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Assertive Community Treatment and the Physical Health Needs of Persons With Severe Mental Illness: Issues Around Integration of Mental Health and Physical Health

Mona M. Shattell¹, Natasha Donnelly², Anna Scheyett³, and Gary S. Cuddeback⁴

Abstract

BACKGROUND: Assertive community treatment (ACT) is characterized as a service delivery platform and represents an ideal setting in which mental health and physical health care can be integrated. OBJECTIVE: Little is known about the extent to which ACT integrates physical health care with mental health care or the challenges ACT teams experience. To address this gap, focus groups were conducted with five ACT teams in a Midwestern US state to explore how ACT teams address the physical health care needs of persons with severe mental illness. DESIGN: A qualitative study design was used. RESULTS: Three major themes emerged: ACT teams recognize serious and chronic physical health problems, ACT teams take on a variety of roles to address physical health problems, and there are challenges to integrating primary and mental health care within an ACT setting. CONCLUSIONS: ACT needs to be adapted to incorporate promising practices designed to better integrate physical health care and mental health care.

Keywords
ACT/PACT, primary health care, community mental health services

Assertive community treatment (ACT) is one of the most widely studied evidence-based practices for persons with severe mental illness (Dixon, 2000; Marshall & Lockwood, 1998; Phillips et al., 2001; Stein & Test, 1980) and uses a multidisciplinary, team-based approach with a small (1:10) staff-to-consumer ratio, 24/7 staff availability, shared caseloads, and daily team meetings (Bond, Drake, Mueser, & Latimer, 2001). ACT has been characterized as a service delivery platform (Stein & Santos, 1998) and, as such, represents an ideal setting in which mental health and physical health care can be integrated. Integration of services, in general, is recognized as a key attribute of the ACT model (Bond et al., 2001); however, there is little information about the extent to which ACT integrates physical health care with mental health care or the challenges ACT teams experience related to primary and mental health care integration.

This is of concern given ACT targets the most profoundly ill among persons with severe mental illness and given well-documented evidence that persons with mental illness have higher rates of chronic health conditions and a reduced life expectancy compared with the general population (Chwastiak et al., 2006; Daumit, Pratt, Crum, Powe, & Ford, 2002; Dickey, Normand, Weiss, Drake, & Azeni, 2002; Hansen, Jacobsen, & Arnesen, 1997; Joukamma et al., 2006). Compared with the general population, persons with schizophrenia, in particular, are at greater risk for colon and breast cancers (Hippsley-Cox, Vinogradova, Coupland, & Parker, 2007), and there is evidence that the physical health needs of persons with mental illness often go unmet (Colton & Manderscheid, 2006; Druss, Rosenheck, Desai, & Perlin, 2002; Salsberry, Chipps, & Kennedy, 2005).

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There is speculation that the unmet physical health needs of persons with severe mental illness are because of primary care providers’ view that care for persons with mental illness is too specialized for primary care (Lester, Titter, & Sorohan, 2005), a lack of mental health care providers’ training and confidence to treat the medical problems of persons with severe mental illness (Unutzer, Schoenbaum, Druss, & Katon, 2006), or some combination of consumer-, provider-, and system-level factors (Druss et al., 2002). Given its service structure (i.e., nurse, psychiatrist, daily team meetings, shared caseloads), ACT appears relatively well suited to overcome at least some of these obstacles in order to address the physical health care needs of persons with severe mental illness. However, to date, there has been no exploration of ACT’s successes and challenges with respect to the integration of primary and physical health care.

In this context, exploring how ACT teams address the physical health needs of persons with severe mental illness and learning more about their challenges to addressing the physical health needs of consumers could be informative for both new and existing ACT teams and could facilitate better physical health and mental health integration among other mental health services and settings. To begin to explore these issues, a qualitative study with the staffs of five ACT teams was conducted to learn more about how they integrate primary and mental health care.

**Method**

**Study Design**

A qualitative study design was used to explore how ACT teams address the physical health care needs of persons with severe mental illness. This study was part of a larger qualitative study that sought to describe the experiences of ACT consumers, ACT staff, and community stakeholders about ACT implementation barriers and facilitators and the impact of ACT on consumers, agencies, and communities (Cuddeback, Scheyett, & Pettus-Davis, 2008).

**Sample**

A convenience sampling strategy was used to recruit ACT staff from five ACT teams in a Midwestern US state. Of the five teams that participated in the study, three teams were located in a large, urban area and two teams were located in rural areas. Three teams targeted consumers from their local jails, one team targeted consumers from the state’s prison system, and one team targeted consumers from local and state hospitals. All the teams implemented the core ingredients of ACT (Bond et al., 2001), including daily team meetings, a 10:1 consumer-to-staff ratio, and shared caseloads. All the teams were at least 2 years old ($M = 3.60; SD = 1.82$; range = 2-6 years).

A total of 33 ACT staff members were interviewed in five focus groups. The sample included 13 case managers (39%), 8 team leaders (24%), 6 clinical or program directors (18%), 2 nurses (6%), 3 substance abuse specialists (9%), and 1 psychiatrist (3%). The ACT staff was 94% ($n = 31$) White, and there were more females (66%, $n = 22$) than males (33%, $n = 11$). The staff members averaged about 13 years of experience in the mental health field ($M = 13.52; SD = 9.18$).

**Data Collection and Analysis**

This study was reviewed and approved by the University of North Carolina at Chapel Hill’s Institutional Review Board. Written informed consent was obtained from each ACT staff member prior to participation in the study. Specifically, a member of the research team reviewed the purpose of the study and described the type of information that would be asked of potential participants. Then, potential participants were given the opportunity to ask questions about the study. Participants did not receive any compensation for their participation. Study participants were provided a copy of the consent form for their records. ACT staff members were then asked the following study question: “How do you address the primary care needs of your consumers?”

The appropriate human subjects’ protection protocols were followed for this study. A secure password-protected computer file for project materials was established. Throughout the study, all data schedules and interview forms were filed securely in locked file cabinets that were restricted to project staff. All project staff had completed the appropriate human subjects’ training and signed a confidentiality agreement prior to beginning this research.

Focus groups with ACT staff took place in private, secure offices and were audio taped and transcribed. All focus groups were facilitated by one researcher (GC). Audio recordings did not contain any names or other identifying information. In instances where identifying information was inadvertently disclosed during audio taping, the focus group was stopped momentarily, the tape was rewound to the point just prior to the disclosure, and then the focus group and recording was restarted.

A professional transcriptionist transcribed audiotapes. The audiotapes were destroyed once the interviews were validated through a careful reading of the transcripts. Transcripts were assigned codes to identify the team from which the data came; however, the master list that linked transcripts to teams was secured and kept separately from other project information.
Data analysis was a collaborative effort of the entire research team, which consisted of two social work researchers (GC and AS) with extensive clinical and research experience in case management for adults with severe mental illness, an experienced advanced practice psychiatric mental health nurse and qualitative researcher on mental health issues of vulnerable populations (MMS), and an advanced practice psychiatric mental health nurse and doctoral student (ND). Two research team members (AS and ND) independently applied open coding techniques to the raw data and then shared these codes to develop a common code set. Differences in coding were negotiated until the two researchers came to agreement on code meanings and use. Next, they engaged in axial coding followed by preliminary identification of relevant themes across codes. These preliminary findings were presented to the rest of the research team and discussed until the team reached consensus.

Results

Three themes emerged from the analyses: (a) all the ACT teams recognized serious and chronic physical health problems among the consumers they served, (b) ACT teams took on a variety of roles to address the physical health problems of their consumers, and (c) there were a number of challenges to integrating primary and mental health care within an ACT setting.

ACT Teams Recognized Serious Physical Health Care Needs Among Consumers

Each of the five ACT teams recognized serious physical health problems among their ACT consumers and emphasized the importance of integrating primary and mental health care. For example, a staff member of one of the ACT teams described physical health needs as “a big issue . . . a major issue that we don’t want to ignore either.” Another team member said, “It’s very important to integrate the physical health with the mental health because a majority of the time, that’s [physical health] a major stressor on them.” Indeed, teams described how consumers’ mental states and stress levels improved after their medical problems were addressed. In particular, one staff member stated, “And if we can provide them with referrals or the medical care that they need to address their physical health concerns, it gives them an overall better feeling about the prospects of their mental health.”

Furthermore, the teams gave graphic descriptions of their consumers’ serious and terminal illnesses, which without the attention of the ACT team would have gone undiagnosed and untreated, and these illnesses were many and varied and included diabetes, hepatitis C and B, HIV, various cancers, heart failure, chronic obstructive pulmonary disease, and end-stage liver failure. A staff member illustrated the high prevalence of physical health issues among consumers as follows:

So many of our clients do have physical health issues. I would say, off the top of my head, at least half of my clients have Hep C, about a half to two thirds. A large percentage of them have Hep C. Oh, gosh. A huge percentage of my ladies have HPV.

Some teams described how their consumers were often unaware that they had a medical illness. In several cases, for example, by the time diagnoses were made consumers were in the end stages of illnesses. Staff from one team reported having attended several funerals for consumers who had died because of physical illnesses that were diagnosed after it was too late.

ACT Teams Take on a Range of Health Care–Related Roles

ACT teams took on a range of health care–related roles to address the physical health needs of their consumers, though the roles teams played varied from team to team. These roles included providing medical care, providing health education, collaborating with primary care providers, advocating for their consumers’ physical health care needs, and counseling consumers about their medical needs. Teams varied in the extent to which they integrated physical and mental health care. For example, one team that had a relatively holistic approach to integrating primary and mental health care had an onsite nurse and nurse practitioner who provided immediate and thorough health evaluations. This same team also had a supportive psychiatrist who was interested in a fully integrative approach to health care. As stated by a member of this team, “Now we have a nurse practitioner here at our office that will see our clients. So, I think that’s good.”

Teams expressed that their nurse and nurse practitioners explained and interpreted medical jargon, the purpose of various medical procedures and tests, and helped consumers who needed hospitalization navigate the system.

Other teams relied on offsite resources from a range of primary care professionals, including physicians, some of whom were reportedly more helpful than others. For example, some primary care physicians provided free care to those who were unable to pay. Moreover, each team gave examples of how they were dependant on the primary care system and its medical staff and available services, which included advanced practice nurses and primary care doctors, and suggested that there was considerable variability among primary care providers with respect to their availability and willingness to work with persons with severe mental illness. ACT team members...
also mentioned the importance of including local pharmacies in the effort to better integrate primary and mental health care and the importance of adequate and appropriate communication with health care providers of all types.

It was evident from the focus groups that team meetings and nurses were critical components toward the integration of physical and mental health care. For example, one team stated that team meetings were important for discussing physical health issues of consumers. Teams expressed the importance of sharing information so all team members could be aware of a consumer’s health issues. A staff member stated, “Whatever those treatments are, or those recommendations, I can get those in writing, bring them back to our doctors here to make sure that everyone is on the same page with the treatment.”

ACT nurses provided immediate health information, access, and medical evaluation and were viewed as the persons on the team who were most responsible for physical health needs of consumers. As stated by one team member, “Our nurse takes care of that [physical health issues], making sure blood work is done. If there’s any medication that they get put on here, letting them, the primary care physician know.” Another team member echoed similar sentiments in the following statement: “It seems, since we’ve had a nurse, that’s [integration of physical and mental health care] actually gone pretty seamless. There hasn’t been a problem.” However, health-related activities were not limited to the nurses on the teams and ACT staff reported traditional case management activities focused on physical health needs, such as going with consumers to medical appointments. For example, one team member said, “we go in the [primary care doctor’s] office with them; follow up on their x rays or blood work or whatever it is.” Another said, “So, I went with her to her medical appointment so I could educate her on what they were telling her.”

A particularly important role assumed by all team members was that of health education specialist. In this context, many ACT team members reported providing health education and emphasized the importance of a good health education program given many consumers did not have a lot of medical knowledge and historically had not had access to good medical care. To this end, a common concern expressed by the ACT teams was that their consumers neglected their own physical health. This concern is illustrated in the following statement from one staff member:

And so, I think because . . . they’re always neglecting all their physical needs. They’re neglecting their teeth. They’re neglecting their checkups, or physicals. They’re neglecting all of these. And their bodies are damaged and deteriorating. And they don’t know because it’s probably masked by the drug use.

Also, one ACT team identified side effects from psychiatric medications as an important and challenging issue in the following statement: “The medications they’re giving, well, they’re taking, have so many different side effects. . . . And I know, just from working with the psychiatrists, I learned that Depakote can hurt the liver.”

ACT team members expressed that their role in ACT puts them in a unique position to help the consumers they serve with their physical health needs. Because of the trust and therapeutic rapport often shared between staff and consumer, one team described how a consumer felt confident to approach an ACT team member with health questions, and gave the following example: “Talking to her about getting a mammogram. I don’t know why but we bring that up because a lot of the consumers we have . . . females, they haven’t had a pap smear or a gynecological exam.” This sentiment was supported by a staff member from another team with the following statement:

We also try to just treat the whole person. I mean, and that’s a part of treating the whole person. We go to groups and stuff like that to kind of even try to educate them on taking better care of themselves.

Integration of Physical Health Is Fundamental but Challenging

Each of the five ACT teams saw consumers’ physical health issues as a fundamental part of their team’s work. For example, a staff member on one team said that the integration of primary and mental health care was something that they had always done—“We’ve never known any different.” Most teams suggested their focus on health often started at the initial meeting, “Because when we first get somebody during the intake, that’s [physical health] part of it. We do an initial health assessment and we find out, plus the records from the prison with the medications that they’re on.”

Despite the fundamental importance of integrating physical health care, ACT teams expressed a number of challenges to addressing the physical health needs of their consumers, and these challenges included the availability of community-based primary care professionals who were willing to treat their consumers; funding for primary care services; location of primary care services in the community that were not convenient for consumers; consumers’ preferences about where they received their physical health screenings, assessments, and treatments; attitudes of ACT psychiatrists toward the integration of primary care; consumers’ lack of health insurance for primary care treatment; high cost of medications and medical treatment for physical health issues; and the
sometimes limited availability of ACT staff to accompany consumers to primary care medical appointments.

With respect to psychiatrist interest, for example, although there was overwhelming evidence from the teams that physical health was an important focus, teams also reported some variation in the role of team psychiatrists in this function. The psychiatrists on some teams took a limited role in the integration of primary and mental health care, whereas other psychiatrists took a more active role, as evidenced by the following statement:

One of them [the psychiatrist] is very, very focused on the medical. And he takes everyone’s weight and blood pressure. And I’ve heard his clients comment about how important they thought that was and how different that was, that they had never had the psychiatrist do that before, and that his doing that really made them feel like he was tuned into their physical health issues.

With respect to consumers’ preferences about where they received their physical health screenings, assessments, and treatments, one team described how a few consumers had a preference for a one-stop shop approach by way of a primary care physician who could diagnose, monitor, and prescribe medications and treatments for all health care needs. These consumers wanted to get “their psychiatric needs met by their primary care physician.” Conversely, other consumers were satisfied and relieved when the ACT team addressed their medical problems.

Discussion and Implications

This study makes an important contribution to the literature in that it explores how ACT staff addresses the physical health needs of their consumers and how they interface with the primary care system. Findings from this study revealed that ACT teams recognize the serious physical health care problems and needs among the persons with severe mental illness. ACT teams take on a range of health care–related roles with some variability in how these roles are manifested. ACT teams see physical health care as a fundamental part of the services they provide; however, they experience challenges and barriers to addressing the physical health care needs of their consumers.

Consistent with the literature (Chwastiak et al., 2006; Daumit et al., 2002; Joukamma et al., 2006), the findings from the ACT teams in this study illustrate the serious, chronic, and life-threatening physical illnesses among persons with severe mental illness who are served by ACT teams. Findings illustrate that many ACT consumers are not aware of their physical health issues and physical health problems can often be masked by chronic substance use issues. First and foremost, the results of this study underscore the need for careful and thorough screening and assessment for physical health problems among persons with mental illness, in general, and especially for persons with severe mental illness. These screenings and assessments need to occur in any and all settings where a person with mental illness might be (i.e., local jails, primary care offices, county public health departments, substance use treatment facilities, mental health centers).

Better integration, information sharing, and collaboration among public health, mental health, primary care, and even criminal justice settings will be needed to address the physical health care needs of persons with mental illness, particularly for consumers who are not well engaged with the public mental health system and who cycle in and out of hospitals, emergency departments, jails, and homelessness. Unfortunately, at least for some consumers, ACT teams may be the first and best chance for persons with severe mental illness to have a physical illness diagnosed and treated; however, given that ACT is reserved for those for whom all other mental health treatments have failed, many consumers will have developed advanced stages of illnesses for which treatments can be costly. Thus, this study highlights the importance of the integration of physical health care and mental health care across all levels of service not simply in ACT services. Earlier intervention may have prevented the serious and advanced illnesses seen by ACT staff among many consumers. In addition, this study illustrates the potential public health issues associated with persons with severe mental illness who might have undiagnosed and untreated blood borne or sexually transmitted infections.

The findings presented here suggest the importance of nurses (see also Cuddeback & Shattell, 2010), a finding consistent with Kane and Blank (2004), and the value of team meetings to the integration of physical health and mental health care. These findings could have implications for teams that relax standards around daily team meetings or having a full-time nurse who is devoted exclusively to the ACT team. For example, if teams located in rural settings reduce the frequency of daily team meetings because these meetings are impractical because of the distances ACT staff has to travel in rural counties, the ability for these teams to address physical health care needs could be compromised. Likewise, teams that have to share nurses and/or psychiatrists with other services because of financial constraints may be less effective at addressing the physical health care needs of their consumers. These issues are only speculative given the impact of ACT on physical health outcomes has not been well studied and the extent to which full-time nurses and daily team meetings contribute to positive physical health outcomes among ACT consumers is largely unknown.
Findings illustrate that ACT teams perform a variety of activities to meet the physical health care needs of the consumers they serve. However, with one exception, the teams in this study were not implementing established primary care/mental health care integration interventions (Druss, Rohrbaugh, Levinson, & Rosenheck, 2001; Lorig et al., 1999). Integration models include colocalizing primary care, mental health care, and pharmacy services; embedding advanced practice nurses within mental health treatment teams; offering consumer wellness programs to address diet and exercise, diabetes management, smoking cessation, disease management, and other topics; and providing evidence-based screening and education related to heart, vascular, and respiratory diseases; infectious diseases; injury and violence; alcohol, drug, and tobacco use; and nutritional issues (Druss et al., 2001; Guide to Clinical Preventive Services, 2008; Lorig et al., 1999).

Our findings suggest that ACT teams view addressing physical health care as a fundamental part of what they do, but ownership of physical health issues needs to be shared by all team members not just nurses and psychiatrists. For example, all ACT team members need to be educated about the assessment and treatment of physical health issues common among persons with severe mental illness, especially those related to medications and their side effects. ACT team members, especially nurses, should be conducting preventive health education about diet and nutrition, exercise, smoking, and substance abuse; they should monitor weight and blood pressure and they should ensure appropriate and timely screening for diabetes, breast, prostrate, and colon cancers, and make appropriate referrals for dental and primary medical care. In this context, ACT staff appear to need to know as much about physical health issues as they do about mental health issues; however, the extent to which physical health issues are a part of ACT training or professional schools that prepare clinicians to provide ACT services (e.g., schools of social work or counseling education) is unclear.

In addition, our findings show the need for good collaboration with primary care providers who are comfortable with consumers, ACT staff, and the ACT model. It is important to support relationship-building skills for ACT staff to establish and further relationships with primary care providers, which may lead to increased collaboration and decreased stigma.

This study is unique in that it is the first to address how ACT teams integrate primary and mental health care. The study has a number of limitations, however. The convenience sample included staffs from five ACT teams from a Midwestern U.S. state; thus, the extent to which findings from small local samples can be generalized to all ACT teams and consumers across the country is unknown. Other limitations include the lack of the perspectives of primary care providers; thus, the findings presented here are limited to the perspectives of ACT staff. Also, the perspectives of ACT consumers are missing so it is not clear as to what components or parts of ACT primary care and mental health care integration are particularly salient for consumers.

**Conclusion**

ACT is well positioned to integrate physical health and mental health care. ACT staff expressed the need, desire, and willingness to integrate physical health care with mental health care. More research is needed about how ACT needs to be adapted to incorporate promising physical health–mental health integration practices and ACT’s impact on the physical health outcomes of persons with severe mental illness.

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**Author Roles**

Mona M. Shattell: co-investigator, performed data analysis; co-wrote manuscript. Natasha Donnelly: co-investigator; performed data analysis; co-wrote manuscript. Ann Scheyett: co-investigator; performed data analysis; co-wrote manuscript. Gary S. Cuddeback: principal investigator; contributed research design; performed data collection and analysis; co-wrote manuscript.

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**References**


of psychiatric symptom severity, medical comorbidity, and functioning in schizophrenia. *Psychiatric Services*, 57, 1102-1109. doi: 10.1176/appi.ps.57.8.1102


