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The Role of Assertive Community Treatment in the Treatment of People with Borderline Personality Disorder

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Abstract

It is known that Assertive Community Treatment (ACT) is being used to treat people with borderline personality disorder (BPD), a puzzling trend given the lack of empirical support for this practice and the consensus that reserving ACT for a carefully selected population is critical to the sustainability of this costly intervention. Little is known about the contributors to this phenomenon and the ways in which ACT programs have adapted to the influx of patients with BPD. Many ACT programs in the US and Canada have integrated Dialectical Behavioral Therapy into the regular ACT programming, a practice that also lacks rigorous evidence of effectiveness. We provide a framework for policy-makers to decide on the optimal role of ACT in the continuum of care for people with BPD, and offer policy recommendations to address this phenomenon. There is an urgent need to generate the missing evidence and to improve and expand the services available to people with BPD, particularly those who are now being treated on ACT programs.

Introduction

Assertive Community Treatment (ACT), an intervention reserved mainly for individuals with schizophrenia or major affective disorders, has for some time been used to treat people with borderline personality disorder (Reynolds et al, 2007; Schwammle et al, unpublished).

Although little systematic knowledge exists about this phenomenon, it is known that ACT programs in the US and Canada have moved to incorporate *Dialectical Behavior Therapy* into their regular programming (Cunningham et al, 2004; Riesen & Aubry, 2006).

Following a discussion of the context to this trend we provide a framework for policy-makers to decide whether expanding access to ACT for people with BPD is a sound course of action. Our framework is organized around the following questions: is ACT an effective treatment for people with BPD?; does the presence of these individuals on ACT programs affect the overall effectiveness and cost-effectiveness of ACT?; and given current financial constraints and competing needs, is this the most efficient use of scarce public resources? We conclude with a discussion of the research needs and policy implications associated with this phenomenon.

Overview of Borderline Personality Disorder

The diagnosis of borderline personality disorder refers to a pattern of maladaptive personality traits that gravely impair the capacity for emotional regulation, impulse control, and stable interpersonal relationships (APA, 1994; Lieb et al, 2004). Common features of the disorder are psychiatric comorbidity – particularly major depressive, substance abuse, anxiety, and eating disorders (Zanarini et al, 1998), and significant levels of social and occupational impairment (Skodol et al, 2002). Another indication of the severity of BPD is its high lethality –with a suicide rate of up to 10%, it ranks among the most lethal psychiatric disorders along with schizophrenia and the major affective disorders. Further, the recurrent suicidal behavior exhibited by people with BPD poses a significant burden to families, and because this behavior is the best predictor of these individuals' notoriously high levels of inpatient utilization, also to the health care system (Comtois et al, 2003; Lieb et al, 2004).

Although its community prevalence hovers around 2%, BPD is a far more common diagnosis in clinical samples: it has been estimated that up to 10% of outpatients and 50% of inpatients carry this diagnosis (APA, 1994). The treatment histories of these people are often characterized by brief and discontinuous episodes of care and frequent utilization of emergency and inpatient services (Comtois et al, 2003). Psychotropic medications are frequently used to control the affective, cognitive-perceptual, and impulsive-behavioral symptoms typical of the disorder but their role is adjunctive to that of psychosocial interventions, the mainstay of BPD treatment (Oldham et al, 2001).

Findings from multiple studies suggest beneficial effects for several BPD-specific psychosocial interventions grounded in cognitive-behavioral and/or psychodynamic principles (Binks et al, 2006; McMain & Pos, 2007). Although the quality of this body of research has improved substantially in just a few years, the field has yet to reach methodological maturity (McMain & Pos, 2007; Pearce, 2007). For example, findings from randomized controlled studies have limited generalizability to the extent that males and individuals with severe psychotic disorders have been scarcely represented in the trials conducted to date. Until recently Dialectical Behavior Therapy (Linehan, 1993) and a psychodynamically oriented Partial-Hospitalization program (Bateman & Fonagy, 2001) were the only psychosocial interventions with any empirical support. However, evidence of efficacy/effectiveness for other psychosocial interventions is beginning to emerge (Davidson et al, 2006; Kellogg, 2006; Giesen-Bloo et al, 2006; Clarkin et al, 2007). Despite the fact that DBT has the largest body of efficacy research, there is no evidence that DBT is more efficacious or effective than other BPD psychosocial interventions (Pearce, 2007). However, DBT is the psychosocial intervention most typically used to treat BPD in the US (Swenson, 2000), and the only intervention that is known to have been adopted by ACT programs in North America in response to the influx of people with this disorder. In what follows we provide a brief synopsis of DBT and its outcomes research.

Dialectical Behavior Therapy

Originally developed to help patients with chronic suicidal behavior (Linehan, 1993), DBT is a structured cognitive-behavioral intervention whose main treatment targets are behaviors that are life-threatening and/or treatment-interfering. A core component of the intervention is the acquisition of new skills: learning to become aware in a non-judgmental way (mindfulness); coping adaptively with distress and crises; improving interpersonal effectiveness; and identifying and regulating emotional reactions. A standard DBT program is comprised of several components, including weekly individual therapy, weekly skills group, and a weekly peer consultation meeting for DBT clinicians. Although the standard model has been adapted for inpatient (Bohus et al, 2000) and residential settings (Trupin et al, 2002), DBT is typically offered as programs embedded in outpatient mental health clinics. Despite the significant

presence of people with BPD in the mental health system (APA, 1994), DBT is far from being available to all who need it.

The evidence base for the efficacy of outpatient DBT consists of eight randomized controlled trials of variable sample sizes (range = 20-101) (Lieb et al, 2004). The subjects of these studies were severely impulsive women exhibiting suicidal and substance use behaviors in the context of BPD. The four studies that focused on patients with chronic suicidality found that DBT was associated with a significant reduction in suicidal behavior (Lieb et al, 2004). The best powered of these studies, a 1-year trial followed by a 1-year follow-up phase, compared DBT with an empirically unsupported intervention (community based non-behavioral therapy by expert clinicians) (Linehan et al, 2006). Compared to the control condition, DBT was associated with fewer suicide attempts, fewer treatment terminations, and lower use of crisis services. The interventions had similar outcomes with regard to depression and suicidal ideation.

Assertive Community Treatment and its Target Population

Assertive Community Treatment is an evidence-based practice for people with severe mental illness that integrates health and social services through intensive case management (Stein & Santos, 1998; Drake et al, 2001). Its multidisciplinary team approach, frequent and intensive services, small caseloads, assertive outreach, and other key features of the model underlie the high start-up costs associated with ACT (Meisler et al, 1994). Although ongoing costs are also high, they can be offset by the substantial reduction in psychiatric inpatient utilization associated with the intervention (Latimer, 1999). This fact and findings from cost-effectiveness studies (Essock et al, 1998) underlie the notion that ACT should be reserved for people who in addition to having a severe mental illness consume a disproportionate amount of the public mental health dollar because of their high utilization of inpatient services. In other words, access restrictions are necessary in order to ensure the sustainability of the intervention.

The individuals enrolled in the trials that built ACT's evidence base were variably described in published reports as *seriously* mentally ill or *severely* mentally ill (Marshall & Lockwood, 2000). Despite their frequent usage in psychiatric research, the diagnostic inclusion criteria for these near-synonymous terms differed somewhat across the trials (Marshall & Lockwood, 2000). While all studies included people with schizophrenia and bipolar disorder and many also included people with severe major depression (a diagnostic triad we will henceforth refer to as *severe axis I disorders*), there was less consistency with regard to other diagnoses. A minority of the trials (e.g., Lafave et al, 1996) recruited relatively small proportions of people whose main diagnosis was an unspecified *personality disorder* (PD). Further, although a few studies reported rates of PD comorbidity among the study subjects (e.g., Morse et al, 1997), the rate of PD comorbidity across all studies is unknown. Moreover, as discussed in greater detail below, the only study that conducted subgroup analyses found that ACT was not superior to standard care for people with PDs (Weisbrod, 1983). It follows then that the evidence provided by these studies is mainly relevant to individuals with severe axis I disorders, offering no support to the use of ACT for the treatment of people with personality disorder diagnoses.

However, anecdotal and indirect evidence indicates that people with BPD have become a visible presence on ACT caseloads (Monroe-De Vita et al, 2007). Although the contributors to this trend are not well understood, two factors are likely to be driving it: the insufficient development of the continuum of BPD services, and the perception of ACT as the best treatment for people whose mental illness is associated with poor functioning and high inpatient utilization.

Because of the large role played by public insurance in the financing of ACT treatment (Clark, 1997), federal regulations governing diagnostic eligibility for Medicaid coverage *and* the criteria used to define medical necessity for ACT level of care may have also contributed to

this trend. Medicaid eligibility is reserved for people with serious mental illness, currently defined as psychiatric disorders with the exception of substance use and developmental disorders that result in “functional impairment which substantially interferes with or limits one or more major life activities.” Hence, Medicaid eligibility depends more on degree of impairment than on a specific diagnosis. However, many states have modified this definition, typically by adding criteria that among other things limit the spectrum of covered disorders. For example, Pennsylvania's definition includes the federal definition and also requires (a) a diagnosis of schizophrenia, major affective disorder, psychosis not otherwise specified, *or* BPD, *and* (b) meeting criteria associated with treatment history, *or* low functional level, *or* a coexisting condition such as homelessness.

Medicaid-eligible adults are granted access to publicly-funded ACT only if they meet medical necessity criteria for ACT level of care, typically defined on the basis of diagnosis, severity of impairment, and intensity of inpatient utilization. While some localities employ the same diagnostically vague definition used to determine Medicaid eligibility, others require that individuals meet specific diagnostic criteria. When eligible diagnoses are specified, it is not uncommon for BPD to be listed in addition to severe axis I disorders. As a result, people with this disorder face few if any formal restrictions to access ACT services in most Medicaid regions.

In sum, despite the absence of empirical support for the use of ACT to treat people with BPD *and* the accepted notion that ACT needs to be reserved for a selected subgroup of people with severe mental illness, the reality on the ground is that some fraction of people with BPD are being treated in ACT programs. Because eligibility for ACT level of care is typically tied to high utilization and severe functional impairment, ACT patients with BPD are likely to be less able to use traditional services and to be more socially and occupationally impaired than people with BPD treated elsewhere.

How are real world ACT programs dealing with the influx of people with BPD?

In response to the influx of people with BPD, ACT programs located in the US and Canada (e.g. Florida, California, Michigan, North Carolina, Pennsylvania, Utah, Ontario) have integrated DBT into their regular programming (Monroe-De Vita, 2007; Reynolds et al, 2007). Although there is no systematic knowledge on the way in which ACT programs are integrating DBT, experience in the field suggests that it is common practice to adopt selected DBT components such as the skills group, rather than the comprehensive DBT program (Reynolds et al, 2007). This is problematic given that the active ingredients of DBT have not been identified and the limited available evidence suggests that partially implemented DBT is not efficacious (Barley et al, 1993; Koerner & Linehan, 2000). Little is known about another critical aspect related to this adaptation: the development and maintenance of expertise in DBT among ACT clinicians who typically have had minimal or no training in cognitive-behavioral techniques. Findings from a study conducted in an adolescent forensic facility suggesting that the quality of the training moderates the effect of the intervention illustrate the importance of high-quality DBT training (Trupin et al, 2002). In this study, DBT implementation was associated with a reduction in inappropriate staff practices only for the group that received an intensive 10-day DBT training course. Staff assigned to the group that only received a brief, two-day overview of DBT had an *increase* in their use of inappropriate practices (Trupin et al, 2002). Anecdotal evidence from the field suggests that although the quality of the initial DBT training provided to ACT clinicians may be adequate, maintaining the expertise in programs with medium-high staff turnover and limited training resources has been challenging.

To illustrate the motivations and the process involved in this adaptation, we describe in some detail the experience of an ACT program that embarked on this particular adaptation. Interact

of Michigan, Inc., a private not-for-profit agency that provides ACT and other mental health services in Kalamazoo, Michigan, started a pilot DBT program in 1995 in response to the challenges associated with offering regular ACT services to people with BPD. At the time that this decision was made, clinicians complained that their time with patients with BPD was chaotic and crisis-focused and that they had little time and energy for other patients. While these patients represented only 8% of Interact's ACT caseload, they accounted for twice as much of the overall contact time with patients and fully 50% of the after-hours contact time. As a result, many clinicians were exhibiting signs of burnout. The pilot DBT program evolved into a comprehensive *DBT track* fully integrated into the regular ACT programming. An internal evaluation conducted after the DBT track had been implemented showed that the contacts with patients with BPD went from being mostly unplanned to being mostly planned and that the number of after-hours contacts with these patients decreased sharply.

In addition to the clinical program, Interact's DBT track also includes a training program with initial and follow-along components. While all ACT clinicians receive training on on-call skills coaching, only frontline DBT clinicians are trained on individual therapy and skills group, and they also have regular peer consultation. Motivated by the perceived success of the DBT track, Interact launched a separate outpatient DBT clinic to make the intervention available to other people, including patients with BPD who were ready to be stepped down from ACT. It is noteworthy that the number of patients with BPD on the ACT program dropped substantially once the DBT clinic became fully operational.

A Policy Dilemma: Should ACT be Made Available to People with Borderline Personality Disorder?

In what follows we discuss in greater detail the framework that may be used by state and local mental health officials to decide whether publicly-funded ACT services should be made available to people with BPD. We have organized the decisional framework for this policy question around three questions:

I. Is ACT an effective treatment for people with BPD?

As discussed above, the ACT outcome trials are of little help answering this question because people with PDs were scarcely represented in those trials and because the studies that did include them were insufficiently powered to assess the impact of diagnosis on ACT outcomes. The only exception is a study conducted three decades ago that used 1-year data from a trial that compared ACT against a *standard care* condition which for most patients involved an initial hospitalization (Stein et al, 1975). The study author found that costs were slightly lower and monetized benefits were substantially higher for people with schizophrenia and other psychoses relative to controls (Weisbrod, 1983). In contrast, costs were substantially higher and benefits slightly lower for people with PDs. These findings led the author to conclude that ACT "is preferred –in terms of monetized benefits and costs only – for schizophrenics and other psychotics, but not for patients with PD" (Weisbrod, 1983). Another limitation of this body of research with regard to this question is that most of the studies were conducted at a time when the mental health care system was quite different from what it is today. Most salient differences are the better quality of care and the lower reliance on inpatient services that characterize today's *usual care* for people with severe mental illness (McHugo et al, 1998). Because there are no studies that have assessed whether ACT works for people with BPD, the use of ACT to treat this patient population is an empirically unsupported practice. Although lack of evidence should not be equated to evidence of ineffectiveness, this fact deserves to be appropriately weighed in clinical and policy decision-making.

Because there are no studies that have rigorously evaluated the effectiveness of ACT augmented with DBT, the use of this strategy to treat people with BPD is also empirically unsupported. However, evidence from three small and uncontrolled studies suggests that integrating DBT into the regular ACT programming may benefit people with BPD (Cunningham et al, 2004; Schwammle et al, unpublished; Riesen & Aubry, 2006). The only peer-reviewed study among them conducted a qualitative evaluation of Interact's DBT track (Cunningham et al, 2004). A convenience sample of 14 women with BPD who had participated in the program for a minimum of six months was interviewed by an independent research team. All patients reported that DBT had had a positive effect on their behavior, ability to regulate emotions, and relationships, and had infused them with a greater level of hope.

II. Does the presence of people with BPD on ACT caseloads affect the overall effectiveness and cost-effectiveness of the intervention?

While the previous question was concerned with the size of the ACT effect for people with BPD, this question is concerned with the size of the ACT effect for a mixed patient population that includes people with severe axis I disorders *and* people with BPD. To our knowledge, there are no studies that have rigorously evaluated the overall effectiveness (or cost-effectiveness) of standard or DBT-augmented ACT programs serving mixed caseloads. The lack of research in this area is problematic because the empirically unsupported use of ACT to treat people with BPD may lead to unforeseen *allocation effects*. Allocation effects may be defined as the loss of effectiveness or cost-effectiveness of evidence-based treatments as a result of non-random decisions related to the allocation of patients to treatments (Essock et al, 2003). In other words, the outcome superiority of effective treatments may be substantially eroded when the intervention is offered to a patient population for whom the intervention was not specifically designed. For the case of the use of ACT to treat mixed caseloads, negative allocation effects may arise in connection with at least two scenarios. In one of them, loss of overall ACT effectiveness results from poor response to ACT treatment on the part of people with BPD -an issue reviewed in the previous question. In the other scenario, loss of overall ACT effectiveness results from loss of ACT effectiveness for people with severe axis I disorders as a result of the presence of patients with BPD on the ACT caseloads. Although no firm evidence exists in this regard, anecdotal evidence suggests that patients with schizophrenia and other severe axis I disorders may fare less well when they are treated on mixed ACT caseloads. As previously discussed, patients with severe axis I disorders may receive less attention from their ACT clinicians because the highly emotional crises and out of control behaviors that are frequent among individuals with BPD may consume a disproportionate amount of the clinicians' energy and time.

In addition, overall outcomes of *DBT-augmented ACT programs* serving mixed caseloads may be different from overall outcomes of *standard ACT programs* serving these people because the implementation of DBT may affect the outcomes of either or both patient populations. We have already discussed the potential outcome effects of this adaptation for people with BPD. No evidence exists on the outcome effects associated with the integration of DBT into the regular ACT programming for people with severe axis I disorders. Positive effects may be expected if the greater cognitive-behavioral expertise resulting from the integration of DBT accelerates the implementation of effective cognitive-behavioral treatments for ACT patients with psychotic disorders (Turkington et al, 2006). However, the opposite scenario is also possible. This would be the case if meeting the training needs associated with an effective DBT program reduces the ACT programs' ability to maintain or develop expertise in interventions for people with severe axis I disorders.

III. Given the reality of scarce resources and competing needs prevailing in the public mental health sector, is offering ACT to patients with BPD the most efficient use of those resources?

The issue tapped by this question is whether greater gains in population health and well-being would be attained if scarce human and financial resources were put to alternative uses. Some of the ways in which those resources could be used include improving the continuum of BPD services; meeting the resource and training needs of existing ACT programs so that they can better serve their target population; and expanding the access to ACT for other populations with unmet needs and costly overuse of inpatient services. The inputs needed to answer this question are the *relative* costs and benefits associated with alternative uses of the public mental health dollar, and given comparable costs and benefits, information on local spending priorities dictated by stakeholder preferences. Whether for standard or DBT-augmented ACT programs, firm data are lacking on one or more of these inputs.

What is the Best Course of Action given the Limitations of the Evidence Base?

It is apparent that policy-makers have very little evidence to decide whether expanding access to ACT for people with BPD is a sound course of action. However, the reality on the ground necessitates a prompt policy response that provides a sound roadmap to administrators and clinicians while also addressing the needs of people with BPD *and* people with severe axis I disorders.

Given the current state of the knowledge, we think that expanding access to ACT for people with BPD is *not* a sound course of action. However, if policy-makers take this course of action they should also ensure that sound treatment alternatives are made available to this patient population. Thus, the best policy strategy involves formally excluding BPD from the medical necessity criteria for ACT level of care *and* the rapid development of programs offering comprehensive services tailored to meet the full spectrum of need of people with BPD. These programs would offer a package of services that at a minimum would include DBT or other empirically supported BPD psychosocial intervention, psychiatric medication management, substance use services, and case management. Although such comprehensive BPD programs would share some of the features of DBT-augmented ACT programs, their main difference lies in the nature of their mission—to meet all the therapeutic needs of people with BPD. Further, these programs would not need to offer the intensity of services and other features of the ACT model that account for much of its costs. Because comprehensive DBT-specific programs would eliminate the need for people with BPD to use ACT, allocation effects would no longer be a concern. Although there is evidence of efficacy for some of the components of a BPD program such as this, there is no evidence for the effectiveness or cost-effectiveness of this particular package of services. However, a demonstration project that won an American Psychiatric Association “Gold Achievement Award” in 1998 reported promising results for a similar program (APA, 1998). Spurred by the observation that patients with BPD derived little benefit from standard services, a community mental health center (CMHC) located in Greater Manchester, New Hampshire, implemented a DBT training program and eventually added DBT to the package of usual CMHC services available to people with BPD (APA, 1998). An internal evaluation showed a substantial reduction in service utilization and associated costs among patients who had previously responded poorly to treatment.

A policy strategy that restricts access to ACT for people with BPD while providing them with an intervention tailored to their specific needs is an optimal policy choice because it is consistent with available evidence. However, the feasibility of this strategy is a limiting factor given that it depends on the ability of the public mental health system to rapidly commit financial and human resources to the expansion of the BPD continuum of care.

Policy-makers may be tempted to implement a variant of this policy strategy, one that restricts access to ACT for people with BPD but instead of providing them with comprehensive BPD programs redirects them to *existing* BPD services. In our opinion this is a flawed strategy because usual BPD care is unlikely to meet the needs of the subgroup of individuals with BPD typically referred to ACT programs. Further, its feasibility is conditional on the existence of treatment programs for people with BPD and their willingness to accept people who would otherwise be referred to ACT programs. Moreover, it is possible that some people with BPD get referred to ACT *after* they drop out of existing BPD programs.

Until the continuum of BPD care becomes appropriately equipped with the full spectrum of services needed by people with BPD, policy-makers may be forced to settle for a less-than-optimal strategy that involves the judicious use of ACT for the treatment of high-need patients with BPD. Given this predicament, the only sound strategy involves the development of in-house expertise on DBT or other empirically supported BPD psychosocial intervention and the high-fidelity integration of the selected BPD intervention into ACT. Granting people with BPD full access to standard ACT programs is an extremely problematic course of action because it lacks empirical support and it may lead to negative allocation effects. This is also the case for a similar policy strategy that makes ACT available to people with BPD but refers them to outside programs for BPD-specific treatment. Not only is the effectiveness of this hybrid program unknown but its feasibility depends on the existence of appropriate BPD programs. Further, patients' treatment adherence and outcomes may deteriorate as a result of poor care coordination.

Research agenda

The multiple research needs associated with this policy issue flow from our discussion of the serious limitations of the evidence. Critical among them is the need for rigorous outcomes research on the interventions that may be offered to high-need patients with BPD. These interventions are DBT-augmented ACT; a comprehensive BPD-specific program offering a package of services that includes an empirically supported BPD psychosocial intervention; and a well implemented DBT program embedded in a traditional outpatient mental health clinic. It is also critical to assess the magnitude and direction of the allocation effects associated with the use of ACT to treat individuals with BPD. Advancing this research agenda will allow *science to catch up to the reality of services* (USDHHS, 2003).

Policy Implications

It is critical that policy-makers decide on a course of action regarding the policy question that motivated this paper. Their decision-making should strive to select a feasible strategy that given current constraints on public mental health spending has the best odds of helping people with BPD without jeopardizing the well-being of people with severe axis I disorders. Further, payers, accrediting bodies, and health plans need to incentivize the rational expansion of the continuum of BPD services, and together with professional and licensing organizations, promote greater expertise in empirically supported psychosocial interventions for the disorder. Lastly, federal as well as state leadership are needed to promote the above research agenda.

Conclusions

The use of ACT to treat people with BPD is problematic because of the lack of empirical support for the practice and the risk of allocation effects. Although preliminary evidence suggests that people with BPD may benefit when ACT is augmented with DBT, there is no rigorous research on the outcomes of this adaptation.

Serious limitations of the evidence base greatly complicate the task of specifying the appropriate role of ACT in the care of people with BPD. The continued use of ACT to treat these patients may stand as a reasonable temporary solution *only if* high-fidelity DBT has been fully integrated into the program and ACT clinicians receive high-quality and ongoing training. However, the strategy that stands to provide the most benefit to people with BPD *and* people with severe axis I disorders involves restricting access to ACT while offering comprehensive and disorder-specific services to people with BPD. As demonstrated by the natural experiment ran by Interact, the need for ACT diminishes when treatment alternatives become available to this patient population.

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