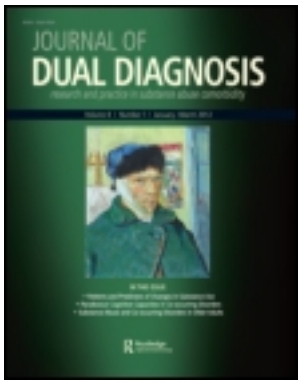

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Evaluating Integrated Treatment Within Assertive Community Treatment Programs: A New Measure

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Evaluating Integrated Treatment Within Assertive Community Treatment Programs: A New Measure

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Assertive community treatment (ACT) is an evidence-based practice that consists of a multidisciplinary team of professionals who provide intensive and comprehensive services to people with serious mental disorders living in the community. ACT has been shown to be effective in reducing hospital days and increasing housing stability for service recipients. However, more than half of the people in these programs typically have a co-occurring substance use disorder, and evidence for the model's effectiveness in treating dual disorders is less consistent. One reason cited for this shortcoming is the apparent failure to provide care consistent with the principles and practices of integrated dual disorders treatment, itself an evidence-based practice with demonstrated effectiveness. This is a problem of treatment fidelity, one that is addressed in a new ACT fidelity measure, the Tool for Measurement of Assertive Community Treatment (TMACT), which assesses not only the structural features of ACT but also the quality of clinical processes and services. With the TMACT, evaluators assess particular aspects of staff roles and team functioning as well as integration of critical elements of other evidence-based services, including integrated dual disorders treatment and recovery-oriented, person-centered practices. The measure is described, with particular detail provided for items that assess integrated dual disorders treatment, and a case example is presented to illustrate how the TMACT is used to guide consultation for ensuring effective integrated dual disorders treatment implementation within ACT. (*Journal of Dual Diagnosis*, 9:187–194, 2013)

Keywords *assertive community treatment, integrated dual disorders treatment, program evaluation, severe mental illness*

Approximately half to three-quarters of assertive community treatment (ACT) service recipients have a co-occurring substance use disorder (Ceilley, Cruz, & Denko, 2006; McCarthy et al., 2009), many of whom are actively using (Moser & Bond, 2008) and are at higher risk of experiencing negative outcomes (Dixon, Haas, Weiden, Sweeney, & Frances, 1990). In ACT, a team of medical, behavioral health, and rehabilitation professionals work together to meet the needs of individuals with severe mental illness. ACT is an evidence-based practice with robust findings in decreased hospital days and increased housing stability (Dixon et al., 2010; Mueser, Bond, Drake, & Resnick, 1998). ACT's effect on substance use, among other outcomes, has been less consistent, with one reason being a failure to evaluate ACT program fidelity (McHugo et al., 1998). A related reason for ACT's inconsistent impact on substance use may be a failure to emphasize integrated dual disorders treatment (Drake, O'Neal, & Wallach, 2008). Whether viewed as an enhancement to the ACT model (Fries & Rosen, 2011; McGrew, 2011) or as a core component of the model itself (Teague, Moser, & Monroe-DeVita, 2011), integrated dual disorders treatment is a critical feature of high-fidelity ACT. The following paper describes how the Tool for Measurement of Assertive Community Treatment (TMACT; Monroe-DeVita, Teague, & Moser, 2011) can assist in the evaluation of and quality improvement support for integrated dual disorders treatment implementation within ACT, a functional feature that has been lacking in precursor measures (McGrew, Bond, Dietzen, & Salyers, 1994; Teague, Bond, & Drake, 1998).

ACT comprises a multidisciplinary team consisting of a team leader, psychiatric care provider (i.e., psychiatrist or qualified nurse practitioner), nurses, therapists, case managers, and specialists in the areas of substance abuse counseling, employment, and peer support. As the single point of responsibility, the team works together to meet the full range of consumers' needs and minimally refers to other providers. Being the single point of responsibility necessitates a higher frequency and intensity of community-based contacts and a low consumer-to-staff ratio, not to exceed 10:1 (Stein & Test, 1980).

The importance of a qualified substance abuse specialist within ACT is particularly relevant given findings showing that integrated substance abuse and mental health care—as opposed to parallel or sequential treatment—produces better outcomes (Drake, Mercer-McFadden, Mueser, McHugo, & Bond, 1998; Drake et al., 2008; Minkoff, 1999). However, what that care actually looks like varies considerably across studies. One model that has been promulgated as a psychosocial

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evidence-based practice (Dixon et al., 2010) is integrated dual disorders treatment, which is well defined and has an accompanying fidelity measure (Fox et al., 2010; Mueser, Noordsy, Drake, & Fox, 2003). ACT and integrated dual disorders treatment have a natural intersection. Both stress the importance of long-term integrated care, assertive outreach, working with natural supports, and a team approach. More importantly, both were developed and tested with a similar clinical population, reflecting a high severity of both psychiatric and substance use disorders (Substance Abuse and Mental Health Administration, 2002).

To date, there are no studies of the more clearly defined integrated dual disorders treatment model implemented within the context of ACT. However, studies of dual disorders treatment within ACT have found that consumers decrease substance use over time, but so do consumers in comparison groups receiving dual disorders treatment, albeit less directly, via standard case management. Drake, McHugo et al. (1998) randomly assigned participants to ACT or standard case management, both offering dual disorder services. Participants in both groups exhibited substantial improvements over 36 months in treatment retention, substance abuse, and stable days in the community. Compared to the control group, the ACT group showed greater progress in stages of change readiness, decreased alcohol use, and improved quality of life. Although these results were statistically significant, the authors commented on the lack of appreciable clinical differences between the two programs, partly a result of the clinical competence of the standard case management staff and tendency to adopt ACT practice principles over time. Essock et al. (2006) conducted a similar comparison, implementing dual disorders treatment within both ACT and standard case management. Participants' substance use declined in both conditions across the 3 years of the study, with no significant differences between integrated ACT and integrated standard case management. An acknowledged limitation of this study, which was carried out prior to the development of many evidence-based practice fidelity instruments, was a lack of systematic assessment of both ACT and integrated dual disorders treatment fidelity. Secondary analyses of these two studies found outcomes favoring the implementation of dual disorders treatment within ACT for those participants with comorbid antisocial personality disorder (Frisman et al., 2009) and for those participants who were poorly adherent to medication regimens (Manuel, Covell, Jackson, & Essock, 2011).

Thus, the study findings for ACT programs implementing integrated dual disorders treatment are encouraging, but the effects to date are small. An important study design weakness has been the poor or unknown quality of substance use treatment in both the experimental and control groups. The Drake et al. (1998) study was one of the first published studies using an ACT fidelity measure, partly spurring the development of the first ACT fidelity tool, the Dartmouth Assertive Community Treatment Scale (DACTS; Teague et al., 1998), but clear specification of the quality of integrated dual disorders treatment implementation was still lacking at that time. For example, two hallmark clinical attributes of integrated dual disorders treatment are stagewise assessment and treatment and staff skillfulness in providing motivational interviewing interventions; neither of these attributes within ACT teams is evaluated within the DACTS. Further, the success of a dual disorders program within ACT depends on more than just the quality of substance abuse interventions, such as the provision of housing and money management assistance (Fries & Rosen, 2011).

Inattention to such treatment components reflects a more general limitation of the DACTS: its emphasis on structural features over clinical processes. Structural features of a program are often easier to modify than clinical processes, with the latter more dependent on leadership and staff attitudes, practice-based skill-building, and clinically competent supervision (Brunette et al., 2008; McHugo et al., 2007; Moser, DeLuca, Bond, & Rollins, 2004). Clinical processes are also closer to a program's intended outcomes, a related basis for theoretical arguments that fidelity measures should give greater emphasis to program processes (Mowbray, Holder, Teague, & Bybee, 2003). Because of growing recognition that the existing tool for assessing ACT fidelity could no longer be considered well matched to the model's fundamental clinical processes and inherent complexity—increasing over the years with the expansion of knowledge about effective treatments for ACT consumers—the developers of the TMACT sought to address this gap with a comprehensive revision of the DACTS.

OVERVIEW OF THE TMACT

The TMACT was derived from the DACTS and is similar in structure and organization. It has several new items for staff roles, team functioning, and integration of other evidence-based services (e.g., integrated dual disorders treatment) and recovery-oriented, person-centered practices (e.g., promotion of consumers' self-determination and independence). There is attention to the quality of clinical processes and services, previously absent in the DACTS.

The TMACT has 47 program-specific items, each rated on a 5-point scale with higher ratings reflecting fuller implementation of that specific feature. Anchor descriptions were determined by a combination of expert opinion and the empirical literature. TMACT items fall into six subscales, detailed in Table 1: (a) Operations and Structure, (b) Core Team, (c) Specialist Team, (d) Core Practices, (e) Evidence-Based Practices, and (f) Person-Centered Planning and Practices. To improve reliability and validity, the TMACT includes a detailed protocol to assist evaluators with the fidelity review process. TMACT fidelity reviews are typically conducted by two evaluators over 1.5 to 2 days on-site with the ACT team. Evaluators access a variety of data sources to inform fidelity review ratings, including (a) a team survey and an Excel spreadsheet with consumer-level data completed prior to the

TABLE 1
Overview of TMACT Subscales and Items

Operations and Structure (OS) Subscale	
OS1	Low Ratio of Consumers to Staff
OS2	Team Approach
OS3	Daily Team Meeting (Frequency and Attendance)
OS4	Daily Team Meeting (Quality)
OS5	Program Size
OS6	Priority Service Population
OS7	Active Recruitment
OS8	Gradual Admission Rate
OS9	Transition to Less Intensive Services
OS10	Retention Rate
OS11	Involvement in Psychiatric Hospitalization Decisions
OS12	Dedicated Office-Based Program Assistance
Core Team (CT) Subscale	
CT1	Team Leader on Team
CT2	Team Leader Is Practicing Clinician
CT3	Psychiatric Care Provider on Team
CT4	Role of Psychiatric Care Provider in Treatment
CT5	Role of Psychiatric Care Provider Within Team
CT6	Nurses on Team
CT7	Role of Nurses
Specialist Team (ST) Subscale	
ST1	Substance Abuse Specialist on Team
ST2	Role of Substance Abuse Specialist in Treatment
ST3	Role of Substance Abuse Specialist Within Team
ST4	Vocational Specialist on Team
ST5	Role of Vocational Specialist in Employment Services
ST6	Role of Vocational Specialist Within Team
ST7	Peer Specialist on Team
ST8	Role of Peer Specialist
Core Practices (CP) Subscale	
CP1	Community-Based Services
CP2	Assertive Engagement
CP3	Intensity of Service
CP4	Frequency of Contact
CP5	Frequency of Contact with Natural Supports
CP6	Responsibility for Crisis Services
CP7	Full Responsibility for Psychiatric Services
CP8	Full Responsibility for Psychiatric Rehabilitation Services
Evidence-Based Practices (EP) Subscale	
EP1	Full Responsibility for Dual Disorders Treatment
EP2	Full Responsibility for Vocational Services
EP3	Full Responsibility for Wellness Management and Recovery Services
EP4	Integrated Dual Disorders Treatment Model
EP5	Supported Employment Model
EP6	Engagement and Psychoeducation With Natural Supports
EP7	Empirically Supported Psychotherapy
EP8	Supportive Housing Model
Person-Centered Planning and Practices Subscale	
PP1	Strengths Inform Treatment Plan
PP2	Person-Centered Planning
PP3	Interventions Target Broad Range of Life Domains
PP4	Consumer Self-Determination and Independence

Note. TMACT = Tool for Measurement of Assertive Community Treatment.

fidelity review; (b) onsite team member interviews; (c) consumer interviews; (d) observation of the daily team meeting, a treatment planning meeting, and direct service provision; and (e) a sample of randomly selected consumer charts.

The TMACT has been found to be more sensitive to differences, both over time and across teams, than its predecessor. When both measures were applied every 6 months to a single state sample of 10 new teams over 18 months, overall TMACT scores were significantly lower than DACTS scores over the first year, suggesting a higher bar for team performance (Monroe-DeVita, Teague, Moser, 2011). Increase in TMACT scores was significantly related to time, $F(1,38) = 4.82$, $p = .034$, whereas DACTS scores showed no significant change over time. At 18 months, TMACT scores significantly differentiated higher- versus lower- scoring teams, $t(8) = 3.59$, $p = .007$, but the DACTS did not. Fidelity as indicated by the TMACT was also related to outcomes (Cuddeback et al., 2013): higher TMACT scores were associated with reduced days of use for state hospitals, local inpatient services, and crisis stabilization units.

A MORE COMPREHENSIVE EVALUATION OF DUAL DISORDERS TREATMENT

One goal in developing the TMACT was to develop a more robust tool to systematically evaluate ACT service provision, including integration of other evidence-based practices. To serve as a one-stop service provider, ACT provides an array of high-quality, empirically supported services. The critical elements of many of the psychosocial evidence-based practices identified for the ACT clinical population (Dixon et al., 2010) are assessed within the Evidence-Based Practices subscale of the TMACT. Five of the 47 TMACT items specifically assess integrated dual disorders treatment within ACT. Table 2 provides a brief summary of the rationale and criteria for achieving the highest rating on these items.

Item ST1: Substance Abuse Specialist on Team

Since many people with severe mental illness also have a comorbid substance use disorder, ACT teams should have at least one qualified team member designated as a substance abuse or dual disorders specialist (see minimum qualifications in Table 2). To achieve the intended outcomes, the substance abuse specialist takes the lead on providing dual disorders services, which then requires deliberate scheduling of their efforts toward providing such services. Despite the ACT model's historical emphasis on having specialists on the team, there has also been a focus on ensuring that any team member can step in to provide most services at any time and an underlying complementary promotion of a generalist approach to service provision. As a result, ACT team specialists struggle to provide specialty-related services with consistency. The consequential treatment forgone may at least partially account for less robust positive outcomes in this area within ACT (McHugo et al., 1998).

TABLE 2
Summary of TMACT Items That Assess Dual Disorders Treatment

TMACT item	Item rationale	Criteria for achieving highest fidelity rating of a "5"
ST1. Substance Abuse Specialist on Team	Concurrent substance use disorders are common in persons with severe mental illness. Appropriate assessment and intervention strategies delivered by competent staff are critical, resulting in the need for a dedicated staff person to take the lead in providing these services.	• 1.0 FTE substance abuse specialist on team. • Specialist meets at least minimal qualifications, including having a bachelor's degree and meeting local standards for certification in substance abuse counseling. Preference is that specialist has training or experience in integrated dual disorders treatment. • At least 80% of consumer contacts by this specialist involve specialist-related activities (vs. generalist services)
ST2. Role of Substance Abuse Specialist in Treatment	Individuals with concurrent severe mental illness and substance use problems benefit most from nonconfrontational stagewise treatment that focuses on the interplay of substance use and mental illness. Yet, it is also important to address the needs of consumers who are in later stages of change readiness and treat them appropriately with the recommended techniques.	Substance abuse specialist provides the following core integrated dual disorders treatment services to ACT consumers who have a substance use problem: 1. Conducting comprehensive substance use assessments that consider the relationship between substance use and mental health. 2. Assessing and tracking consumers' stages of change readiness and stages of treatment. 3. Using outreach and motivational interviewing techniques. 4. Using cognitive behavioral approaches and relapse prevention. 5. Applying treatment approaches consistent with consumers' stage of change readiness.
ST3. Role of Substance Abuse Specialist Within Team	The substance abuse specialist appropriately influences fellow team members' practices with consumers with dual disorders so that consumers receive optimal dual disorders treatment across the team (not just by the substance abuse specialist).	The substance abuse specialist is a key team member in the service planning for consumers with dual disorders, performing the following functions within the team in addition to integrated dual disorders treatment services: 1. Modeling skills and consultation. 2. Cross-training to other staff on the team to help them develop dual disorders assessment and treatment skills. 3. Attending all daily team meetings. 4. Attending all treatment planning meetings for consumers with dual disorders.
EP1. Full Responsibility for Dual Disorders Treatment	The ACT team is ideally equipped to provide quality services across a range of service domains so that consumers with relevant needs are well served. Creating a one-stop service team should theoretically eliminate communication problems and lead to a more seamless service system working to meet consumers' goals.	• Team assumes primary responsibility for providing dual disorders treatment to consumers, with little need for consumers to have to access such services outside of the team. • Core services are consistent with the integrated dual disorders treatment model. • The substance abuse specialist assumes the majority of responsibility for these services, but ideally other team members also provide some dual disorders services. • 90% or more of consumers in need of dual disorders treatment are receiving them from the team.
EP4. Integrated Dual Disorders Treatment Model	It is important that the dual disorders treatment model is embraced by all team members, ensuring that all consumers receive a consistent message and services regarding their substance use.	In addition to the substance abuse specialist, the full team uses a stagewise treatment model that is nonconfrontational, including the following: 1. Considers interactions between mental illness and substance abuse. 2. Does not have absolute expectations of abstinence and supports harm reduction. 3. Understands and applies stages of change readiness in treatment. 4. Is skilled in motivational interviewing. 5. Follows cognitive-behavioral principles.

Note. TMACT = Tool for Measurement of Assertive Community Treatment; ACT = assertive community treatment.

Item ST2: Role of Substance Abuse Specialist in Treatment

Not all substance abuse specialists on ACT teams provide dual disorders services consistent with the nonconfrontational stagewise approach embedded within integrated dual disorders treatment. Alternatively, they may value or have skills in this area but are pulled into primarily providing other generalist or crisis-oriented services. Accordingly, item ST2 assesses the quality of dual disorders services provided by the substance abuse specialist, particularly whether those services are aligned with the integrated dual disorders treatment model.

Item ST3: Role of Substance Abuse Specialist Within Team

This item evaluates the extent to which the team itself is benefitting from the full participation of the substance abuse specialist in training and organizational functions, such as the daily team meeting and treatment planning. While the specialist takes the lead on providing dual disorders services, he or she also cross-trains and provides consults to other team members in this area, assisting them in developing the capacity to also provide these services.

Item EP1: Full Responsibility for Dual Disorders Treatment

This item examines the overall rate with which the ACT team delivers dual disorders treatment to those consumers who need and/or want it. The ACT team should be the primary provider of dual disorders treatment (with a few exceptions, including intensive outpatient, residential, and medication-assisted treatment such as methadone) in order to ensure continuity of care. Consumers have the option to receive services elsewhere, but the percentage of consumers doing so should be low if the team is adequately providing the service and meeting consumers' needs. Team limitations (e.g., lack of staff to provide service, lack of skills, and lack of time) are not valid reasons for consumers' receiving services externally.

Item EP4: Integrated Dual Disorders Treatment Model

This item approximates the team's overall adherence to the integrated dual disorders treatment model. It is essential that the entire ACT team adheres to integrated dual disorders treatment principles and practice, not only to share the responsibility for providing these services, thereby increasing the penetration rate of such services provided to ACT consumers who need them, but also to ensure that consumers receive consistent messages and services related to their substance use across team members.

Beyond these items specifically related to dual disorders treatment within ACT, many of the areas assessed within the integrated dual disorders treatment fidelity scale (Mueser et al., 2003) are embedded in the TMACT, illustrating the similarities between these two service approaches (e.g., a multidisciplinary team working with natural supports) and the similar range of needs within the clinical population (e.g., using outreach and a team approach).

TMACT EVALUATION CASE EXAMPLE

A TMACT evaluation produces a comprehensive ACT team profile. Here we provide a case example of one ACT team's TMACT evaluation findings and quality improvement recommendations related specifically to the team's provision of integrated dual disorders treatment.

Summary of Findings

The North ACT team has one full-time, licensed substance abuse specialist, Charles, who has 8 years of experience providing substance abuse counseling. His practice is mostly consistent with integrated dual disorders treatment philosophy. He considers the interactions between psychiatric symptoms and substance use as well as consumers' recognition of problems related to their use and interest in changing behaviors. Charles emphasizes the importance of establishing trust, exploring what it is consumers are wanting for themselves, and attending to where they are in their use and interest in making changes. He completes integrated assessments at intake and the Substance Abuse Treatment Scale (SATS; McHugo, Drake, Burton, & Ackerson, 1995) throughout, but not consistently. He has received training in motivational interviewing and provided examples of exploring consumers' ambivalence regarding use, applying decisional balance worksheets. He uses a variety of active treatment interventions and techniques. He facilitates an active treatment group, though not a persuasion group, and has referred consumers to self-help groups. Charles attends all daily team meetings and treatment planning meetings for all ACT consumers.

Charles is only sought out by a few of his fellow team members for consultation; however, his guidance on substance use treatment matters was noted in the observed team meeting. Only half of his time is spent providing dual disorders service. An estimated 60% of consumers who need such services are receiving them from Charles or any other team members.

The team leader echoed Charles' comments that other team members are trying to practice from an integrated dual disorders treatment philosophy, reporting that the team as a whole tries to "work with people where they are at . . . not push them toward abstinence if they don't want to stop." She

acknowledged that this has been a shift for "some of us," noting that the vocational specialist and nurse share beliefs and practices that are inconsistent with the integrated dual disorders model (e.g., on one occasion, the vocational specialist refrained from providing vocational services to a consumer who was actively using because she feared "burning bridges" with employers, further stating, "I have ethical concerns about helping an alcoholic get more money to spend on alcohol").

Recommendations

The ultimate goal of a TMACT evaluation is to conduct a reliable and valid assessment of ACT practice and to develop recommendations that will initiate a strategic planning process with the ACT team, all in an effort to improve the quality of ACT services. To this end, evaluators examine trends across individual items and synthesize findings to identify underlying themes that organize the primary recommendations. Effective follow-up consultation based on the fidelity review findings requires consideration of factors that may or may not be directly assessed within the TMACT but are nonetheless observable, such as the availability of resources (e.g., access to needed equipment, staffing), skills and competence (e.g., leadership skills, topic-specific expertise), and staff attitudes and organizational culture (e.g., recovery-orientation, openness to change, motivation to deliver best practices; Mancini et al., 2009).

Thus, in developing recommendations for the North ACT team's dual disorders program, evaluators consider the larger team profile. For example, the North ACT team spends much time providing care coordination and support, crisis response, and medication monitoring. On average, little time is spent with consumers (1.2 visits per week, 40 minutes per week). Excessive team meeting time (e.g., the entire team sits in on all planning meetings and a weekly administrative meeting with the community support team) has reduced staff availability for providing more intensive services. A team approach is used in the literal sense that consumers meet with a variety of team members, but these encounters primarily follow from

TABLE 3
Recommendations Related to the North ACT Team's Dual Disorders Program

Recommendation 1: Better meet consumers' individualized needs via improved assessment, treatment planning, and assignment of staff resources.	
1a. Integrate comprehensive and ongoing assessment into routine practice.	Assessments should be completed at intake and annually thereafter. Assessment of stages of change readiness and stages of treatment should be systematically completed and tracked for each consumer to assess change over time. Plot change against significant life events to help increase awareness for the team and consumer in how life events may impact substance use and treatment engagement.
1b. Revise the process for developing treatment plans, making use of Individual Treatment Teams (ITTs).	ITTs should have an opportunity to share assessment data, develop interpretive summaries, and draft a treatment plan based on previous conversations with consumers about their goals and needs. A formal meeting between the ITT, consumer, and his or her natural supports leads to the development of a final plan, which specifies the intervention type and dose (e.g., 2 times a week or every other week) as well as who will deliver the intervention.
1c. Revise daily team meeting processes to ensure that planned treatment interventions are provided.	Interventions in the treatment plan are to be transferred to a consumer schedule that is used to guide the scheduling of staff each day. Both consumers and staff can then anticipate the work to be done at each encounter. Services are to be provided with intention and continuity. Assessment of intervention effectiveness and consumer's status should be reviewed across all consumers daily, which helps hold staff accountable to following the plan as intended.
Recommendation 2: Further develop and expand team members' understanding and implementation of psychosocial evidence-based practices.	
2a. Strengthen the supported employment program.	The team should receive training in the value of competitive employment and how expressed interest should be the only qualifier for prompt provision of supported employment services. Research does not show that functional ability or symptoms predict success in employment, as long as the employment is matched to consumer's preferences and the job description is defined according to abilities.
2b. Strengthen the integrated dual disorders treatment program.	The team should engage in routine discussions of stages of change readiness and best treatment practices to assure that the team remains on track in providing stage-appropriate interventions. The team should receive training in motivational interviewing and enhancement skills as well as ongoing training in how to apply cognitive-behavioral treatment within the context of more proactive substance abuse counseling. The substance abuse specialist should assume a more prominent role within the team as the expert on integrated dual disorders treatment and provides topic-specific cross-trainings to fellow team members.
2c. Clarify and strengthen clinical leadership and supervision.	Further develop the team leader's competency in psychosocial and rehabilitative evidence-based practices. Create a schedule for both individual and group supervision of team members.

Note. ACT = Assertive community treatment.

a random rotation of staff rather than from a deliberate plan. Further, there is often little follow-through from planned interventions to actual practice. Processes that are fundamental to team operations are not in place, such as maintaining updated consumer schedules that direct team assignments.

Considering all collected data, evaluators are left with several impressions of the North ACT team's dual disorders program, which rated slightly higher (3.2) than the total TMACT rating (3.1), where scores could in each case range from 1 to 5. Although Charles was full-time and met qualifications, evaluators rated him a "3" based on actual time spent within the substance abuse specialist role. On ST2, Charles was rated a "4" given that he appeared to be quite skilled in providing dual disorders services, with the exception of consistent assessment; although this item can be influenced by the allotted time available to carry out these services, the focus of the evaluation is the skillfulness and quality of practice (not the overall penetration of practice). He was rated a "4" on ST3 as he does not provide cross-training to fellow team members. The team originally reported that 76% of consumers with dual disorders are receiving dual disorders treatment from the team; however, chart review data suggested that it was slightly less than 45%. In considering all data sources, including the 8 consumers who routinely attended Charles' dual disorders group, the evaluators judged it to be closer to 60%, resulting in a "3" rating on EP1. Finally, although many of Charles' fellow team members embraced integrated dual disorders treatment, at least two team members exhibited attitudes and practices that clearly conflicted with the integrated dual disorders treatment model and appeared to impact overall practice within the team, resulting in a "2" rating on EP4.

Table 3 summarizes excerpts from a set of recommendations provided to the North ACT team. The list begins with a recommendation to address deficits in a fundamental, underlying clinical process, specifically, person-centered planning. Improvement in this process is critical to ensuring that more clinically informed interventions are specified and can then be carried out by designated staff in a consistent manner.

CONCLUSION

To ensure that the best possible care is provided to people with co-occurring severe mental and substance use disorders, we need to define and communicate how to carry out this work in real-world settings. The ACT model has long stood as a prime exemplar of an evidence-based program for people with the most severe of these conditions. However, earlier ACT fidelity tools have not kept pace with the complex and expanding array of expectations for clinical performance, which is a problem given the limited evidence for ACT's effectiveness in achieving a range of outcomes, including substance use.

We have suggested that these two phenomena are linked. Without the availability of clear specification and measurement of the clinical and programmatic processes underlying treatment and training and feedback to ensure its successful delivery, community practice is unlikely to meet the high expectations placed upon it. The TMACT was designed to address this challenge. Five items specifically address integrated dual disorders treatment implementation, and many others focus on more general team structure and processes that are critical to successful delivery of integrated dual disorders treatment services. The tool is intended as a means to facilitate quality improvement, as illustrated in an example team's fidelity assessment and resulting recommendations.

At this stage, the promise of achieving optimal outcomes for ACT consumers with dual disorders in the way we suggest is speculative. Not yet empirically established is whether the TMACT is a sufficiently sensitive tool for accurately assessing the quality of services specifically for ACT consumers with dual disorders and, more importantly, whether quality-improvement strategies based on TMACT results can improve teams' performance and thereby outcomes for this population. Clearly, the assessment of integrated dual disorders treatment within the TMACT is more approximate than in the full integrated dual disorders treatment fidelity scale; feasibility necessitates a pared-down measurement approach using multiple data sources to estimate the presence of selected critical elements. Additionally, we are not yet certain that wholesale adoption of integrated dual disorders treatment or other evidence-based practices within ACT is necessary for good consumer outcomes (Teague et al., 2011). But the ACT model has proven resilient over the years, and other indications from implementation science suggest that the approach described here will be helpful in establishing and maintaining effective integrated dual disorders treatment within ACT (Proctor et al., 2009; Teague, Mueser, & Rapp, 2012).

NOTE

To protect the identity of actual team members, "Charles" is not a specific, single real-life person with the exact combination of characteristics described but is a composite based on a few different individuals encountered by the authors during their evalutions of a large number of teams.

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REFERENCES

Brunette, M. F., Asher, D., Whitley, R., Lutz, W. J., Wieder, B. L., Jones, A. M., & McHugo, G. J. (2008). Implementation of integrated dual disorders treatment: A qualitative analysis of facilitators and barriers. *Psychiatric Services*, *59*(9), 989–995. doi:10.1176/appi.ps.59.9.989

Ceilley, J. W., Cruz, M., & Denko, T. (2006). Active medical conditions among patients on an assertive community treatment team. *Community Mental Health Journal*, *42*(2), 205–211. doi:10.1007/s10597-005-9019-2

Cuddeback, G. S., Domino, M. E., Morrissey, J. P., Monroe-DeVita, M., Teague, G. B., & Moser, L. L. (2013). Fidelity to recovery-oriented ACT practices and consumer outcomes. *Psychiatric Services.* Advance online publication. doi:10.1176/appi.ps.201200095

Dixon, L. B., Dickerson, F., Bellack, A. S., Bennett, M., Dickinson, D., Goldberg, R. W., & Kreyenbuhl, J. (2010). The 2009 schizophrenia PORT psychosocial treatment recommendations and summary statements. *Schizophrenia Bulletin*, *36*(1), 48–70. doi:10.1093/schbul/sbp115

Dixon, L., Haas, G., Weiden, P., Sweeney, J., & Frances, A. (1990). Acute effects of drug abuse in schizophrenic patients: Clinical observations and patients' self-reports. *Schizophrenia Bulletin*, *16*(1), 69–79.

Drake, R. E., McHugo, G. J., Clark, R. E., Teague, G. B., Xie, H., Miles, K., & Ackerson, T. H. (1998). Assertive community treatment for patients with co-occurring severe mental illness and substance use disorder: A clinical trial. *American Journal of Orthopsychiatry*, *68*(2), 201–215. doi:10.1037/h0080330

Drake, R. E., Mercer-McFadden, C., Mueser, K. T., McHugo, G. J., & Bond, G. R. (1998). Review of integrated mental health and substance abuse treatment for patients with dual disorders. *Schizophrenia Bulletin*, *24*(4), 589–608.

Drake, R. E., O'Neal, E. L., & Wallach, M. A. (2008). A systematic review of psychosocial research on psychosocial interventions for people with co-occurring severe mental and substance use disorders. *Journal of Substance Abuse Treatment*, *34*(1), 123–138. doi:10.1016/j.jsat.2007.01.011

Essock, S. M., Mueser, K. T., Drake, R. E., Covell, N. H., McHugo, G. J., Frisman, L. K., … Swain, K. (2006). Comparison of ACT and standard case management for delivering integrated treatment for co-occurring disorders. *Psychiatric Services*, *57*(2), 185–196. doi:10.1176/appi.ps.57.2.185

Fox, L., Drake, R. E., Mueser, K. T., Brunette, M. F., Becker, D. R., McGovern, M. R., … Acquilano, S. C. (2010). *Integrated dual disorders treatment manual: Best practices, skills, and resources for successful client care*. Center City, MN: Hazelden.

Fries, H. P., & Rosen, M. I. (2011). The efficacy of assertive community treatment to treat substance use. *Journal of the American Psychiatric Nurses Association*, *17*(1), 45–50. doi:10.1177/1078390310393509

Frisman, L. K., Mueser, K. T., Covell, N. H., Lin, H.-J., Crocker, A., Drake, R. E., & Essock, S. M. (2009). Use of integrated dual disorder treatment via assertive community treatment versus clinical case management for persons with co-occurring disorders and antisocial personality disorder. *Journal of Nervous and Mental Disease*, *197*(11), 822–828. doi:10.1097/NMD.0b013e3181beac52

Mancini, A. D., Moser, L. L., Whitley, R., McHugo, G. J., Bond, G. R., Finnerty, M. T., & Burns, B. J. (2009). Assertive community treatment: Facilitators and barriers to implementation in routine mental health settings. *Psychiatric Services*, *60*, 189–195. doi:10.1176/appi.ps.60.2.189

Manuel, J. I., Covell, N. H., Jackson, C. T., & Essock, S. M. (2011). Does assertive community treatment increase medication adherence for people with co-occurring psychotic and substance use disorders? *Journal of the American Psychiatric Nurses Association*, *17*(51), 51–56. doi:10.1177/1078390310395586

McCarthy, J. F., Valenstein, M., Dixon, L., Visnic, S., Blow, F. C., & Slade, E. (2009). Initiation of assertive community treatment among veterans with serious mental illness: Client and program factors. *Psychiatric Services*, *60*(2), 196–201. doi:10.1176/appi.ps.60.2.196

McGrew, J. (2011). The TMACT: Evidence based or eminence based? *Journal of the American Psychiatric Nurses Association*, *17*(1), 32–33. doi:10.1177/1078390310394843

McGrew, J. H., Bond, G. R., Dietzen, L., & Salyers, M. (1994). Measuring the fidelity of implementation of a mental health program model. *Journal of Consulting and Clinical Psychology*, *62*, 670–678.

McHugo, G. J., Drake, R. E., Burton, H. L., & Ackerson, T. H. (1995). A scale for assessing the stage of substance abuse treatment in persons with severe mental illness. *Journal of Nervous & Mental Disease*, *183*(12), 762–767.

McHugo, G. J., Drake, R. E., Whitley, R., Bond, G. R., Campbell, K., Rapp, C. A., … Finnerty, M. T. (2007). Fidelity outcomes in the national implementing evidence-based practices project. *Psychiatric Services*, *58*(10), 1279–1284. doi:10.1176/appi.ps.58.10.1279

McHugo, G. J., Hargreaves, W., Drake, R. E., Clark, R. E., Xie, H., Bond, G. R., & Burns, B. J. (1998). Methodological issues in assertive community treatment studies. *American Journal of Orthopsychiatry*, *68*(2), 246–260.

Minkoff, K. (1999). An integrated treatment model for dual diagnosis of psychosis and addiction. *Hospital and Community Psychiatry*, *40*, 1031–1036.

Monroe-DeVita, M., Teague, G. B., & Moser, L. L. (2011). The TMACT: A new tool for measuring fidelity to assertive community treatment. *Journal of the American Psychiatric Nurses Association*, *17*, 17–29. doi:10.1177/1078390310394658

Moser, L., & Bond, G. R. (2009). Scope of agency control: Assertive community treatment teams' supervision of their consumer caseloads. *Psychiatric Services*, *60*, 922–928. doi:10.1176/appi.ps.60.7.922

Moser, L. L., DeLuca, N. L., Bond, G. R., & Rollins, A. L. (2004). Implementing evidence-based psychosocial practices: Lessons learned from statewide implementation of two practices. *CNS Spectrums*, *9*(12), 926–936.

Mowbray, C. T., Holder, M., Teague, G. B., & Bybee, D. (2003). Fidelity criteria: Development, measurement, and validation. *American Journal of Evaluation*, *24*(3), 315–340.

Mueser, K. T., Bond, G. R., Drake, R. E., & Resnick, S. G. (1998). Models of community care for severe mental illness: A review of research on case management. *Schizophrenia Bulletin*, *24*(1), 37–74.

Mueser, K. T., Noordsy, D. L., Drake, R. E., & Fox, L. (2003). *Integrated treatment for dual disorders: A guide to effective practice.* New York, NY: Guilford Press.

Proctor, E. K., Landsverk, J., Aarons, G. A., Chambers, D., Glisson, C., & Mittman, B. (2009). Implementation research in mental health services: An emerging science with conceptual, methodological, and training challenges. *Administration and Policy in Mental Health*, *36*, 24–34.

Stein, L. I., & Test, M. A. (1980). Alternative to mental hospital treatment: I. Conceptual model, treatment program, and clinical evaluation. *Archives of General Psychiatry*, *37*(4), 392–397.

Substance Abuse and Mental Health Administration. (2002). *Report to Congress on the prevention and treatment of co-occurring substance abuse disorders and mental disorders*. Rockville, MD: SAMHSA. Retrieved from http://www.nasmhpd.org/docs/Policy/Behavioral%20Health%20Primary_CoOccurringRTC.pdf

Teague, G. B., Bond, G. R., & Drake, R. E. (1998). Program fidelity in assertive community treatment: Development and use of a measure. *American Journal of Orthopsychiatry*, *68*(2), 216–232.

Teague, G. B., Moser, L. L., & Monroe-DeVita, M. (2011). Letter to the editor: Established and emerging elements in the TMACT: Measuring fidelity to an evolving model. *Journal of the America in Psychiatric Nurses Association*, *17*(1), 34–36. doi:10.1177/1078390310396086

Teague, G. B., Mueser, K. T., & Rapp, C. A. (2012). Advances in fidelity measurement for mental health services research: Four measures. *Psychiatric Services*, *63*(8), 765–771. doi:10.1176/appi.ps.201100430