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# Community mental health care in the U.S.: The impact of deinstitutionalization and assertive community treatment

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# Community Mental Health Care in the U.S.: The Impact of Deinstitutionalization and Assertive Community Treatment

BY

**Mariana A. De Oliveira**

**THESIS**

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# Community Mental Health Care in the U.S.: The Impact of Deinstitutionalization and Assertive Community Treatment

Clinical Psychology Master's Thesis 2005

Mariana A. De Oliveira

Eastern Illinois University

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# Acknowledgements

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# Abstract

The current review was designed to provide a better understanding of the present situation of mental health care in the U.S. Therefore, a review of the history of deinstitutionalization of the mentally ill in the U.S. and an exploration of the role of a prominent current model in mental health care, Assertive Community Treatment (ACT) were undertaken. Deinstitutionalization changed the paradigm of mental health care in the country. This process underwent different stages from religious based care, to large stated hospitals and to community care, where it stands now. Research articles on ACT in urban and in rural areas were selected so that current challenges and demands for services in the care of severely mentally ill people could be investigated and compared in these different settings. These transitions within mental health care practices have been greatly affected by ethical, political, economic, and technological factors. For the most part, the ACT studies show results in expected directions: improved quality of life, improved psychosocial functioning, and reduction in symptoms, in hospitalization rates, and cost. However, the difficulties of implementing mental health programs in rural areas were discussed. It was concluded that ACT programs show great promise, yet to be successful a great deal of resources must be made available along with an enduring commitment.

The first part of the current study is a review of the history of mental health care in the U.S. The purpose of this review was to provide a better understanding of the present situation of mental health care in the U.S. It focuses on an important period of this history, the process of the deinstitutionalization of the mentally ill. Therefore, stages of the process are discussed as well as the development of a new form of care, the community care treatment.

The second part is a review of studies in Assertive Community Treatment (ACT) which is currently considered in the literature as a prominent model in community mental health care. ACT studies conducted in urban and in rural areas were selected in order to explore the role of the approach in responding to present challenges in mental health care. The goal was to explore the results of these ACT interventions and to identify aspects of ACT associated with improved outcomes for the severely mentally ill population.

## Early Modes of Treatment

Deinstitutionalization changed virtually all aspects of mental health care delivery for the severely mentally ill in the United States. In order to understand the process of the deinstitutionalization it is necessary to review from a historical perspective the treatment of this population.

The way that mental illness was conceptualized in the American colonies was greatly affected by what was happening in Europe. At the time of the Inquisition, people who behaved in an odd manner were thought to be possessed by the devil. Different practices often involving torture were used with the belief that they would set the individual free from demonic possession. If none were successful the body had to be destroyed in order to free the soul, and this was done by decapitation, burning, or hanging. The Colonies, just like Europe, had witch trials where people were executed (Stein & Santos, 1998).

Later, in the 1800s, a strong influence came from the ideas developed by Philippe Pinel and William Tuke (Stein & Santos, 1998). They advocated a new orientation in psychiatry called *moral treatment*. Moral treatment was considered to be a more humanitarian and ethical approach in which mental patients were released from their restraints and treated with compassion and dignity. Strange behaviors were thought to be due to illnesses of the mind. Therefore, it was thought that mentally ill people deserved to be treated with respect and provided with decent living conditions. Patients should have a close and personal relationship with the medical staff, positive behavior was rewarded, and patients were expected to exercise self-control. It was considered important to have an ordered daily routine in which patients followed a therapeutic regimen of work and leisure activities. (Dunkel, 1983; Morrissey, Goldman, & Klerman, 1980).

A number of small institutions, usually affiliated with religious orders, offering moral treatment were founded (Stein & Santos, 1998). However, these institutions did not attend to the great number of Eastern and Southern European immigrants that came to the U.S. in the nineteenth century because they belonged to different religions and cultures. These people were often cared for at home by their families, or lived on the streets, often ending up in alms houses and in jails (Stein & Santos, 1998).

In the 1840s, Dorothea Lynde Dix was an important advocate for the cause of the mentally ill (Stein & Santos, 1998). She became an important voice and lobbyist, gathering evidence and traveling around the country trying to convince authorities to improve the treatment conditions of the mentally ill. She campaigned for the construction of hospitals supported by the government that would provide moral treatment to those who needed it (Goldman & Morrissey, 1985; Morrissey et al., 1980; Stein & Santos 1998). She succeeded, and according to Goldman et al., her efforts resulted in the construction or expansion of more than 30 state mental hospitals in the country. In 1833, the Worcester State Hospital in Massachusetts was opened, inaugurating an ambitious program that built asylums all over the country. The hospital took the mentally ill population from almshouses and jails marking the state taking over the care of the indigent mentally ill. For the first decades it operated under the moral treatment model which influenced hospitals throughout the country (Morrissey et al.).

At that time it was believed that controlling the physical and social environment could improve mental health. At the beginning these hospitals were successful and moral treatment and decent living conditions were provided. The number of patients was small so a close relationship between patient and staff was feasible. Admissions consisted of acute and new cases instead of chronic mentally (see Appendix A) ill patients. Patient and staff shared common religious, ethnic, and cultural values. They were headed by charismatic superintendents and influential laymen and government funding was provided (Goldman & Morrissey, 1985; Morrissey et al., 1980; Stein & Santos 1998). Still, in certain aspects, these institutions were quite autonomous. The patient cost to the state was not much because the patients did most of the work such as kitchen and laundry (Stein & Santos, 1998).

### *Expansion of State Hospitals*

Greater immigration to the U.S. and the inability of staff to achieve successful outcomes and discharge patients caused a substantial increase in the number of patients and wards became very crowded. In addition, money became an issue. Hospital administrators did not have power over the financial support they received and this situation got worse as they gradually lost support (Goldman & Morrissey, 1985; Morrissey et al., 1980; Stein & Santos 1998). The public mental hospitals, once small therapeutic institutions, slowly became centralized and isolated providing primarily custodial care and social control. People with severe mental illnesses were sent there and often ended up spending their whole lives there. They became increasingly segregated and stigmatized as were other socially rejected groups who also got sent there, such as the aged, unhealthy and indigent (Morrissey et al.).

In 1908, the publication of *A Mind That Found Itself*, by Clifford Beers, had a powerful impact on mental health care practice. The book related the experiences of the author who suffered from severe mental illness and was confined in a mental health institution for three years. He denounced the inhumane treatment and abuses that he was submitted to while he was being treated in mental health institutions. The book produced protests and increased public concern about care of people with mental illness at that time. Clifford Beers became a mental health activist and devoted much of his life to the study and advancement of the mental hygiene movement. He adopted the term *mental hygiene* to describe his ideas which sought to improve the quality of care for the mentally ill, to prevent mental illness where possible, and to ensure that accurate information regarding mental health was widely available. He founded the Connecticut Society for Mental Hygiene and the National Committee for Mental Hygiene. In 1913, he started the Clifford Beers Clinic, the first outpatient mental health clinic in the nation. (Grob, 1994)

It is important to mention that in the 1930s, pushed by the economic recession that the country was going through, public mental hospitals considered discharging patients to alleviate expenses. But it was not until the next two decades that this process gained momentum (Goldman & Morrissey, 1985). A new structure for mental health care was emerging. The demand for more state hospitals became greater, so more hospitals offering custodial care were built and a centralized administrative structure emerged. Some reforms were attempted but they were obstructed by financial constraints and pessimism toward therapeutic treatment (Morrissey et al., 1980). By the mid 1940s, the state mental hospitals' situation consisted of overcrowding and neglect. Over 600,000 people housed in these institutions. This number represented a large proportion of the American population. The number of mental health inpatient beds corresponded to approximately fifty percent of inpatient beds in the country (Kolb, Frazier & Sirovatka 2000).

### *National Mental Health Act*

In the midst of World War II, it became increasingly evident that there were severe shortages of mental health providers and that the understanding of the causes, treatment, and prevention of mental illness lagged far behind other medical areas. The situation required a national mental health program and mental health care professionals called for federal action. In 1946, President Harry Truman signed the National Mental Health Act. The act was passed in order to assure the federal government's responsibility for the care of the mentally ill. This was the first time in U.S. history that generous funding was provided for psychiatric education and research. As a result, the National Advisory Mental Health Council and the National Institute of Mental Health (NIMH) were federal agencies created to serve as the basis of federal responsibility. Their role was to develop the mental health care field by taking action on policy making and research in the area (Kolb et al.).

However, Stein and Santos (1998) add that by the 1950s mental institutions were so crowded that residents received little more than custodial care. The eugenics movement believed human evolution would be hindered if the mentally ill were permitted to live in society and procreate. Severe mental illness was thought to be incurable and severely mentally ill people were considered to be biologically unfit. Accordingly, this ideology supported the deplorable situation of the mental institutions in which patients were not treated adequately and ended up isolated from society.

## Community Mental Health Treatment

Progressively, the mental hygiene movement led to alternatives to custodial institutions. The World War II era initiated the shift from mental hygiene practice to the community mental health movement. The war stimulated the mental health treatment situation by introducing rapid treatment techniques and attitudes of therapeutic optimism, which along with the introduction of antipsychotic and antidepressant medication contributed to declines in length of stay in the hospitals (Grob, 2000).

In the post-war period, the first community mental health centers were started. Among the first models were Lindemann's original center (1948) and the Human Relations Service in Wellesley, Massachusetts. At the time, community mental health centers were operating under a different conceptualization. They only provided consultation and education on specific problems with community agencies, such as religious organizations, schools, and police departments. Also, they mostly attended to new groups of acutely ill and previously untreated clients, while only few chronic and severely ill clients were treated at these centers. Only later on, did community mental health provide outpatient services and worked in collaboration with state hospitals. (Dixon & Goldman, 2003; Goldman & Morrissey, 1985)

### *The Role of Psychopharmacology*

The antipsychotic drugs, also known as neuroleptics, were introduced in psychiatry in 1952. This was when chlorpromazine was first used in the treatment of psychiatric patients in Paris by Jean Delay and Pierre Deniker. One of the early trials of chlorpromazine in the US was in a state mental hospital in Ohio. The first pharmacological effective treatment of depression was reported in 1957 in the works of Kuhn on the tricyclic antidepressant imipramine, and of Loomer, Saunders and Kline on the monoamine oxidase inhibitor iprionazid. The first anti anxiety drug, meprobanate, was marketed in 1955 and triggered research on other anti-anxiety agents that appeared later, such as chloridiazepoxide (1960) and diazepam (1962). It should be noted that some attribute the initial development of psychotropic drugs to progress within synthetic organic chemistry, and not directly related to therapeutic concerns of mental illnesses (Snyder, 1981).

### *Deinstitutionalization*

By the 1960s, quite a few state hospitals offered decentralized outpatient services for the mentally ill (Dixon & Goldman, 2003; Goldman & Morrissey, 1985). However, the decentralized system encountered barriers and did not proliferate. On one side decentralization represented a loss of power for hospital administrators against which they reacted. And on the other side the mental hospitals were thought to actually cause mental health problems, as described below. (Goldman & Morrissey, 1985)

According to several authors (Dixon & Goldman, 2003; Goldman & Morrissey, 1985; Stein & Santos, 1998) by the late 50s and early 60s, a common belief that mental institutions were to be avoided and battled against because they were the cause of mental illness gained a lot of attention. There was clinical evidence showing that long term institutional care caused functional and social deterioration. It was believed that the mental institutions "fabricated madness" (Dixon & Goldman, 2003, Goldman & Morrissey, 1985). Most mental hospitals provided minimal care and patients were many times victims of neglect (Frank, 2000)

According to Dixon and Goldman (2003), deinstitutionalization was driven by a variety of forces. Different sectors of society that included fiscal conservatives, looking to reduce the states' hospital expenses, professionals of the area, mental health reformers, civil libertarians, and the general public, campaigned for a change in the treatment of the mentally ill and eliminating the institutions. Additionally, increasing media access, such as newspapers, films, and books, made the conditions of care of the mentally ill known to the public (Dixon & Goldman, 2003; Goldman & Morrissey, 1985; Stein & Santos, 1998). The mental hospitals were accused of functioning as warehouses. They were isolated, conditions were considered inhumane, and there was patient abuse and neglect (Goldman & Morrissey, 1985; Stein & Santos, 1998). The publication of books, such as Thomas Szasz's *The Myth of Mental Illness* in 1961 and Ken Kesey's *One Flew over the Cucko's Nest* in 1963, presented the situation within mental hospitals as terrible and fostered the idea that releasing the patients would be the best thing to be done. Hence, the idea of simply releasing the patients slowly gained more and more strength among public opinion (Torrey, 2000).

The community mental health care movement was a reaction to this perception regarding the way that the mentally ill were being cared for (Stein & Santos, 1998). Legal actions that advocated for the rights of the patients were successful in getting hospitals to increase number of staff, forbidding patient labor exploitation, and making hospital conditions public (Stein & Santos, 1998). Moreover, authors such as Goldman and Morrissey (1985) added that the fight for human rights embraced broader issues; mental health activists went further and engaged in other civil libertarian reforms, such as fighting poverty, racism, violence and criminality, diverging from their original intent.

*Action for Mental Health*, a report issued in 1961 by the Joint Commission on Mental Health and Illness called for substantial federal investment in research on mental illness, a mental awareness campaign, a tripling of mental health services expenditures within a decade, and a new emphasis on early identification and treatment of mental illness (Dixon & Goldman, 2003; Kolb et al., 2000). The system proposed a stronger reliance on community clinics, emergency services, and acute hospitals. It was also recommended that public mental hospitals should never exceed 1,000 beds (Dixon & Goldman, 2003).

### *Community Mental Health Centers Act*

In 1963, the Community Mental Health Centers Act was passed by the U.S. Congress as the result of a call for federal support. President J. F. Kennedy had promised an audacious new approach (Dixon & Goldman, 2003; Goldman & Morrissey, 1985). In 1965, Medicaid was created to reduce the financial burden on the states, so the federal government would take most of the duties. However, the plan was to pay for the care of the mentally ill population in the community instead of in mental institutions (Stein & Santos, 1998). The recognition of the high cost of care also played an important role in the deinstitutionalization process in other countries, such as the United Kingdom (Laurence, 2003). The development and availability of new psychotropic drugs and their effect on the behavior of clients also contributed greatly to the movement. In general, the movement was not only based on the relief of the economical burden that institutionalized care represented, but also on the hope of the effectiveness of new psychotropics that were being developed (Laurence, 2003; Shreiber, 1986; Stein & Santos, 1998; Torrey, 2000).

The locus of care shifted to the mental health centers funded by the federal government which, at that time, were required to provide inpatient, outpatient, partial hospitalization, emergency, and consultation-education services to a mix of acute and chronic patients. They were similar to the previous community center model in that they shared the preventive ideology and the acute treatment/consultation philosophy, however they also combined the different services offered by the hospital based centers. This new model was intended to provide integrated services that would be continuous as well, supplying care for patients during the entire episode of the illness (Dixon & Goldman, 2003; Goldman & Morrissey, 1985).

Unfortunately, the state mental hospital and the community mental health centers typically did not work together in a synchronized way. As a result, the community mental health centers served new populations in need of acute services but often failed to meet the care needs of the chronic population that had been discharged from the mental hospitals. The situation of the chronic population was not the major concern in the prevention ideology that prevailed in the new system. The mental health centers were not required to provide many of their specific needs, such as housing, and income support. (Dixon & Goldman, 2003; Goldman & Morrissey, 1985).

The picture of psychiatric care changed dramatically in the United States. The resident population at state hospitals decreased very rapidly, approximately 75 % from 1950 to 1980 (Goldman & Morrissey, 1985). However, according to Torrey (2000), the institutionalized population was generally released without any prior predictions, outcome or pilot studies, or subsequent follow up. Outpatient services expanded, and admissions to other psychiatric inpatient facilities increased, while state hospitals still provided care for part of the severely mentally ill population (Goldman & Morrissey, 1985; Grob, 2000). Community mental health programs developed significantly (Grob, 2000). Since the 1960s more than 700 community centers have been created in the country (Goldman & Morrissey, 1985).

### *Impact of Medicaid*

The elderly mental health patient group was one of the first groups to suffer the consequences of the new system (Grob, 2000). They went from psychiatric institutions to nursing homes, which became the most used psychiatric long-term facility (Goldman & Morrissey, 1985). The shift to nursing homes was made possible by the introduction of Medicaid (federal government assumed most part of the cost) which almost doubled the population in these homes (Grob, 2000). The effects of Medicaid illustrate the role of federal entitlement programs in supporting the care for the severely mentally ill population. The federal entitlement programs often ended up taking responsibility for the care of this population (Grob, 2000). Medicaid had a strong impact on deinstitutionalization as it became one of the largest purchasers of mental health care, and the main federal program for funding the long-term care of the mentally ill (Grob, 2000).

### *Challenges of Community Mental Health*

It was expected that community mental health centers, as well as the community, could care for the mentally ill (Goldman & Morrissey, 1985). However, the community was not ready to provide appropriate care for the mentally ill population and new problems arouse: (1) high frequency of relapse and increased readmission to hospitals; (2) after readmission clients were discharged to relapse again, creating a pattern called *revolving door phenomenon*; (3) some clients lost contact with care and became homeless; and (4) some clients ended up in the criminal justice system/prisons for committing minor crimes. In addition, old problems, such as the inability of individuals with a history of mental illness to participate in the work force did not show any evidence of improvement (Goldman, 2000; Stein & Santos, 1998).

The problems encountered were thought to be due to a number of factors: (1) lack of money; (2) inadequate preparation of clients; (3) lack of after care services; and (4) a failure to support families and local communities (Wilson & Dunn, 1996). The money saved by switching care policies for treating the mentally ill did not follow them into the community (Shreiber, 1986; Wilson & Dunn, 1996). The hospitals provided an array of services that were not appropriately provided in the community, such as shelter and custodial care, recreation and employment, and socialization and friendship circles (Shreiber, 1986).

Community care (see Appendix A) and community mental health policies have been the target of serious criticism (Laurence, 2003). By the mid 1970s United States federal government was receiving significant criticism for its role in the deinstitutionalization of the mentally ill (Dixon & Goldman, 2003). Some claim that the deinstitutionalization of the mentally ill failed as a national mental health policy, or that it was a mistake which may have made the situation even worse. Others say it has never been really properly implemented (Goldman & Morrissey, 1985; Laurence, 2003; Salem, Seidman, & Rappaport, 1998; Torrey, 2000).

According to Dixon and Goldman (2003), Goldman (2000), and Goldman and Morrissey (1985) the problematic situation resulting from deinstitutionalization reflects the lack of concentration on appropriate mental health policy that would provide care for the chronically mentally ill. In 1974 an attempt to correct federal support to a deinstitutionalization policy was made. The General Accounting Office, which studies and evaluates programs for the Congress, issued a report which concluded that the mental health delivery system lacked organization; mental health centers and mental hospitals did not work together (Dixon & Goldman, 2003; Grob, 2000). It recommended the federal government become more involved in promoting services for those to whom they had been denied (Dixon & Goldman, 2003).

In 1975, A revision of the Community Mental Health Centers Act made another attempt to remedy the situation. Congress recognized the variety of services provided by the centers, ordered better collaboration between mental health centers and mental hospitals and advocated care for chronic patients (Dixon & Goldman, 2003; Goldman, 2000; Goldman & Morrissey, 1985; Grob, 2000). It ordered that centers provide several types of services, such as screening, follow-up care and therapy for released patients, and specialized services for the elderly, children, and substance abusers. In order to make it possible for the centers to provide these services a two year grant for the centers was approved, and renewed later on. At that time the community mental health centers totaled 650 around the country. The centers, though, were in precarious conditions and, as was mentioned previously, did not provide for the chronically mentally ill (Grob, 2000).

Nevertheless, welfare and housing needs were still disregarded. The deinstitutionalization movement resulted in social welfare problems which could not be solved by changes in mental health policy. In order to appropriately address the needs of the chronic population and the severely mentally ill, social welfare policies along with mental health policies were necessary. The social welfare policies would regulate basic welfare services such as entitlement programs, income supports, transportation, and housing, while mental health policies would regulate care and treatment (Dixon & Goldman, 2003; Goldman, 2000; Goldman & Morrissey, 1985).

### *Mental Health Systems Act.*

In 1978, the Carter administration brought new hope for the mental health system, the President's Commission on Mental Health revised the national mental health needs (Grob, 2000). The commission's final report covered a variety of aspects, including recommendations for a national policy directed to the chronically mentally ill, but failed to recognize financial constraints, to set priorities, and to establish coherent guidelines (Dixon & Goldman, 2003; Grob, 2000). Even so, President Carter wanted legislation to be prepared, and its rough version finally made its way to Congress in 1979. However, the draft legislation caused opposition in the Congress as well as in the various mental health constituencies. Therefore, passing The Mental Health Systems Act in 1980 required alterations and political negotiations. The final bill was considered by some to be contradictory and overly complex regarding the federal role in community mental health centers. It also incorporated a plan for a national system that would provide care and treatment in community settings (Grob, 2000).

The Mental Health Systems Act was long awaited legislation that centralized mental health authority, so that state economic burdens would be prevented and national mental health guidelines would be established. Nevertheless, the Reagan administration deeply affected the implementation and the nature of the new policy because of concerns with reducing federal expenditures. As a consequence, the Omnibus Reconciliation Act was passed in 1981. It transferred mental health federal funding and mental health policy authority to states and local communities, bringing mental health programs similar to where they were before World War II (Grob, 2000).

### *Deinstitutionalization's aftermath.*

It was hoped that the success of mental health community programs would lead to the closure of some large mental health hospitals and, consequently, state financial support would be transferred from the hospitals to community programs. However, the mental hospital situation developed in a different way. The population of psychiatric hospitals decreased significantly, as mentioned previously. However, these hospitals were kept open because there was a group of severely disabled patients who required institutional care, along with economic concerns of community residents and employees who feared closure of hospitals (Grob, 2000). By 1983, due to the great number of mentally ill in the community and to the expansion of community mental health services and private health insurance, the locus of care had shifted, with general hospitals becoming responsible for most inpatient treatment of mental illness (Grob, 2000).

In the 1950s a large proportion of the population was living in psychiatric institutions. Research indicates that today the same proportion would correspond to about 900,000 people. However, psychiatric institutions only accommodate about 70,000 people, leaving more than 800,000 to other types of care. These numbers bring about questions regarding where these people are (Torrey, 2000). According to Torrey (2000), approximately half of them are living with their families, in boarding houses, or living on their own, and most are doing well. The other half, approximately 150,000 are homeless, 150,000 are in jails and prisons, and the rest are in nursing homes which are sometimes actually more restrictive than the past psychiatric hospitals.

As mentioned previously, deinstitutionalization has been associated with an increase in America's homeless population. The lack of community support and adequate housing after patients leave the institutions has contributed to the problem. However, studies show that not all, or even most of the homeless population is mentally ill (Goldman & Morrissey, 1985).

For some, the deinstitutionalization of the mentally ill that was once a desired goal became the villain (Dixon & Goldman, 2003). Some sectors of society such as some mental health professionals, bureaucrats, and the general public even believed that institutionalization was a better way to treat the mentally ill population (Laurence, 2003). Deinstitutionalization opponents were aware that the human cost of going back to the institutionalized system was very high. But, according to Stein and Santos (1998), what really held it back was the high financial cost of hospital care.

However, most of the mentally ill population, civil rights activists, and groups of mental health professionals did not agree with this view (Goldman, 2000; Wilson & Dunn, 1996). They believed that appropriate services could be developed in the community so that severely mentally ill people could live more stable and enjoyable lives. They argued that community treatment represents a treatment opportunity in a least restrictive environment. Therefore, deinstitutionalizing the care and providing it in the community allows for maintenance of basic human rights, and at a better standard of living for the mentally ill population (Wilson & Dunn, 1996).

According to Grob (2000), even with the problems, deinstitutionalization benefited the nation's severely mentally ill population. The provision of a wide range of services enabled them to live in the community. Furthermore, evidence that community settings are preferred and more efficient in treating severe mental disorders has been confirmed by different studies conducted in different countries (Grob, 2000).

### *Community Care: the Alternative*

Community treatment compared to hospital treatment promised an opportunity for treatment in a least restrictive environment, an alternative to institutional dependency, less disruption in patients' lives, and reduction in stigmatization (Test & Stein, 1978; Wilson & Dunn, 1996). Therefore, deinstitutionalizing the care and providing it in the community could allow for maintenance of basic human rights, and provide a better standard of living for the mentally ill population (Wilson & Dunn, 1996). The community contact can expose patients to healthier role models and lets them learn necessary skills in their natural environment (Test & Stein, 1978).

Furthermore, different studies have indicated that a wide range of patients can be treated almost totally in the community (Test & Stein, 1978). Grob (2000) adds that there is evidence that community settings are preferred and more efficient in treating severe mental disorders. This has been confirmed by different studies conducted in different countries. Community programs that are successful can usually count on adequate community resources, and encourage a sense of independence and mastery in their target population (Grob, 2000). In addition, community care may cost less than traditional inpatient care (Test & Stein, 1978).

It has been suggested that the deinstitutionalization of the mentally ill in the United States released large numbers of mentally ill patients into the community without adequate treatment (Test & Stein, 1978). Stein and Santos (1998) claimed that the community was not prepared to receive and care for those with severe mental illnesses (see Appendix A). These patients had been hospitalized for a long time, and their arrival presented a challenge because the community was not prepared for or familiar with the problems that they would have to face (Test & Stein, 1978).

For that reason, the situation called for the development and implementation of appropriate community treatments to attend to the needs of chronically mentally ill patients (Stein & Santos, 1998; Test & Stein, 1978). However, claims have been made that the majority of programs developed lacked a solid theoretical framework or lacked evidence to prove their effectiveness (Test & Stein, 1978).

One of the first models was the *half-way house* that was based on a gradual move of the individual from the hospital to the community. It provided for housing and staff availability twenty-four hours a day and patients could stay there from three to six months. At the half-way house the patients would also be encouraged and prepared for moving on to more independent situations. This involved participating in household chores, remaining in the community by receiving their psychiatric care at the local mental health center, and participating in community activities. Some patients were able to successfully become integrated into the community, while others ended up relapsing and returning to long-term inpatient care (Stein & Santos, 1998)

In the 1970s, the community mental health centers were an essential part of the mental health system. The U.S. Statutes at Large of 1975 described the federally funded centers system as efficient, providing services in an effective, comprehensive, humane, coordinated, cooperative, and continuous manner (Grob, 2000).

The day hospital or partial hospital was another plan implemented to gradually transfer patients from the inpatient institutions to the community. This model allowed patients to be discharged sooner from full-time hospitalization and to come to a day hospital everyday for treatment. However, it was time limited, and once day hospital services were discontinued relapse rates were high (Stein & Santos, 1998)

### *Community support program.*

In 1977 the National Institute of Mental Health (NIMH) created the Community Support Program. This new program included a mix of federal and state support. It allocated 3.5 million dollars per year to contracts with 19 states for three-year pilot demonstration programs that provided services to the chronically mentally ill. It was designated to foster *community support systems* which would attend to the needs of this specific population, such as housing, income, psychiatric and medical treatment, and support services (Dixon & Goldman, 2003; Goldman & Morrissey, 1985; Grob, 2000).

Dixon and Goldman (2003) and Goldman and Morrissey (1985) considered the community support systems an innovation which corresponded to a new cycle in the reform of treatment for the mentally ill. The systems would include social welfare provisions in addition to mental health provisions. Therefore, it differed fundamentally from previous cycles of mental health policy because it did not attempt to prevent chronicity. Instead, the community support systems would offer direct care and rehabilitation for the chronic mentally ill. The combination of a wide range of services recognized and treated the problem of chronic mental illness primarily as a social welfare problem (Dixon & Goldman, 2003; Goldman & Morrissey, 1985).

However, Community Support Reform encountered obstacles. The model was confronted with fiscal policy and resource constraints including: the repeal of the Mental Health Systems Act, the termination of disability benefits received by many mentally ill beneficiaries of SSI (Supplemental Security Income) and SSDI (Social Security Disability Insurance), resource limitations, lack of effective treatments, and lack of rehabilitation and support technologies, and exaggerated expectations (Goldman & Morrissey, 1985; Grob, 2000). According to Goldman and Morrissey (1985), mental health policies have been "overly optimistic".

### *Evidence-based practices.*

In the late 1970s, new evidence-based practices (EBP) came into the picture of community care (Dixon & Goldman, 2003). A broad definition of evidence-based practices states that it combines relevant research information that has been acquired systematically with clinical expertise and patient values. It is based on concern with accuracy of diagnostic tests, use of prognostic markers, and the efficacy and safety of therapeutic, rehabilitative, and preventive treatments (Institute of Medicine, 2001). EBP emphasizes the importance of scientific evidence in optimal mental health care and therefore, may play a crucial role in improving quality of care (Dixon & Goldman, 2003).

According to Dixon and Goldman (2003) the mental health care situation called for innovation and scientific support and promised change needed more than just good intentions. Given the poor outcome of previous reforms and movements, it was felt that a new idea needed to show some evidence before it could be proposed (Dixon & Goldman, 2003).

Preparing people to live appropriately in the community requires skills training in day-to-day living, social, and coping areas. It was suggested that a lack of these skills may cause this population to remain a target for prejudice, neglect, and abuse (Wilson & Dunn, 1996). Mentally ill people can often be released from mental hospitals without follow up care. Little assistance with accommodation and medication monitoring is considered to be a common problem faced by this population. Many of them live in very poor conditions or become homeless. Sometimes they go back to their homes with their families, who may have been blamed for contributing to their illness. The families often are not ready to receive the responsibility of caring for them and have little or no support such as education about mental illness, or therapy/counseling services (Wilson & Dunn, 1996).

## Assertive Community Treatment (ACT)

According to Dixon and Goldman (2003), Assertive Community Treatment - ACT is an evidence-based practice that embodies the ideals of community mental health and community support movements. It is the psychosocial intervention that has most influenced community care, and is the most empirically studied community mental health program approach (Dixon & Goldman, 2003; Stein & Santos, 1998). Assertive Community Treatment is also known in the literature as Training in Community Living, and as Continuous Treatment Model (Santos et al., 1993).

At the time it was proposed, in the early 1970s, there was a great interest in presenting scientific evidence of efficacy and evaluation of programs and treatments in the field. Consequently, the Training in Community Living program, as it was then called, underwent experimental investigation and demonstrated sufficient efficacy which allowed it to be carried on as a practice (Dixon, 2000). ACT studies involving randomized clinical trials have resulted in successful outcomes not only in the U.S. but also in Australia, Great Britain and Canada (Stein & Santos, 1998).

### *Differences between ACT and Case Manager Model*

The case manager model was developed to remediate the fragmentation of community services. In this model there is a single person involved in coordinating treatment. The case manager person is responsible for overseeing the various service providers in order to ensure the delivery of appropriate services. Unfortunately, the case manager often has a higher caseload than recommended by the ACT approach. In addition, this model may not be efficient with persons with severe mental illness because this population can be resistant to treatment, or may require more intense support and help than one clinician can provide (Stein & Santos, 1998).

In the ACT model, the client has contact and interacts with the entire treatment team. There is often a primary contact person who can be anyone in the team, except for secretary and part-time psychiatrist. A single clinician would have difficulties to commit or to be available in the intensity that the model requires. Case manager functions are usually shared by the team. Every member of the team has regular contact with every client. It is easier for a team to commit to long-term care than for a single individual to do so. However, when a client is assigned to a primary contact person there is a concern about matching them as best as possible. (Stein & Santos, 1998).

### *Growth of ACT*

Many authors have expressed the belief that deinstitutionalization has not worked as expected and has not led to significant quality of life improvement for people with significant mental illnesses. They argued that in order to successfully manage the aftermath of deinstitutionalization mental health services needed different techniques and resources (Dixon, 2000). According to Dixon (2000), ACT represented an effective community approach that could change the paradigm of mental health care since the model recommends coordination with other services and the community, and a treatment team that would bring services together as opposed to requiring a multitude of settings.

The ACT model was developed in the early 1970s at Mendota State Hospital in Madison, Wisconsin by Marx, Test and Stein. At that time, the intention of ACT creators was to address the revolving door where the chronically mentally ill were repeated hospitalized for brief periods and released back in the community. They believed that those patients who were repeatedly hospitalized served as evidence of the ineffectiveness of hospital treatment (Dixon, 2000; Stein & Santos, 1998). This group of patients was characterized as having a limited repertoire of problem-solving and coping behaviors, and often had powerful dependency needs that worsened under stress (Dixon, 2000). The idea was to help patients with these characteristics to develop the skills necessary to function effectively and independently (Dixon, 2000).

According to Stein and Santos (1998) the ACT model is best described 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" (p. 16). The services provided to accomplish this fall into the categories of treatment, rehabilitation, and case management.

The model is designed to provide services to a group of individuals with severe and persistent mental illness identified as needing to achieve any of several desired outcomes such as medication monitoring, reduced use of inpatient hospital services, increased quality and stability of community living, and normalizing activities of daily living such as competitive employment. It has also been reported to be a successful approach to dealing with law offenders who are mentally ill, and to the mentally ill population with substance abuse and dependency problems (Dixon, 2000).

ACT services are provided in the community using a multidisciplinary team approach. Stein and Santos (1998) have determined that team size should be large enough to provide services seven days a week, including some night time coverage, with on-call services available 24 hours every day of the week. The team should not be smaller than 8 and not larger than 12 including a secretary and a psychiatrist. The team should include professionals such as nurses, social workers, psychologists, vocational rehabilitation specialists, and substance abuse specialists. Ideally, the great majority of the staff should be full time, turnover should be minimal, and client-to-staff ratio should be no lower than eight-to-one and no higher than ten-to-one. Staff salaries should take into consideration the high level of responsibility of the job, and benefits should also be offered (Stein & Santos, 1998).

The model emphasizes the role of the team as direct providers of the majority of the services. Therefore, if a different type of service is needed, the team act as brokers for these services, and it is their responsibility to ensure that they are being provided as planned. Clients should be closely monitored so that rearrangements can be made to the treatment plan if needed. In addition, the team should be able to intervene or cooperate with crisis intervention efforts when they are necessary (Stein & Santos, 1998).

ACT services are delivered in a case oriented manner, with nature and frequency of staff contacts determined by patient's individual needs (Santos et al., 1993; Stein & Santos, 1998). Also, a continuous care strategy is followed. Services should not be time-limited or sequenced, but rather provided for as long as needed. Service intensity should be varied according to desired outcomes. According to Stein and Santos (1998), continuous treatment and monitoring are necessary to successfully stabilize chronic mental conditions. It is claimed that by adopting a continuous strategy ACT can enable severely mentally ill people to reach stability and quality of life in the community (Stein & Santos, 1998).

When clients first join this type of program they are assessed in terms of the skills and resources needed to improve their life quality. The team usually assists clients with general and individual goals. The individual goals are established in their individual treatment plan, which is developed according to the needs found in the initial assessment. The general goals involve medication monitoring; education about illness and treatment; managing substance abuse and dependence; obtaining and maintain decent and affordable housing; lessening involvement with law enforcement and criminal justice systems; vocational support (acquiring and keeping a job); reducing symptoms of mental illness, and maintaining a good general health status.(Stein & Santos, 1998).

As a new conceptualization of mental health care delivery, assertive community treatment coincided with the consumer movement and the changes in orientation of treatment that it proposed. Along these lines, both consumer satisfaction with care and consumer participation in providing care are important model components (Dixon, 2000). Recently, family psychoeducation about mental illness has been integrated into ACT's agenda (Stein & Santos, 1998).

In most cases, chronic psychiatric patients are not capable of supporting themselves. Usually, the financing of their treatment is transferred to the public health system. As mentioned previously, the history of public financing of psychiatric treatment for the chronically mentally ill has tended to shift from federal, to state, or county responsibility, with this shift of responsibility profoundly compromising the viability of implementing treatment programs. Therefore, the economics of mental health treatments is very important for their successful implementation (Test & Stein, 1978).

Cost-effectiveness studies on ACT have been undertaken. In general, community psychiatric treatment following the ACT model has proved to cost more than traditional community treatments. However, it appears to cost less when expenditures for hospital treatment are factored into the analysis. In addition, benefits measured in nonmonetary terms (e.g. reduced symptomatology, increased satisfaction with life) have been shown to be a significant advantage of ACT (Stein & Santos, 1998).

The ACT model has demonstrated strong empirical support (Santos et al., 1993). According to research, ACT is responsible for certain specific outcomes, such as increased stability of mental status and time out of hospitals, reduced hospital costs, improvements in adherence to medication, reduced medication side effects, reduced symptom severity, enhanced residential stability, enhanced role functioning, and improved overall quality of life (Stein & Santos, 1998). According to Stein and Santos (1998), the most consistent finding of ACT is greater stability in community living with reduced hospital use.

### *Mental Health Care in Rural Areas*

According to Fekete et al. (1998), rurality is defined by population density, geography, culture, and economic aspects. National data suggest that the prevalence of mental health disorders and the need for mental health services in rural areas is similar to those of urban areas. However, mental health service delivery in rural areas differs from the situation usually encountered at urban areas due to characteristics that will be briefly reviewed (National Institute of Mental Health [NIMH], 2000; National Rural Health Association [NRHA], 1999).

Some characteristics of rural areas consist of geographical isolation, stronger traditional values, and more financial impoverishment (American Psychological Association [APA], 2005; Fekete et al. 1998, NIMH 2000). In addition, unemployment rates are usually high, and families often do not have health insurance, or if they do coverage is inadequate (APA, 2005). Data from the National Institute of Mental Health (2000) show that more than 800 rural counties have high poverty rates, however, only

25% of people living in rural areas qualify for Medicaid compared to 43% in urban areas (NIMH, 2000)

Rural areas are also culturally different from urban areas (NIMH, 2000; NRHA, 1999). Social and family systems can be more available and more developed, and professional and personal networks are more likely to overlap. People usually are more knowledgeable, protective, and caring about their community (Fekete et al., 1998; McDonel et al., 1997). It is important to understand that these characteristics may impact the way mental health services are organized and the way that they are delivered to the population in these areas (Fekete et al., 1998).

Time after time, the capacity of rural environments to operate comprehensive care for the seriously mentally ill has been described as limited (Kane & Ennis, 1996). Mental health services in rural areas commonly suffer from: (1) fragmentation; (2) limited availability; (3) inadequate accessibility because of long traveling distances; (4) lack of public transportation; (5) lack of funding; (6) high cost; and (7) inefficiency (Fekete et al., 1998; Kane & Ennis, 1996; McDonel et al., 1997; Rohland & Rohrer, 1998).

According to several sources (APA, 2005; Fekete et al., 1998; Kane & Ennis, 1996; McDonel et al., 1997; NIMH, 2000; NRHA, 1999; Rohland & Rohrer, 1998), mental health service providers in rural areas are scarce. Staff recruitment and retention are also problematic, and there is also a lack of highly qualified mental health professionals (Rohland & Rohrer, 1998). This lack of highly qualified mental health professionals in rural areas also impacts rural hospitals which cannot respond to demands for crisis services (NRHA, 1999).

The mental health service infrastructure in rural areas has been described generally as inadequate (APA, 2005). Mental health services in rural areas are scarce and available through the general medical sector instead of being available through mental health specialist services (NRHA, 1999). Rural areas usually lack private mental health agencies. Therefore, community mental health centers, or other publicly funded agencies, represent the only mental health service available (Rohland & Rohrer, 1998). Recent data from rural areas show that there is a low availability of hospital based inpatient and outpatient services (NIMH, 2000; NRHA, 1999). According to the National Institute of Mental Health (2000), treatment cost increases because psychosocial rehabilitation services are inadequate when patients are discharged from hospitals, so they have to be re-hospitalized.

The social stigma associated with mental illness is usually stronger in rural areas (APA, 2005; Fekete et al., 1998; NRHA, 1999). The increased stigma also contributes to the difficulty of mental health service delivery in these areas (APA, 2005). Many residents of remote rural areas who suffer from mental illnesses do not seek care because of the stigma associated with mental illness (NIMH, 2000).

The American Psychological Association (APA) has identified rural health as a priority and has developed an APA Committee on Rural Health (CRH) (APA, 2005). According to Fekete (1998) research literature is currently unclear on "identifying features of effective rural case management" (p. 372), as model programs for persons with severe mental illness usually have been carried out in urban areas.

According to Stein and Santos (1998), rural mental health services are at a crucial time. Medicaid's rehabilitation guidelines regarding community care have resulted in implementation of rural outreach programs in some states making outpatient services more available (Stein & Santos, 1998). This has been welcomed as state and private mental health providers are concerned with reducing costs that are associated with hospital use. Therefore, it is recommended that rural mental health care services follow this trend and engage in practices that have an effect on the need for hospitalization (Stein & Santos, 1998).

### *ACT in rural areas.*

Although the Assertive Community Treatment (ACT) model was developed and evaluated in urban settings and most studies have concentrated on urban settings, some studies have been undertaken in rural areas (Santos et al., 1993). ACT must be adapted to rural settings because of the setting characteristics mentioned previously and, in short, relate to staff mobility, accessibility, communications, perceptions of mental health, attitudes toward treatment, means of transportation, and community resources (Santos et al., 1993; Stein & Santos, 1998). Reported difficulties of rural ACT include staff recruitment and retention because of extensive travel and the absence of *office camaraderie*. Significant incentives are necessary to recruit quality staff (Stein & Santos, 1998). Community health nurses fit rural ACT demands very well because they can perform "traditional social work, vocational rehabilitation, and home health duties" (Stein & Santos, 1998, p. 121)

The traditional components of ACT such as providing comprehensive direct services, holding everyday team meetings, and maintaining availability during times of crisis are compromised because of long travel distances (Santos et al., 1993; Stein & Santos, 1998). Availability during crisis, for instance, depends on phone services.

Independent living opportunities and employment support are also limited in rural areas. Family and community participation is even more crucial in assisting with carrying out treatment plans, medication monitoring, transportation, emergency support and in doing volunteer work, and mobilizing community resources. In the face of such difficulties, an ACT team must be very thorough in planning daily routines (Santos et al., 1993; Stein & Santos, 1998). An important goal for the ACT team is to educate family and community members to function as support persons in emergency or crisis situations. Clients and their environment are evaluated and frequently visited so that interventions can me made and problems can be avoided. (Stein & Santos, 1998).

### *ACT Outcome Studies*

In order to conduct an in depth exploration of the current role of Assertive Community Treatment in psychiatric care, seven studies involving the Assertive Community Treatment approach were selected. They include studies from both urban and rural areas so that current challenges and demands for services in the care for severely mentally ill people could be investigated and compared in these different settings. All of the participants included in the studies were diagnosed with severe mental illness. The criteria for selection of urban studies were the use of a longitudinal design and follow-up of treatment effectiveness. For the rural studies the criterion for selection was availability of studies.

#### *Urban studies.*

Three studies that investigate the outcome of Assertive Community Treatment in urban areas were selected. Two studies compare ACT interventions with other types of community care approaches, while one study follows the results of an ACT treatment program over a ten year period.

A study by Jerrel (1999) using a randomized clinical trial methodology compared the effectiveness of three approaches of community long-term care for 122 people with psychiatric disabilities: Program for Assertive Community Treatment (PACT), Clinical Team, and Intensive Broker. Participant numbers in each treatment type was not reported. The PACT model was the most intensive approach, included a multidisciplinary team, and provided direct and indirect treatment. The Intensive Broker model had similar intensity but focused more on linking people to services, and was empowerment oriented. The Clinical Team model consisted of a hybrid approach which was more traditional, less intensive and served as the comparison group in the analysis. Participants were treated and monitored for 18 months, with assessments being conducted at 6, 12, and 18 months. Psychosocial skills, psychiatric symptomatology, and satisfaction outcomes were measured using rating scales and interviews.

Following treatment, regarding psychosocial skills no differences were found between the Clinical Team and Intensive Broker models. The PACT participants scored higher on four dimensions of the Role Functioning Scale (RFS), and higher than the Clinical Team model on *work performance* on the Social Adjustment II scale (SAS-SMI). For psychiatric symptomatology, PACT participants reported significantly higher levels of symptoms than Clinical Team participants on all measures. On the other hand, the Intensive Broker group reported significantly greater symptoms than Clinical Team group for schizophrenia on the Computerized Diagnostic Interview Schedule-revised. On the Satisfaction with Life Scale, Intensive Broker and Clinical Team models did not differ significantly, but the PACT group was significantly more negative in three of the four aspects, including Social Relations, Work Endeavors, and Satisfaction with Mental Health Condition.

Monitoring the participants over the three follow-up points revealed that the only significant increase associated with PACT was *home stability* (SAS-SMI), with social relations increasing significantly only at the 12 month follow-up. With regard to observer ratings, members of the PACT group increased in all RFS dimensions at all follow-ups with the greatest increase in *independent living skills*. For symptomatology, significant reductions were found in all three models, but there were no significant differences between models. With regard to Life Satisfaction there was significant improvement found for the PACT model, but only at the 6 months follow-up.

In general, the authors of the study report that data favors the PACT model for psychosocial skills, and favors the Clinical Team model on life satisfaction and psychiatric symptomatology. However, the authors state that "The PACT model enhances client functioning in the community in some of the major areas of deficits that persons with severe and persistent mental illness demonstrate" (p. 347). While PACT participants reported higher levels of symptomatology than participants in the two other models, improvements in other dimensions were still found.

The second study (Wasmer et al., 1999) consisted of a 10-year follow-up of 64 ACT clients from a previous study. The dimensions investigated were related to hospitalization, such as hospital admissions, bed-days, and ACT contacts. State hospital records for the previous year of enrollment in ACT and for each of the 10 years were examined for each of the subjects, while hospital admissions and bed-stays from the year prior to ACT were compared to the even-numbered following years. Clients were classified into three groups according to their ACT utilization: *never closed* (n = 12; 19%) - clients had uninterrupted ACT services for ten years; *multiple service* (n = 35; 55%) – clients were transferred out of ACT services and thén returned; and *single service* (n = 17; 27%) – clients were transferred out of ACT services and never returned.

The number of hospitalizations and the number of days spent in state psychiatric hospitals declined for all people enrolled in the study. When compared to the total cohort, participants in the never closed group averaged fewer hospital admissions and fewer hospital days. The single service participants averaged fewer admissions and more hospital days, while the multiple episode group averaged more admissions and more hospital days. At the end of the study 80% of the subjects were living independently in the community.

During the ten years of the study, reductions in state hospitalization continued to decline significantly each year for all participants. Specifically, program participants spent 66% fewer days in state hospitals when compared to their pre-intake year. The greatest reduction was recorded for those people whose ACT support was not interrupted. The people who were moved to mainstream services without interruption did maintain significant reductions in state hospital utilization rates. The results were interpreted as supporting the value of continuous ACT services and the feasibility of time-limited interventions as well. A limitation of this study includes lack of a treatment control group.

The third study (Barry, Zeber, Blow, & Valenstein 2003) conducted a two-year patient outcome study of 174 participants comparing the ACT model (n = 93) and the

Strengths model (n = 81), which is an intensive approach in which the client works primarily with one provider instead of with a team. In addition, the Strengths model focuses on individual strengths rather than on pathology. and interventions are based on client determination. Follow-up was done every six months for the two-year study period measuring changes in service utilization, psychiatric symptomatology, and functional ability. Limitations of this study include setting differences; the Strengths model program was carried out at one large site, while the ACT model program was carried out at four smaller sites. Subjects in the Strengths model group were generally younger and better functioning than the ones in the ACT model group. Finally, the participants were not randomly assigned.

Regarding service utilization, both programs dramatically increased the use of outpatient care and decreased the number of inpatient days. Strengths participants used outpatient care at a higher rate when compared to ACT participants. ACT participants also showed reduced total inpatient days at a significantly greater rate (61% versus 53%). Both programs showed reductions in symptoms, however, participants in the Strengths model program evidenced a greater decrease in symptomatology as measured by the Brief Psychiatric Rating Scale (BPRS) than ACT participants (50% versus 18%). It is worth mentioning that participants in the Strengths model received antipsychotic medication (clozapine) more often than ACT participants due to program differences.

In order to examine if the different programs affected the poorest functioning clients, participants in both groups were further classified as *most symptomatic* and *least symptomatic* according to the BPRS median baseline. Both programs resulted in improved overall outcomes when analyzed together and over time improvements were primarily observed in the least symptomatic group, these outcomes were not specifically reported in the study. For the most symptomatic group the ACT group significantly improved outcomes over the Strengths group in all but one variable (not reported in the study), from the Instrumental Activities of Daily Living (IADL) scale. The study suggests that the intensive follow-up and contact provided by structured community-based care, such as ACT and Strengths models is one of the key ingredients for improved outcomes.

#### *Rural studies.*

Three studies that investigate the outcome of Assertive Community Treatment in rural areas were selected. The first two studies report findings on studies on ACT programs, while the third study compares ACT program and control group findings.

The first study (Field, Alness, & Knoedler, 1980) was an exploratory investigation by consultants who worked with three counties in rural areas that treated 25 clients using ACT. Program implementation was gradual, patients were usually admitted to the program one at a time, and it grew only as success was achieved. A great deal of effort was made to teach and adapt staff to the model. The dimension investigated was frequency of hospitalization. The limitations of this study included small sample size, lack of a comparison group, and limited outcome measures.

In two of the three counties none of the clients had been hospitalized six months later. In the third county 23% of clients had been hospitalized after six months. In addition, consultants provided relevant information regarding administering ACT programs in these areas. Contacts with clients were frequent but brief. Difficulties including mobility, community resources, and staff availability were managed through cooperation between and with other resources that are usually not perceived as mental health providers (e.g. police). The absence of inpatient services facilitated the development of alternatives for inpatient treatment. In these rural counties it was found that informal relationships were much stronger than in urban environments previously studied, which favored teamwork and structuring of services. Staff was already familiar with outreach principles, such as working outside the clinic and possessed a view of therapy that was not limited to the office space. The active support of program directors was highlighted as a contributing factor to the success of this intervention. Thus, this study suggests that the implementation of community treatment for chronically mentally ill patients using the ACT model is a realistic option for rural mental health programs.

The second study (Santos et al., 1993) considered treatment outcomes of a 4 to 26 month ACT intervention to medical records documenting hospital utilization and cost of care five years prior to the program implementation. The ACT intervention was associated with a 79% decrease in number of hospital days per year, and a 64% decrease in hospital admissions per year. It is important to note that a reduction in hospitalization does not necessarily mean improved clinical or functional status. Regarding cost of care, the ACT intervention was associated with a reduction in the cost of care of 52%.

This study also calls attention to difficulties of faithfully implementing ACT in rural areas. The ACT services in this rural program were delivered in a less intensive manner when compared to urban programs. The treatment teams were mostly formed by nurses and volunteers as opposed to a variety of mental health professionals, staff was not available for 24 hours per day, there were fewer team meetings, and families shared more responsibility for patient's care, such as medication compliance and housing.

The third study (Fekete et al., 1998) compared the ACT model to traditional services for 153 participants in four rural sites using a randomized clinical trial methodology. Follow-up at 6, 12, and 24 months considered hospital use, quality of life, level of functioning, attitudes toward medication, symptomatology, fidelity of program implementation, and residential, vocational and legal involvement, measured through scales and medical records. Traditional services and ACT services were implemented in each site.

A comparison within sites showed few site-level differences. Comparisons between sites also showed some significant differences: the ACT group showed positive differences in frequency and length of service contact, client satisfaction with services, and quality of living situation. Regarding fidelity of program implementation, the ACT programs in three sites that were rated by blind raters (data was missing for the fourth site) in this study averaged substantially lower than the mean for usually observed in urban programs. For satisfaction with services, most clients for both ACT and traditional services model reported being satisfied with services. However, ACT clients had significantly higher ratings of satisfaction with services than did traditional services clients.

At 12 months, the only significant difference between ACT and traditional treatment model was that ACT clients reported significantly higher ratings in improved quality of life than did participants in the control group. Although, both treatment programs resulted in a decreased number of hospital admissions, a reduction in the number of days hospitalized was only significant for the control group. At 24 months, staff rated ACT clients as having a higher quality of life compared to the traditional therapy; ACT clients also reported significant increase in quality of life from pre-treatment to post-treatment. ACT clients showed significantly lower severity of symptoms and higher level of functioning on the Indiana LOF Scale than did control clients and increased significantly on the LOF scale from pre-treatment to post-treatment. Residential, vocational, and legal involvement results show that ACT clients had less residential stability with fewer numbers of days at their longest residence when compared to control clients.

The study suggests modest, but encouraging findings. Although the magnitude of change was generally small, and similar changes were often observed in the control group, most of the changes observed for the ACT clients were in the predicted direction. Hospitalization data and second year residential stability findings did not favor the ACT group.

There were difficulties in faithfully implementing the ACT program in this rural area. which were associated with implementation of the model in rural areas. Based on ACT standards only two staff members were too few to function well as a team. None of the ACT groups included a nurse and the psychiatrist involvement was described as suboptimal. Service delivery was also less intensive than observed with urban programs.

In addition to the three urban and three rural studies reviewed a seventh study, conducted by McGrew et al. (1995) compared outcomes of clients admitted to ACT treatment programs at six sites over a two-year pretreatment period. Five of the study sites were in urban areas with one site in a rural area; all treatment locations were found in the same Indiana state region. A total of 212 clients were assessed at baseline and ar six, twelve, and eighteen months follow-up points for hospital use, quality of life, and level of functioning using checklists, scales, interviews, and hospital records.

According to the authors, significant improvements were found for the clients of five of the six sites in the study. Information about differences regarding the sixth site was not provided. In general, the annual mean rate of hospital admissions and days per client during treatment was significantly lower than the annual mean rate during the pretreatment period. In addition, hospital use, which was increasing during the pre-treatment period, decreased during the 18-month treatment period. Unfortunately, no comparisons between urban and rural area programs were carried out.

In addition to improvements in hospital usage, client quality of life ratings were significantly higher at six, twelve, and eighteen months compared to baseline. Improvements were also verified between six and eighteen months by staff ratings of quality of life. Regarding level of functioning, overall scores improved between program admission and at six, twelve, and eighteen months. Economically, a significantly higher proportion of clients had adequate money management skills at 12 months and the proportion of clients without regular income decreased between program admission at both six and twelve months.

The study findings support the effectiveness of ACT for persons with severe mental illness. Use of psychiatric hospitals was reduced, and improvements in quality of life and functioning were reported. Over the 18-month period, progressive decreases in frequency of hospital admissions and improvements in quality of life were reported. Although previous studies have found limited evidence for improved social functioning, this study suggested improved family and social support, increased self-reliance and independence, and improved daily living skills in domestic activities, self-care, and community awareness based on staff report. However, corroborating objective evidence to support these ratings was limited. The limitations of this study include a lack of a control group, non-independent and non blind raters, and interrater reliability was not examined. According to the authors, the most important finding is that new ACT treatment programs can be implemented in a relatively short period of time across an entire region of a state in this way planning can be coordinated and problem solving can be shared.

## Summary

This paper begins with a historical exploration of factors that accounted for the deinstitutionalization of care for the mentally ill in the United States. Deinstitutionalization changed the paradigm of mental health care in the country. Mental health care for severely mentally ill persons underwent a number of stages. In the beginning it was affiliated with religious organizations which left much of this population unattended. Then, state mental hospitals were created to respond to the growing demand for psychiatric care. These hospitals were large institutions in which patients were kept segregated from society. Political, economic, technological, and ethical issues required an alternative for inpatient, institution-based care. The alternative involved caring for the mentally ill within the community.

This new conceptualization of treatment had the community as the locus of care. It aspired to a least restrictive environment, where care could be more efficient and less costly, where there would be less disruption in patients' lives, and where stigma could be reduced. However, the transition from institutionalized care to community care encountered more problems than had been foreseen. The financial aspect remained as perhaps the most critical problem.

Mental health care for the severely mentally ill has encountered major problems in either form of care, institutional/inpatient or community. Clearly, no form of care is without problems, reform efforts are ongoing. These efforts must deal with complex issues that depend on multiple interrelated and interacting factors. These include financial resources, social policies and politics, stigma associated with mental illness, state versus federal responsibility, and the scientific validity of treatments in both inpatient and community settings.

Although ACT was compared to other treatment programs that showed success, the three ACT urban outcome studies reviewed in this paper still showed results in expected directions: reduction in hospital utilization rates, improved psychosocial functioning, and reduction in symptoms. In addition, they call attention to the importance of certain ACT elements on patient outcomes: long-term intervention, continuous character, and contact and intensity of services. However the urban ACT studies did have methodological problems such as non-random assignment of participants and redefinition of the Assertive Community Treatment model in order to adapt it to limited situations.

The three ACT outcome studies conducted in rural areas all also show results in expected directions: improved quality of life, improved psychosocial functioning, reduction in symptoms, reduction in hospitalization rates, and cost reductions. They call attention to the difficulties of implementing ACT in rural areas which affect service delivery. The team usually had reduced sizes, were not multidisciplinary, involvement of psychiatrist was limited, and meetings were also reduced. Services were delivered in a less intensive manner, they were not available 24 hours, and families shared more responsibility in patient care. However, as with the urban studies, there were methodological limitations such as non random assignment of participants. One multisite study showed results in reduction in hospital utilization rates, improved psychosocial functioning, and improved quality of life. However, the authors did not provide any specific comparison between rural and urban sites.

Overall, most studies reviewed had adequate sample size, used randomized samples, controlled implementation, used reliable measures, and carried out extended follow-up which enabled them to provide important information on outcomes of Assertive Community Treatment programs. The difficulties of implementing mental health programs in rural areas, discussed in the literature were confirmed by the studies reviewed. Future studies on ACT in either urban or rural areas should include appropriate follow-up and strive for more rigorous methodological control of variables.

It can be concluded that the Assertive Community Treatment model is an effective community mental health approach to care for the severely mentally ill in both urban and rural areas. In addition, ACT practices have been shown to comply with current mental health policies that require service delivery in the community, that are continuous, and are able to care for chronic mental health patients. As verified by this review, for ACT programs to be successful a great deal of resources have to be made available. However, in order to succeed, policy makers and society need to outline their expectations about mental health services, as well as the role of the severely mentally ill persons in society.

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# Appendix A: Definitions

Chronic psychiatric patient/chronic mentally ill patients: includes not only patients with long histories of psychiatric illness and institutionalization but also younger patients whose histories and clinical picture suggest a chronic course. The characteristics of these patients are as follows: high vulnerability to stress; deficiency in coping skills; extreme dependency; difficulty with working in the competitive job market; and difficulty with interpersonal relationships. In summary, the chronic psychiatric patient is one whose emotional disabilities are so serious and persistent that without appropriate support he or she is unable to maintain a stable adjustment to community life. Such patients represent a wide spectrum of diagnostic categories; the majority, however, carry a diagnosis of schizophrenia. (Test & Stein, 1978)

Community care: defined broadly as any treatment that takes place in the community in lieu of hospitalization (alternatives to mental hospitals), following early discharge (*premature release*), or after hospitalization (*aftercare*) (Dennis, Buckner, Lipton, & Levine, 1991).

Severe mental illness: a serious and persistent mental or emotional disorder (e.g., Schizophrenia, mood disorders, schizoaffective disorder) that disrupts functional capacities for primary aspects of daily life such as self-care, interpersonal relationships, and employment or education (Dennis, Buckner, Lipton, & Levine, 1991)