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The Availability of Integrated Care in a National Sample of Therapeutic Communities

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Abstract

Therapeutic communities (TCs) for substance abusers are oriented toward changing the entire person as a means for facilitating a drug-free future. This vision parallels ideas such as integrated care for the treatment of co-occurring substance abuse and psychiatric conditions. The extent to which integrated services are available in TCs has not been documented. Using data from a national sample of 345 TCs, this paper examines the availability of integrated care in TCs and the structural and cultural characteristics of TCs that offer integrated care. The results indicate that a substantial portion of TCs in this sample admit clients with co-occurring disorders (70.7%), and as many as half of the TCs offer integrated care. TCs that offer integrated care show increased use of professional staff, individual psychotherapy, and a less confrontational milieu, but notably, retain many of the “essential elements” of the traditional TC model.

Introduction

Clients with co-occurring substance abuse and psychiatric problems pose multiple challenges to both substance abuse and psychiatric treatment providers. Although historically these two specialty services operated in near-total isolation from one another, the treatment of co-occurring disorders is increasingly likely to be addressed by providers.^{1,2} As recent reports indicate, “the substance abuse and psychiatric fields have made considerable progress in addressing the needs of persons with co-occurring disorders.”³, p. 8;4–6

Over the past 15 years, a greater degree of awareness of substance abuse clients' multiple problems has led to adoption of comprehensive screening at intake.^{2,7} As a result, substance abuse treatment providers report high rates of mental disorders among clients presenting with primary substance abuse problems. Estimates reveal that 50–70% of clients in substance abuse treatment settings have one or more alcohol/drug problems as well as one or more psychiatric problems (i.e., co-occurring disorders [COD]).^{5,11}

In earlier decades, these co-occurring problems were either ignored, assumed to diminish and disappear with successful substance abuse treatment, or clients with florid symptoms were deemed ineligible for substance abuse treatment. Over the past two decades, however, interventions/programs for clients with COD have developed rapidly.⁵ This pattern plateaued in the late 1990s, with nearly half of substance abuse facilities nationwide reporting availability of programs for clients with COD.⁵ Prominent among these programs is the use of integrated care where treatment interventions for substance abuse and psychiatric disorders are “combined within the context of a primary treatment relationship or service setting.”^{5, p. 12;8–13} Using slightly different definitions, recent surveys of nationally representative samples of treatment administrators and clinical directors indicate that over half of public and private substance abuse treatment agencies in the U.S. offer integrated care.^{13,15–18}

Given that “integrated treatment is a means of coordinating substance abuse treatment and psychiatric interventions to treat *the whole person* more effectively” [emphasis added], integrated care appears in many ways to conceptually link with the basic philosophy of therapeutic communities (TCs).^{5, p. 12;19} The TC's unique treatment perspective goes beyond the idea of simply treating clients' co-occurring substance abuse and psychiatric disorders and focuses on change in *the whole person*. Components of the philosophy include “right living”—the shared assumptions about healthy personal and social living, which include honesty, responsibility, work ethic, and the value of learning—and “community as method”—expectations and standards of treatment participation and use of community to achieve therapeutic goals.¹⁹

Despite TCs' emphasis on treating the whole person, health services researchers have not looked to TCs as a platform for the delivery of integrated care. Furthermore, within the same time frame that integrated services have gained credence, the population of TCs in the U.S. has undergone substantial change. These changes include less reliance on long-term residential treatment, including moving to shorter lengths of stay or outpatient care, and less emphasis on certain treatment techniques, with these changes partly in response to the financial and regulatory environment which surrounds substance abuse treatment. Using the traditional TC definition as a base, many contemporary TCs which reflect these changes have come to be referred to as “modified.”¹⁹ The relative availability of integrated care across traditional and modified TCs is unknown. It is also unclear how such modifications to the TC approach may have altered the unique identity (i.e., “essential elements”) of the TC model.¹⁹ The purpose and contribution of this paper is to address these gaps in the literature through an examination of the availability of integrated care in a U.S. national sample of 345 self-identified TCs. Multivariate analyses are used to examine the structural and cultural characteristics of traditional and modified TCs that offer integrated care.

Integrated Care and the Therapeutic Community Approach

The TC for substance abuse treatment, which developed outside mainstream psychiatry and medicine, is an organized self-help approach that historically has had minimal involvement of treatment professionals.^{20,21} The first generation of TCs in the U.S. date back to the 1960s. In the mid-1970s, Therapeutic Communities of America (TCA) was established as the official national organization of North American TC programs, which provided formality, structure, and legitimacy for the TC approach.¹⁹ While marginalized for several decades, the TC approach is now recognized by the National Institute on Drug Abuse as one of the major substance abuse treatment modalities in the U.S.²² Studies have consistently shown the TC model to be an effective form of treatment, particularly for certain subpopulations that may be difficult to reach through other treatment methods.^{19,22}

Although various adaptations of the TC model dating from the early to mid-1990s are described in the literature²², contemporary TCs—both traditional and modified forms— inherited a number of “essential elements” from the first generation TCs. In its traditional form, these elements consist of drug-free, long-term, residential treatment lasting between 12 and 18 months. The TC's therapeutic model includes a hierarchical design of the community (i.e., levels of peer status and step-like treatment stages), emphasis on mutual responsibility for peers, the importance of work, and the TC's structured environment (i.e., daily seminars and groups, rules, privileges and disciplines, and confrontational therapeutic milieu).¹⁹

Since the regimen demands that clients fully participate within the community, TCs have historically excluded from admission those with serious mental illness who are commonly challenged by intense interpersonal demands.¹⁹ However, given the fact that most of the clients of TCs have extensive histories of substance abuse and have experienced (and often failed) in many other treatment regimens, it is most likely that their caseloads have included clients with diagnosable psychiatric issues, although rarely addressed through the formal delivery of specialized services.^{23–26} Thus, the availability of specialized services for clients with COD signifies a major change for addiction TCs in the United States.

While there are no national data regarding the psychiatric services available in TCs, research within individual TCs underlines the psychiatric needs of TC clients.^{9,21,27–33} However, this is far from unique to TCs, for both the substance abuse and psychiatric specialty care sectors have become increasingly sensitive to CODs.³¹ Research does suggest, however, that the TC model can be adapted to address the needs of clients with co-occurring substance abuse and psychiatric disorders.^{9,34–39} Sacks et al.' recent evaluation of four TCs established in the early 1990s and modified to serve clients with CODs emphasizes three important ways TCs may be altered to accommodate both the specific population being served and the circumstances of the treatment setting.⁹ Modified TCs for COD are (1) more flexible, (2) less intense, and (3) more individualized. Individual psychotherapy is utilized more in modified TCs, and the approach is less confrontational. Modified TC treatment regimens may be shorter in duration, and client responsibilities within the community are adjusted to skill level and functioning.²⁷ In addition, modified TCs for COD may employ professional staff including licensed psychiatric counselors, master's level counselors, physicians, and psychiatrists in addition to, and in some cases in lieu of, staff with experiential training (i.e., counselors in personal recovery).³¹ While more traditional TCs may eschew the use of medications during treatment, some modified TCs administer psychotropic medications.^{19,25} Sacks notes, however, that even with these alterations, the modified TC for COD retains the core principles and methods, or “essential elements,” of the traditional TC model including personal responsibility and self-help, mutual self-help and peers as role models, structured daily routines, stages of change, vocational emphases, pro-social values of “right living” and community as the method of change.⁹

The descriptive focus of the recent studies of modified TCs highlights the question of what structural and cultural characteristics may vary among TCs that offer integrated care for COD, those that admit clients with COD but do not offer integrated care, and those that bar clients with COD from admission.^{8–10,24–30,35–39} The present study utilizes a nationally representative sample of TCs, which includes both traditional and modified forms, to address these questions.

Data Sources

An onsite national survey of community-based TCs was conducted by the University of Georgia (UGA) in 2002–2004. A two-stage sampling design was used to randomly select a

panel of approximately 450 TCs for recruitment. All counties in the US were assigned to one of ten strata based on total population. Counties were randomly sampled within strata. Within the sampled counties, efforts were made to enumerate all substance abuse treatment facilities using published directories, including federal and state provider listings. From these lists, treatment facilities were randomly selected proportionate to the total number of facilities in the sampled counties. This ensured proportional representation of facilities in urban, suburban, and non-metropolitan areas. A brief telephone screen was completed with each sampled unit to assess eligibility for the study. Facilities that were ineligible or refused to participate were replaced with others randomly selected from the same geographic stratum, and this continued until the target sample size was achieved.

Three criteria were used to determine eligibility for the study. First, the facility was required to provide substance abuse treatment. Second, only “community-based” facilities (i.e., those open to the general public) were included; facilities that operated within the Veteran's Administration Health System or correctional settings were not eligible for the study. Third, when asked to select from a set of options describing the services offered, the facility needed to self-identify as a TC. Although information such as membership in TCA and adherence to De Leon's TC model was collected during the subsequent in-depth interviews, such criteria were not used during sample selection. This approach allowed for measurement of the variation among facilities that identified themselves to potential consumers of services as TCs, thereby capturing the diversity of TCs within the U.S.

The final sample of 380 TCs in the original survey represented 86% of facilities that met the study's eligibility criteria and agreed to participate. Organizational-level data about each TC were collected during face-to-face interviews with its administrator or clinical director. These interviews averaged about 2 h in length, and participating TCs received a \$100 honorarium. The study protocol was reviewed and approved by the UGA's Institutional Review Board.

Measures

The dependent variable is composed of three categories: TCs that do not admit clients with COD, TCs that admit clients with COD but do not provide integrated care, and TCs that offer integrated care. For this data collection, CODs refers to clients with one or more alcohol/drug abuse problems as well as one or more psychiatric problems.³ Although respondents were asked the percentage of clients that received psychiatric assessments at intake, they were not asked to identify the specific diagnostic instrument used in these assessments (e.g., DSM). Rather, this analysis relies on self-report of administrators/clinical directors who were asked, “Does this center treat patients that have been dually diagnosed?”

In addition, data were not collected on the severity of clients' CODs. Administrators/clinical directors were asked to respond to the question, “For what reasons would a dually diagnosed client be excluded from admission”? The most common reasons included acute/active psychosis, schizophrenia, and severe mental illness. Few respondents indicated acceptance of all clients and indicated no reasons for exclusion. Thus, this analysis encompasses TC programs that serve a range of clients with COD. The focus definitely remains on addiction, and it can be generally concluded that TCs provide integrated services for addicted clients with mild to moderate forms of mental illness (i.e., high in addiction severity and lower in mental illness severity).^{3,14}

Integrated care was defined as services provided for both substance abuse and psychiatric conditions within the same treatment organization or by the same treatment team.³ We did not use the mere presence of COD in the client population as an inferential indicator of integrated care.

We considered the associations between the availability of integrated care and structural and cultural components of the TC model. Case studies have suggested that in some settings professionals are given increased authority over treatment while client responsibilities for directing treatment are diminished.³⁵ The first set of independent variables, therefore, points to the roles of staff and clients in TCs. These variables include the percentage of counselors with at least a master's degree, the percentage of counselors in personal recovery from addiction, and whether the TC employs/contracts a physician or psychiatrist (employ or contract MD = 1). The extent of client involvement in directing treatment compared to that of staff is captured through the statement: "Peer feedback [regarding client behavior and progress] occurs more frequently than staff counseling." Scaled responses to this statement range from 0 to 5, where 0 = no extent and 5 = a very great extent.

It has also been suggested that modified forms of the TC offer more individualized, less confrontational therapeutic milieus for clients with CODs, and utilize a shorter duration of stay.²⁴ Thus indicators of clinical service delivery, such as use of specific behavioral therapies and level of care, are included in the analysis. The first variable in this set measures the extent to which TCs emphasize individual psychotherapy (range 0 to 5, 0 = no extent and 5 = very great extent). Emphasis on confrontational therapy is measured on a similar 0 to 5 scale. Due to the distribution of responses, this variable is dichotomized. TCs that emphasize confrontational therapy to a very great extent are coded 1 while others are coded 0. TCs are categorized into those offering only residential levels of care and those offering a mixture of residential and outpatient services (residential only = 1).

Measurement of TCs' adherence to the "essential elements" of the traditional TC model is adapted from Melnick and De Leon's *Survey of Essential Elements Questionnaire (SEEQ)* and includes 49 scaled items representing six dimensions of TC structure and culture.^{19,39,40} Previous exploratory and confirmatory factor analyses identified six factors.⁴¹ The first includes seven items that Melnick and De Leon described as the TC Perspective, focused on cultural orientations toward addiction, "right living," and treatment, and yielded an alpha reliability (α) of 0.82. The second factor is comprised of six items associated with hierarchical relations among the TC's residents ($\alpha=0.88$). Three items measure the therapeutic functions performed by residents ($\alpha=0.82$), the third factor. Eight items regarding the therapeutic value of work loaded on the fourth factor ($\alpha=0.87$). The five items in the fifth factor include treatment activities within the TC and stages of treatment ($\alpha=0.83$). The final factor contained two items on disciplinary actions ($\alpha=0.77$).

Members of TCA are committed to providing "services to substance-abusing clients with a diversity of special needs" including clients with co-occurring conditions.⁴² Consequently, integrated care may be more likely among TCA members as compared to non-TCA members. Thus, a variable is included which indicates TCA membership (TCA member = 1).

Analytic Strategy

The multiple responses on the dependent variable suggest the strategy of multinomial logistic regression.⁴³ The results make the following comparisons: TCs that do not admit clients with COD compared to TCs that admit clients with COD but do not offer integrated care; TCs that do not admit clients with COD compared to TCs offering integrated care; and TCs that admit clients with COD but do not offer integrated care compared to TCs offering integrated services. Listwise deletion of missing cases resulted in 345 cases with complete data. A comparison of the 345 cases with complete data and cases excluded due to missing information revealed no statistically significant differences between these groups on any of

the key variables used in the regression analyses. Results from the fully specified regression model are presented and discussed below.

Results

Table 1 shows the availability of treatment services for clients with CODs as well as the descriptive statistics and bivariate associations for the independent predictors included in the multinomial regression analysis. Over 70% of the TCs in this sample admit clients with co-occurring substance abuse and psychiatric problems. About half (50.1%) offer integrated care where services for both substance abuse and psychiatric disorders are delivered by the TC (20.3% of the TCs admit clients with COD but do not offer integrated care). Over half of clients in TCs that offer integrated care (54.2%) on average are diagnosed with CODs (range 0–100%). In less than 5% of these TCs, all clients (100%) have co-occurring diagnoses.

In terms of staffing and client responsibilities, the majority of the counselors' education reflects a bachelor's degree or less; over one-quarter (28.9%) hold a master's degree or higher. On average, more than half of the TC counselors are in recovery. Nearly 60% of TCs have access to a physician or psychiatrist via direct employment or contractual arrangement. TCs showed variation in intensity and duration of treatment. Emphasis on individual psychotherapy averages 2.86 on a 0 to 5 scale. A little over 30% of the TCs place a strong emphasis on a confrontational milieu, over half of the TCs (54.5%) offer only residential programs, and nearly a quarter of the TCs (24.2%) report membership in TCA. While our sampling strategy was based on self-identification rather than screening in only those TCs conforming to predetermined criteria, the mean scores for reported presence of the classic TC elements are skewed towards the maximum value of 5, with none of the means lower than 3 (0 to 5 scale).

Table 2 presents the results of the multinomial regression analysis. In the comparison of TCs that do not admit clients with COD and TCs without integrated services (not shown), none of the independent variables are significant. The first comparison in Table 2 (Model 1) shows the coefficients and odds ratios for TCs offering integrated care relative to TCs that do not admit clients with COD. Nearly all the organizational characteristics reveal significant differences. Compared to TCs that exclude clients with COD from admission, TCs that offer integrated care employ a significantly higher percentage of master's level counselors ($p<0.05$) and a significantly lower percentage of counselors in personal recovery ($p<0.05$). Significant differences in clinical service delivery are also evident. Compared to the TCs that do not admit clients with COD, the emphasis on peer feedback ($p<0.05$) and use of confrontational group therapy ($p<0.05$) are significantly lower in TCs that offer integrated care. TCs that provide integrated care are significantly more likely to use individual psychotherapy than the TCs that do not admit clients with COD ($p<0.001$). Lastly, TCs that offer integrated care are significantly more likely to hold membership in TCA than the reference group ($p<0.01$). Notably, none of the elements describing classic TC culture are significant predictors of integrated care.

The final comparison — TCs offering integrated care versus TCs that admit clients with COD but do not offer integrated care — reveals several important differences in organizational characteristics. TCs that offer integrated care are significantly more likely to have access to physicians than TCs that do not provide integrated services ($p<0.05$). Although these TCs are equally likely to employ master's level counselors and place similar emphases on the use of confrontation, TCs that provide integrated care are significantly less likely to rely on counselors in recovery ($p<0.05$), less likely to emphasize peer feedback ($p<0.01$), and more likely to utilize individual psychotherapy ($p<0.001$). Again, in no instance is the reported presence of classic TC elements significantly different.

Discussion

Consistent with prior research on the availability of integrated care in other types of substance abuse treatment organizations, the results of this study, utilizing a nationally representative sample of self-identified TCs, show that half of the TCs in this sample provide integrated care for clients with co-occurring psychiatric and substance abuse problems.¹⁴⁻¹⁷ This is a rather powerful finding in light of the “lore” that at one time marginalized TCs as legitimate sources of substance abuse treatment services, with the accompanying implication that TCs adhered rigidly to a single model of treatment and were highly resistant to change. The (mis)perception of TCs as resistant to change has gradually dissipated as TCs have evolved and expanded. Given the cross-sectional design, the results presented here cannot speak to “changes” in the availability of integrated care since the advent of the modified TC in the mid-1990s. Like other treatment modalities, TCs have been forced to adapt over time to changes in the financial and regulatory environments, particularly Medicaid and state block grant funding. Treatment programs unable to adapt to this changing environment have not survived.^{44,45} For TCs, some of these changes were immediate while others were incremental, but as De Leon has noted, change has always been a consistent part of the TC approach.¹⁹

This is not to suggest, however, that as a population, TCs are now identical with other forms of service delivery. Results from the multinomial logistic regression analyses suggest that TCs offering integrated care differ in important ways from TCs that do not offer such services. These differences are largely related to staffing and types of therapy rather than modifications to the core cultural elements of TCs. Organizational differences are most apparent between TCs that offer integrated care and TCs that do not admit clients with COD while differences between TCs offering integrated care and those without integrated services are a matter of degree.

The results from this research support the suggestions from published studies relying on a relatively few TC sites. In particular, the results correspond with Sacks et al.' descriptions of modified TCs for clients with COD⁹; TCs that offer integrated care are less intense and more individualized than the traditional TC model. Data from the nationally representative survey also indicate that these TCs place less emphasis on confrontation as a therapeutic tool and are less likely to use peer feedback, but are more reliant on individual psychotherapy than TCs that do not provide integrated care. In addition, TCs that offer integrated care are more likely to employ master's level counselors, physicians/psychiatrists, and fewer counselors in personal recovery. Although important differences between TCs with and without integrated care are evident, the largest barrier to integrated care appears to be access to a physician/psychiatrist.¹⁴

Despite these important differences, the results also indicate that TCs offering integrated care continue to adhere to the perspective of “right living” and the basic components of “community as method.” This is a critically important finding. It not only supports what might be surprising to some, namely that treatment programs using the TC model are “in step” with other models of treatment in their inclusion of treatment for CODs, but also that they do so while sustaining their underlying cultural uniqueness within the relatively small range of substance abuse treatment alternatives.

Limitations

Several limitations of the data should be mentioned. Foremost, these results are based on organizational level data provided by TC administrators and clinical directors. Information from client records on the types and seriousness of clients' psychological diagnoses were not examined in this study. Furthermore, administrators were asked to report only on the

“availability” of integrated care rather than the “implementation” or quality of such programs. Given the conservative definition of integrated care employed in this analysis, the data do not address the variety of provisions for clients with co-occurring conditions including formal referral networks. In addition, due to the cross-sectional nature of these data, causal arguments concerning changes in the structural or cultural characteristics of TC organizations are not warranted including the ways in which TCs may have modified over time from the traditional model. Lastly, the study inclusion criteria required that programs self-identify as TCs. Although other sampling strategies were considered, each was rejected in favor of self-identification in order to capture the variation in programs that market themselves as TCs.

Implications for Behavioral Health

The results of this study suggest several important implications for behavioral health and substance abuse treatment services, in general, and TCs specifically. The goal of “treating the whole person” that is at the core of the integrated care model is consistent with the TC treatment perspective. It is very clear that this direction is one strongly recommended for the entire behavioral health care field. The results of this study point to a recognition among TCs of the need for and the importance of integrated services for clients with COD. Although a portion of TCs in this sample do not address the psychiatric and substance abuse needs via integrated treatment, the TC definitely stands out as a mainstream treatment option for clients with COD, in particular those with less severe psychiatric disorders.²²

Sustaining the core elements unique to the TC perspective while adapting to the changing nature of the broader environment that supports substance abuse treatment, appears as a powerful challenge. According to the results, the provision of integrated care has not resulted in drastic changes to the TC culture. The availability of integrated care in TCs does however lead to an adaptation of staffing patterns and roles.^{31,46,47} Organizationally, TCs that offer integrated care tend to resemble their counterparts in the public and private sectors in regard to professionalization of staff.^{15–18} In order to retain the TCs unique approach, professional staff must be integrated into the TC culture and become knowledgeable of the TC's perspective on recovery and self-help, and the TC language. Likewise, TC staff must become knowledgeable of the psychiatric perspective, approach, and language. Issues regarding staff training are beyond the scope of this study and data collection, but are an important direction for future research. These results suggest that within TC programs the need for integration applies not only to services but also to the staff who provide these services.

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Table 1
Descriptive statistics and bivariate associations for availability of integrated care and TC characteristics

Variable	All TCs (n=345) % (n) or mean $\pm$ SD	TCs not admitting clients with COD (n=101 [29.3%]) % (n) or mean $\pm$ SD	TCs without integrated care (n=71 [20.6%]) % (n) or mean $\pm$ SD	TCs offering integrated care (n=173 [50.1%]) % (n) or mean $\pm$ SD
% Clients w/COD	36.3 $\pm$ 33.2	0.0	45.6 $\pm$ 28.3 *	54.2 $\pm$ 27.2
MA counselors (%)	28.9 $\pm$ 29.6	21.6 $\pm$ 26.5 *	22.9 $\pm$ 26.1 *	35.5 $\pm$ 31.2
Counselors in personal recovery (%)	57.3 $\pm$ 33.6	37.1 $\pm$ 33.2 *	67.3 $\pm$ 33.7 *	47.5 $\pm$ 31.1
Physician or psychiatrist	59.1% (204)	52.5 (53) *	46.5 (33) *	68.2(118)
Use of peer feedback (0–5)	3.84 $\pm$ 1.23	3.96 $\pm$ 1.10	4.01 $\pm$ 1.20	3.69 $\pm$ 1.31
Individual psychotherapy (0–5)	2.86 $\pm$ 1.85	2.27 $\pm$ 1.91 *	2.17 $\pm$ 1.88 *	3.50 $\pm$ 1.56
Confrontational milieu	31.9 (110)	37.6 (38)	33.8 (24)	27.8 (48)
Residential TC	54.5 (188)	61.4 (62)	53.5 (38)	50.9 (88)
TCA member	24.2 (83)	21.9 (22)	18.3 (13)	28.3 (49)
TC Elements				
TC perspective	4.71 $\pm$ 0.44	4.68 $\pm$ 0.49	4.69 $\pm$ 0.52	4.73 $\pm$ 0.38
Hierarchy	3.84 $\pm$ 1.30	3.75 $\pm$ 1.25	3.83 $\pm$ 1.46	3.91 $\pm$ 1.27
Clients as therapists	4.35 $\pm$ 0.84	4.32 $\pm$ 0.79	4.31 $\pm$ 0.99	4.39 $\pm$ 0.80
Work as therapy	3.78 $\pm$ 1.32	3.80 $\pm$ 1.24	3.78 $\pm$ 1.22	3.78 $\pm$ 1.42
Aspects of program	4.40 $\pm$ 0.91	4.32 $\pm$ 0.90	4.39 $\pm$ 0.89	4.45 $\pm$ 0.92
Disciplinary actions	4.69 $\pm$ 0.69	4.63 $\pm$ 0.72	4.64 $\pm$ 0.78	4.74 $\pm$ 0.63

* Significantly different than TCs offering integrated services ($p < 0.05$)

Table 2

Multinomial logistic regression model of the relationship between TC characteristics and the provision of integrated care ($n=345$)

	Model 1 ^a		Model 2 ^b	
	TCs offering integrated care vs. TCs not admitting clients with COD		TCs offering integrated care vs. TCs admitting clients with COD but not offering Integrated Care	
	<i>b</i> (SE)	Odds ratio	<i>b</i> (SE)	Odds ratio
MA counselors (%)	1.411* (.56)	4.10	1.172 [†] (0.62)	3.23
Counselors in personal recovery (%)	-1.057* (0.49)	0.35	-1.183* (0.55)	0.31
Physician or psychiatrist (employ/contract MD = 1)	0.434 (0.29)	1.54	0.765* (0.33)	2.15
Use of peer feedback (0-5)	-0.368* (0.15)	0.69	-0.438** (0.17)	0.65
Individual Psychotherapy (0-5)	0.330*** (0.08)	1.39	-0.369*** (0.09)	4.45
Confrontational milieu (confrontational = 1)	-0.783* (0.34)	0.46	-0.652 [†] (0.38)	0.52
Residential TC (residential TC = 1)	-0.024 (0.30)	0.98	-0.448 (0.34)	4.57
TC elements				
TC perspective	0.352 (0.37)	1.42	0.248 (0.42)	1.28
Hierarchy	0.120 (0.15)	1.13	0.070 (0.17)	1.07
Clients as therapists	0.099 (0.23)	1.10	0.212 (0.25)	1.24
Work as therapy	-0.032 (0.14)	0.97	0.058 (0.15)	1.03
Aspects of program	0.319 (0.23)	1.38	0.153 (0.27)	1.67
Disciplinary actions	0.211 (0.24)	1.24	0.195 (0.27)	1.22
Intercept	-3.851*		-3.049	
-2 log likelihood	612.115 (df=28)***			
Nagelkerke <i>R</i> ²	0.29			

^a Reference category includes TCs that do not admit clients with COD ($n=101$)

^b Reference category includes TCs without integrated services for COD ($n=71$)

[†] $p<0.10$;

* $p<0.05$;

** $p<0.01$;

1000p

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