

ASSERTIVE COMMUNITY TREATMENT: TWENTY-FIVE YEARS OF GOLD

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Editor's Note: In the commentary below, Lisa Dixon, M.D., M.P.H., discusses the article on page 755, reprinted from the October 1974 issue of Hospital and Community Psychiatry. That article described an innovative, two-year-old program in Madison, Wisconsin, that received a Gold Achievement Award in 1974 from the American Psychiatric Association. Citing numerous articles from this journal, Dr. Dixon shows how the award-winning program, which was the first to use what is now called assertive community treatment, captured the attention of practitioners and researchers and shaped the delivery of mental health care over the past 25 years. (Psychiatric Services 51:759-765, 2000)

That was going in the world of Hospital and Community Psychiatry when the Beatles were singing "Martha My Dear"? I imagine Drs. Arnold Marx, Mary Ann Test, and Leonard Stein, creators of the training in community living model, listening with their patients to these tunes as they engineered the birth of this most important new program. The training in community living program, now called assertive community treatment, received the Gold Achievement Award from the Hospital and Community Psychiatry Service of the American Psychiatric Association in 1974. The musical image emerges from the sense that these innovators and pioneers were truly listening to and, more important, with the patients they served.

The assertive community treatment program reflected

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its era, as it pushed the envelope of what was acceptable in psychiatric and community practice. The program has the longevity of great music. However, unlike the rapid diffusion and penetration of rock-and-roll hits, the assertive community treatment program was picked up slowly by regional radio, so to speak, community by community, state by state, until 25 years later it finally has national airplay.

Assertive community treatment provides a reference point from which to examine the five years of *Hospital and Community Psychiatry* from 1971 to 1975, and to understand how that five-year interval fit into the future.

Training in community living: the Gold Award

The training in community living model was developed at Mendota Mental Health Institute in Madison, Wisconsin. According to Stein and Santos (1), the environment at Mendota was ripe for innovation. Dr. Arnold Ludwig, the newly appointed director of research and education, created a special treatment unit that evaluated various psychosocial techniques for people with chronic schizophrenia and hired Drs. Mary Ann Test and Arnold Marx. The initial focus of this talented trio was on developing techniques to be used in the inpatient setting.

After Dr. Leonard Stein replaced Dr. Ludwig (who left for a chairmanship), the new threesome of Marx, Stein, and Test realized that if they were going to address the revolving-door hospitalization phenomenon effectively, they had to move away from the hospital and into the community (1). Their pilot program, a precursor of the training in community living program, was based on the premise that some patients were simply too sick to be treated in the hospital. They argued that the existence of patients who seemed undischargeable suggested a failure of the hospital as an effective treatment venue. They looked instead to the community (2). Individuals with a limited repertoire of instrumental and problem-solving behaviors for handling stress and problems of daily life, those with powerful dependency needs, and those whose symptoms worsened under stress were especially vulnerable to becoming undischargeable patients. Rather than label the patient as a failure, the Mendota trio developed and tested the "community treatment group."

The community treatment group focused on helping

persons with mental illness develop skills for coping with problems of living in the community. Hospitalization was virtually banned, and the treatment team worked with a variety of community resources. A small-scale, five-month, randomized controlled trial comparing the community treatment group with two different inpatient control groups showed that the community group was feasible (2). Patients in the group had dramatically reduced hospital stays compared with controls. Patients in the community treatment group were not simply transferred to institutions in the community; they lived and worked in autonomous situations. Nor were they simply transferred back to live with family members. Their symptoms did not worsen. This early study led to the development of an expanded, large-scale program funded by the National Institute of Mental Health that became the training in community living program and later the assertive community treatment program.

What is assertive community treatment?

In the report of the 1974 Gold Achievement Award winners (3), the program was described as "an unusual community treatment program" that has demonstrated "that patients who would otherwise be treated in mental hospitals can be successfully treated in the community without shifting the burden of care to their families." Former hospital employees were retrained to "work with the patients in their homes and at their jobs, and to assist them with the various activities of daily living."

The story of Miss J illustrated the program's approach. Miss J was a 30-year-old woman with schizophrenia whose life had been characterized by multiple brief hospitalizations, dependence on her parents with frequent distressing arguments and outbursts, and intermittent adherence to medication. Miss J was enrolled in the new program instead of being hospitalized. On the day of her admission, Miss J received a physical examination, and staff members helped her arrange temporary housing at the YWCA. Medication dosages were immediately adjusted. Staff members also went to dinner with her and joined her in an evening activity. She was given a number to call during the night should she need it.

Over a few months Miss J's symptoms stabilized. She moved into more independent living and eventually obtained a sheltered job and then a competitive job. Progress was not swift and steady—two steps forward, one step back—and many changes in direction were necessary. However, it is clear that Miss J's success eventually allowed her to change her self-conception from that of a "schizophrenic" to that of a person who has an illness called schizophrenia and is living with that illness (3).

The training in community living program subjected itself to the test of efficacy. Drs. Marx, Stein, and Test anticipated that of the many obstacles to acceptance of their new model, none were more important than charges that the program didn't really work and that it cost too much. Thus they implemented a randomized controlled trial evaluating training in community living (4). The study had two

phases. The first 12-month phase compared the program with standard services. In this phase, the training in community living program was found to be clearly superior, with markedly reduced hospitalization for program participants as well as more favorable outcomes in level of symptoms, employment, social relationships, and subjective life satisfaction (5). Community and family burden did not rise.

The cost-benefit analysis also found an advantage for the training in community living program (6). Although the program cost more than standard services, it also had more benefits, and the benefits exceeded the costs by about \$400 per patient year. The second phase of the evaluation followed a two-month period in which the training in community living services were phased out and clients then received the same services as those in the control group for 12 months. All of the improvements except gains in competitive employment were eroded in this phase. The findings suggested that the program must not set arbitrary time limits for participation. Although it was still unclear whether individuals would need program services forever, the 12-month, one-size-fits-all policy would potentially create its own revolving door (7).

Themes in *Hospital and Community Psychiatry*: 1971–1975

A review of Hospital and Community Psychiatry from 1971 to 1975 provides an important historical context for understanding the creation of the training in community living program. Stein, Test, and Marx were part of a cadre of clinicians and researchers who were struggling with the failure of deinstitutionalization from the state hospitals to improve the quality of life of persons with severe mental illness. From 1965 to 1975, the state hospital population declined by 80 percent; more than 400,000 state hospital patients were discharged during this period (1,8). Many were simply readmitted after a psychotic relapse, some wound up in community facilities with untrained staff and no daily activities, others were lost to follow-up, and still others became homeless or were jailed (1,9). The pages of H&CP reveal that the technology and resources for coping with this problem were lacking, and even the role of hospitalization—stabilization versus resolution of underlying intrapsychic conflicts—was a matter of considerable controversy (10).

Effective community work needed to begin while the patient was in the hospital, allowing long-stay patients to participate actively in their own discharge planning. For example, one program emphasized encouraging patients to express their preferences about where to live and allowing them to visit potential housing sites before discharge (11). Community programs were encouraged to increase their coordination with state hospitals and vice versa (12). Lamb (13) extended the focus to program coordination within the community; he emphasized that effective rehabilitation meant ensuring that components of psychiatric programs in the community—day hospitals, halfway houses, aftercare, and vocational rehabilitation programs—were coordinated.

Another model program extended an inpatient setting to include partial hospitalization and outpatient programs (14). Such an expanded hospital system "mini–mental health center" was echoed in the work of May (15). Hogarty (16) asserted that not only was coordination lacking, but also, and more important, "community mental health programs do not yet make all components available to all segments of the population, nor are the services equitably distributed." He discussed the "chasm" between the treatment services that were possible and those that were actually provided. Sound familiar?

The training in community living program functioned with elements highlighted on the pages of H & CP in the early 1970s—coordination, a comprehensive community focus, and staff members who cross the boundaries of treatment settings and tie services together in one coherent package.

Another major theme of the early 1970s was appreciation of the importance of systematic evaluation of programs and treatments (17–27). In an *H&CP* issue dedicated to mental heath evaluation, Endicott and Spitzer (20) argued the case for experimental designs (20). Experimental designs have numerous advantages, including comparability of subjects in each condition; naturalistic designs may show outcome differences that are a function of differences in initial patient characteristics that influence prognosis. Endicott and Spitzer also discussed the need to conduct independent evaluations of outcome rather than relying exclusively on therapists' reports. They suggested that it was acceptable, and indeed preferable, to carefully evaluate a small sample of persons receiving an intervention rather than conducting inaccurate and limited assessments of the entire population of patients receiving an interven-

Gunderson (19) attempted to build a model of differential therapeutics for the care of persons with schizophrenia. Patients should be provided with the treatment that works, given their phase of illness, the goals of treatment, the service setting, and their needs. Implicit in this forward-thinking model is the idea of having evidence for what works. The training in community living program conducted a randomized controlled experiment in the spirit of the era. Undoubtedly, the experimental evidence of the program's efficacy is one of the reasons it has endured into the new millennium.

The seeds of today's consumer movement had already sprouted in the early 1970s. The term "consumer" to describe recipients of services was commonly used in H & CP. The value of consumers' perspectives on quality of services and consumers in staff roles was considered (28–37). Hart and Bassett (30) wrote, "With the rise of consumerism has come increased interest in consumer satisfaction. There has been a shift from the idea that the professional knows what is best for the patient to the patient's greater participation in the process of deciding the direction, quantity, and quality of his care."

Hart and Bassett found that what staff members value may differ from what consumers value. Consumer satisfaction was linked to relief from the distressing condition in the shortest possible time. As they noted, "That orientation often clashed with the therapist's orientation to giving the proper care." Jansen and Aldrich (24) also assessed state hospital patients' views about their treatment teams and found different perceptions according to patient subgroups. They noted how such feedback is critical and most often neglected. Mabel (33) went beyond consumer evaluation, assessing the impact of turning over control of some ward functions to patients. As in the traditional therapeutic community (38), a group of patients were given the authority to decide how specific problem behaviors on the ward should be handled. Mabel found no adverse effects. Hostility was reduced, the gulf between patients and staff diminished, and the ward ran more smoothly.

Development of the training in community living program brought clinicians into more equal, less hierarchical relationships with each other and with patients. As discussed below, the program became a natural venue within which consumers could work and provide direct services.

Papers about the criminalization of mental illness and the inadequacy of the collaboration between the criminal justice system and the mental health system appeared in the pages of H & CP in the early 1970s (11,39–47). Community-based programs for offenders with mental illness who should not have been in correctional facilities were pilot tested (39,40) and found to be successful. A new California law intended to expand mental health services in the community and reduce state hospital use resulted in increased numbers of arrests for nonviolent misdemeanors (42). To some extent the training in community living program was disseminated to deal with the problem of patients discharged into the community who were arrested or ended up in jail.

Numerous other themes during the years 1971–1975 were evident in H & CP. Controversies grew around the role of the therapeutic community (38,48–51). The importance of community consultation as a preventive function of mental heath workers (41,43,52–59) was a key topic of discussion, as was the importance and challenge of training to meet the perceived person-power needs of the time (60–65). Some continue to be important issues, while others have faded into obscurity. However, nothing was more important during that period than the emergence of the training in community living model, or assertive community treatment, as the embodiment of the critical hospital and community psychiatry issues of the day.

Assertive community treatment over time

Over the 25 years since the training in community living program won the Gold Achievement Award, it has evolved into assertive community treatment. Santos and Stein (1) offered an updated description: "ACT [assertive community treatment] is best conceptualized as a service delivery vehicle or system designed to furnish the latest, most effective and efficient treatments, rehabilitation, and support services conveniently as an integrated package. It serves as the fixed point of responsibility for providing ser-

vices to a group of individuals with severe and persistent mental illness identified as needing ACT services to achieve any of several desired outcomes (e.g., reduced use of 'revolving door' hospital services, increased quality and stability of community living, normalizing activities of daily living such as competitive employment). Services are not time-limited or sequenced. Service intensity varies with changes in desired outcomes. Services are provided for as long as needed."

Assertive community treatment has proven itself to be adaptable to the challenges of new clinical problems, such as the emergence of substance abuse and dependence as a serious public health problem. Research on assertive community treatment has moved beyond basic outcomes to issues of the impact of program fidelity. Studies of the 1974 Gold Achievement Award winner regularly appeared in the pages of H & CP and other journals through the 1980s and 1990s. The studies can be categorized into six types—efficacy, adaptation, dissemination, program fidelity, cost, and discharge.

Efficacy

The basic efficacy of assertive community treatment in reducing hospitalization and improving patient functioning has been tested and retested not only in the U.S. but also in other countries. Reductions in hospital days are observed consistently (66–78). Less consistent, although frequently reported, are gains in quality of life and functional status. Employment (75), social skills (2,80), treatment compliance (77), and client satisfaction (78) have also been shown to improve. The capacity of a well-run assertive community treatment team to stop the revolving door of hospitalization has stood the scientific test of replication.

Adaptation

Training in community living was created in Madison, Wisconsin, in the 1970s, but the program has been modified with changing times and for different locations. Rural (79,80) and urban (73,81) settings have hosted assertive community treatment teams. Minor adjustments in program staffing and clinical strategies have enhanced the program's effectiveness for persons with co-occurring substance use disorders and mental illness (86–89). Focusing assertive community treatment on the homeless population (73,87,90) and on parolee populations (91) also shows promise.

A frequently asked but unanswered question is whether assertive community treatment can serve persons who have severe personality disorders. McFarlane and his colleagues (92–94) developed family-aided assertive community treatment that blends assertive community treatment with multiple family psychoeducational groups. Clients in Maine who participated in the blended program had better employment outcomes than clients who received assertive community treatment only (93).

The Baltimore assertive community treatment program for homeless persons with severe mental illness included consumers on its staff (90,95). Consumers were found to be especially helpful in engaging this difficult-to-reach population, and they fit easily into the program model. The multidisciplinary, life-skills orientation of the model lends itself well to consumer staff participation.

Dissemination

Assertive community treatment programs operate in at least 33 states, with the highest concentration in the East and the Midwest (96). Michigan reported the first replication of the program (97,98), and Connecticut also led the way with a state-level initiative (99). The efforts of Drs. Test and Stein, Dr. William Knoedler, Deborah Allness, M.S.S.W., and many others have resulted in the publication of manuals, videos, and a range of materials that have brought assertive community treatment into the therapeutic mainstream (1).

A critical challenge in disseminating assertive community treatment has been the need to modify the training of mental health workers, including physicians, to accommodate the different skill set and attitudes of assertive community treatment workers (100–102). Assertive community treatment is now part of most best-practices standards including the Schizophrenia Patient Outcomes Research Team recommendations (103).

Program fidelity

As assertive community treatment has been disseminated and adapted, increasing variability in outcomes has been noted. The variability has raised an important question: What are the critical ingredients that make assertive community treatment work (104-112)? McGrew and colleagues (105–107) developed a scale to assess a program's fidelity to the assertive community treatment model. Three subscales were developed to measure organization, service, and staffing. Higher fidelity has been consistently linked to better outcomes (105,108,112). McGrew and colleagues (105) found that fidelity was linearly related to program "generations," suggesting "program drift." Stein (111) argued that assertive community treatment is not just a case manager or case management and somewhat rhetorically called for the abolition of case management. If a program isn't assertive community treatment, it will not produce the outcomes of an assertive community treatment program.

Cost

Test and Stein correctly anticipated that cost concerns would be paramount in the dissemination of assertive community treatment programs. Although studies differ in their perspectives and comprehensiveness, assertive community treatment appears to be more cost-effective than other outpatient programs, assuming two criteria are met (112,113–116). First, the cost of hospitalization must be included; the economic perspective must not focus solely on the outpatient program. Second, patients must have reasonably extensive hospital use to begin with—about 50 or more hospital days a year in one study (112).

Discharge

In the first study of the training in community living program, patients' improvements did not endure after they left the program. The question remains whether for some individuals there is a "dose" of assertive community treatment that can produce stable change. Can some clients be transitioned to less intensive services? A criticism of assertive community treatment has been that it promotes dependence on services rather than motivating persons with mental illness to move beyond mental health services in their lives. Many assertive community treatment programs routinely discharge stable patients to make room for newly referred patients. Stein and associates (117) compared stable participants in an assertive community treatment program and in a clubhouse program; they examined vocational activity, social relationships, and community integration. The study found the two groups to be largely similar. This finding supports the idea that stable clients in assertive community treatment can be transitioned to less intensive programs, of which the clubhouse model is but one example. Stein and colleagues (117) called for rigorous studies to examine this question.

Conclusions

Over the past 25 years, assertive community treatment has changed history. It has improved the lives of many persons with severe mental illness. Systems of care have had to be reinvented. Practitioners who have had the privilege of working for assertive community treatment teams often won't go back to the old office-bound model. The Gold Achievement Award winner of 1974 has set the gold standard for creative program development, rigorous evaluation, and ongoing adaptation. •

References

- Stein LL, Santos AB: Assertive Community Treatment of Persons With Severe Mental Illness. New York, Norton, 1998
- Marx AJ, Test MA, Stein LL: Extrahospital management of severe mental illness: feasibility and effects of social functioning. Archives of General Psychiatry 29:505–511, 1973
- Gold Award: A community treatment program. Hospital and Community Psychiatry 25:669

 –672, 1974
- Stein LI, Test MA, Marx AJ: Alternative to the hospital: a controlled study. American Journal of Psychiatry 132:517–522, 1975
- Test MA, Stein LL: Alternative to mental hospital treatment: III. social cost. Archives of General Psychiatry 37:409–412, 1980
- Weisbrod BA, Test MA, Stein LL: Alternative to mental hospital treatment: II. economic benefit-cost analysis. Archives of General Psychiatry 37:400–405, 1980
- Stein LI, Test MA: Alternative to mental hospital treatment: I. conceptual model, treatment program, and clinical evaluation. Archives of General Psychiatry 37:392–397, 1980
- Scherl DJ: Changing influences on delivery of mental health services and the role of the state mental hospital. Hospital and Community Psychiatry 25:375–378, 1974
- Jones M: Community care for chronic mental patients: the need for a reassessment. Hospital and Community Psychiatry 26:94–98, 1975
- Herz MI: Views on the current role of psychiatric hospitalization. Hospital and Community Psychiatry 23:210–211, 1972

- Jarrahizadeh A, High CS: Returning long-term patients to the community. Hospital and Community Psychiatry 22:63–65, 1971
- Wallis RR, Katf NY: The 50-mile bridge: consultation between state hospital and community mental health center staffs. Hospital and Community Psychiatry 23:73–76, 1972
- Lamb HR: Coordination: the key to rehabilitation. Hospital and Community Psychiatry 22:30–31, 1971
- Smith AR: Developing an extended program on an inpatient service. Hospital and Community Psychiatry 23:152–154, 1972
- May PRA: Adopting new models for continuity of care: what are the needs? Hospital and Community Psychiatry 26:599–601, 1975
- Hogarty GE: The plight of schizophrenics in modern treatment programs. Hospital and Community Psychiatry 22:197–203, 1971
- Goodwin IH, Rosenblaum AE: A method of measuring and comparing costs in mental health clinics. Hospital and Community Psychiatry 23:63–65, 1972
- Riedel DC, Brauer L, Brenner MH, et al: Developing a system for utilization review and evaluation in community mental health centers. Hospital and Community Psychiatry 22:229–232, 1971
- Gunderson JG: A spectrum of modalities for treating schizophrenia. Hospital and Community Psychiatry 26:79

 –82, 1975
- Endicott J, Spitzer RL: Designing mental health studies: the case for experimental design. Hospital and Community Psychiatry 26:737– 739, 1975
- Landsberg G: A conceptual framework for program evaluation in a mental health center. Hospital and Community Psychiatry 24:396– 398, 1973
- Lewis JM, Gossett JT, Phillips VA: Evaluation of a drug prevention program. Hospital and Community Psychiatry 23:124–126, 1972
- Markson EW: Evaluation in mental health: why and how. Hospital and Community Psychiatry 26:727–729, 1975
- Jansen DG, Aldrich MW: State hospital psychiatric patients evaluate their treatment teams. Hospital and Community Psychiatry 24:768– 770, 1973
- Sheehan DM, Atkinson J: Comparative costs of state hospital and community-based inpatient care in Texas: who benefits most? Hospital and Community Psychiatry 25:242–244, 1974
- Mosher LR: A research design for evaluating a psychosocial treatment of schizophrenia. Hospital and Community Psychiatry 23:229–234, 1992
- Cassell WA, Smith CM, Grunberg F, et al: Comparing costs of hospital and community care. Hospital and Community Psychiatry 23:197
 – 200, 1972
- Bachmann BJ: Re-entering the community: a former patient's view. Hospital and Community Psychiatry 22:119–122, 1971
- Goyne JB: Patients' opinions of outpatient clinic services. Hospital and Community Psychiatry 24:627–628, 1973
- Hart WT, Bassett L: Measuring consumer satisfaction in a mental health center. Hospital and Community Psychiatry 26:512–515, 1975
- Krebs R: Staff resistance to mental health workers as psychotherapists. Hospital and Community Psychiatry 22:28–29, 1971
- Lubker JL: Managing normal behavior in a psychiatric hospital. Hospital and Community Psychiatry 22:51–53, 1971
- Mabel S: Outcome of patients' assuming a staff function. Hospital and Community Psychiatry 22:25–27, 1971
- Powell BJ, Shaw D, O'Neal C: Client evaluation of a clinic's services. Hospital and Community Psychiatry 22:189–190, 1971
- 35. Ruiz P: Consumer participation in mental health programs. Hospital

- and Community Psychiatry 24:38-40, 1973
- LeCrone LH, Hinkamp C: A downtown social center for patients. Hospital and Community Psychiatry 22:191–192, 1971
- Weber DS, Kahn MW: Therapists' perceptions of patient success in psychiatric treatment. Hospital and Community Psychiatry 24:322– 325, 1973
- Sacks MH, Carpenter WT: The pseudotherapeutic community: an examination of antitherapeutic forces on psychiatric units. Hospital and Community Psychiatry 25:315–318, 1974
- Tyce FA: PORT of Olmsted County, Minnesota: community rehabilitation for legal offenders. Hospital and Community Psychiatry 22:74–78, 1971
- Keve PW: The need for community rehabilitation for legal offenders. Hospital and Community Psychiatry 22:4–5, 1971
- Resner G: Psychiatric consultation to the public defender's office.
 Hospital and Community Psychiatry 22:133–139, 1971
- Abramson MF: The criminalization of mentally disordered behavior: possible side-effect of a new mental health law. Hospital and Community Psychiatry 23:101–105, 1972
- Core HM, Lima DR: Mental health services to juvenile courts: I. consultation and education for court personnel. Hospital and Community Psychiatry 23:174–178, 1972
- Silk S: Mental health services to juvenile courts: II. training volunteers as probation supervisors. Hospital and Community Psychiatry 23:178-180, 1972
- Beigel A: Suicide attempts in jails: prognostic considerations. Hospital and Community Psychiatry 23:361–363, 1972
- Lamb D, Fernelius K, Switzer C: A therapeutic detention program for adolescents on court probation. Hospital and Community Psychiatry 24:618–620, 1973
- Settle RO: The evolution of court-clinic services for adults. Hospital and Community Psychiatry 24:610–612, 1973
- Gottlieb BM, Digiondomenico PA: Modifications of a therapeutic community on a brief-stay ward. Hospital and Community Psychiatry 22:23–24, 1971
- Hobby EE: The psychopathic code and the therapeutic community. Hospital and Community Psychiatry 23:25–27, 1972
- Bradshaw WH, Jr: The coffee-pot affair: an episode in the life of a therapeutic community. Hospital and Community Psychiatry 23:33– 38, 1972
- Herz MI: The therapeutic community: a critique. Hospital and Community Psychiatry 23:69–72, 1972
- Birnbaum MP: The state hospital psychologist as a consultant to the public school. Hospital and Community Psychiatry 22:269–270, 1971
- Halpern H, Love R: Initiating community consultation in rural areas. Hospital and Community Psychiatry 22:274–276, 1971
- Sloman L: Consultation to a special school. Hospital and Community Psychiatry 22:375–377, 1971
- Goodstein LD: Organizational development as a model for community consultation. Hospital and Community Psychiatry 23:165–168, 1972
- Khajavi F, Broskowski A, Mermis W: Team consultation to complex organizations: some emerging issues for mental health workers. Hospital and Community Psychiatry 23:235–238, 1992
- Brody M: The psychiatrist as classroom teacher: school consultation in the inner city. Hospital and Community Psychiatry 24:248–251, 1973
- Daggett DR, Jones ME, Feider L, et al: Mental health consultation improves care of the aged in community facilities. Hospital and Community Psychiatry 25:170–173, 1974

- Rabiner CJ, Cohen R: Psychiatric consultation with a police youth-aid unit. Hospital and Community Psychiatry 24:326–329, 1973
- Felton GS, Wallach HF, Gallo C: Training mental health workers to better meet patient needs. Hospital and Community Psychiatry 25:299–302, 1974
- Schmolling P: Training the mental health assistant to communicate with schizophrenic patients. Hospital and Community Psychiatry 23:27–28, 1972
- Stern MJ, Beck JC, Mack JE: Training nurses to be therapists on a psychiatric inpatient service. Hospital and Community Psychiatry 23:218–221, 1972
- Mehr JM: Evaluating nontraditional training for psychiatric aides. Hospital and Community Psychiatry 22:315

 –319, 1971
- Collins JA, Cavanaugh M: The paraprofessional: II. brief mental health training for the community health worker. Hospital and Community Psychiatry 22:375–377, 1971
- Alt H, Mailick S: Training for mental health administrators. Hospital and Community Psychiatry 22:348

 –351, 1971
- 66. Bond GR, Miller LD, Krumwied RD, et al: Assertive case management in three CMHCs: a controlled study. Hospital and Community Psychiatry 39:411–418, 1988
- Burns BJ, Santos AB: Assertive community treatment: an update of randomized trials. Psychiatric Services 46:669–675, 1995
- Dharwadkar N: Effectiveness of an assertive outreach community treatment program. Australian and New Zealand Journal of Psychiatry 28:244–249, 1994
- Dincin J, Wasmer D, Witheridge TF, et al: Impact of assertive community treatment on the use of state hospital inpatient bed-days. Hospital and Community Psychiatry 44:833–838, 1993
- Hambridge JA, Rosen A: Assertive community treatment for the seriously mentally ill in suburban Sydney: a programme description and evaluation. Australian and New Zealand Journal of Psychiatry 28:438–445, 1994
- Lafave HG, de Souza HR, Gerber GJ: Assertive community treatment of severe mental illness: a Canadian experience. Psychiatric Services 47:757–759, 1996
- Tibbo P, Chue P, Wright E: Hospital outcome measures following assertive community treatment in Edmonton, Alberta. Canadian Journal of Psychiatry 44:276–279, 1999
- Lehman AF, Dixon LB, Kernan E, et al: A randomized trial of assertive community treatment for homeless persons with severe mental illness. Archives of General Psychiatry 54:1038–1043, 1997
- Marks IM, Connolly J, Muijen M, et al: Home-based versus hospitalbased care for people with serious mental illness. British Journal of Psychiatry 165:179–194, 1994
- McGrew JH, Bond GR, Dietzen L, et al: A multisite study of client outcomes in assertive community treatment. Psychiatric Services 46:696–701, 1995
- Olfson M: Assertive community treatment: an evaluation of the experimental evidence. Hospital and Community Psychiatry 41:634
 641 1990
- Santos AB, Hawkins GD, Julius B, et al: A pilot study of assertive community treatment for patients with chronic psychotic disorders. American Journal of Psychiatry 150:501–504, 1993
- Scott JE, Dixon LB: Assertive community treatment and case management for schizophrenia. Schizophrenia Bulletin 21:657–668, 1995
- Becker RE, Meisler N, Stormer G, et al: Employment outcomes for clients with severe mental illness in a PACT model replication. Psychiatric Services 50:104–106, 1999
- 80. Calsyn RJ, Morse GA, Klinkenberg WD, et al: The impact of assertive community treatment on the social relationships of people who are

- homeless and mentally ill. Community Mental Health Journal 34:579–593, 1998
- Dixon L, Friedman N, Lehman A: Compliance of homeless mentally ill persons with assertive community treatment. Hospital and Community Psychiatry 44:581–583, 1993
- Gerber GJ, Prince PN: Measuring client satisfaction with assertive community treatment. Psychiatric Services 50:546–550, 1999
- McDonel EC, Bond GR, Salyers M, et al: Implementing assertive community treatment programs in rural settings. Administration and Policy in Mental Health 25:153–173, 1997
- 84. Santos AB, Deci PA, Lachance KR, et al: Providing assertive community treatment for severely mentally ill patients in a rural area. Hospital and Community Psychiatry 44:34–39, 1993
- Bond GR, Witheridge TF, Dincin J, et al: Assertive community treatment for frequent users of psychiatric hospitals in a large city: a controlled study. American Journal of Community Psychology 18:865

 891, 1990
- 86. Drake RE, McHugo GJ, Clark RE, et al: Assertive community treatment for patients with co-occurring severe mental illness and substance use disorder: a clinical trial. American Journal of Orthopsychiatry 68:201–215, 1998
- 87. Meisler N, Blankertz L, Santos AB, et al: Impact of assertive community treatment on homeless persons with co-occurring severe psychiatric and substance use disorders. Community Mental Health Journal 33:113–122, 1997
- 88. Teague GB, Drake RE, Ackerson TH: Evaluating use of continuous treatment teams for persons with mental illness and substance abuse. Psychiatric Services 46:689–695, 1995
- Wingerson D, Ries RK: Assertive community treatment for patients with chronic and severe mental illness who abuse drugs. Journal of Psychoactive Drugs 31:13–18, 1999
- Dixon LB, Krauss N, Kernan E, et al: Modifying the PACT model to serve homeless persons with severe mental illness. Psychiatric Services 46:684–688, 1995
- 91. Inciardi JA, Isenberg H, Lockwood D, et al: Assertive community treatment with a parolee population: an extension of case management, in Progress and Issues in Case Management. NIDA Research Monograph 127. Edited by Ashery RS. Rockville, Md, National Institute on Drug Abuse, 1992
- 92. McFarlane WR, Stastny P, Deakins S: Family-aided assertive community treatment: a comprehensive rehabilitation and intensive case management approach for persons with schizophrenic disorders. New Directions for Mental Health Services, no 53:43–54, 1992
- McFarlane WR, Dushay RA, Stastny P, et al: A comparison of two levels of family-aided assertive community treatment. Psychiatric Services 47:744

 –750, 1996
- 94. McFarlane WR: Fact: integrating family psychoeducation and assertive community treatment. Administration and Policy in Mental Health 25:191–198, 1997
- Dixon L, Hackman A, Lehman A: Consumers as staff in assertive community treatment programs. Administration and Policy in Mental Health 25:199–208, 1997
- Deci PA, Santos AB, Hiott DW, et al: Dissemination of assertive community treatment programs. Psychiatric Services 46:676–678, 1995
- 97. Mowbray CT, Collins ME, Plum TB, et al: Harbinger: I. the development and evaluation of the first PACT replication. Administration and Policy in Mental Health 25:105–123, 1997
- 98. Mowbray CT, Plum TB, Masterton T: Harbinger: II. deployment and evolution of assertive community treatment in Michigan. Administration and Policy in Mental Health 25:125–139, 1997

- Essock SM, Kontos N: Implementing assertive community treatment teams. Psychiatric Services 46:679–683, 1995
- Cook JA, Horton-O'Connell T, Fitzgibbon G, et al: Training for state-funded providers of assertive community treatment. New Directions in Mental Health Services 79:55–64, 1998
- Stein LI, Test MA: Retraining hospital staff for work in a community program in Wisconsin. Hospital and Community Psychiatry 27:266–268, 1976
- 102. Witheridge TF: The assertive community treatment worker: an emerging role and its implications for professional training. Hospital and Community Psychiatry 40:620–624, 1989
- 103. Lehman AF, Steinwachs DM, Buchanan R, et al: Translating research into practice: the Schizophrenia Patient Outcomes Research Team (PORT) treatment recommendations. Schizophrenia Bulletin 24:1–9, 1998
- Chinman M, Allende M, Bailey P, et al: Therapeutic agents of assertive community treatment. Psychiatric Quarterly 70:137–162, 1999
- McGrew JH, Bond GR, Dietzen L, et al: Measuring the fidelity of implementation of a mental health program model. Journal of Consulting and Clinical Psychology 62:670–678, 1994
- McGrew JH, Bond GR: Critical ingredients of assertive community treatment: judgments of the experts. Journal of Mental Health Administration 22:113–125, 1995
- 107. McGrew JH, Bond GR: The association between program characteristics and service delivery in assertive community treatment. Administration and Policy in Mental Health 25:175–189, 1997
- McHugo GJ, Drake RE, Teague GB, et al: Fidelity to assertive community treatment and client outcomes in the New Hampshire dual disorders study. Psychiatric Services 50:818–824, 1999
- Lachance KR, Santos AB: Modifying the PACT model: preserving critical elements. Psychiatric Services 46:601–604, 1995
- Teague GB, Bond GR, Drake RE: Program fidelity in assertive community treatment: development and use of a measure. American Journal of Orthopsychiatry 68:216–232, 1998
- Stein LI: On the abolishment of the case manager. Health Affairs 11(3):172–177, 1992
- Latimer EA: Economic impacts of assertive community treatment: a review of the literature. Canadian Journal of Psychiatry 44:443–454, 1999
- 113. Clark RE, Teague GB, Ricketts SK, et al: Cost-effectiveness of assertive community treatment versus standard case management for persons with co-occurring severe mental illness and substance use disorders. Health Services Research 33:1285–1308, 1998
- Essock SM, Frisman LK, Kontos NJ: Cost-effectiveness of assertive community treatment teams. American Journal of Orthopsychiatry 68:179–190, 1998
- Lehman AF, Dixon L, Hoch JS, et al: Cost-effectiveness of assertive community treatment for homeless persons with severe mental illness. British Journal of Psychiatry 174:346–352, 1999
- Wolff N, Helminiak TW, Diamond RJ: Estimated societal costs of assertive community mental health care. Psychiatric Services 46:898–906, 1995
- 117. Stein LI, Barry KL, Van Dien G, et al: Work and social support: a comparison of consumers who have achieved stability in ACT and clubhouse programs. Community Mental Health Journal 35:193– 204, 1999