Community-Based Residential Programs for Adolescents in Crisis

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Students at the University of Waterloo created this product while being trained in the systematic review methods of Knowledge Impact Strategies. Authors are listed in alphabetical order.

Knowledge Impact strategies

Community-Based Residential Programs for Adolescents in Crisis

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Take Home Messages

- Both community residential and hospital inpatient programs are successful in reducing clinical symptoms measured by global functioning and depression scales administered before and after treatment.
- Patients of community programs report higher levels of satisfaction at discharge compared to patients treated in locked ward or hospital inpatient settings.
- Residential crisis stabilization programs based in the community are a cost effective alternative to inpatient hospital programs.

Overview

This project was completed during the Winter 2014 term by students in an upper-level Psychology course, *Community-Based Research*, at the University of Waterloo. The students were: Mike Edmonds, Laura Kemp, Natalie Phillips, and Josh To. They were assisted by the course instructor Dr. Kathleen Bloom and teaching assistant Melissa Subnath. The community partner organization for this project was Keystone Child, Youth & Family Services. Its partnership with the University was coordinated by Sandy Erb, Psychometrist at Keystone.

Keystone Child, Youth & Family Services is a non-profit organization that provides a number of services for families, parents, and high-risk children/adolescents at times of crisis in their lives. Services include: residential crisis stabilization for youth, individual and family counselling, support for new parents, respite funding, and assistance for those with special needs or mental health disorders. Keystone was at risk of losing government funding for their residential program and was interested in an evaluation of research on crisis programs to determine if such services are beneficial to the community.

Community-based residential programs play a role between that of psychiatric hospital treatment and outpatient programs. Residential programs are generally suitable for individuals who are at less risk of violence/suicide and have less severe symptoms than those requiring stays in psychiatric hospitals, but who require more support than an outpatient program would provide. Treatment in a residential program normally takes place in comfortable, home-like settings, is goal-oriented, and focuses on short-term stabilization and working with clients to devise crisis-management strategies.

What Was Studied?

Keystone was interested in a number of issues related to residential crisis programs for adolescents, including patient satisfaction, interventions employed, cost effectiveness, and overall effectiveness. The final research question was as follows: **"What does the research say about the effectiveness of short-term residential programs for stabilization of adolescents experiencing a mental health crisis?"**

How Was It Studied?

A literature search was performed using the Scopus database which compiles peer-reviewed articles from over 19,500 academic journals. The search strategy was:

(TITLE-ABS-KEY("residential treatment" OR "residential care" OR "crisis bed*" OR "crisis hous*" OR "crisis stabilization") AND TITLE-ABS-KEY(crisis))

The search was conducted on February 10th 2014 and returned **423** total hits.

To ensure the relevance of articles to the research question, any articles that did not address mental health in any way were excluded from the review. Based on this criterion, **219** were deemed to be outliers, leaving **204** articles for further consideration.

In order to identify articles most relevant to the research question, articles were excluded if they met the following criteria:

- Did not discuss patients undergoing acute mental health crises (e.g., drug rehabilitation or geriatric/assisted-living programs).
- Focused on long term residential programs with an average stay of over 3 months (i.e., did not deal with *acute* crisis intervention).
- Specifically addressed children under 10 years of age.
- Did not investigate interventions aimed at stabilizing people in crisis.

Based on these criteria, 132 articles were excluded. An additional 13 articles were excluded because the full text could not be accessed. A total of **145** articles were excluded.

59 articles were included in the final review. **45** articles were coded in the final spreadsheet, and **14** low relevance articles were arranged into an annotated bibliography.

All article inclusion/exclusion and data extraction decisions were reviewed to ensure that there were no discrepancies in the students' understanding and application of the coding categories. Any discrepancies were resolved through group discussion and consensus, assisted by Dr. Bloom and Melissa Subnath.

Highlights of Results

Reduced Symptoms upon Discharge

- Most youth (88%) showed a significant reduction in psychiatric symptoms after treatment in a residential program, especially in suicide ideation and risk to self-injury (Greenham & Binaire, 2008).
- The introduction of a crisis stabilization program providing access to placements such as residential treatment facilities resulted in a 51% reduction in child and adolescent admissions to the state psychiatric facility (Ruffin et al., 1993).

Cost Effectiveness

- Crisis beds were found to be cost effective with minimal resource investment (Schweitzer & Dubey, 1994).
- The cost per patient per stay in a crisis house was $3071 versus $5948 in hospital (Siskind et al, 2013).
- Psychiatric services at a hospital cost three times more per day than the cost per day at the crisis residence (Fields & Weisman, 1995).

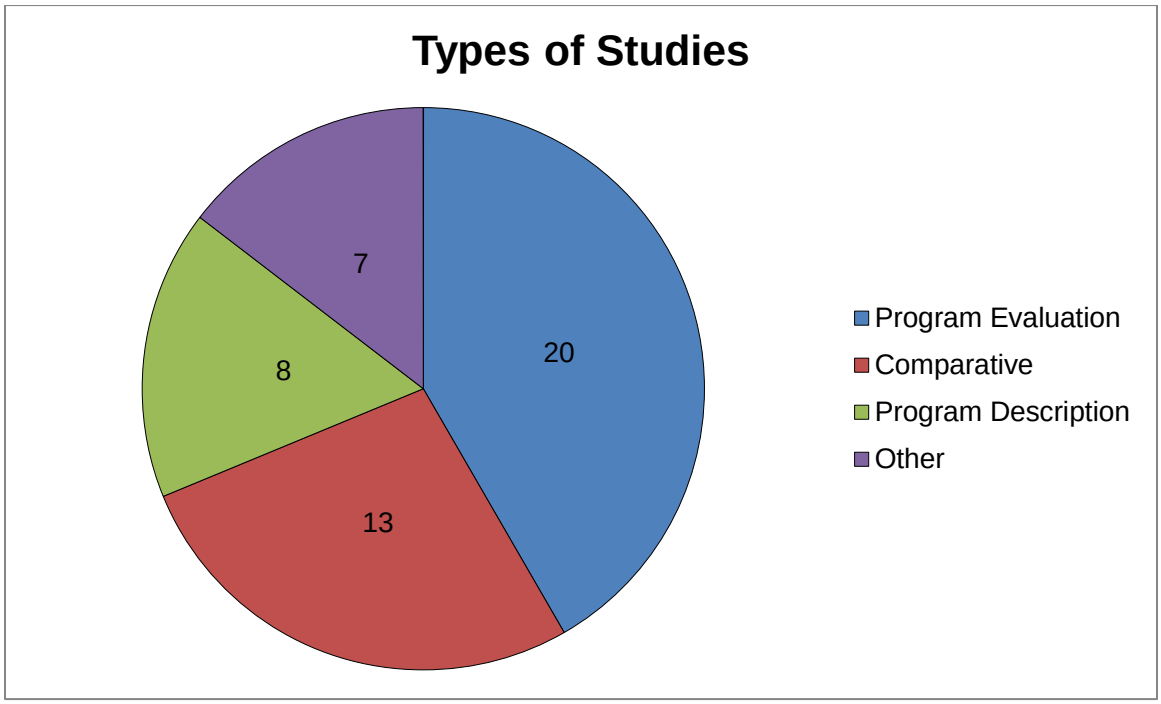
Patient/Family Satisfaction

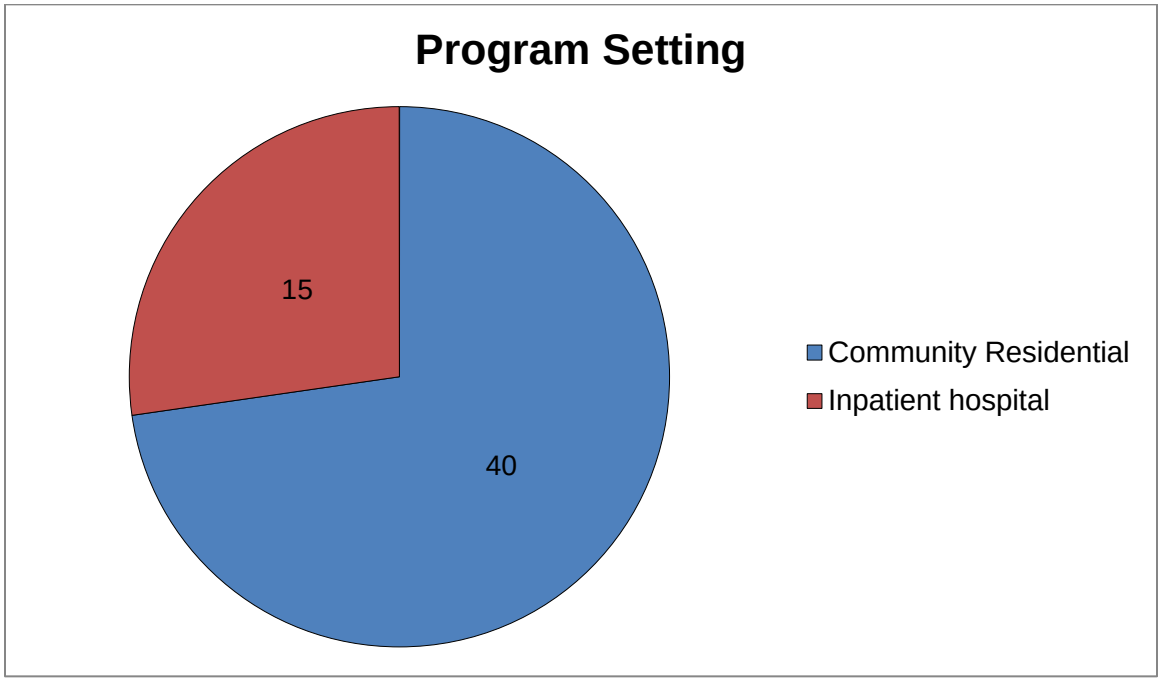
- Residential alternatives were preferred over hospital psychiatric wards (Gilburt et al., 2010; Howard et al., 2010; Johnson et al., 2004).

Reduced Stigma

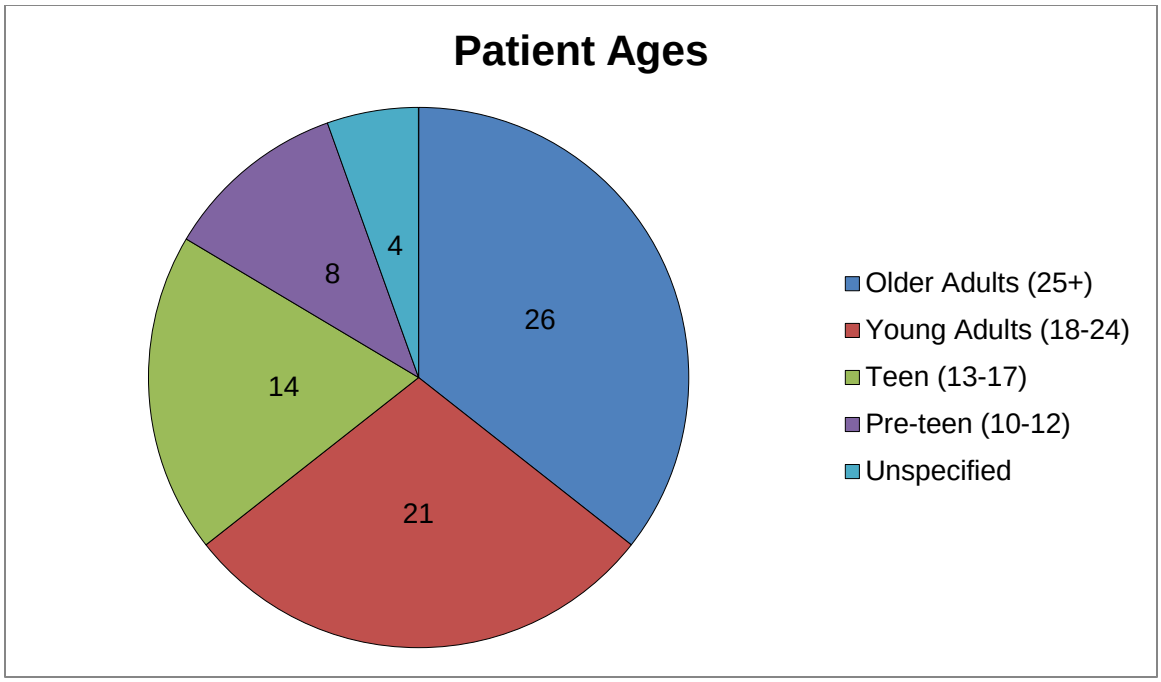
- Patients reported that admission to a community crisis house was less stigmatising than psychiatric wards (Howard et al., 2010; Johnson et al., 2004).

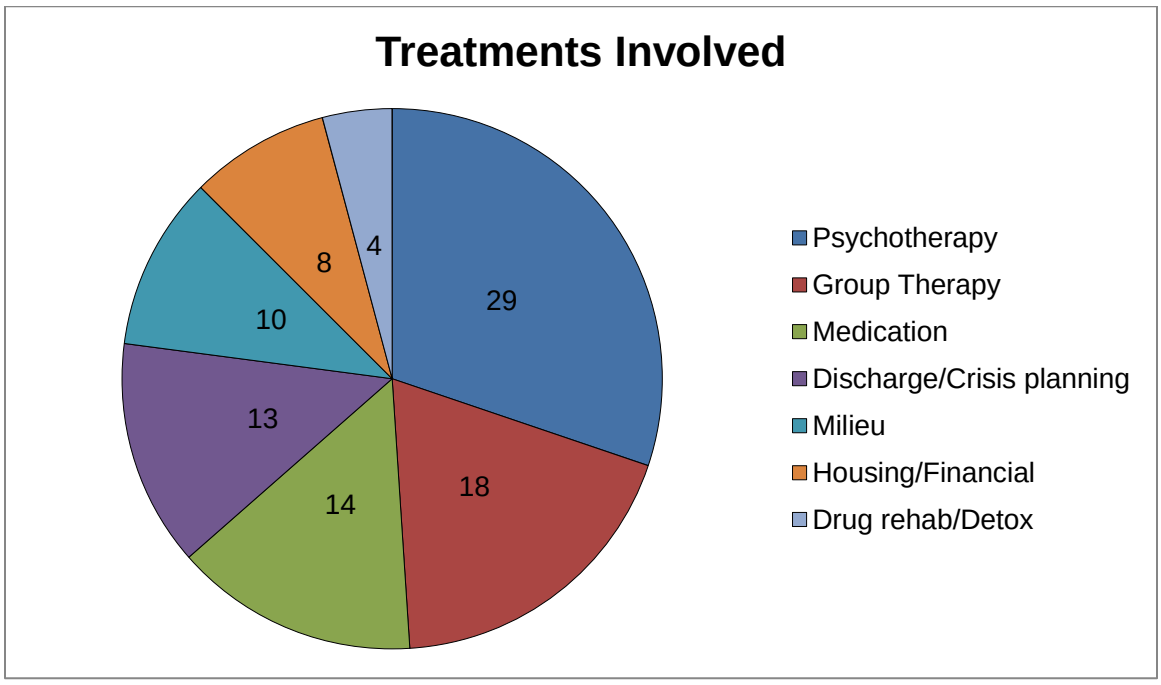
Landscapes of Research Articles





*Some studies included both inpatient hospital and community residential programs


Patient Ages
26
21
14
8
4
Older Adults (25+)
Young Adults (18-24)
Teen (13-17)
Pre-teen (10-12)
Unspecified


Treatments Involved
29
18
14
13
10
8
4
Psychotherapy
Group Therapy
Medication
Discharge/Crisis planning
Milieu
Housing/Financial
Drug rehab/Detox

Spreadsheet of Research Articles

Each of the 45 articles outlined in the spreadsheet answered two questions:

- What was studied?
- What was found?

Information on the following factors was extracted from each of the articles:

- Estimated Relevance (to Keystone and the research question)
- Country (of study population)
- Type of Study
    - Program Evaluation: often used pre- & post-test design to measure symptoms at admission and discharge
    - Program Description: often used patient interviews and surveys to capture patient opinions and preferences
    - Comparative: typically compared hospital vs. community based programs; some included cost comparisons
    - Other
- Program Setting
    - Inpatient Hospital: Patients admitted to a hospital ward.
    - Community Residential: Patients admitted to a residential treatment facility.
- Age
    - Preteen (10-12)
    - Adolescents (13-17)
    - Young Adults (18-24)
    - Older Adults (25+)
- Gender
    - Male
    - Female
- Healthcare Professionals
    - Psychologist
    - Physician
    - Nurse
    - Social worker
    - Other mental health (MH) worker
- Type of Crisis
    - Suicide risk
    - Depression
    - Other
- Typical Length of Stay
    - < 1 week
    - < than 1 month
    - > than 1 month

- Treatments Involved
    - Psychotherapy: Therapy in which most interaction involves a therapist talking to a patient to learn more about them and to help them take control of their lives.
    - Group Therapy: A type of psychotherapy in which a small group of patients interact with each other and are treated together by one or more therapists.
    - Milieu: A form of therapy in which patients interact with each other and with staff in a structured community-like therapeutic environment.
    - Medication: Any medication used to treat, prevent, or cure an illness.
    - Drug Rehab/Detox: Treatment aimed at helping patients stop substance abuse.
    - Non-traditional: Treatments that claim to have healing effects, but have not been verified by the scientific method.
    - Housing/Financial: Assistance with housing or finances.
    - Discharge/crisis plans made: Follow up or continued care after discharge.
- Program Size
    - Number of beds
    - Number of staff

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Adams, C. L., & El-Mallakh, R. S. (2009). Patient outcome after treatment in a community-based crisis stabilization unit. *Journal of Behavioral Health Services and Research* , 36(3), 396-399.	• Treatment outcomes for a wide range of psychiatric symptoms • Cost effectiveness of a community crisis stabilization unit (CSU) program as an alternative to psychiatric hospitalization	• The CSU program significantly reduced the severity of a wide range of psychiatric symptoms • 96% of patients reported that they felt better at discharge • The program was very cost-effective, saving an average of $2160 per patient when compared to hospital-based stabilization programs	High	Louisville, KY, USA	●			
Ash, D., & Galletly, C. (1997). Crisis beds: The interface between the hospital and the community. *International Journal of Social Psychiatry* , 43(3), 193-198.	• Role of an emergency crisis unit program within Hillcrest Hospital in Adelaide	• The crisis unit program resulted in quick resolutions of the presenting crisis with minimal dependency and low re-admission rates • Effectiveness of treatment coupled with the short length of stay greatly improved bed management within the hospital	High	Adelaide, AUS	●			
Bond, G. R., Witheridge, T. F., Wasmer, D., Dincin, J., McRae, S. A., Mayes, J., & Ward, R. S. (1989). A comparison of two crisis housing alternatives to psychiatric hospitalization. *Hospital and Community Psychiatry* , 40(2), 177-183.	• Comparison of client outcomes in two short term crisis programs: program 1 provided housing in hotels and boarding houses, program 2 consisted of an eight-bed crisis house	• Both crisis programs were effective in preventing hospitalization in about 60% of patients and stabilizing client's housing and financial needs • Average costs were similar between the two crisis programs • Clients treated in program 1 showed increased substance abuse problems at four months compared to program 2 • Program 2 experienced a much higher staff turnover rate than program 1	Med	Chicago, USA			●	

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
	Inpatient Hospital	Community Residential	Pre-teen(10-12)	Teen (13-17)	Young Adults (18-24)	Older Adults (25+)	Unspecified	Male	Female	Psychologist	Physician	Nurse	Social worker	Other MH worker	Suicide Risk	Depression	Other	< 1 week	< 1 month	> 1 month	Psychotherapy	Group Therapy	Milieu	Medication	Drug Rehab/Detox	Housing/Financial assistance	Discharge/Crisis planning	# of beds	# of staff
Adams, C. L., & El-Mallakh, R. S. (2009). Patient outcome after treatment in a community-based crisis stabilization unit. *Journal of Behavioral Health Services and Research* , 36(3), 396-399.		●			●	●		●	●		●		●	●	●	●	●	●	●									NR	NR
Ash, D., & Galletly, C. (1997). Crisis beds: The interface between the hospital and the community. *International Journal of Social Psychiatry* , 43(3), 193-198.	●	●		●	●	●		●	●	●	●	●	●		●	●	●	●			●	●		●		●		14	NR
Bond, G. R., Witheridge, T. F., Wasmer, D., Dincin, J., McRae, S. A., Mayes, J., & Ward, R. S. (1989). A comparison of two crisis housing alternatives to psychiatric hospitalization. *Hospital and Community Psychiatry* , 40(2), 177-183.		●			●	●		●	●							●	●									●		NR	NR

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Bonynge, E. R., Lee, R. G., & Thurber, S. (2005). A profile of mental health crisis response in a rural setting. *Community Mental Health Journal* , 41(6), 675-685.	• A rural crisis intervention program aimed at adults who experienced either moderate or severe levels of crises	• The program's approach to treatment reduced inpatient admissions from 21% to 11% since its introduction 10 years ago • The program was a cost-effective way to deal with both non-acute and emergency mental health crises in a rural setting	Med	Midwest, USA		●		
Boyer, D. E., & Kane, C. (2010). Program evaluation of a community crisis stabilization program. *Archives of Psychiatric Nursing* , 24(6), 387-396.	• Treatment outcomes of patients before and after their admittance to a community crisis stabilization (CCS) program	• The CCS program significantly reduced psychiatric symptoms as shown by four measures administered before and after the intervention	High	Virginia, USA	●			
Compton, M. T., Craw, J., & Rudisch, B. E. (2006). Determinants of inpatient psychiatric length of stay in an urban county hospital. *Psychiatric Quarterly* , 77(2), 173-188.	• Factors that predict the length of stay for patients in a crisis stabilization unit (CSU) and a longer-stay milieu unit (LSMU) in a hospital	• Shorter stays in the CSU were correlated with the presence of a comorbid personality disorder or substance use disorder • The following tended to predict shorter stays in the longer-stay milieu unit: legal status on discharge, lack of seclusion or restraint, higher Global Assessment of Functioning scale scores on admission, female gender, and the presence of a comorbid substance use disorder	Med	USA				●
Cornelius, L. J., Simpson, G. M., Ting, L., Wiggins, E., & Lipford, S. (2003). Reach out and i'll be there: Mental health crisis intervention and mobile outreach services to urban african americans. *Health and Social Work* , 28(1), 74-78.	• Baltimore Crisis Response Inc., a crisis centre catered to urban African Americans which provides 24-hr crisis intervention, evaluation, short-term services & referrals to long-term care	• African Americans generally underused healthcare (reasons: accessibility, discrimination, no insurance) • Approximately 73% of patients admitted to the program were African American, indicating that this tailored model was successful in better reaching urban African Americans	Med	Baltimore, USA		●		

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Bonynge, E. R., Lee, R. G., & Thurber, S. (2005). A profile of mental health crisis response in a rural setting. *Community Mental Health Journal* , 41(6), 675-685.		•			•	•		•	•		•	•	•	•	•	•	•	•			•			•				5	NR
Boyer, D. E., & Kane, C. (2010). Program evaluation of a community crisis stabilization program. *Archives of Psychiatric Nursing* , 24(6), 387-396.		•			•	•		•	•		•			•	•	•	•	•	•		•	•					•	9	NR
Compton, M. T., Craw, J., & Rudisch, B. E. (2006). Determinants of inpatient psychiatric length of stay in an urban county hospital. *Psychiatric Quarterly* , 77(2), 173-188.	•				•	•		•	•		•				•	•	•	•	•		•		•	•				CSU: 8, LSMU: 22	NR
Cornelius, L. J., Simpson, G. M., Ting, L., Wiggins, E., & Lipford, S. (2003). Reach out and i'll be there: Mental health crisis intervention and mobile outreach services to urban african americans. *Health and Social Work* , 28(1), 74-78.		•						•	•	•	•	•	•	•	•	•	•	•			•	•		•	•	•		12	NR

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Dimock, E. T. (1977). Youth crisis services: Short-term community-based residential treatment. *Child Welfare, 56* (3), 187-195.	• Description and evaluation of the Glenn County group home which was developed to help small rural counties	• The Glenn County group home successfully diverted all appropriate adolescents from juvenile facilities to the group home (between 1973 and 1977)	Med	Glenn County, USA		•		
Dolnak, D., Rapaport, M. H., & Hawthorne, W. (1998). Residential treatment for patients in crisis. *Psychiatric Services (* Washington, D.C.), 49(2), 246.	• Outcomes of schizophrenia and major depressive disorder patients in a residential crisis program that combines psychiatric & psychotherapeutic approaches	• Participants showed improvements in global functioning from admission to discharge • Females showed greater improvements • Those with schizophrenia showed the least improvement	High	USA	•			
Fenton, W. S., Mosher, L. R., Herrell, J. M., & Blyler, C. R. (1998). Randomized trial of general hospital and residential alternative care for patients with severe and persistent mental illness. *American Journal of Psychiatry, 155* (4), 516-522.	• Effectiveness of treatment at an acute residential facility as an alternative for patients with prolonged mental illness that would otherwise require hospital-level care	• Residential treatment facilities provided comparable and low cost alternatives to hospitalization for patients who did not require intensive medical care • Psychosocial functioning, satisfaction and acute care usage of those in the residential facility were equivalent to those in hospitalization at 6-month follow up • Psychiatric symptoms for both groups were significantly reduced from admission to discharge	High	Maryland, USA	•		•	
Fields, S., & Weisman, G. K. (1995). Crisis residential treatment: An alternative to hospitalization. *New Directions for Mental Health Services,* (67), 23-31.	• Description and definition of crisis residential treatments, their roles, characteristics, and a specific Acute Diversion Program called "La Posada"	• 40% of La Posada patients went on to receive transitional residential treatment, 15% return home, 10% are discharged to hotels, and 18% are discharged stabilized but with no plan for housing • The cost of residence was $218/day compared to $650/day for hospitalization	High	San Fransisco, USA		•		

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
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Dimock, E. T. (1977). Youth crisis services: Short-term community-based residential treatment. *Child Welfare, 56* (3), 187-195.		•		•				•	•				•	•						•		•						NR	5
Dolnak, D., Rapaport, M. H., & Hawthorne, W. (1998). Residential treatment for patients in crisis. *Psychiatric Services (* Washington, D.C.), 49(2), 246.		•				•		•	•	•	•	•	•	•		•	•		•		•		•	•				NR	NR
Fenton, W. S., Mosher, L. R., Herrell, J. M., & Blyler, C. R. (1998). Randomized trial of general hospital and residential alternative care for patients with severe and persistent mental illness. *American Journal of Psychiatry, 155* (4), 516-522.		•			•	•		•	•		•		•	•		•	•		•		•			•				8	NR
Fields, S., & Weisman, G. K. (1995). Crisis residential treatment: An alternative to hospitalization. *New Directions for Mental Health Services,* (67), 23-31.		•			•	•		•	•	•	•			•		•	•		•		•			•		•	•	10	NR

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Gilburt, H., Slade, M., Rose, D., Lloyd-Evans, B., Johnson, S., & Osborn, D. P. J. (2010). Service users' experiences of residential alternatives to standard acute wards: Qualitative study of similarities and differences. *British Journal of Psychiatry* , 197(SUPPL. 53), S26-S31.	• Patient preferences and experiences with respect to residential and hospital crisis programs	• Patients generally preferred residential programs due to lower levels of disturbance, greater safety, more freedom, less coercion to take medication, less use of restraints, and increased community interaction • No substantial differences between residential and hospital crisis programs were found with respect to the care provided, activities available, and staff-patient relationships	Med	NR			●	
Grant, J. G., & Westhues, A. (2012). Mental health Crisis/Respite service: A process evaluation. *Social Work in Mental Health, 10* (1), 34-52.	• A mental health stabilization program in Ontario, Canada	• Based on interviews with patients, the program was valued in the community and met needs not provided by other services in the Crisis Response System • Participant feedback indicated that communication, ongoing training, and accessibility were valued components of the stabilization program	High	Ontario, CAN	●			
Greenham, S. L., & Bisnaire, L. (2008). An outcome evaluation of an inpatient crisis stabilization and assessment program for youth. *Residential Treatment for Children and Youth, 25* (2), 123-143.	• Outcomes of youth who received services in the crisis, assessment and transitional care model of an inpatient psychiatric unit	• Brief psychiatric hospitalization showed positive clinical outcomes and resulted in stabilization, symptom reduction and improved functioning • 88% of patients showed significant reduction in symptoms (ex: suicide ideation, self-injury) • 75% of patients returned to their prior living situation after receiving services	High	Ottawa, CAN	●			

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
	Inpatient Hospital	Community Residential	Pre-teen(10-12)	Teen (13-17)	Young Adults (18-24)	Older Adults (25+)	Unspecified	Male	Female	Psychologist	Physician	Nurse	Social worker	Other MH worker	Suicide Risk	Depression	Other	< 1 week	< 1 month	> 1 month	Psychotherapy	Group Therapy	Milieu	Medication	Drug Rehab/Detox	Housing/Financial assistance	Discharge/Crisis planning	# of beds	# of staff
Gilburt, H., Slade, M., Rose, D., Lloyd-Evans, B., Johnson, S., & Osborn, D. P. J. (2010). Service users' experiences of residential alternatives to standard acute wards: Qualitative study of similarities and differences. *British Journal of Psychiatry* , 197(SUPPL. 53), S26-S31.	•	•			•	•		•	•					•														NR	NR
Grant, J. G., & Westhues, A. (2012). Mental health Crisis/Respite service: A process evaluation. *Social Work in Mental Health, 10* (1), 34-52.		•				•		•	•					•		•	•	•	•	•			•			•		NR	2/ shift
Greenham, S. L., & Bisnaire, L. (2008). An outcome evaluation of an inpatient crisis stabilization and assessment program for youth. *Residential Treatment for Children and Youth, 25* (2), 123-143.	•		•	•				•	•	•		•	•	•	•	•	•	•	•		•	•					•	12	NR

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Grossoehme, D. H., & Gerbetz, L. (2004). Adolescent perceptions of meaningfulness of psychiatric hospitalization. *Clinical Child Psychology and Psychiatry, 9* (4), 589-596.	• In-patient adolescents' treatment experience during hospitalisation in a crisis stabilization unit • Degree of consistency between patient experiences and the program's goals	• It was important for adolescents to be in a supportive environment with other adolescents • Adolescents needed to be taught skills to break down and prioritize problems/goals and to talk openly about changes they need in their lives • Programs could benefit from one-on-one discussions with patients to help meet their individual needs	High	NR	●			
Herrell, J. M., Fenton, W., Mosher L.R, Hedlund, S., & Lee, B. (1996). Residential alternatives to hospitalization for patients with severe and persistent mental illness: Should patients with comorbid substance abuse be excluded? *Journal of Mental Health Administration, 23* (3), 348-355.	• Clinical outcomes of patients with mental disorders with and without co-occurring substance abuse disorders	• Both groups benefited equally from treatment, were equally likely to be discharged to the community, and reported satisfying experiences • Residential treatment was effective for both patients with and without co-occurring substance abuse • The cost of the program was one third the cost of general hospital care	Med	USA			●	
Hodgson, R., Carr, D., & Wealleans, L. (2002). Brunswick house: A weekend crisis house in north staffordshire. *Psychiatric Bulletin* , 26(12), 453-455.	• Impact of Brunswik House on the use of acute psychiatric wards and accident and emergency services	• Brunswik House was a good alternative to acute psychiatric wards; data indicated that patients admitted to the program were less likely to use acute psychiatric wards and accident or emergency services after discharge than they were prior to admission • Caution must be used when interpreting these results due to the lack of a control group	Med	North Staffordshire, UK	●			

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
	Inpatient Hospital	Community Residential	Pre-teen(10-12)	Teen (13-17)	Young Adults (18-24)	Older Adults (25+)	Unspecified	Male	Female	Psychologist	Physician	Nurse	Social worker	Other MH worker	Suicide Risk	Depression	Other	< 1 week	< 1 month	> 1 month	Psychotherapy	Group Therapy	Milieu	Medication	Drug Rehab/Detox	Housing/Financial assistance	Discharge/Crisis planning	# of beds	# of staff
Grossoehme, D. H., & Gerbetz, L. (2004). Adolescent perceptions of meaningfulness of psychiatric hospitalization. *Clinical Child Psychology and Psychiatry, 9* (4), 589-596.	•		•	•	•			•	•	•		•		•		•	•	•			•	•	•	•				NR	1:6 ratio
Herrell, J. M., Fenton, W., Mosher L.R, Hedlund, S., & Lee, B. (1996). Residential alternatives to hospitalization for patients with severe and persistent mental illness: Should patients with comorbid substance abuse be excluded? *Journal of Mental Health Administration, 23* (3), 348-355.		•				•		•	•				•	•	•	•	•		•	•	•	•						8	3/ shift
Hodgson, R., Carr, D., & Wealleans, L. (2002). Brunswick house: A weekend crisis house in north staffordshire. *Psychiatric Bulletin* , 26(12), 453-455.		•			•	•		•	•					•			•		•			•						NR	6

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Howard, L., Flach, C., Leese, M., Byford, S., Killaspy, H., Cole, L., . . . Johnson, S. (2010). Effectiveness and cost-effectiveness of admissions to women's crisis houses compared with traditional psychiatric wards: Pilot patient-preference randomised controlled trial. *British Journal of Psychiatry* , 197(SUPPL. 53), S32-S40.	• Effectiveness and cost-effectiveness of two women's crisis houses: Croydon Crisis House and North London Crisis House	• Both crisis houses were equally effective at treating women who would otherwise be admitted to psychiatric wards • Neither crisis house required additional expenses compared to the cost of psychiatric wards • Women reported higher levels of satisfaction with crisis houses than psychiatric wards • Women should be given the choice of admission to women's crisis houses	Med	London, UK	●			
Johnson, S., Bingham, C., Billings, J., Pilling, S., Morant, N., Bebbington, P., . . . Dalton, J. (2004). Women's experiences of admission to a crisis house and to acute hospital wards: A qualitative study. *Journal of Mental Health* , 13(3), 247-262.	• Women's experiences in a women-only crisis house compared to general acute wards	• Women in the crisis house reported higher levels of satisfaction and faster recovery than women in the acute hospital units • The home-like setting and absence of male patients aided the women in feeling safer and more receptive to treatment	Med	London, UK			●	
Laddis, A. (2010). Outcome of crisis intervention for borderline personality disorder and post traumatic stress disorder: A model for modification of the mechanism of disorder in complex post traumatic syndromes. *Annals of General Psychiatry, 9*	• Theory that the crisis associated with chronic post traumatic disorders causes trauma in the present • Assessment of an intervention in which patients ended troubled relationships associated with the trauma	• Patients showed a significant reduction in symptoms from admission to discharge based on the results of the BPRS (Brief Psychiatric Rating Scale) and client observation • Further research was recommended to ensure that the reduction in psychiatric symptoms was a result of the specific treatment	Med	NR	●			

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
	Inpatient Hospital	Community Residential	Pre-teen(10-12)	Teen (13-17)	Young Adults (18-24)	Older Adults (25+)	Unspecified	Male	Female	Psychologist	Physician	Nurse	Social worker	Other MH worker	Suicide Risk	Depression	Other	< 1 week	< 1 month	> 1 month	Psychotherapy	Group Therapy	Milieu	Medication	Drug Rehab/Detox	Housing/Financial assistance	Discharge/Crisis planning	# of beds	# of staff
Howard, L., Flach, C., Leese, M., Byford, S., Killaspy, H., Cole, L., . . . Johnson, S. (2010). Effectiveness and cost-effectiveness of admissions to women's crisis houses compared with traditional psychiatric wards: Pilot patient-preference randomised controlled trial. *British Journal of Psychiatry* , 197(SUPPL. 53), S32-S40.		•				•			•	•							•		•		•							Croydon: 8, North London: 12	NR
Johnson, S., Bingham, C., Billings, J., Pilling, S., Morant, N., Bebbington, P., . . . Dalton, J. (2004). Women's experiences of admission to a crisis house and to acute hospital wards: A qualitative study. *Journal of Mental Health* , 13(3), 247-262.	•	•					•		•	•		•			•	•	•		•		•	•						NR	4
Laddis, A. (2010). Outcome of crisis intervention for borderline personality disorder and post traumatic stress disorder: A model for modification of the mechanism of disorder in complex post traumatic syndromes. *Annals of General Psychiatry, 9*		•				•		•	•					•			•				•							NR	NR

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Landers, G. M., & Zhou, M. (2011). An analysis of relationships among peer support, psychiatric hospitalization, and crisis stabilization. *Community Mental Health Journal* , 47(1), 106-112.	• How the use of peer support services affected the outcomes of patients in psychiatric hospitals and crisis stabilization units	• Presence of peer support increased the likelihood of successful crisis stabilization and decreased the odds of patients requiring psychiatric hospitalization	Med	Georgia, USA			•	
Ligon, J., & Thyer, B. A. (2000). Client and family satisfaction with brief community mental health, substance abuse, and mobile crisis services in an urban setting. *Crisis Intervention and Time- Limited Treatment* , 6(2), 93-99.	• Client and family satisfaction with brief mental health, substance abuse, and mobile crisis services provided by an urban public crisis stabilization program	• Substance abuse clients had lowest levels of satisfaction compared to mental health clients and mobile patients/families • Clients of the mobile crisis program were the most satisfied with the services provided	Med	Georgia, USA	•			
Lloyd-Evans, B., Johnson, S., Morant, N., Gilburt, H., Osborn, D. P. J., Jagielska, D., et al. (2010). Alternatives to standard acute in-patient care in england: Differences in content of care and staff-patient contact. *British Journal of Psychiatry* , 197(SUPPL. 53), S46-S51.	• Comparison of community based services and hospital wards in terms of received care and patient satisfaction	• Community-based alternatives provided more psychological care • Standard hospital wards provided more physical and pharmacological care • Amount of direct care provided may be more important than type of intervention • The higher levels of direct care experienced in community based services was correlated with higher patient satisfaction	High	USA			•	
Lloyd-Evans, B., Slade, M., Jagielska, D., & Johnson, S. (2009). Residential alternatives to acute psychiatric hospital admission: Systematic review. *British Journal of Psychiatry* , 195(2), 109-117.	• Systematic review of the effectiveness, cost-effectiveness and satisfaction ratings associated with community-based alternatives to standard acute in-patient mental health care	• Community-based services received higher ratings of patient satisfaction and provided cheaper services compared to in-patient care • More research was required to assess the effectiveness of community based care	High	UK			•	

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
	Inpatient Hospital	Community Residential	Pre-teen(10-12)	Teen (13-17)	Young Adults (18-24)	Older Adults (25+)	Unspecified	Male	Female	Psychologist	Physician	Nurse	Social worker	Other MH worker	Suicide Risk	Depression	Other	< 1 week	< 1 month	> 1 month	Psychotherapy	Group Therapy	Milieu	Medication	Drug Rehab/Detox	Housing/Financial assistance	Discharge/Crisis planning	# of beds	# of staff
Landers, G. M., & Zhou, M. (2011). An analysis of relationships among peer support, psychiatric hospitalization, and crisis stabilization. *Community Mental Health Journal* , 47(1), 106-112.	•	•			•	•		•	•								•	•	•			•						NR	NR
Ligon, J., & Thyer, B. A. (2000). Client and family satisfaction with brief community mental health, substance abuse, and mobile crisis services in an urban setting. *Crisis Intervention and Time- Limited Treatment* , 6(2), 93-99.		•				•		•	•		•		•				•	•	•		•	•		•	•			36	NR
Lloyd-Evans, B., Johnson, S., Morant, N., Gilburt, H., Osborn, D. P. J., Jagielska, D., et al. (2010). Alternatives to standard acute in-patient care in england: Differences in content of care and staff-patient contact. *British Journal of Psychiatry* , 197(SUPPL. 53), S46-S51.	•	•		•	•	•		•	•	•				•		•	•	•	•	•								12	NR
Lloyd-Evans, B., Slade, M., Jagielska, D., & Johnson, S. (2009). Residential alternatives to acute psychiatric hospital admission: Systematic review. *British Journal of Psychiatry* , 195(2), 109-117.	•	•																										NR	NR

MH: mental health | NR: not reported

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Maynard, C., Cox, G. B., Krupski, A., & Stark, K. (1999). Utilization of services for mentally ill chemically abusing patients discharged from residential treatment. Journal of Behavioral Health Services and Research, 26(2), 219-228.	• Comparison of patients who did and did not complete a residential treatment program	• Patients who completed the program were less likely to require expensive acute care services than those who did not complete the program • These patients tended to be slightly older and had fewer felonies and medical conditions • Overall, the study was empirically unable to determine if residential treatment resulted in improved outcomes	Med	Washington, USA	●		●	
Meiser-Stedman, C., Howard, L., & Cutting, P. (2006). Evaluating the effectiveness of a women's crisis house: A prospective observational study. *Psychiatric Bulletin, 30* (9), 324-326.	• Effectiveness of a women's crisis shelter over a 4 year period, as determined by measures of global functioning, unmet needs, and patient usage of other mental health services	• Global assessment of function improved from admission to discharge • 51% of the women using the program were also admitted to main stream mental health services • The crisis house was an effective alternative to in-patient care for women who required a high level of general mental health care	Med	Croydon, UK	●			
Morant, N., Lloyd-Evans, B., Gilburt, H., Slade, M., Osborn, D., & Johnson, S. (2012). Implementing successful residential alternatives to acute in-patient psychiatric services: Lessons from a multi-centre study of alternatives in england. *Epidemiology and Psychiatric Sciences* , 21(2), 175-185.	• Limitations and successful features of five residential alternative centres in the UK	• Although residential alternatives provided more holistic care they were seen as less suitable for highly disturbed individuals • Features associated with successful residential services included: reduced stigma, strong therapeutic relationships, personalized care, and collaboration with other services • Limitations include: struggle to manage high-risk patients, less comprehensive treatment, low staffing	High	UK	●		●	

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
	Inpatient Hospital	Community Residential	Pre-teen(10-12)	Teen (13-17)	Young Adults (18-24)	Older Adults (25+)	Unspecified	Male	Female	Psychologist	Physician	Nurse	Social worker	Other MH worker	Suicide Risk	Depression	Other	< 1 week	< 1 month	> 1 month	Psychotherapy	Group Therapy	Milieu	Medication	Drug Rehab/Detox	Housing/Financial assistance	Discharge/Crisis planning	# of beds	# of staff
Maynard, C., Cox, G. B., Krupski, A., & Stark, K. (1999). Utilization of services for mentally ill chemically abusing patients discharged from residential treatment. Journal of Behavioral Health Services and Research, 26(2), 219-228.		•					•	•	•						•	•	•	•	•	•	•	•						130	NR
Meiser-Stedman, C., Howard, L., & Cutting, P. (2006). Evaluating the effectiveness of a women's crisis house: A prospective observational study. *Psychiatric Bulletin, 30* (9), 324-326.		•			•	•			•			•					•	•	•	•	•	•						NR	NR
Morant, N., Lloyd-Evans, B., Gilburt, H., Slade, M., Osborn, D., & Johnson, S. (2012). Implementing successful residential alternatives to acute in-patient psychiatric services: Lessons from a multi-centre study of alternatives in england. *Epidemiology and Psychiatric Sciences* , 21(2), 175-185.		•																				•		•		•	•	NR	NR

MH: mental health | NR: not reported

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Obuaya, C., Stanton, E., & Baggaley, M. (2013). Is there a crisis about crisis houses? *Journal of the Royal Society of Medicine, 106* (8), 300-302.	• Summary of the role of crisis houses in the UK • Value of crisis houses compared to inpatient care • Areas in which crisis houses could improve	• Over 50% of patients admitted to inpatient hospital programs could have been treated in community crisis houses • Patient satisfaction appeared to be high for crisis house treatments, but more data was required to determine cost-effectiveness and potential risks	Med	UK				●
Rogers, J. H., McCarthy, S. M., & Wood, K. A. (1993). Community meeting participation as an indicator of treatment progress: The crisis stabilization unit. *Therapeutic Communities, 14* (3), 165-178.	• Effectiveness of a crisis stabilization unit using community meeting participation as an indicator of overall treatment progress	• Daily participation in a community meeting was correlated with symptom improvement and discharge	High	NR	●			
Ruffin, J. E., Spencer, H. R., Abel, A., Gage, J., & Miles, L. (1993). Crisis stabilization services for children and adolescents: A brokerage model to reduce admissions to state psychiatric facilities. Community Mental Health Journal, 29(5), 433-440.	• Effectiveness of a 3 component youth crisis stabilization program which included a two-person crisis team, a four-person on-call team, and a wider array of community-based services	• The program's components were effective in reducing admissions to the state psychiatric facility for children and adolescents by 51%	High	NR	●			
Ryan, T., Nambiar-Greenwood, G., Haigh, C., & Mills, C. (2011). A service evaluation of a community- based mental health crisis house in inner city liverpool. *Mental Health Review Journal* , 16(2), 56-63.	• Amethyst House's crisis stabilization program as an alternative to inpatient mental health care in the UK • Severity of patient symptoms at admission and discharge as measured by the GAF (Global Assessment of Functioning), the HoNOS (Heath of the Nation Outcome Scale), and the TAG (Threshold Assessment Grid)	• Based on GAF, HoNOS, and TAG scores, the Amethyst House's crisis program was successful in helping patients reduce their mental health symptoms and disabilities associated with crisis • Without the use of a control group, the study was unable to determine the impact of Amethyst House on the use of inpatient hospital services	High	Liverpool, UK	●			

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
	Inpatient Hospital	Community Residential	Pre-teen(10-12)	Teen (13-17)	Young Adults (18-24)	Older Adults (25+)	Unspecified	Male	Female	Psychologist	Physician	Nurse	Social worker	Other MH worker	Suicide Risk	Depression	Other	< 1 week	< 1 month	> 1 month	Psychotherapy	Group Therapy	Milieu	Medication	Drug Rehab/Detox	Housing/Financial assistance	Discharge/Crisis planning	# of beds	# of staff
Obuaya, C., Stanton, E., & Baggaley, M. (2013). Is there a crisis about crisis houses? *Journal of the Royal Society of Medicine, 106* (8), 300-302.	•	•			•	•		•	•																			NR	NR
Rogers, J. H., McCarthy, S. M., & Wood, K. A. (1993). Community meeting participation as an indicator of treatment progress: The crisis stabilization unit. *Therapeutic Communities, 14* (3), 165-178.					•	•		•	•	•						•	•	•				•	•					8	NR
Ruffin, J. E., Spencer, H. R., Abel, A., Gage, J., & Miles, L. (1993). Crisis stabilization services for children and adolescents: A brokerage model to reduce admissions to state psychiatric facilities. Community Mental Health Journal, 29(5), 433-440.		•	•	•				•	•									•			•							NR	6
Ryan, T., Nambiar-Greenwood, G., Haigh, C., & Mills, C. (2011). A service evaluation of a community- based mental health crisis house in inner city liverpool. *Mental Health Review Journal* , 16(2), 56-63.		•			•	•		•	•					•	•	•	•			•		•	•					NR	NR

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Schoenwald, S. K., Ward, D. M., Henggeler, S. W., & Rowland, M. D. (2000). Multisystemic therapy versus hospitalization for crisis stabilization of youth: Placement outcomes 4 months postreferral. *Mental Health Services Research* , 2(1), 3-12.	• Effectiveness of a home-based multisystemic therapy (MST) program compared to hospitalization for treating adolescents	• The MST program was more effective in preventing a significant proportion of adolescents from being hospitalized, as compared to acute crisis stabilization in a hospital setting	Med	South Carolina, USA			•	
Schweitzer, R., & Dubey, D. R. (1994). Scattered-site crisis beds: An alternative to hospitalization for children and adolescents. *Hospital and Community Psychiatry* , 45(4), 351-354.	• A scattered-site crisis bed program as an alternative to hospitalization for emotionally troubled youth	• The scattered-site crisis bed program was an effective alternative to psychiatric inpatient beds and other restrictive settings • This method was cost-effective, required a minimal investment of resources, and helped maintain a more home-like setting for adolescents	Med	Long Island, NY, USA	•			
Shachter, B. (1978). Treatment of older adolescents in transitional programs: Rapprochement crisis revisited. *Clinical Social Work Journal* , 6(4), 293-304.	• Rapprochement crisis (tension experienced between being emotionally close to one's parents and wanting independence) experienced by male adolescents in transitional residential programs	• Rapprochement crisis could be addressed effectively in crisis centres when staff were trained to understand and anticipate the steps involved in rapprochement crisis • Therapeutic programs for this age group were in short supply compared to programs for younger age groups	Med	NR				•
Sharfstein, S. S. (2009). Goals of inpatient treatment for psychiatric disorders. *Annual Review of Medicine* . 60, 393–403.	• Goals of acute inpatient units for adults • Specialized subunits that offer care for particular age or diagnostic groups	• Acute inpatient units focused on making hospitalization more comfortable for patients by putting it in the context of long-term recovery • Subunits that focused on adolescents used group therapy, family support, interpersonal relationships, and school programs to successfully treat patients	Med	USA		•		

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
	Inpatient Hospital	Community Residential	Pre-teen(10-12)	Teen (13-17)	Young Adults (18-24)	Older Adults (25+)	Unspecified	Male	Female	Psychologist	Physician	Nurse	Social worker	Other MH worker	Suicide Risk	Depression	Other	< 1 week	< 1 month	> 1 month	Psychotherapy	Group Therapy	Milieu	Medication	Drug Rehab/Detox	Housing/Financial assistance	Discharge/Crisis planning	# of beds	# of staff
Schoenwald, S. K., Ward, D. M., Henggeler, S. W., & Rowland, M. D. (2000). Multisystemic therapy versus hospitalization for crisis stabilization of youth: Placement outcomes 4 months postreferral. *Mental Health Services Research* , 2(1), 3-12.	•	•	•	•				•	•	•	•	•	•		•		•	•			•						•	NR	NR
Schweitzer, R., & Dubey, D. R. (1994). Scattered-site crisis beds: An alternative to hospitalization for children and adolescents. *Hospital and Community Psychiatry* , 45(4), 351-354.		•	•	•				•	•				•						•		•							NR	NR
Shachter, B. (1978). Treatment of older adolescents in transitional programs: Rapprochement crisis revisited. *Clinical Social Work Journal* , 6(4), 293-304.		•			•			•					•				•				•		•					NR	NR
Sharfstein, S. S. (2009). Goals of inpatient treatment for psychiatric disorders. *Annual Review of Medicine* . 60, 393–403.	•		•	•	•	•		•	•	•	•	•			•	•	•	•			•	•	•				•	NR	NR

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Siskind, D., Harris, M., Kisely, S., Brogan, J., Pirkis, J., Crompton, D., & Whiteford, H. (2013). A retrospective quasi-experimental study of a community crisis house for patients with severe and persistent mental illness. *Australian and New Zealand Journal of Psychiatry, 47* (7), 667-675.	• Clinical and cost-effectiveness of an Alternative to Hospitalization (AtH) crisis house	• AtH patients spent 5.35 fewer days in hospital than controls • Cost per patient in AtH was $3071 versus $5948 in hospitals • AtH patients had higher illness acuity and acute psychiatric admissions than controls in the following year • Crisis houses were more appropriate for patients with chronic mental illness, low illness acuity and no violence risk	High	Brisbane, AUS	●		●	
Snowden, L. R., Masland, M. C., Libby, A. M., Wallace, N., & Fawley, K. (2008). Racial/ethnic minority children's use of psychiatric emergency care in california's public mental health system. *American Journal of Public Health, 98* (1), 118-124.	• Whether racial minorities' children use crisis services more or less often	• African American children used hospital and community based crisis services more frequently than Caucasian children • Asian Americans and Native children only used services during the most troubling kind of crises and tended not to revisit	Med	Califorina, USA				●
Tansella, M. (2010). Alternatives to standard acute in-patient care for people with mental disorders: From systematic description to evaluative research. *British Journal of Psychiatry, 197* (SUPPL. 53), S1-S3.	• Residential alternatives to acute inpatient hospitalization for patients with mental disorders	• Residential treatments needed to provide more personalised care and give more attention to patient preferences, choices, and control	Med	NR				●
Teare, J. F., Furst, D. W., Peterson, R. W., & Authier, K. (1992). Family reunification following shelter placement: Child, family, and program correlates. *American Journal of Orthopsychiatry, 62* (1), 142-146.	• Factors that lead to children not being reunified with their families following stays at shelters	• Children were not likely to be reunified with their families after residential stays if there were more family problems, higher risks of suicide, and longer stays at the shelter	Med	NR				●

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
	Inpatient Hospital	Community Residential	Pre-teen(10-12)	Teen (13-17)	Young Adults (18-24)	Older Adults (25+)	Unspecified	Male	Female	Psychologist	Physician	Nurse	Social worker	Other MH worker	Suicide Risk	Depression	Other	< 1 week	< 1 month	> 1 month	Psychotherapy	Group Therapy	Milieu	Medication	Drug Rehab/Detox	Housing/Financial assistance	Discharge/Crisis planning	# of beds	# of staff
Siskind, D., Harris, M., Kisely, S., Brogan, J., Pirkis, J., Crompton, D., & Whiteford, H. (2013). A retrospective quasi-experimental study of a community crisis house for patients with severe and persistent mental illness. *Australian and New Zealand Journal of Psychiatry, 47* (7), 667-675.		•						•	•																			5	1:25 ratio
Snowden, L. R., Masland, M. C., Libby, A. M., Wallace, N., & Fawley, K. (2008). Racial/ethnic minority children's use of psychiatric emergency care in california's public mental health system. *American Journal of Public Health, 98* (1), 118-124.	•	•	•	•				•	•						•	•												NR	NR
Tansella, M. (2010). Alternatives to standard acute in-patient care for people with mental disorders: From systematic description to evaluative research. *British Journal of Psychiatry, 197* (SUPPL. 53), S1-S3.		•																										NR	NR
Teare, J. F., Furst, D. W., Peterson, R. W., & Authier, K. (1992). Family reunification following shelter placement: Child, family, and program correlates. *American Journal of Orthopsychiatry, 62* (1), 142-146.		•	•	•											•		•		•				•				•	NR	NR

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Thomas, K. A., & Rickwood, D. (2013). Clinical and cost-effectiveness of acute and subacute residential mental health services: A systematic review. *Psychiatric Services* , 64(11), 1140-1149.	• Clinical effectiveness, satisfaction, and cost-effectiveness of acute residential treatments	• Patients in residential treatment had similar symptom reduction as those in hospital but had lower readmittance rates and were more satisfied with their treatment • Treatment in residential centres was less costly than hospital treatment	High	NR				
Timko, C., Dixon, K., & Moos, R. H. (2005). Treatment for dual diagnosis patients in the psychiatric and substance abuse systems. *Mental Health Services Research, 7* (4), 229-242.	• Comparison of the degree to which psychiatric and substance abuse residential and outpatient programs offered help to patients with dual diagnoses	• Psychiatric programs did not rely enough on cognitive behavioural therapy, needed to use clinical practice guidelines, and needed to monitor program performance • Substance abuse programs were more likely to offer some of the key recommended services of integrated treatment as well as other critical components such as cognitive-behavioral therapy and assignment of a single case manager to each patient	Med	USA			●	
Vermeiren, H., & Van Oost, P. (1999). People at higher risk for a psychiatric emergency dealing with a psychosocial crisis: Preventing hospital admission by a short stay crisis stabilization service. *New Trends in Experimental and Clinical Psychiatry, 15* (2-3), 115-119.	• Ways in which an outdoor mental health centre and a residential treatment center can collaborate to treat patients with moderate mental health difficulties	• The article was an outline of what they plan to research; no definitive action plan was made	Med	NED				●
Weisman, G. K. (1985). Crisis-oriented residential treatment as an alternative to hospitalization. *Hospital and Community Psychiatry* , 36(12), 1302-1305.	• La Posada, a residential treatment program that combines crisis intervention with methods developed in halfway houses to treat patients	• La Posada was cost-effective, reduced hospitalization, and was promoted by residents • The program combined approaches used in different mental health care systems to successfully produce an alternative to hospitalization	High	San Fransisco, USA		●		

MH: mental health | NR: not reported

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
	Inpatient Hospital	Community Residential	Pre-teen(10-12)	Teen (13-17)	Young Adults (18-24)	Older Adults (25+)	Unspecified	Male	Female	Psychologist	Physician	Nurse	Social worker	Other MH worker	Suicide Risk	Depression	Other	< 1 week	< 1 month	> 1 month	Psychotherapy	Group Therapy	Milieu	Medication	Drug Rehab/Detox	Housing/Financial assistance	Discharge/Crisis planning	# of beds	# of staff
Thomas, K. A., & Rickwood, D. (2013). Clinical and cost-effectiveness of acute and subacute residential mental health services: A systematic review. *Psychiatric Services* , 64(11), 1140-1149.																												NR	NR
Timko, C., Dixon, K., & Moos, R. H. (2005). Treatment for dual diagnosis patients in the psychiatric and substance abuse systems. *Mental Health Services Research, 7* (4), 229-242.		•				•		•	•	•		•				•	•			•	•	•	•	•	•		•	NR	NR
Vermeiren, H., & Van Oost, P. (1999). People at higher risk for a psychiatric emergency dealing with a psychosocial crisis: Preventing hospital admission by a short stay crisis stabilization service. *New Trends in Experimental and Clinical Psychiatry, 15* (2-3), 115-119.		•					•	•	•				•	•	•	•	•		•	•	•						•	25	6
Weisman, G. K. (1985). Crisis-oriented residential treatment as an alternative to hospitalization. *Hospital and Community Psychiatry* , 36(12), 1302-1305.		•			•	•		•	•	•	•			•		•	•		•		•			•		•	•	10	NR

MH: mental health | NR: not reported

Citation	What was studied?	What was found?	Estimated relevance	Country	Type of Study			
					Program Evaluation	Program Description	Comparative	Other
Wesson, M. L., & Walmsley, P. (2001). Service innovations: Sherbrook partial hospitalisation unit. *Psychiatric Bulletin, 25* (2), 56-58.	• The Sherbrook partial hospitalization unit and how often its services were used by those in the community	• The unit was valuable for those with mental health problems as a transitional stage between inpatient hospital and being back in the community • It was important to couple treatment with extended day care and crisis line support	Med	Southport, USA		•		
Wolff, A. (2008). Development of a psychiatric crisis stabilization unit. *Journal of Emergency Nursing, 34* (5), 458-459.	• Steps taken to create an emergency crisis stabilization unit	• Keeping patients more connected to home allowed for earlier return to daily activities • Implementation of a crisis stabilization unit off-site from the hospital helped decrease hospital admissions	Med	USA		•		

Citation	Setting		Age					Gender		Healthcare Professionals					Type of Crisis			Length of Stay			Treatments Involved							Program Size	
	Inpatient Hospital	Community Residential	Pre-teen(10-12)	Teen (13-17)	Young Adults (18-24)	Older Adults (25+)	Unspecified	Male	Female	Psychologist	Physician	Nurse	Social worker	Other MH worker	Suicide Risk	Depression	Other	< 1 week	< 1 month	> 1 month	Psychotherapy	Group Therapy	Milieu	Medication	Drug Rehab/Detox	Housing/Financial assistance	Discharge/Crisis planning	# of beds	# of staff
Wesson, M. L., & Walmsley, P. (2001). Service innovations: Sherbrook partial hospitalisation unit. *Psychiatric Bulletin, 25* (2), 56-58.	●	●		●	●	●		●	●	●		●		●	●	●		●			●			●				2	16
Wolff, A. (2008). Development of a psychiatric crisis stabilization unit. *Journal of Emergency Nursing, 34* (5), 458-459.		●					●	●	●	●	●	●			●			●			●			●	●	●	●	NR	NR

MH: mental health | NR: not reported

Most Relevant Articles

The following articles were highlighted because they were highly relevant and informative to the research question. They evaluated the clinical- and cost-effectiveness of acute mental health residential programs. Articles are arranged in alphabetical order according to the first author's last name.

1. Fenton, W. S., Mosher, L. R., Herrell, J. M., & Blyler, C. R. (1998). Randomized trial of general hospital and residential alternative care for patients with severe and persistent mental illness. *American Journal of Psychiatry, 155*(4), 516-522.

   A direct comparison was conducted between treatment of patients in hospital and residential programs. Both programs were found to be effective in reducing symptoms. There was no significant difference between the two programs for psychosocial functioning, satisfaction, and acute care usage six months after discharge. This methodologically rigorous study provided some of the strongest evidence for the effectiveness of residential alternatives to hospital based care. Combined with evidence from other studies that demonstrated the cost-effectiveness of such programs, these findings provided strong support for the community residential programs.

   One notable problem with the study design was that patients presenting at the hospital were required to agree to be randomized to either the hospital or community program. Many did not consent to the randomization and were thus excluded from the study. As a result, there may have been selection bias present in the study's participants.

2. Lloyd-Evans, B., Slade, M., Jagielska, D., & Johnson, S. (2009). Residential alternatives to acute psychiatric hospital admission: Systematic review. *British Journal of Psychiatry*, 195(2), 109-117.

   Patient satisfaction, effectiveness, and cost effectiveness of residential alternatives to inpatient hospitalization were evaluated through a systematic review of controlled studies that compared community based alternatives to inpatient care. Results from 9 studies of moderate quality suggested that residential alternatives were cheaper and resulted in higher levels of patient satisfaction than standard inpatient care. Further research is needed to determine the effectiveness of residential treatment.

3. Siskind, D., Harris, M., Kisely, S., Brogan, J., Pirkis, J., Crompton, D., & Whiteford, H. (2013). A retrospective quasi-experimental study of a community crisis house for patients with severe and persistent mental illness. *Australian and New Zealand Journal of Psychiatry*, 47(7), 667-675.

   This study evaluated the clinical and cost-effectiveness of an Alternative to Hospitalization (AtH) program (crisis house). AtH patients spent 5.35 days less in hospital than controls. In addition, the cost per patient in AtH was $3071 versus $5948 in hospital. However, AtH

patients had higher illness acuity, more emergency department (ED) presentations, and more acute psychiatric admissions than controls in the following year (after the index episode). The study concluded that crisis houses were more appropriate for patients with chronic mental illness, low illness acuity and no violence risk.

4. Thomas, K. A., & Rickwood, D. (2013). Clinical and cost-effectiveness of acute and subacute residential mental health services: A systematic review. *Psychiatric Services*, 64(11), 1140-1149.

   A systematic review was conducted of studies that focused on clinical effectiveness, cost-effectiveness, and patient satisfaction associated with residential alternatives to inpatient hospitalization. Most of the studies indicated that both community-based and inpatient care resulted in similar levels of psychiatric symptom reduction. In addition, residential services were more cost effective and clients reported higher levels of satisfaction in residential programs compared to inpatient hospitalization.

Annotated Bibliography

The following articles did not meet outlier or exclusion criteria and were included in the review. However, they have been summarized here instead of being coded in the spreadsheet because they were deemed to be of low relevance to the specific research question. Articles are arranged in alphabetical order according to the first author's last name.

1. Barzman, D. H., McConville, B. J., Masterson, B., McElroy, S., Sethuraman, G., Moore, K., Nelson, D. (2005). Impulsive aggression with irritability and responsive to divalproex: A pediatric bipolar spectrum disorder phenotype? *Journal of Affective Disorders*, 88(3), 279-285.

   The effectiveness of divalproex was evaluated for patients with bipolar disorder and aggressive tendencies who were admitted to a crisis stabilization program. The study found that divalproex significantly reduced aggressiveness (assessed using the Overt Aggression SCale) and improved global functioning (assessed using the Children's Global Assessment Scale), and few side effects were noted.

2. Berke, J. H. (1994). Psychotic interventions at the arbours crisis centre. *British Journal of Psychotherapy*, 10(3), 372-382.

   A case study that discussed the difficulties that emerged when treating patients in a live-in situation. Both patients and therapists might emotionally decompensate and revert back to psychotic thinking during a time of crisis. Therapeutic milieu in which another therapist stepped in was used to assist.

3. Campos, D. T., & Gieser, M. T. (1985). The psychiatric emergency/crisis disposition and community networks. *Emergency Health Services Review*, 3(1), 117-128.

   Methods for treating psychiatric emergencies and crisis stabilization were described in terms of the following contexts: patients' families, emergency housing, foster homes, crisis hostels, 24-hour holding-beds or intensive observation apartments, crisis bed units, and inpatient hospitalization.

4. Cascardi, M., Poythress, N. G., & Ritterband, L. (1997). Stability of psychiatric patient's perceptions of their admission experience. *Journal of Clinical Psychology*, 53(8), 833-839.

   An investigation of the test-retest stability of 3 new measures for assessing patients on admission. All three measures were relatively stable over time for most patients. Patients with the most severe disorders showed the lowest stability.

5. Conte, C., Snyder, C., & McGuffin, R. (2008). Using self-determination theory in residential settings. *Residential Treatment for Children and Youth*, 25(4), 307-318.

An opinion piece that suggested that self-determination theory should be applied to therapeutic interventions for youth in crisis. The authors proposed a model for crisis treatment based on self-determination theory.

6. Farris, P. W. (1997). Case managed mental health care in the San Antonio catchment area: The crisis-intervention unit. *Military Medicine*, 162(9), 628-635.

   A description of the crisis intervention unit at a military treatment facility.

7. Ligon, J., & Thyer, B. A. (2000). Interrater reliability of the brief psychiatric rating scale used at a community-based inpatient crisis stabilization unit. *Journal of Clinical Psychology*, 56(4), 583- 587.

   The effectiveness of the BPRS (Brief Psychiatric Rating Scale) was studied. It was found to be a useful tool in a community setting.

8. McGuire, T. J. (1988). A time-limited dynamic approach to adolescent inpatient group psychotherapy. *Adolescence*, 23(90), 373-382.

   A model for group psychotherapy in inpatient psychiatric settings was discussed. The model focused on the resolution of problematic interpersonal interactions. No empirical work was done to gauge the effectiveness of this model for psychotherapy.

9. Murphy, S., Irving, C. B., Adams, C. E., & Driver, R. (2012). Crisis intervention for people with severe mental illnesses. *Cochrane Database of Systematic Reviews (Online), 5*

   A systematic review was conducted of randomized controlled trials that investigated interventions for severe mental illness. Care based on crisis intervention principles was found to be a viable way to treat people with severe mental illness.

10. Sharfstein, S. S. (2009). Goals of inpatient treatment for psychiatric disorders *Annual Review of Medicine*. 60, 393–403.

    The shortage of inpatient crisis beds in America was discussed. The number of available beds has declined dramatically in the past 40 years.

11. Sharfstein, S. S. (2009). Letter from America: Acute in-patient psychiatry bed shortages. *Advances in Psychiatric Treatment, 15*(6), 402-403.

    While half of the admissions to psychiatric beds are well handled within the current crisis stabilisation model, the other half are often discharged acutely ill and at risk of rapid re-hospitalization. The downward trend of number of psychiatric beds over the past 50 years may be reversing, but it is necessary to try to make the acute in-patient stay more effective and linked to and coordinated with a community-based system of care.

12. Sigmund, J. A. (2003). Spirituality and trauma: The role of clergy in the treatment of posttraumatic stress disorder. *Journal of Religion and Health*, 42(3), 221-229.

    Three different priests' clinical and biblical involvement in the treatment of post-traumatic stress disorder was examined. The employment of priests as part of the treatment team allowed for a more holistic approach to healing. The authors called for future research to empirically assess the effectiveness of the inclusion of priests in the treatment team.

13. Sylvestre, J., Sundar, P., Jamshidi, P., & Manion, M. (2009). Evaluating the early implementation of a community crisis bed program for people experiencing a psychiatric emergency using key component scaling. *Canadian Journal of Program Evaluation*, 24(1), 157-178.

    Different parties (mobile crisis team [MCT] staff, bed provider staff, community partners) rated how the community crisis bed program was implemented and how they were involved in the starting of the program. The parties had different expectations for the program implementation. There were difficulties in coordinating the activities of the program (e.g., ambiguity existed in the role of the bed provider and staff and MCT).

14. Uttaro, T., & González, A. (2002). Psychometric properties of the behavior and symptom identification scale administered in a crisis residential mental health treatment setting. *Psychological Reports*, 91(2).

    The Behavior and Symptom Identification Scale in a crisis residential treatment setting was examined. The scale was valid in this setting and crisis residence treatment was found to be effective for both males and females. Females were more honest and realistic in self-assessment

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