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## A review of consumer-provided services on Assertive Community Treatment and intensive case management teams: Implications for future research and practice

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### Abstract

**Background**—Assertive community treatment (ACT) is an evidence-based practice that provides intensive, *in vivo* services for adults with severe mental illness. Some ACT and intensive case management teams have integrated consumers as team members with varying results.

**Methods**—We reviewed the literature examining the outcomes of having consumer providers on case management teams, with attention devoted to randomized controlled trials (RCTs).

**Results**—We identified 16 published studies, including 8 RCTs. Findings were mixed, with evidence supporting consumer-provided services for improving engagement, and limited support for reduced hospitalizations. However, evidence was lacking for other outcomes areas such as symptom reduction or improved quality of life.

**Conclusion**—Including a consumer provider on an ACT team could enhance the outreach mechanisms of ACT, using a more recovery-focused approach to bring consumers into services and help engage them over time. More rigorous research is needed to further evaluate integrating consumer providers on teams.

### Keywords

consumer-provider; peer services; assertive community treatment; case management

### Introduction

The evolution of mental health services over the last forty years has given rise to a variety of innovative approaches to treatment, with the aim of increasing the independence and recovery of people with severe mental illness (SMI). Assertive Community Treatment (ACT) is an evidence-based practice that was originally developed in the 1970s (Stein &

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Test, 1980) and has proliferated across the United States and internationally as a means of providing intensive services for those with SMI who can often be difficult to engage and retain in treatment. ACT is well-known for engaging consumers in treatment, reducing hospitalizations, and increasing housing stability (Bond, Drake, Mueser, & Latimer, 2001; Phillips et al., 2001) by using an intensive, wrap-around approach which provides comprehensive services *in vivo* as opposed to traditional office-based locations. Aside from the effectiveness of ACT, scholars and practitioners have struggled with how to align ACT with the principles of recovery (Bellack, 2006; Bond, Salyers, Rollins, Rapp, & Zippel, 2004; Frese, Stanley, Kress, & Vogel-Scibilia, 2001; Salyers & Tsemberis, 2007).

One particularly promising approach is integrating consumer providers (CPs) as part of the team. Chinman and colleagues (2006) define CPs as people with SMI who are further along in their recovery from their illness and who provide supportive services to those with similar illnesses. CPs can add a deeper understanding of the consumer experience and allow the non-consumer providers to better evaluate the recovery-orientation of their own service delivery methods (Salyers et al., 2009). CPs are not new to the mental health field. According to Solomon (2004), peer support has been viewed as an important part of the expansion of mental health services since the Community Support System movement in the 1970s, as these types of services can fill gaps in the mental health system.

There are many ways in which consumers provide mental health services. Solomon (2004) delineates peer-operated services, which are free-standing and overseen completely by consumers; peer partnership services, which are peer-delivered services that are administered and operated by both peers and non-peers; and peer employee services, which are delivered by consumers hired to fill unique positions within the mental health system. This paper focuses on the latter category, consumer providers who are integrated onto ACT and other case management teams.

A CP is someone who is *integrated* into the mental health service line, providing services that can be similar to non-consumer providers (e.g., case management, activities of daily living, or supportive techniques to engage the consumer in treatment, (Gates & Akabas, 2007). Therefore, our review also examined the *role* of the consumer provider on the team, and whether there was a specialized role, i.e., the CP was providing services uniquely, or whether CPs were serving as case managers -- delivering services similar to others on the team.

Consumer providers are often viewed as a positive option in mental health due to personal experiences with a recovery journey and desire to use those experiences to assist others who find themselves in similar situations (Nikkel, Smith, & Edwards, 1992). Consumer-provided services make sense philosophically -- with the personal recovery experiences of CPs, they have a special vantage point from which to offer services to consumers. The RAND report by Chinman and colleagues (2008) outline the reasons why CPs are beneficial, including theoretical benefits for the consumers they serve, the treatment team, and themselves. Additionally, from the consumer perspective, Mead and Copeland (2000) assert that relationships with consumer providers minimize the hierarchical roles often perceived by consumers when working with their doctors or other non-consumer clinicians. They also discuss the feelings of safety and absence of judgment that consumers experience with consumer-provided services.

For consumer-provided services to become widely implemented, however, they need to become more than just a "good idea." Consumer-provided services will have to show benefit in the form of clinical outcomes or in other areas that further the recovery of persons with SMI. The purpose of this paper is to highlight how ACT and other case management

programs have incorporated consumer providers in their service delivery design, and to review the empirical support for the inclusion of CPs. We will review the extant literature of consumers as service providers on case management teams and provide an analysis of the impact of CPs on consumer outcomes. As many ACT teams have already incorporated consumer providers, and other teams may be considering this option, we will end with specific recommendations and clinical implications.

## Methods

The authors reviewed articles that included empirical outcomes resulting from the inclusion of a peer provider in case management services. Key words and phrases for the search included “assertive community treatment,” “intensive case management,” “case management program,” “peer,” “support,” “consumer provider,” “specialist,” and “severe,” or “serious,” “mental illness.” A meta-search function was used, which combines databases and searches those selected in a single pass. Databases used for the meta search were Academic Search Premier EBSCOhost, JSTOR, Medline, PsycINFO, PsychArticles, PubMed, Social Work Abstracts, and Social Services Abstracts. After the literature was obtained, the authors divided the studies and each article was reviewed by at least two of the authors and then discussed amongst all three authors.

## Inclusion and Exclusion Criteria

The literature search, when specifying programs of ACT, only retrieved four studies. Therefore, we expanded our search to include consumer providers on case management teams. We excluded studies that did not specifically measure consumer-level outcomes and those pertaining solely to peer-run services. In order to include all studies relevant to the nature of this review, we did not specify a date range for the studies. The earliest study pulled which met our criteria was from 1979 and the most recent study was from 2010.

## Results

From the review of empirical literature, we found 16 studies that reported consumer-level outcomes: eight were randomized controlled trials; five were quasi-experimental, between group comparisons; and three were pre-post designs (Table 1). We then organized the studies into a table (Table 1) according to design and determined adequacy of sample and power (Cohen, 1992) either by author report or by a power analysis conducted using G\*Power (Faul, 2007). We also noted the author’s reference to the supervision process of the program to try to identify any links between peer providers who received supervision and positive outcomes.

### Randomized Controlled Trials - Peers on Case Management and ACT

A “box score approach” of the RCTs shows slightly more positive outcomes than not (2 positive, 3 weak support, and 3 no difference); however, sample size is a critical issue for many of these studies. Of the three RCTs that had adequate samples, two had mixed success, with increased social networks and relationship quality, but no change on quality of life and other clinical indicators (Rivera, Sullivan, & Valenti, 2007; Sells, 2006) and one found no difference on any outcomes measured (Davidson, 2004). The setting of services (whether ACT or other case management) did not seem to co-vary with success among outcomes, the type of services provided by the CPs (e.g., social/recreational, case management), whether the CP was a unique role on the team (versus the CP filling a pre-existing role on the team such as case manager), and type of supervision for the peer also did not seem to systematically vary with successful outcomes of the RCTs.

The most promising findings from the RCTs were increases in consumer engagement in services. Of the four studies examining engagement, three found the addition of CPs increased engagement in services and social relationships (Craig, 2004; Rivera, et al., 2007; Sells, 2006) whereas only Clarke (2000) failed to find significant differences. Regarding hospitalization, Clarke (2000) and Gordon (1979) found significant reductions with the addition of a CP, whereas several others did not (Craig, 2004; Rivera, et al., 2007; Solomon & Draine, 1995). The lack of strong impact on hospitalization is perhaps not surprising given the strong effects of the ACT model itself in reducing hospitalizations.

A number of studies examined social function (Craig, 2004; Rivera, et al., 2007; Solomon & Draine, 1995) and symptomatology (Davidson, 2004; Rivera, et al., 2007; Solomon & Draine, 1995) with no positive results. Although too early to state definitively, the probability of finding an effect of CPs on these factors seems unlikely given null results in each of the studies addressing these domains. Finally, despite examination by numerous studies (Craig, 2004; Davidson, 2004; O'Donnell, 1999; Rivera, et al., 2007; Solomon & Draine, 1995), the addition of a CP showed no effect on satisfaction with services. It should be noted that despite their philosophical appeal, satisfaction measures can be resistant to detecting treatment effects because of positive response bias and ceiling effects (Asadi-Lari, Tamburini, & Gray, 2004).

In summary, the most rigorous studies suggest CPs' most likely effect is on treatment engagement, with reduction in hospitalization potentially being impacted to a smaller degree. In contrast, effects on social functioning, symptomatology, or satisfaction with services are not supported by research. Unfortunately, many of the studies were plagued by inadequate power and failed to describe any formal supervision process.

### Peers Specifically on ACT teams

Of the 16 studies reviewed, four examined CPs on ACT teams. In two of the studies, CPs took on the role of case manager, similar to others on the teams (Clarke, et al., 2000; Sells, 2006). In two other studies (Salyers, et al., 2009; Salyers et al., 2010), the CPs provided Illness Management and Recovery-- a curriculum-based approach to helping consumers focus on recovery goals and learn skills to achieve those goals (Gingerich & Mueser, 2005). In terms of impact on consumer outcomes, one study showed solid outcomes (Clarke, et al., 2000) with the consumer as a case manager and three showed weak support (Salyers, et al., 2009; Salyers, et al., 2010; Sells, 2006). There are not enough RCTs of CPs specifically on ACT teams to provide solid guidance on effectiveness, but preliminary studies are promising.

### Discussion

The extant literature of consumer provision of services on ACT and case management teams continues to be limited. In the strongest designs (RCTs), several studies had positive findings, and most studies with negative findings had inadequate statistical power due to small sample sizes. The primary domain of effectiveness was improved engagement (i.e., relationships with the staff and services) and to a lesser extent, reduced hospitalizations. However, it is important to note that although we tallied studies with positive findings, many of the same studies also reported null findings for other outcome measures. Additionally, the outcome domains of the positive findings were not replicated across RCTs.

The finding that CPs may provide incremental impact in the area of engagement is particularly important in light of some criticisms of the ACT model. For example, the types of engagement strategies often used by ACT teams (e.g., therapeutic limit setting; legal mechanisms) have brought the model under fire as being coercive rather than recovery-

oriented (Dennis & Monahan, 1996; Gomory, 2001; Neale & Rosenheck, 2000; Salyers & Tsemberis, 2007). If a special niche for CP effectiveness is in engagement, ACT teams with CPs may continue to engage consumers, but with strategies that are more in-line with recovery principles. Indeed, some antidotal evidence indicates that staff members on ACT teams have reported becoming more recovery oriented after working alongside CPs (Salyers, et al., 2009).

Other researchers have also reviewed peer-provided services (Davidson, Chinman, Sells, & Rowe, 2006; Solomon, 2004). Our review focused on the impact of CPs on ACT and case management programs, and we further narrowed the review to studies reporting consumer outcomes. For example, there were several reports of program descriptions (Lisa Dixon, Nancy Krauss, & Anthony Lehman, 1994) that provide details of the benefits and challenges of integrating peers. Others reported the impact of the work on the CPs themselves (Salzer & Shear, 2002). The current review adds recent research that has specifically included ACT teams. Our conclusions are somewhat more positive than those that went before us---that the integration of CPs on teams can help engage consumers and may have a small effect for reduced hospital use. But there is little evidence for effectiveness in other domains of treatment.

## Recommendations and Clinical Implications

Hiring and integrating a CP onto an ACT team can be challenging. Staff and administrators may have questions about appropriate hiring practices and whether a CP is to be treated differently than a non-consumer staff member. Dixon (1994) and colleagues assert the importance of dialogue as a tool to voice concerns and address issues that might arise, and therefore, from the beginning, an open forum for discussion must be created. We have found that initial staff conversations and training to be helpful, as well as ongoing supervision and support for the CPs. Although the literature did not show a clear link between reported supervision type and outcomes, this aspect of the program was frequently not mentioned in the studies we reviewed, and when it was mentioned, the process was not well described. In our initial pilot work, one CP was added to one treatment team and there was a period of adjustment for her, without many supports in place (Salyers, et al., 2009). Over time, the agency spread the approach by hiring 1–2 providers on each of the treatment teams, and the CPs meet regularly to provide on-going peer support. Similar to hiring any other staff member, the consumer provider should be held to certain criteria set by the organization. The position should be well-defined and have attached expectations that are transparent to the potential candidates. We have learned that some role confusion exists regarding the duties of a CP, and that clear expectations could improve service delivery (Salyers, et al., 2010). Carlson, Rapp & McDiarmid (2001) also confirm the importance of using clear job descriptions. However, we have little guidance on what specific role is most effective for CPs. In our review there were several types of roles, and no clear pattern of findings given the other limitations (e.g., design, sample size). Some have approached the CP role as a “peer recovery specialist” for Illness Management and Recovery, building on the idea of a consumer as a natural role model. Like other specialists on the ACT team (e.g., vocational, substance abuse), the peer recovery specialist provides leadership in recovery goals and illness management strategies, keeps a focus of these areas in the morning meetings, and takes primary responsibility for working through the curriculum with consumers on the team. The specialist role then builds on the natural strength of CPs while also providing a well-defined and valued role on the team.

The CP as a specialist can have enhancing effects for nurses. Nursing is viewed by experts as a critical ingredient of ACT (McGrew & Bond, 1995). In addition, nurses are increasingly responsible for issues related to medication management, skills training for consumers to

better manage their illness, and family interventions (Gournay, 2000). Particularly given the nurse's key role in illness management training, CPs may be ideal partners to help consumers learn to manage severe mental illness. CPs provide a living role model for effective illness self-management, and by providing specific skills training, can extend the ability of the nurse to be able to address other areas of health and wellness. In addition, CPs can help address concerns in nursing that evidence-based practices like ACT may exclude the consumer voice (Fisher & Happell, 2009).

## Conclusion

In our review of the extant literature on consumer providers on ACT and other case management teams, we found underwhelming evidence regarding clinical outcomes, such as hospitalizations and symptoms. However, we did find that the empirical literature generally supports the inclusion of CPs in enhancing treatment engagement and the therapeutic relationship. Including a CP on an ACT team could enhance the outreach mechanisms of ACT, using a more recovery-focused approach to bring consumers into services and help engage them over time.

This review has some strengths and limitations. This review updates and expands the most recent review of consumer provided services (Davidson, et al., 2006). We provide a critical examination of the randomized studies, paying close attention to specific outcomes measures, role of the CP, supervision, sample size, and setting. We were limited in our ability to analyze ACT teams specifically; only 4 studies explicitly referred to the ACT model, and most did not assess fidelity to the model. Similar to other literature reviews, we were also limited by the number of articles published on our topic. Given the "file drawer" problem (Rosenthal, 1979), other studies with negative findings may not have been available to us. It is also possible that our search criteria did not identify all potential published studies.

Of course more research is needed; for example, to better understand the mechanisms of action underlying the link between consumer-provided services, the therapeutic relationship and engagement. We also suggest taking a critical look at the role of the CP on the team to provide insight into how CP services are best utilized. For example, is it the unique skills and experiences of a peer specialist that leads to better engagement, beyond having an additional person devoted to such work? Do CPs bring additional value to illness self-management by virtue of their own experiences? We are optimistic that the future of consumer-provided services will continue to expand, and hope that research can incorporate more rigorous designs and well-described roles to better understand how to fully implement CPs as a unique way of delivering treatment and support.

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**Table 1**

Studies examining consumer providers on ACT and case management teams.

Citation	Sample/Power Adequacy	Service Setting	Peer Role	Supervision Description	Positive Outcome	Main Findings
(Clarke, et al., 2000) (Herinckx, Kinney, Clarke, & Paulson, 1997)	178 randomized; 163 retained; Underpowered	ACT	Case manager	No mention	Yes	Consumer provided ACT had fewer hospital and ER, and longer time to events in survival analyses (Clarke), but did not differ from ACT in engagement and treatment retention (Herinckx)
(Craig, 2004)	45; Underpowered	CM	Social/recreational activities	Informal	Weak	Consumer group had better engagement in services, more involvement in activities, fewer unmet needs, but did not differ in social networks or satisfaction with services
(Davidson, 2004)	260 randomized (follow-up sample size unclear); Adequate power	CM	Social/recreational activities	Informal	No	No significant differences on symptoms, functioning, self-esteem, satisfaction; Consumers who regularly saw non-peer partners improved, where as consumers in the peer provider group did better when they saw the

Citation	Sample/Power Adequacy	Service Setting	Peer Role	Supervision Description	Positive Outcome	Main Findings
(Gordon, 1979)	80; Underpowered	Broad community/CM	Social/recreational activities; liaison	No mention	Yes	partner less often Reduced hospitalization and mental health services
(O'Donnell, 1999)	119 randomized, 34% dropped out; Underpowered	CM	Advocacy/adjunct CM; not required to be primary consumer	Informal	No	No difference in groups over time in functioning, disability, quality of life, burden of care and service satisfaction
(Rivera, et al., 2007)	203 randomized, varying follow-up; Adequate power	ICM	Social/recreational activities	Formal	Weak	Increased social network (attributed to increased contact with staff), no differences in QOL, satisfaction, symptoms
(Sells, 2006)	137; Adequate power	ACT	Case manager	Informal	Weak	Stronger relationship quality at 6 months but not 12 months on peer teams; no differences in engagement and services
(Solomon & Draine, 1995)	90; Underpowered to test for equivalence	CM	case manager	Formal	No	No differences in a variety of clinical indicators including symptoms and hospital use, QOL, and satisfaction
<b>Quasi-experimental, between group studies</b>						
(Chimman, Rosenheck, Lam, & Davidson, 2000)	113 with Peer case managers vs. 630 with non-peer case managers; Adequate power	ICM	Case manager	No mention	No	No group differences in psychiatric symptoms, social

Citation	Sample/Power Adequacy	Service Setting	Peer Role	Supervision Description	Positive Outcome	Main Findings
(Felton et al., 1995)	104 completed; Underpowered (3 groups)	ICM	Liaison, peer counseling	No mention	Yes	Advantages for professional peer group on QOL, more stable contacts, and fewer life problems
(Klein, 1998)	10 versus 51; Underpowered	ICM	Social/recreational activities	Formal	Yes	Peer group significantly better crisis services, hospitalization, GAF, QOL, substance abuse; but fewer leisure activities
(Salyers, et al., 2010)	183 ACT-IMR vs. 141 ACT; few received active CP intervention; Underpowered	ACT	IMR	Formal	Weak	No differences in self-management, hope, satisfaction, or hospital use. Those who received IMR had less hospital use within the ACT-IMR teams
(Schmidt, 2008)	142; Adequate power	CM	Case manager	No mention	No	No differences in retention, hospital and crisis services
<b>Pre-Post Studies</b>						
(Armstrong, 1995)	16; Underpowered	Broad community/CM	Social/recreational activities	No mention	Weak	Perceived change in QOL; qualitative themes of personal development
(Salyers, et al., 2009)	14; Underpowered	ACT	IMR	No mention	Weak	Improved knowledge,

Citation	Sample/Power Adequacy	Service Setting	Peer Role	Supervision Description	Positive Outcome	Main Findings
(Weissman, Covell, Kushner, Irwin, & Essock, 2005)	32 initially randomized, high attrition N/A power (no statistical test)	CM	Social/recreational activities/self-help group/linkage	Formal	No	trend for improved recovery scale; qualitative themes of increased activities and hope  Because of attrition could only say the peer condition had better engagement in services because they could be found for follow-up.

ACT=Assertive Community Treatment; CM = Case Management; ICM = Intensive Case Management; IMR=Illness Management and Recovery