 86, pp. 81–98). Rockville, MD: National Institute of Drug Abuse.
- Simpson, D.D., & Joe, G.W. (1993). Motivation as a predictor of early dropout from drug abuse treatment. *Psychotherapy*, **30**, 357–368.
- Simpson, D.D., Joe, G.W., Rowan-Szal, G., & Greener, J. (1995). Client engagement and change during drug abuse treatment. *Journal of Substance Abuse*, **7**, 117–134.
- Stark, M.J. (1992). Dropping out of substance abuse treatment: A clinically oriented review. *Clinical Psychology Review*, **12**, 93–116.