Peer-Reviewed Literature on Assertive Community Treatment (ACT), Hospital Care and Community Case Management

May 2010

Preface

We have created this particular literature search on ACT compared to hospital care and community case management, for mental health and addictions stakeholders (researchers and non-researchers alike). This product is a result of our ‘Research Needs Survey’ from our OMHAKEN session at the Making Gains 2009 conference. Specifically, we asked attendees: “OMHAKEN wants to know if you have specific research needs that you would like support with. Please let us know what they are”. Thus, we have created a series of literature searches on topics collected from the responses.

This document provides a scan of academic literature for the past 10 years. To provide some organization to the document, we have subdivided the abstracts into Canadian peer-reviewed articles and non-Canadian peer-reviewed articles. Although, the document is most useful when considered as a whole. We hope it will be a valuable tool for you, providing a quick and accessible overview of recent research in the field.

How we did it:

A member from OMHAKEN’s team used both the University of Toronto and Centre for Addiction and Mental Health’s (CAMH) computerized library databases, including search engines such as MedLine and PsychINFO. The following keywords, in various combinations, were used to identify the relevant articles: mental health, addiction, substance-use disorder/substance-related disorder, assertive community treatment (ACT), hospital care, community case management and community mental health services

If you have an article in publication or other literature that EENet should know about please contact eenet@camh.ca
Peer-Reviewed Literature on Assertive Community Treatment (ACT), Hospital Care and Community Case Management

Preface ................................................................................................................ 1

Canadian Peer-Reviewed Literature: ................................................................. 3

Additional Peer-Reviewed Literature (Non-Canadian): ............................... 13
Canadian Peer-Reviewed Literature:


The conduct of outcomes research on clients with serious mental illness using community mental health services is a challenge. Causal models with inclusion of mediating and moderating variables from social sciences evaluation methods provide a framework for conceptualizing and evaluating the complexity of community mental health services. This article presents the conceptualization and development of a framework for comprehensive evaluation of client outcomes in community mental health services and describes a case example of operationalizing and testing the framework in an evaluation of Assertive Community Treatment (ACT) in Southwestern Ontario, Canada. The initial framework was developed by hypothesizing a cause-effect pathway and links among delivered treatment variables, the implementation system, external factors, and intermediate and longer term outcomes. The framework was further validated and modified through stakeholder input. All variables identified in the framework were then operationally defined and instruments with good psychometric properties were chosen to measure the variables. This framework can provide a generic example for the conduct of community mental health evaluations.


This paper describes the evaluation of a mental health liaison (MHL) role in a rural community in Alberta, Canada. The role provides advocacy, education, indirect and direct client intervention, and follow up. It was developed to eliminate gaps in mental health care and build collaborative cultures between the local hospital, physicians' offices, mental health clinics, and community agencies. Obtaining stakeholder feedback was an important step in assessing initial service impact while providing directions for role refinement and future programme development. A total of 116 questionnaires were distributed to physicians, hospital staff, and community mental health assessing stakeholder perception relating to various functions of the MHL. A 50% (n = 58) response rate was achieved with broad representation from different partners, including 75% of local physicians. The majority of respondents positively perceived the roles, functions, and impact of the MHL, including relationship development across the hospital community, improved access to services, and perceived improved client outcomes. The results reinforced that the MHL service meets a previously unmet need in this rural setting. Findings are being used to refine roles, provide local learning and resource development, understand issues relating to programme development in other areas, and develop client level outcomes relating to the services delivered.
Act tailored for ethnocultural communities of metropolitan Toronto.
Persons with mental illnesses who are from ethnic minority groups are underserved in multicultural Canada and the United States. Ethnic minorities with serious mental illness have above-average rates of homelessness, emergency visits, hospitalizations, and legal involvement, resulting in high risks of morbidity and relapse. Matching clients with mental health service providers in language and cultural backgrounds is effective in improving care for ethnic minority groups. In 1999 the Ontario Ministry of Health funded Toronto's Mount Sinai Hospital Assertive Community Treatment (ACT) team—developed in partnership with Hong Fook Mental Health Association, a community agency—to provide intensive, community-based services tailored to ethnic minority persons with serious mental illness. In addition to the classic ACT services in pharmacotherapy and psychosocial rehabilitation, the ACT team also tailors services to meet the specific cultural needs of the clients. The Mount Sinai ACT team appears to be the only ACT team in the field of community psychiatry that specifically serves ethnocultural populations.

Dewa, Carolyn S; Horgan, Salinda; McIntyre, Dianne; Robinson, Gail; Krupa, Terry; Eastabrook, Shirley. Community Mental Health Journal. Vol.39(1), Feb 2003, pp. 17-32. Direct and indirect time inputs and Assertive Community Treatment.
Suggests that Assertive Community Treatment (ACT) is an appealing community program model because it proposes to provide individuals with coping skills that allow them to maintain independent lives in their communities and it offers the potential to decrease inpatient stays and increase community tenure. But, it is not without its limitations. Critics point out that ACT's unique elements also make it a potentially very resource intensive program—an important consideration in times of fiscal constraints. Though the charge may be justified, there is little in the literature that actually quantifies the intensity of resources used. The process through which it achieves outcomes is not frequently described. Using ACT team workload information, the authors examine the time trade-offs—direct for indirect time—involved with implementing this model. In addition, they describe the specific activities that make up the direct and indirect time inputs that go into supporting clients in the community through assertive team oriented case management.

Mental health reform in Ontario is moving in the direction of community-based delivery of mental health services. At the same time psychosocial rehabilitation is emerging as a field of professional study for those who work in the community with individuals suffering from a mental illness. This paper offers a reflection on how terms popularized in mental health such as empowerment and value ought to communicate an existential movement rather than reified technological jargon.
Fenta, Haile. Hyman, Ilene. Noh, Samuel. Journal of Nervous & Mental Disease. 194(12):925-34, 2006 Dec. Mental health service utilization by Ethiopian immigrants and refugees in Toronto. The purpose of this study was to examine the mental health service utilization patterns of Ethiopians in Toronto. A cross-sectional epidemiological survey of 342 randomly selected adults was conducted, based on a conceptual model of healthcare utilization suggested by Anderson and Newman. The results suggested that 5% of the respondents sought mental health services from healthcare professionals and 8% consulted nonhealthcare professionals. Although Ethiopians' utilization rate of mental health services did not greatly differ from the rates of the general population of Ontario (6%), only a small proportion (12.5%) of Ethiopians with mental disorders used services from healthcare professionals, mostly family physicians. The data also suggested that Ethiopians were more likely to consult traditional healers than healthcare professionals for mental health problems (18.8% vs. 12.5%). In multivariate logistic regression analyses, while the number of somatic symptoms experienced was positively associated with increased mental healthcare utilization (OR = 1.515, p < 0.05), having a mental disorder was associated with decreased mental healthcare utilization (OR = 0.784, p < 0.01). Our findings have important implications for mental health services. On the one hand, the findings suggest that somatic symptoms could lead to increased use of mental health services, particularly family physicians' services. On the other hand, the data suggested that although the mental healthcare needs of Ethiopians are high, they use fewer mental health services from healthcare professionals. It would seem that family physicians could play important role in identifying and treating Ethiopian clients with somatic symptoms, as these symptoms may reflect mental disorder.

Frank, Daniel. Perry, J Christopher. Kean, Dana. Sigman, Maxine. Geagea, Khalil. Psychiatric Services. 56(7):867-9, 2005 Jul. Effects of compulsory treatment orders on time to hospital readmission. To evaluate the effect of compulsory community treatment orders on subsequent time out of the hospital, the authors studied the admission dates of psychotic patients who had repeated hospitalizations in Quebec, Canada, and divided each admission according to its time in relation to the index admission, during which the judicial order was obtained. The data were stratified by type of admission (early, preindex, index, or postindex), and the hypothesis tested was that the median time to readmission would be greatest for the index admission. The hypothesis was confirmed, supporting previous findings that judicial orders that mandate severely ill psychotic patients to undergo compulsory community treatment are associated with decreased time spent in the hospital and thus increased personal freedom.

Gendreau, L. Journal of Psychiatric and Mental Health Nursing. Vol.16(3), Apr 2009, pp. 311-313. Emergency room outreach: A new approach. Emergency room (ER) overcrowding has become one of the biggest challenges facing health care today. Across Canada, the average ER wait time for a patient to be admitted to an acute care bed has surpassed 15 h, and many hospital facilities are operating at or near full patient capacity. Mindful of the numerous patient and staff health risks associated with ER overcrowding, and the significant length of time and cost required to increase bed capacity, there is increasing pressure to develop new and
innovative approaches to address the immediate burden of ER overcrowding. The Emergency Room Outreach (ERO) program is a unique community-based mental health program that offers a partial solution to ER overcrowding, while providing ongoing support for mental health clients discharged directly from the ERs. Often mental health patients discharged from the ER experienced difficulty connecting with appropriate community resources, navigating complex program admission requirements, or generally felt unsupported and frustrated. With their difficulties unresolved, many would return to the ER presenting at either the same or at a different city ER. ERO staff is provided with a cell phone by the health region, and are compensated for personal vehicle use.


PURPOSE: To implement a carepath for early psychosis across all community mental health centres through the Early Psychosis Intervention Programme in the Fraser South Area of British Columbia, Canada. METHODS: Prior to developing the carepath, chart reviews and interviews were performed to assess for adherence to published guidelines for early psychosis intervention. This assessment revealed the inadequacies of narrative recording and that core psychosocial interventions were inconsistently provided. The carepath developed included prompts for interventions and standardized assessments and ultimately replaced the charting system used in the mental health centres for early psychosis clients. RESULTS AND CONCLUSIONS: One-year evaluation revealed some improvements in clinical practice but also identified other areas that require further improvement. This project demonstrated that it is possible to successfully implement a carepath in community mental health and that doing so provides a standardized method for ongoing improvements in care.


OBJECTIVE: This study followed consumers after admission to an assertive community treatment program to determine when the first hospital admission was more likely to occur, which variables predicted community tenure, and, more specifically, whether the availability of within-program hospital beds predicted community tenure. METHODS: Data were gathered from three assertive community treatment programs in southeastern Ontario--the psychosocial rehabilitation program, the community integration program, and the assertive community treatment team program. Only the psychosocial rehabilitation program provided within-program beds. Hospital records of consumers who entered a program between July 1, 1990, and December 1, 1999, were examined prospectively until January 1, 2000, in order to record time to the first admission. Survival analysis based on the life-tables method was used to estimate the probability of remaining out of the hospital at 90-day intervals. Factors associated with time to admission were identified by using the Cox proportional hazards model. RESULTS: A total of 333 consumers were followed: 117 consumers in the psychosocial rehabilitation program, 105 in the community integration program, and 111 in the assertive community treatment team program. Findings
indicated that consumers were most likely to be admitted to a hospital in the nine months after entering an assertive community treatment program. A diagnosis of substance use disorder, higher past hospital use, and the availability of within-program beds were associated with an increased risk of admission. CONCLUSIONS: Studies have shown that hospitalization remains a reality for many consumers and therefore warrants further study. The survival model proved advantageous by allowing a more complete and comparable description of consumers’ hospitalization patterns that cannot be achieved with previously used methods, and it offered the power of regression analysis.

King, Robert; Jordan, Andrew; Mazurek, Emily; Earle, Kim; Earle, Erin; Runham, Alicia. Mental Health Aspects of Developmental Disabilities. Vol.12(1), Jan-Mar 2009, pp. 1-7. Assertive community treatment—Dually diagnosed: The hyphen was the easy part.
The efficacy of community-based Assertive Community Treatment (ACT), in supporting individuals with severe and persistent mental illnesses, has been well established in North America. Fidelity to established core principles of this modality of care has been demonstrated to optimize individual outcomes as measured objectively in a variety of life domains. Recent attempts have been made to extend ACT principles to groups of individuals with special needs, including the homeless, individuals with forensic histories, and individuals with developmental disabilities (DD). In response to two recent studies questioning the value to this approach of supporting individuals in the community with DD and mental health concerns, we conducted a naturalistic, retrospective chart review to demonstrate current characteristics of the population served by an ACT team mandated to provide care specifically to individuals with DD and mental health concerns. Reduced days of hospitalization, retrospectively measured pre and post engagement with the team clearly demonstrate value of this approach in supporting this group of individuals. Variations to fidelity principles deemed to optimize the fit between these principles and the unique needs of these individuals, their care providers, and families, are reviewed.

This paper describes a province-wide initiative aimed at building the capacity of community mental health programs to participate in program evaluation and development by transferring knowledge, promoting discussion and developing resources. Active involvement of stakeholders and evaluation of the current capacity of the field informed the ongoing development of the initiative. Recovery served as a guiding framework for formulating and understanding community mental health outcomes. Despite the interest of the field in evaluation activities, programs were constrained by limited resources and accountability structures. Sustainability of the project would be enhanced by direct work with programs to facilitate application of Continuous Improvement.

Using a participatory research approach this study examined Assertive Community Treatment as experienced by service recipients. Overall participants were positive about their involvement with ACT and their experiences reflected critical ingredients of the model. The analysis revealed seven ways the ACT promoted community adjustment. Unhelpful aspects of the experience included staff requiring more training in particular service areas, conflicts over money and medications, stigmatizing aspects of the service, and authoritative practices of individual staff. Services promoting community participation were less well-developed than clinical approaches. Tensions inherent in receiving ACT services were related to the participants' negotiation of personal and social consequences of mental illness while striving for autonomy, community participation and inclusion.


The development of mental health services for people with severe mental illness has in many ways paralleled that in other countries, particularly the United States. As reliance on inpatient psychiatric care has been sharply reduced, a wide range of community supports have been developed. Several distinct institutional and legal features have contributed to shaping the nature of these community supports, which are described herein. At present, the result is a highly fragmented system of care. Key evidence-based practices, notably assertive community treatment, supported employment, and integrated treatment for concurrent severe mental illness and substance use disorder, achieve considerable integration at the clinical level, but remain relatively unavailable in most provinces. The policy of regionalization of services risks inhibiting the development of such practices, which require more centralized technical assistance and monitoring. An evolutionary approach of gradually introducing integrated, evidence-based programs may provide the most feasible strategy for improving the system.


Limited access to paediatric mental health services and high drop-out rates from treatment result in poor health outcomes for families with children with mental health problems. New ways of delivering care are required. Telehealth is a promising approach. The Family Help programme employs manualized, distance treatment by telephone. Participants in the Family Help programme (both adults and children) have reported a strong therapeutic alliance with their telephone coach. Participants also described how during treatment sessions they felt comfortable and safe in their own home; they did not feel stigmatized or judged; they had little apprehension about self-disclosure and they felt that treatment was delivered at their convenience. Treatment calls were often scheduled after typical working hours. Attrition rates were found to be very low and children actively engaged in the structured, distance treatment. Evidence-based, distance delivery using non-professionals is a promising approach to the delivery of paediatric mental health care.
The search for innovative mental health systems and practices is akin to the search for the Holy Grail: the journey is at least as important as the destination. We received more than 20 submissions for this special issue. Following peer review, we were able to select articles that present a great variety of topics and geographical settings: promising practices in program delivery and policy from Africa, Asia, Australia, Europe, the Middle East, and the United States. The last stop in this "world tour" is a book review that critically analyzes recent developments in Australian community mental health. In all, this special issue will provide readers with a cornucopia of perspectives, ideas, concrete situations, and experimentations regarding mental health services and policy. We were aware from the outset that wisdom on mental health issues is certainly not restricted to North America, or even the developed world (indeed, it was this awareness that motivated the choice of theme for the issue). Nevertheless, it has been humbling for us to consider and reflect upon these diverse international perspectives and experiences.

While assertive community treatment (ACT) teams are now an important resource for over 3,300 people living with severe and persistent mental illness in Ontario, ACT teams have had limited success reducing the unemployment rate of consumers. Results from the most recent survey of Ontario ACT teams show the unemployment rate stuck at 77% (Ministry of Health and Long-Term Care, ACT Technical Advisory Panel, 2006). This article reviews the characteristics and service outcomes reported by ACT teams in Ontario and explores the paradox of impressive outcomes of reduced hospitalization and improved housing tenure alongside limited progress on the employment front. It also examines the plans of one organization (Canadian Mental Health Association, Toronto Branch) to improve employment results for consumers of its ACT teams.

Relationships between trauma variables, complex post-traumatic stress disorder (complex PTSD), affect dysregulation, dissociation, somatization, and alexithymia were studied in 70 women with early-onset sexual abuse treated in community-based private (n = 25) or clinic outpatient settings (n = 45). Measures were the Toronto Alexithymia Scale-20 and the Psychological Trauma Assessment Program. Compared with the community sample, the clinic sample (1) met diagnostic criteria for both lifetime and current complex PTSD; (2) showed correlations between current affect dysregulation, dissociation, and somatization with alexithymia; and (3) higher levels of alexithymia. Results suggest the clinic sample continued to experience current forms of suffering, risk, and vulnerability associated with early-onset
sexual trauma. The findings may have implications regarding types of treatment available in community versus clinic settings.


OBJECTIVES: Although the association between continuity of care and health outcomes among persons with severe mental illness is beginning to be elucidated, the association between continuity and costs has remained virtually unexplored. The purpose of this study was to examine the relationship of continuity of care and health care costs in a sample of 437 adults with severe mental illness in three health regions of Alberta, Canada. METHODS: Service use events and costs were tracked through self-reported and administrative data. Associations between continuity and costs were examined by using analysis of variance and regression analysis. RESULTS: Mean+/−SD total, hospital, and community cost over the 17-month study period were $24,070+/−$25,643, $12,505+/−$20,991, and $2,848+/−$4,420, respectively. The difference in means across levels of observer-rated continuity was not statistically significant for total cost, but improved continuity was associated with both lower hospital cost and higher community cost. Total cost was significantly lower for patients with a higher self-rated quality of life as indicated on the EQ-5D visual analogue scale, although associations did not hold up in the regression analysis. Patients with higher functioning as rated by the Multnomah Community Abilities Scale had significantly lower total and community costs. CONCLUSIONS: The study showed a relationship between continuity of care and both hospital and community costs. The data also indicate that a relationship exists between cost and level of patient functioning. It will be necessary to conduct further studies using experimental designs to examine the impact of shifting resources from hospitals to the community, particularly for high-need patients, on continuity of care and subsequent outcomes.


Like many jurisdictions, mental health policy-making in Ontario, Canada, has a long history of frustrated attempts to move from a hospital and physician-based tradition to a coordinated system with greater emphasis on community-based mental health care. This study examines policy legacies associated with the introduction of psychiatric hospitals in the 1850s and of public health insurance (medicare) in the 1960s in Ontario; and their effect on subsequent mental health reform initiatives using a qualitative case study approach. Following Pierson (1993) we capture the resource/incentive and interpretive effects of prior policies on three groups of actors: government elites, interests, and mass publics. Data are drawn from academic and policy literature, and key informant interviews. The findings suggest that psychiatric hospital policy produced important policy legacies which were reinforced by the establishment of Canadian medicare. These legacies explain the traditional difficulty in achieving mental health reform, but are less helpful in explaining recent promising developments that support community-based care. Current reform of the Ontario health system presents an opportunity to overcome several of these
legacies. Analysis of policy legacies in other countries which had an asylum tradition may help to explain the similarities and differences in their subsequent paths of mental health reform.


There is a need to widen the practice of health psychologists to include the theories and methods of community psychology and an awareness of contemporary issues in community health. The aim of such a community health psychology would be both to deepen our understanding of the aetiology of health and illness in society and to develop strategies that will contribute to a reduction in human suffering and an improvement in quality of life. The aim of this article is to review the background and assumptions of community health psychology and to consider some values that would underlie such an approach.


A review of 16 controlled outcome evaluations of housing and support interventions for people with mental illness who have been homeless revealed significant reductions in homelessness and hospitalization and improvements in other outcomes (e.g., well-being) resulting from programs that provided permanent housing and support, assertive community treatment (ACT), and intensive case management (ICM). The best outcomes for housing stability were found for programs that combined housing and support (effect size = .67), followed by ACT alone (effect size = .47), while the weakest outcomes were found for ICM programs alone (effect size = .28). The results of this review were discussed in terms of their implications for policy, practice, and future research.

**Sealy, Patricia; Whitehead, Paul C.** Canadian Journal of Community Mental Health. Vol.25(1), Spr 2006, pp. 1-15. The impact of deinstitutionalizing psychiatric services on the accessing of mental health services by people with higher levels of psychological distress.

Even though the policy of deinstitutionalization of mental health services purports to improve access to community-based services, there is a paucity of research that evaluates the impact of this policy on the general community. The research in this study builds on an empirical analysis of 40 years of the process of deinstitutionalization of mental health services in Canada (Sealy & Whitehead, 2004). An experimental design is simulated through the use of a derived construct-earlier vs. later deinstitutionalization—in order to test whether the policy of deinstitutionalization has achieved the goal of improving the accessing of mental health services by people with increased levels of psychological distress, while taking into consideration various social correlates. Data about the accessing of mental health services were obtained in the National Population Health Survey (Statistics Canada, 1996, 2001). Results identify that provinces that implemented deinstitutionalization earlier show improved access of community mental
health services and fewer social inequalities of access. Nevertheless, the majority of people who have higher levels of psychological distress have not accessed mental health services.

Examined hospital outcome measures for individuals with chronic and severe mental illnesses before and after their registration in an assertive community treatment (ACT) program in Edmonton, Alberta. Data were collected from Alberta Health on individuals who were registered in ACT from April 1993-April 1995. For each individual, hospital outcome measures were calculated for the 365 days prior to and 365 days after registration for ACT. Data were collected from 295 individuals (mean age 40.7 yrs). Compared with 1 year prior to beginning ACT, there was a 34% reduction in hospital separations for patients with psychiatric diagnoses. The average length of stay for each separated patient decreased by 56%, and the hospitalization days for each patient separated also decreased by 39%. The number of emergency visits for psychiatric reasons was reduced by 32%, and the number of clients visiting emergency departments for psychiatric reasons declined by 30%.

This study evaluated outcomes for participants of a community-based residential treatment and rehabilitation program. The study used repeated measures to retrospectively evaluate 25 individuals with severe psychiatric disabilities who completed a 1-year follow-up period after discharge from the program. Results indicated that following the program these individuals lived for significantly longer periods in the community in more independent settings and functioned at higher levels than in the 6 years prior to participation in the program. These positive outcomes suggest that residential treatment and rehabilitation may be an important consideration in the care of some individuals with severe psychiatric disabilities.

Yang, Jian; Law, Samuel; Chow, Wendy; Andermann, Lisa; Steinberg, Rosalie; Sadavoy, Joel; Glazer, William M. Psychiatric Services. Vol.56(9), Sep 2005, pp. 1053-1155. Assertive Community Treatment for Persons With Severe and Persistent Mental Illness in Ethnic Minority Groups.
Assertive community treatment is a well-established model for providing intensive treatment and psychosocial rehabilitation services to people with severe and persistent mental illnesses. Although assertive community treatment has been well studied in the general population in North America and parts of Europe, no studies have examined its effectiveness when used with specific populations of persons with serious mental illnesses, such as recent immigrants, refugees, and persons from ethnic minorities with cultural and language barriers. This column reports on the unique and innovative aspects of the ethnoculturally focused team and use data from a one-year outcome study to describe its effectiveness. The one-year outcome study, included 66 patients who were consecutively admitted to the
program between 1999 and 2003. The expanded 24-item version of the Brief Psychiatric Rating Scale (BPRS) was used to assess general psychiatric symptoms and the 17-item Hamilton Depression Scale (HRSD) for mood symptoms. Overall, the patients had a low level of acculturation. Fifty-three (80 percent) were immigrants from Asian countries, 21 (32 percent) were illiterate in English or French, 36 (55 percent) were not familiar with the mainstream culture; for example, they were unable to perform basic tasks such as setting up telephone or bank services or to maintain any social contact within the mainstream society. Significant reductions in hospitalization rates were noted from the year before admission to assertive community treatment to the year afterward.

Additional Peer-Reviewed Literature (Non-Canadian):

Van der Heiden, W. Gesundheitswesen. 58(1 Suppl):38-43, 1996 Jul. [Can outpatient measures prevent inpatient admission?]. [German]
During the last decades the focus of psychiatric care has shifted from hospital to the "community". As the philosophy of deinstitutionalisation implies that community mental health care is preferable to hospital care and that treatment functions may be performed equally well or even better outside a hospital, one of the main objectives of community-based care consisted in preventing hospital readmission. Despite many objections readmission data and length of stay become most popular as outcome criteria in the evaluation of treatment measures. However, until today evaluative research has failed to demonstrate the overall effectiveness in preventing inpatient treatment. This is mainly due to the fact that the complexity of the research topic could not be adequately modelled and controlled in observational studies as the main source of information.

There has been a long-running controversy about the relative benefits of Assertive Community Treatment (ACT) compared to Case Management (CM). Several health care systems have initiated major service overhauls on the basis of published evidence. Yet this evidence has been ambiguous and supports differing interpretations. Research is examined which explores the differences in outcomes reported. It uses a range of approaches, most prominently meta-regression, to test a small range of hypotheses to explain the heterogeneity in outcomes. The main determinant of differences between ACT and CM studies is the local bed management procedures and occupancy practice. Those organizational aspects of ACT which are generally shared by CM teams are associated with reduced hospital care but the stringent staffing proposed for ACT does not affect it. ACT is a specialized form of CM, not a categorically different approach. The benefits of introducing it will depend on the nature of current local practice. Important lessons about the need to focus on treatments rather than structures seem not to have been learnt. Psychiatry's recent excessive focus on service structures may have had unintended consequences for our professional identity.
OBJECTIVES: To explain why clinical trials of intensive case management for people with severe mental illness show such inconsistent effects on the use of hospital care. DESIGN: Systematic review with meta-regression techniques applied to data from randomised controlled trials. DATA SOURCES: Cochrane central register of controlled trials, CINAHL, Embase, Medline, and PsychINFO databases from inception to January 2007. Additional anonymised data on patients were obtained for multicentre trials. REVIEW METHODS: Included trials examined intensive case management compared with standard care or low intensity case management for people with severe mental illness living in the community. We used a fidelity scale to rate adherence to the model of assertive community treatment. Multicentre trials were disaggregated into individual centres with fidelity data specific for each centre. A multivariate meta-regression used mean days per month in hospital as the dependent variable.

RESULTS: We identified 1335 abstracts with a total of 5961 participants. Of these, 49 were eligible and 29 provided appropriate data. Trials with high hospital use at baseline (before the trial) or in the control group were more likely to find that intensive case management reduced the use of hospital care (coefficient -0.23, 95% confidence interval -0.36 to -0.09, for hospital use at baseline; -0.44, -0.57 to -0.31, for hospital use in control groups). Case management teams organised according to the model of assertive community treatment were more likely to reduce the use of hospital care (coefficient -0.31, -0.59 to -0.03), but this finding was less robust in sensitivity analyses and was not found for staffing levels recommended for assertive community treatment. CONCLUSIONS: Intensive case management works best when participants tend to use a lot of hospital care and less well when they do not. When hospital use is high, intensive case management can reduce it, but it is less successful when hospital use is already low. The benefits of intensive case management might be marginal in settings that have already achieved low rates of bed use, and team organisation is more important than the details of staffing. It might not be necessary to apply the full model of assertive community treatment to achieve reductions in inpatient care.

OBJECTIVE: The authors sought to update the randomized controlled trial literature of psychosocial treatments for schizophrenia. METHOD: Computerized literature searches were conducted to identify randomized controlled trials of various psychosocial interventions, with emphasis on studies published since a previous review of psychosocial treatments for schizophrenia in 1996. RESULTS: Family therapy and assertive community treatment have clear effects on the prevention of psychotic relapse and rehospitalization. However, these treatments have no consistent effects on other outcome measures (e.g., pervasive positive and negative symptoms, overall social functioning, and ability to obtain competitive employment). Social skills training improves social skills but has no clear effects on relapse prevention, psychopathology, or employment status. Supportive employment programs that use the
place-and-train vocational model have important effects on obtaining competitive employment. Some studies have shown improvements in delusions and hallucinations following cognitive behavior therapy. Preliminary research indicates that personal therapy may improve social functioning. CONCLUSIONS: Relatively simple, long-term psychoeducational family therapy should be available to the majority of persons suffering from schizophrenia. Assertive community training programs ought to be offered to patients with frequent relapses and hospitalizations, especially if they have limited family support. Patients with schizophrenia can clearly improve their social competence with social skills training, which may translate into a more adaptive functioning in the community. For patients interested in working, rapid placement with ongoing support offers the best opportunity for maintaining a regular job in the community. Cognitive behavior therapy may benefit the large number of patients who continue to experience disabling psychotic symptoms despite optimal pharmacological treatment.

Coast, J. Inglis, A. Frankel, S. BMJ. 312(7024):162-6, 1996 Jan 20. Alternatives to hospital care: what are they and who should decide?
OBJECTIVE--To examine potential for alternatives to care in hospitals for acute admissions, and to compare the decisions about these alternatives made by clinicians with different backgrounds. DESIGN--Standardised tool was used to identify patients who could potentially be treated in an alternative form of care. Information about such patients was assessed by three panels of clinicians: general practitioners without experience of general practitioner beds, general practitioners with experience of general practitioner beds, and consultants. SETTING--One hospital for acute admissions in a rural area of the South and West region of England. SUBJECTS--Of 620 patients admitted to specialties of general medicine and care of the elderly, details of 112 were assessed by panels. MAIN OUTCOME MEASURES--Proportion of hospitalised patients who could have received alternative care and identification of most appropriate alternative form of care. RESULTS--Both general practitioner panels estimated that between 51 and 89 of the hospitalised patients could have received alternative care (equivalent to 8-14% of all admissions). Consultants estimated that between 25 and 55 patients could have had alternative care (5.5-9% of all admissions). General practitioner bed and urgent outpatient appointment were the main alternatives chosen by all three panels. CONCLUSION--About 10% of admissions to general hospital might be suitable for alternative forms of care. Doctors with different backgrounds made similar overall assessments of most appropriate forms of care.

OBJECTIVE: The purpose of this study was to assess the effectiveness of assertive community treatment in the rehabilitation of homeless persons with severe mental illness using a meta-analysis. METHOD: A structured literature search identified studies for review. Inclusion criteria were the use of an assertive community treatment-based rehabilitation treatment in an experimental or quasi-experimental model, exclusive treatment of homeless subjects, and follow-up of housing and psychiatric outcomes. Two reviewers independently abstracted data on methodology and outcomes from included studies. The
authors calculated effect differences, summary effects and confidence intervals (CIs) for housing, and hospitalization and symptom severity outcomes. RESULTS: Of the 52 abstracts identified, 10 (19%) met inclusion criteria. Of these, six were randomized controlled trials, and four were observational studies, totaling 5,775 subjects. In randomized trials, assertive community treatment subjects demonstrated a 37% (95% CI=18%-55%) greater reduction in homelessness and a 26% (95% CI=7%-44%) greater improvement in psychiatric symptom severity compared with standard case management treatments. Hospitalization outcomes were not significantly different between the two groups. In observational studies, assertive community treatment subjects experienced a 104% (95% CI=67%-141%) further reduction in homelessness and a 62% (95% CI=0%-124%) further reduction in symptom severity compared with pretreatment comparison subjects. CONCLUSIONS: Assertive community treatment offers significant advantages over standard case management models in reducing homelessness and symptom severity in homeless persons with severe mental illness.


Production processes and service delivery in acute care hospitals can be fragmented. Inpatient case management has the potential to improve both processes and outcomes of hospital care. The author reports on 18 research studies that used inpatient case management as the treatment variable. These outcome studies, using case management, did not provide the evidence needed to address deficiencies in inpatient settings. However, these studies do provide clear direction for nurse administrators and nurse researchers to take concerning the next steps needed to address this critical issue.


OBJECTIVE: Severe and persistent mental illnesses are often lifelong and characterized by intermittent exacerbations requiring hospitalization. Providing needed care within budgetary constraints to this largely publicly subsidized population requires technologies that reduce costly inpatient episodes. The authors report a prospective randomized trial to test the clinical effectiveness of a model of acute residential alternative treatment for patients with persistent mental illness requiring hospital-level care. METHOD: Patients enrolled in the Montgomery County, Md., public mental health system who experienced an illness exacerbation and were willing to accept voluntary treatment were randomly assigned to the acute psychiatric ward of a general hospital or a community residential alternative. There were no psychopathology-based exclusion criteria. Treatment episode symptom improvement, satisfaction, discharge status, and 6-month pre- and postepisode acute care utilization, psychosocial functioning, and patient satisfaction were assessed. RESULTS: Of 185 patients, 119 (64%) were successfully placed at their assigned treatment site. Case mix data indicated that patients treated in the hospital (N = 50) and the alternative (N = 69) were comparably ill. Treatment episode symptom reduction and patient satisfaction were comparable for the two settings. Nine (13%) of 69 patients randomly assigned to the alternative required transfer to a hospital unit; two (4%) of 50 patients randomly assigned
to the hospital could not be stabilized and required transfer to another facility. Psychosocial functioning, satisfaction, and acute care use in the 6 months following admission were comparable for patients treated in the two settings and did not differ significantly from functioning before the acute episode. CONCLUSIONS: Hospitalization is a frequent and high-cost consequence of severe mental illness. For patients who do not require intensive general medical intervention and are willing to accept voluntary treatment, the alternative program model studied provides outcomes comparable to those of hospital care.


BACKGROUND: Developing a better understanding of if, and when, patients need care at a general hospital is an urgent challenge, as the proportion of general hospital beds being occupied by older patients is continuously increasing. METHODS: In a randomized controlled trial, of 142 patients aged 60 years or more admitted to a city general hospital due to acute illness or exacerbation of a chronic disease, 72 (intervention group) were randomized to intermediate care at a community hospital, and 70 (general hospital group) to further general hospital care. The patients were followed up for 12 months. The need for long-term home care and nursing homes, mortality and the number of admissions and days in general hospital for all diseases were monitored. RESULTS: Thirty-five patients, 13 (18.1%) of the patients included in the intervention group and 22 (31.4%) in the general hospital group, died within 12 months (p=0.03). Patients in the intervention group were observed for a longer period of time than those in the general hospital group; 335.7 (95% confidence interval (CI) 312.0-359.4) vs. 292.8 (95% CI 264.1-321.5) days (p=0.01). There were statistically no differences in the need for long-term primary-level care or in the number of admissions or days spent in general hospital beds. CONCLUSIONS: Intermediate care at the community hospital in Trondheim is an equal alternative to ordinary prolonged care at the city general hospital, as fewer patients were in need of community care services, and significantly fewer patients died during the 12-month follow-up time.


OBJECTIVE: To examine the effectiveness of the introduction of a community mental health team on consumer psychosocial outcomes. DESIGN: Longitudinal panel design. SETTING: District general hospital in a semi-rural region of Australia. NUMBERS: Two matched groups (n = 37 in each group) MAIN OUTCOME MEASURE: These included: Brief Psychiatric Rating Scale (BPRS), Global Assessment Scale (GAS), Rosenberg Self-Esteem, Life Skills Profile as well as self-report. RESULTS: The study found that the introduction of the new service resulted in few significant differences in consumer outcomes. CONCLUSIONS: The paper argues that because the state was the only specialist mental health service provider and it was unable to offer assertive community treatment, hospital care
remained central. Evidence that a substantial proportion of consumers and carers preferred hospital to community care is placed against this background. The paper argues that in regions like these, where community-based services are likely to remain underdeveloped, it may be best to maintain quality hospital services and to target community services more precisely on what is achievable rather than developing community services at the expense of hospital care. WHAT IS ALREADY KNOWN: Studies on the efficacy of assertive community treatment suggest that it can lead to improved consumer outcomes. However, these studies are usually in urban settings and involve experimental teams. In many rural and regional areas community treatment teams offer standard rather than assertive community care. It is therefore important to investigate the effectiveness of community treatment teams in rural and regional Australia. WHAT THIS STUDY ADDS: This study suggests that in rural and regional areas characterised by limited resources, it is too much to expect community treatment teams to have a measurable impact on consumer outcomes. In these settings hospital care remains at the heart of the service. This means that regions such as these need to focus their community services on what is achievable given the level of resources and social ecology. For example, they may need to consider offering either crisis intervention or rehabilitation services and to rely on innovations, such as telehealth or strategic alliances with other service providers to fill the gap.


OBJECTIVE: To provide comprehensive information on expenditures for mental health and substance abuse services for a large number of people with severe mental illnesses, this study examined use of major types of clinical-medical mental health and psychiatric rehabilitation services over a one-year period. METHODS: Data were obtained for 1,890 clients in ten public county-based nonmetropolitan mental health systems in Wisconsin. Expenditures were for services provided with public funding, including local sources of funding, Medicaid, and Medicare. Data about services and expenditures were obtained from county records and unduplicated Medicaid claims for 12 months in 1989 and 1990. RESULTS: Expenditures per client averaged $10,995 for one year ($13,992 in 1994 dollars), with a maximum of $95,093. Expenditures for community-based outpatient services, including residential care and vocational services, represented 53.5 percent of all expenditures; residential care accounted for 12.4 percent and vocational services for 5.7 percent. Overall, 46.5 percent was spent for institutional care, with inpatient hospital care accounting for 12.6 percent. Approximately 40.6 percent of total expenditures were for services not typically covered under managed care plans. CONCLUSIONS: Expenditures for community-based care accounted for more than half of total expenditures. Expenditure patterns revealed the important role of social and rehabilitation services, a role that must be continued in managed care arrangements if they are to provide adequate services for people with severe mental illnesses.

The aim of this study was to examine factors that may have an influence on the collaboration between the health-care professionals in a psychiatric hospital and two communities' psychiatric health service departments. Interviews were conducted with three psychiatric nurses, one medical practitioner, one health and social manager and one cultural worker; thus a total of nine informants. The transcribed interview texts were analysed by means of qualitative content analysis. The main results showed that the community psychiatric nurses felt a need for more systematic interdisciplinary collaboration. The existing collaboration was characterized by ad hoc meetings. In addition, the need for information about their colleagues' professional competence was reported. The respondents called for a more regular forum for professional guidance and coordination in relation to particular client cases in order to improve the quality of psychiatric care. There was also a need for collaboration within community health care and a link to psychiatric hospital care in order to better evaluate the outcomes of care provided. In conclusion, the lack of continuity in the collaboration between health-care professionals may affect the quality of community health services because continuity is a vital component of care.


Objectives: Recent advances in mental healthcare policy and service delivery have lead to the development of community care initiatives which have enabled those individuals traditionally cared for in hospital environments to be resettled successfully in community living arrangements that foster an ethos of empowerment and recovery. This study sought to identify differences between a hospital continuing care group (n = 16) and a community placement group (n = 20) in relation to quality of life, satisfaction and levels of empowerment. Method: The study was a cross-sectional design. It follows up a cohort of individuals identified as the 'hospital continuing care group' (365+ consecutive days in psychiatric hospital care) by Homefirst Community Trust in Northern Ireland. A proportion of this population has been resettled into community care environments and some continue to reside in hospital. Patients both in the hospital continuing care group and the community placement group completed two standard questionnaires that covered a number of variables including empowerment, quality of life and service satisfaction. Results: There were significant differences between the hospital continuing care and community placement groups across scores on service satisfaction, quality of life, and empowerment in the current study. Hypotheses relating to service satisfaction (z = -4.117; p < 0.01), quality of life (z = -3.944; p < 0.01) and empowerment (z = -4.645; p < 0.01) were supported with higher levels of each evidenced by the community placement group. Conclusions: The results are supportive of continued resettlement from continuing care in traditional psychiatric hospitals and suggests that such resettlement increases quality of life, satisfaction with services and levels of empowerment. The limitations of the research design are also discussed.

Intensive Case Management (ICM) is widely claimed to be an evidence-based and cost effective program for people with high levels of disability as a result of mental illness. However, the findings of recent randomized controlled trials comparing ICM with 'usual services' suggest that both clinical and cost effectiveness of ICM may be weakening. Possible reasons for this, including fidelity of implementation, researcher allegiance effects and changes in the wider service environment within which ICM is provided, are considered. The implications for service delivery and research are discussed.


BACKGROUND: The Daily Living Programme (DLP) offered intensive home-based care with problem-centred case management for seriously mentally ill people facing crisis admission to the Maudsley Hospital, London. The cost-effectiveness of the DLP was examined over four years. METHOD: A randomised controlled study examined cost-effectiveness of DLP versus standard in/out-patient hospital care over 20 months, followed by a randomised controlled withdrawal of half the DLP patients into standard care. Three patient groups were compared over 45 months: DLP throughout the period, DLP for 20 months followed by standard care, and standard care throughout. Bivariate and multivariate analyses were conducted (the latter to standardise for possible inter-sample differences stemming from sample attrition and to explore sources of within-sample variation). RESULTS: The DLP was more cost-effective than control care over months 1-20, and also over the full 45-month period, but the difference between groups may have disappeared by the end of month 45. CONCLUSIONS: The reduction of the cost-effectiveness advantage for home-based care was perhaps partly due to the attenuation of DLP care, although sample attrition left some comparisons under-powered.


This is a study of two types of case management: case management (CM) which provided the service coordination functions, and Intensive Case Management (ICM) which consisted of both the coordination function and the provision of direct support to the client. Using secondary data on public clients, characteristics of mental health service use were analyzed for 80 ICM and 84 CM clients. The ICM clients had significantly fewer episodes per patient and less inpatient days per year than the CM clients. These findings suggest that direct support services make a significant difference in reducing annual hospital care.

OBJECTIVE: This project studied the cost analysis of psychiatric hospital and then community care for long-stay patients with chronic mental illness discharged during the closure of a psychiatric hospital in Sydney. METHOD: Expenditure and income data in both settings were collected. Costs were analysed on an occupied bed-day basis. RESULTS: The hospital setting cost more per patient per day compared with the various community costs which were one-third to one-half of the comparable hospital costs. CONCLUSIONS: The analysis demonstrated overall that hospital care was nearly twice as expensive as care in the community setting. The factors which may have influenced, although not necessarily altered, the substance of the findings largely related to 'organisational efficiency'. The mental hospital as an older, more rigid system was likely to be less efficient than the newer community service provision which was under intensive scrutiny both clinically and financially by all interested parties.

Liegeois, A. Van Audenhove, C. Journal of Medical Ethics. 31(8):452-6, 2005 Aug. Ethical dilemmas in community mental health care.

Ethical dilemmas in community mental health care is the focus of this article. The dilemmas are derived from a discussion of the results of a qualitative research project that took place in five countries of the European Union. The different stakeholders are confronted with the following dilemmas: community care versus hospital care (clients); a life with care versus a life without care (informal carers); stimulation of the client toward greater responsibility versus protection against such responsibility (professionals); budgetary control versus financial incentives (policy makers), and respect for the client versus particular private needs (neighbourhood residents). These dilemmas are interpreted against the background of a value based ethical model. This model offers an integral approach to the dilemmas and can be used to determine policy. The dilemmas are discussed here as the result of conflicting values-namely autonomy and privacy, support and safety, justice and participation, and trust and solidarity.


An increasing number of long-term schizophrenic patients are discharged from hospitals and taken care of in the community. This change in tendency has both a professional and economical side. The beneficial outcome of community care is well established. The aim of this paper is to appraise the economical implications and possibilities of community care compared to standard hospital care. The price elasticity for mental health services is higher than for other medical services. The demand for mental health care can not be directly compared with the demand for other types of care. This is due to lack of information on what is defined as good quality treatment in care and to define who is the demander of mental health care. Due to lack of defined demand and externalities encountered in the care for psychiatric patients, psychiatric treatment must be seen as a good that warrants government involvement in the financing and delivery of the service. The number in need of community care is estimated to be 12 per 100,000. To find the allocative efficiency in spending of resources on mental
health care, it is important to look for the right balance between hospital and community care. There is evidence to assume that community care is more cost effective than hospital-based care. This does not apply to the most disabled schizophrenic patients where the costs are higher and outcome is the same. It is important to measure the costs incurred to family and friends when the total costs of community care are calculated and to find technically efficient production. The literature indicates that the physician/non-physician ratio has been too high. There are reports of dis-economies of scale, but economies of scope might be apparent. There are strong arguments in favour of state provision of psychiatric care for schizophrenic patients most in need. Otherwise the mental health care sector must be regulated with incentives that serve the need of the patients and encourage the most cost-effective treatment. Due to the risk of opportunism, specific assets and bounded rationality contracting involving clinical services should be avoided.

Marshall, Max. Epidemiologia e Psichiatria Sociale. 17(2):106-9, 2008 Apr-Jun. What have we learnt from 40 years of research on Intensive Case Management?. The aims of the Editorial are to summarise what we know for certain from clinical trials of Intensive Case Management, and to highlight lessons for clinicians and researchers. I will upon two systematic reviews of trials of Intensive Case Management versus standard care or low intensity case management. Both incorporated a meta-regression which examined the effect of fidelity to the Assertive Community Treatment model on outcome. The effectiveness of Intensive Case Management was limited to improving patient satisfaction and reducing attrition. Intensive Case Management teams organised according to the Assertive Community Treatment model offered the additional benefit of reducing days in hospital, but only when the team's clients had been high users of hospital care over the previous 12 months. Four important lessons can be drawn: a) Changes to the process of care tend to affect process variables, not outcome variables. b) Complex interventions must be defined meticulously in clear terminology, c) Researchers must demonstrate that complex interventions have been properly implemented in clinical trials. d) It is important to remember that in a clinical trial a successful outcome is determined as much by the control group as by the intervention.

Marshall, M. Lockwood, A. Cochrane Database of Systematic Reviews. (2):CD001089, 2000. Assertive community treatment for people with severe mental disorders. BACKGROUND: Assertive Community Treatment (ACT) was developed in the early 1970s as a response to the closing down of psychiatric hospitals. ACT is a team-based approach aiming at keeping ill people in contact with services, reducing hospital admissions and improving outcome, especially social functioning and quality of life. OBJECTIVES: To determine the effectiveness of Assertive Community Treatment (ACT) as an alternative to i. standard community care, ii. traditional hospital-based rehabilitation, and iii. case management. For each of the three comparisons the main outcome indices were i. remaining in contact with the psychiatric services, ii. extent of psychiatric hospital admissions, iii. clinical and social outcome and iv. costs. SEARCH STRATEGY: Electronic searches of CINAHL (1982-1997), the Cochrane Schizophrenia Group's Register of trials (1997), EMBASE (1980-1997), MEDLINE (1966-1997), PsycLIT (1974-1997) and SCISEARCH (1997) were undertaken. References of all
identified studies were searched for further trial citations. **SELECTION CRITERIA:** The inclusion criteria were that studies should i. be randomised controlled trials, ii. have compared ACT to standard community care, hospital-based rehabilitation, or case management and iii. have been carried out on people with severe mental disorder the majority of whom were aged from 18 to 65. Studies of ACT were defined as those in which the investigators described the intervention as "Assertive Community Treatment" or one of its synonyms. Studies of ACT as an alternative to hospital admission, hospital diversion programmes, for those in crisis, were excluded. The reliability of the inclusion criteria were evaluated. **DATA COLLECTION AND ANALYSIS:** Three types of outcome data were available: i. categorical data, ii. numerical data based on counts of real life events (count data) and iii. numerical data collected by standardised instruments (scale data). Categorical data were extracted twice and then cross-checked. Peto Odds Ratios and the number needed to treat (NNT) were calculated. Numerical count data were extracted twice and cross-checked. Count data could not be combined across studies for technical reasons (the data were skewed) but all relevant observations based on count data were reported in the review. Numerical scale data were subject to a quality assessment. The validity of the quality assessment was itself assessed. Numerical scale data of suitable quality were combined using the standardised mean difference statistic where possible, otherwise the data were reported in the text or ‘Other data tables’ of the review. **MAIN RESULTS:** ACT versus standard community care Those receiving ACT were more likely to remain in contact with services than people receiving standard community care (OR 0.51, 99%CI 0.37-0.70). People allocated to ACT were less likely to be admitted to hospital than those receiving standard community care (OR 0.59, 99%CI 0.41-0.85) and spent less time in hospital. In terms of clinical and social outcome, significant and robust differences between ACT and standard community care were found on i. accommodation status, ii. employment and iii. patient satisfaction. There were no differences between ACT and control treatments on mental state or social functioning. ACT invariably reduced the cost of hospital care, but did not have a clear cut advantage over standard care when other costs were taken into account. ACT versus hospital-based rehabilitation services Those receiving ACT were more likely to remain in contact with services than those receiving hospital-based rehabilitation, but confidence intervals for the odds ratio were wide. People getting ACT were significantly less likely to be admitted to hospital than those receiving hospital-based rehabilitation (OR 0.2, 99%CI 0.09-0.46) and spent less time in hospital. Those allocated to ACT were significantly more likely to be living independently (OR (for not living independently) 0.19, 99%CI 0.06-0.70).

**Meyer, Piper S. Morrissey, Joseph P. Psychiatric Services. 58(1):121-7, 2007 Jan. A comparison of assertive community treatment and intensive case management for patients in rural areas.** **OBJECTIVE:** This article reviews the evidence for the effectiveness of community-based services for rural areas, specifically assertive community treatment and intensive case management. Service delivery to persons with severe mental illness in rural areas is challenged by low population densities, limited services, and shortages of professionals. **METHODS:** A comprehensive literature search identified six studies of rural assertive community treatment, only two of which were controlled studies, and four rural intensive case management studies, only one of which was a controlled study. Assertive community treatment would seem ideally suited to areas lacking services because of its self-contained
multidisciplinary treatment team approach. However, rural programs have been forced to make several adaptations to the assertive community treatment model, including smaller teams, less comprehensive staff, and less intensive services. There is no published evidence that these adaptations are able to produce the same results as full-fidelity teams. Some believe that intensive case management may be an alternative to assertive community treatment in rural settings because intensive case management emphasizes individual caseloads, fewer staff, less intensive contacts, and brokered services.

CONCLUSIONS: The evidence suggests that intensive case management programs are effective only in community settings where there is an ample supply of treatment and support services. To build the evidence base for the effectiveness of these models, much more attention needs to be focused on evaluating the current wave of assertive community treatment and intensive case management dissemination in rural areas.

Mueser, K T. Bond, G R. Drake, R E. Resnick, S G. Schizophrenia Bulletin. 24(1):37-74, 1998. Models of community care for severe mental illness: A review of research on case management. We describe different models of community care for persons with severe mental illness and review the research literature on case management, including the results of 75 studies. Most research has been conducted on the assertive community treatment (ACT) or intensive case management (ICM) models. Controlled research on ACT and ICM indicates that these models reduce time in the hospital and improve housing stability, especially among patients who are high service users. ACT and ICM appear to have moderate effects on improving symptomatology and quality of life. Most studies suggest little effect of ACT and ICM on social functioning, arrests and time spent in jail, or vocational functioning. Studies on reducing or withdrawing ACT or ICM services suggest some deterioration in gains. Research on other models of community care is inconclusive. We discuss the implications of the findings in terms of the need for specialization of ACT or ICM teams to address social and vocational functioning and substance abuse. We suggest directions for future research on models of community care, including evaluating implementation fidelity, exploring patient predictors of improvement, and evaluating the role of the helping alliance in mediating outcome.

Phillips, S D. Burns, B J. Edgar, E R. Mueser, K T. Linkins, K W. Rosenheck, R A. Drake, R E. McDonel Herr, E C. Psychiatric Services. 52(6):771-9, 2001 Jun. Moving assertive community treatment into standard practice. This article describes the assertive community treatment model of comprehensive community-based psychiatric care for persons with severe mental illness and discusses issues pertaining to implementation of the model. The assertive community treatment model has been the subject of more than 25 randomized controlled trials. Research has shown that this type of program is effective in reducing hospitalization, is no more expensive than traditional care, and is more satisfactory to consumers and their families than standard care. Despite evidence of the efficacy of assertive community treatment, it is not uniformly available to the individuals who might benefit from it.

OBJECTIVE: To study the effectiveness of rehabilitative and medically oriented day hospital care on community-based long-term care patients. DESIGN: A randomized, controlled trial. SETTING AND PARTICIPANTS: 177 patients on home-care in a rural area were randomized into two groups. Patients in one group were offered a 2-month period of rehabilitation and medical care in a recently opened day hospital, and in the other group patients were offered treatment, as before, in home care. Both groups were examined at the beginning and at 2, 5 and 12 months. INTERVENTION: Rehabilitative and medically oriented day hospital care. OUTCOME MEASURES: Use of health services, physical functioning measured by the Katz ADL Index, subjective health, symptoms, and satisfaction with care. RESULTS: The groups used hospitals (excluding the day hospital treatment) equally during the follow-up year. The treatment group had significantly more specialist consultations than did the control group. There were no clinically significant differences in the changes in the Katz ADL Index although more changes were found in the treatment group. The number of symptoms was reduced significantly in the treatment group, whereas the number of symptoms remained unchanged in the control group. The patients' views of their own health improved in the treatment group. CONCLUSION: Day hospital care affects the quality of life of older people, but it does not reduce the use of other health services, nor does it clinically significantly improve the physical functioning of older people.


OBJECTIVE: The study investigated whether long-stay patients would benefit from discharge into the community in Berlin, Germany. METHOD: In a prospective controlled study, all long-term hospitalised psychiatric patients from a defined catchment area were assessed using established standardised instruments. Quality of life, treatment satisfaction, needs and psychopathology were re-assessed in 63 non-discharged patients 1.5 years later, and in 65 resettled patients 1 year after discharge. RESULTS: Discharged patients were younger and had spent less time in psychiatric hospitalisation. Whilst patients who remained in hospital care did not show significant changes over time, discharged patients did. Changes in subjective quality of life and total number of needs - but not in psychopathology, unmet needs, and treatment satisfaction - were significantly more favourable in resettled patients as compared to the control group. CONCLUSION: The findings are in line with other studies and suggest that long-stay patients can benefit from discharge into the community, particularly with respect to their quality of life. Positive changes in the process of deinstitutionalisation seem not dependent on the specific national context, and also apply to younger patients who have not yet spent 10 or more years in psychiatric hospitals.
Rosen, A. Teesson, M. Australian & New Zealand Journal of Psychiatry. 35(6):731-46, 2001 Dec. Does case management work? The evidence and the abuse of evidence-based medicine. OBJECTIVES: This study reviews typologies of psychiatric case management and then discusses the efficacy, effectiveness and cost effectiveness of psychiatric case management, with particular focus on evidence from Australia and the UK. Subsequently, it aims to examine the way such evidence has been interpreted in the context of UK psychiatric research and services. Finally it examines the ways in which, by the selective reviewing or editorializing of evidence, case management has been brought into disrepute in the UK. METHOD: This study reviews literature of the recent evidence for case management, and asks three questions of case management: has it been shown to be efficacious in controlled research, is it effective in applied settings, and is it cost effective? An examination is then made of the concurrent representations of the UK evidence in both the academic literature and the media. RESULTS: There is strong evidence for the efficacy effectiveness and cost-effectiveness of case management in psychiatry, the closer it conforms to active and assertive community treatment models. It appears, however, that studies and evidence-based reviews of case management have possibly been misused and misrepresented in a highly charged atmosphere of professional media debate. The potential for this abuse is not limited to psychiatry and remains a challenge for all evidence-based practice. CONCLUSION: On the evidence, assertive community treatment case management is one of the most effective interventions in psychiatry today. Despite improving the evidence base for practice (e.g. as has occurred for case-management in psychiatry), evidence-based medicine (EBM) is still susceptible to compromise and misrepresentation, due to unexamined or undeclared bias. Unless this potential for abuse is recognized and checked, EBM in psychiatry is in danger of being discredited at the hand of some of its own proponents. There is a need for more rigorous pursuit of evidence-based psychiatry, including more systematic declaration of bias in all research, whether quantitative or qualitative in design.

Rossler, W. Theodoridou, A. Nervenarzt. 77 Suppl 2:S111-8; quiz S119, 2006 Nov. [Innovative care models for treating psychosis]. [German] It is generally accepted that modern mental health care gives community treatment priority over partial or full inpatient treatment. The requirements for community treatment of severely ill and chronic psychiatric patients are complex and, together with financing by the different social insurance providers, may lead to a rather problematic fragmentation of health service supply. Schizophrenia is considered the most expensive mental illness in Germany. It is estimated that indirect costs (expressed in financial terms) are five times higher than the direct costs of treatment and care. Innovative concepts of psychosocial intervention show that case management and assertive community treatment reduce the hospitalisation rate and duration of inpatient treatment, enhance social integration, and find the approval of most patients. However, there is no empirical evidence supporting this "psychiatry with no beds". Consideration should be given to psychosocial interventions as an alternative to inpatient hospital treatment such as day hospital care, crisis houses, or acute home treatment.

OBJECTIVE: This study examined the mental health service utilization and costs of 321 discharged state hospital patients during a 3-year follow-up period compared with costs if the patients had remained in the hospital. METHOD: The study subjects were long-stay patients discharged from Philadelphia State Hospital after 1988. A longitudinal integrated database on all mental health and medical services reimbursed by Medicaid and Medicare as well as state- and county-funded services was used to construct service utilization and unit cost measures. RESULTS: During the 3-year period after discharge, 20%-30% of the patients required rehospitalization an average of 76-91 days per year. The percentage of rehospitalized patients decreased over time, but the number of hospital days increased. All of the discharged patients received case management services, and a majority also received outpatient mental health care (66%-70%) and residential services (75%) throughout the follow-up period. The total treatment cost per person was approximately $60,000 a year after controlling for inflation, with costs rising slightly over the 3-year period. The estimated cost of state hospitalization, with the use of 1992 estimates, would have been $130,000 per year if the patients had remained institutionalized.

CONCLUSIONS: This analysis suggests that most former long-stay patients are able to live in residential settings while receiving community outpatient treatment and intensive case management services at a reduced cost. There is no indication of cost shifting from the psychiatric to the health care sector; however, some cost shifting from the state mental health agency to the Medicaid program has occurred, since most psychiatric hospital care now takes place in community hospitals.


"Intensive case management" (ICM) programs for people with serious mental illness are found widely throughout the United States. However, there is no standard definition or conceptualization of ICM. Despite these differences, ICM aspires to a set of common principles and core functions derived from the concept of continuity of care. This study attempted to identify the elements of ICM program theory by integrating information from the ICM literature with survey and focus-group data reflecting the perspectives of three distinct ICM respondent groups (researchers/administrators, program managers, and case managers). The findings suggest a strong consensus about the structural dimensions of ICM, but a moderate consensus about their operationalization. More generally, the results support viewing ICM as more "client oriented," in contrast with conventional case management programs that are more "system driven."


Accreditation systems first developed to improve the quality of hospital care. As health care systems move towards a greater emphasis on primary and home care, accreditation systems are developing to address quality in this more diverse sector. This is more problematic, since there is little agreement
about the precise functions to be undertaken in non-hospital care and there is no uniform organizational structure. This paper addresses the issues raised in developing quality in these very different organizations and examines the progress being made.


OBJECTIVE: The authors investigated the clinical feasibility and the outcome for patients of a program designed as an alternative to acute hospitalization. METHOD: This was a random-design study comparing a conventional inpatient program for urban, poor, severely ill voluntary patients who usually require hospitalization to an alternative experimental program consisting of a day hospital linked to a crisis residence. Patients were assessed with standardized measures of symptoms, functioning, social adjustment, quality of life, and satisfaction with clinical services upon admission to the study, at discharge from the index admission, and at follow-ups 2, 5, and 10 months after discharge. RESULTS: One hundred ninety-seven patients were enrolled in the 2-year research program and followed for 10 months. Of the voluntary patients who would have been admitted to the hospital, 83% were appropriate for the experimental program. The clinical, functional, social adjustment, quality of life, and satisfaction outcome measures were not statistically different for the patients in the two treatment conditions; however, there was a slightly more positive effect of the experimental program on measures of symptoms, overall functioning, and social functioning. CONCLUSIONS: The experimental condition, a combined day hospital/crisis respite community residence, seems to have had the same treatment effectiveness as acute hospital care for urban, poor, acutely ill voluntary patients with severe mental illness.


The purpose of the present paper was to review the current state of evidence for types of case management, focusing on the last 10 years since publication of the Cochrane Systematic Reviews of case management and assertive community treatment. A literature review of electronic databases from 1995 to the present to identify recent research on psychiatric case management, both original studies and reviews, was carried out. Original articles were organized on basis of year of study, experimental group and outcome variables to determine patterns. Sixty relevant papers were located. Thirty-nine are reports of experimental trials of types of case management and 21 are reviews or discussion papers. The focus of research is on assertive community treatment or intensive case management, with only five papers on other forms of less intense case management. Numerous outcomes have been examined, of those examined often enough to draw meaningful conclusions only one, engagement with services, has been consistently positive. All other outcomes have produced mixed results. The strength of findings in favour of case management has weakened over time. A heterogeneous group of experimental designs limits comparisons. Numerous issues with methodology and definitions of types of case management have beset research in this field. Assertive types of case management (including assertive community
treatment and intensive case management) are more effective than standard case management in reducing total number of days spent in hospital, improving engagement, compliance, independent living and patient satisfaction. More important than the type of service configuration is to understand the clinical criteria of the services provided and their effectiveness.

Thornicroft, Graham. Tansella, Michele. British Journal of Psychiatry. 185:283-90, 2004 Oct. Components of a modern mental health service: a pragmatic balance of community and hospital care: overview of systematic evidence. BACKGROUND: There is controversy about whether mental health services should be provided in community or hospital settings. There is no worldwide consensus on which mental health service models are appropriate in low-, medium- and high-resource areas. AIMS: To provide an evidence base for this debate, and present a stepped care model. METHOD: Cochrane systematic reviews and other reviews were summarised. RESULTS: The evidence supports a balanced approach, including both community and hospital services. Areas with low levels of resources may focus on improving primary care, with specialist back-up. Areas with medium resources may additionally provide out-patient clinics, community mental health teams (CMHTs), acute in-patient care, community residential care and forms of employment and occupation. High-resource areas may provide all the above, together with more specialised services such as specialised out-patient clinics and CMHTs, assertive community treatment teams, early intervention teams, alternatives to acute in-patient care, alternative types of community residential care and alternative occupation and rehabilitation. CONCLUSIONS: Both community and hospital services are necessary in all areas regardless of their level of resources, according to the additive and sequential stepped care model described here.

Walker, P H. Stone, P W. Journal of Health Care Finance. 23(1):23-47, 1996. Exploring cost and quality: community-based versus traditional hospital delivery systems. This article presents two approaches for comparison studies of cost and quality outcomes between community-based and traditional hospital systems of care. Two methodologies are used specifically to compare midwifery practice in a free-standing birth center to traditional obstetric practice with hospital deliveries. Findings from both studies reinforce the potential cost savings of community-based care without compromising quality. The methodologies used here can be applied to other settings. These approaches are also relevant for comparison studies of cost and quality outcomes between physicians and other nonphysician providers such as physician assistants and nurse practitioners, who frequently staff emerging models of community-based care. Issues related to obtaining comparable clinical and cost data versus reimbursement for both community-based and hospital care will be highlighted.

Ziguras, S J. Stuart, G W. Jackson, A C. British Journal of Psychiatry. 181:17-21, 2002 Jul. Assessing the evidence on case management. BACKGROUND: Evidence on the impact of case management is contradictory. AIMS: To discuss two different systematic reviews (one conducted by the authors and one conducted through the Cochrane
collaboration) that came to contradictory conclusions about the impact of case management in mental health services. **METHOD:** We summarised the findings of the two reviews with respect to case management effectiveness, examined key methodological differences between the two approaches and discuss the impact of these on the validity of the results. **RESULTS:** The differences in conclusions between the two reviews result from the differences in inclusion criteria, namely non-randomised trials, data from unpublished scales and data from variables with skewed distributions. The theoretical and empirical effects of these are discussed. **CONCLUSIONS:** Systematic reviewers may face a trade-off between the application of strict criteria for the inclusion of studies and the amount of data available for analysis and hence statistical power. The available research suggests that case management is generally effective.