Why a Crisis Residential Unit?

- Significantly lower cost than hospitalization
- Less restrictive environment
- Highly skilled clinicians focus on group/psychosocial rehabilitation skills
- Outcomes are at least equivalent to (and probably better than) psychiatric hospitalization
- Reduces number of voluntary hospitalizations so that involuntary hospitalizations can take precedence
Before opening the CRU, a review of relevant literature was undertaken. It became apparent that little research had been done on the use of CRUs (or similar programs) as alternatives to hospitalization.


Sledge, et al concluded that alternative programs had not been “widely implemented” because of the existence of an “incentive structure that discourages their use” and because it is assumed that psychiatric hospitalization is the “most effective method of treatment for those acutely ill psychiatric patients.” p. 1075. This conclusion was still applicable at the inception of the CRU in 2004.

The Sledge alternative to psychiatric hospitalization for individuals with SMI in crisis was a combined day hospital and crisis residence that resembled the CRU in many respects but the CRU combines both the day hospital concept and a residence under one roof.

The CRU differs from all models that were reviewed in two respects: 1) the level of training of its clinical staff (all LPHAs except 1 QMHP RN); and 2) the CRU’s alumni organization (described later in this presentation).
The preparatory research supported the conclusion that psychiatric crises requiring acute care with hospitalization account for the largest expenditures in community care. Fenton, W.S., Hoch, JS, Herrell, JM, Mosher, L & Dixon, L., Cost and cost-effectiveness of hospital vs. residential crisis care for patients who have serious mental illness. Arch Gen Psychiatry, 202; 59; 357-364.

In designing the CRU, Sledge’s conclusion that selection of personnel is critical to the “effectiveness” aspect of a cost-effective program was a critical factor.

What we did not prepare as effectively for was to meet the needs of individuals who are unable to participate in psychosocial rehabilitation in any form and/or the necessity of extreme flexibility in meeting the needs to clients with psychotic disorders.
What is a CRU

- A residential alternative to hospitalization for individuals experiencing an acute psychiatric episode
- Stabilization, evaluation, medication, psychosocial rehabilitation and linkage to other services provided
Structure and Staffing of CRU

- 18-bed, CARF certified, residential unit
- Open, unlocked
- Voluntary
- Clients not restricted to property during non-group times
- 6 or more groups per day
- Individual therapy and case management 3 or more times per week
Relying heavily on the conclusions of Sledge, et al, that the quality of staff education and training may be predictive of outcomes, the CRU was designed to provide intensive psychosocial services by highly trained LPHAs. One of the main goals in opening the CRU was to end or even reduce the cycle of repeatedly accessing expensive ERs, hospitals and jails.
Structure & Staffing contd.

Staffing is as follows: MD 15 hours per week with backup from CRU/MCOT Medical Director; 3 FTE LPHAs; 1 relief LPHA (50 – 75%); 1 Administrator/clinician (50%); 1 FTE RN; 2 FTE psychiatric specialists per shift; 1 part-time LPHA (10 hours on weekends)
Population Served

- The vast majority of CRU clients are homeless
- Have a history of SMI (although not always target population diagnoses)
- Have co-occurring disorders
- Have a history of multiple hospitalizations and/or incarcerations or both
Clinical Focus

- Bringing attention to skills that enable clients to avoid future psychiatric crises
- Based on a cognitive behavioral therapy model because it is evidence-based
- Problem-solving and communication skills emphasized, as well as management of co-occurring disorders
Education/Skills Training
Philosophy

- Objectives include teaching clients to use support groups as sounding board and problem-solving tool
- Teach emotional regulation skills that can be practiced independently and without the intervention of a mental health professional
- Teach and model effective communication skills so that misunderstandings can be avoided and clients have a better chance of getting their needs met
Education/Skills Training contd.

- Teach methods for changing interpretations of events to change feelings and destructive behaviors
- Recognition of symptoms and symptom management techniques
- Emphasis on mindfulness practice as a way of focusing on the present and managing anger
- Teach other anger management and stress-reducing techniques
Benefits of CRU vs. Inpatient Hospitalization

- Psychiatric hospitalizations – high incidence of physical aggression
- CRU – low incidence of aggression. In 6 years, one incident involving physical aggression toward a resident. In the same occurrence, the client hit a staff member. CRU Operational Guidelines do not permit use of restraint.
- Indigent care hospitals are frequently without beds and alternatives to hospitalization facilitate better use of hospitals
- Fairly rapid turnover in CRU creates much higher bed availability
- Use of Peer Navigators to assist in educating consumers about the community mental health system and linking them to community supports. Current research supports use of peers.
- Hospital environments do not always support dignity, safety and privacy and are not always flexible enough to meet and respect cultural needs and differences or allow for individualized treatment plans. In addition, clients report that they do not usually like hospitals. CRU has potential to be more humane
CRU vs. hospitalization, contd.

- Possible reduction in stigma when receiving services in a residential facility rather than a psychiatric hospital.
- Avoid “institutionalized” patients or identification with the “patient” role.
- CRUs produce quicker results.
- Greater focus on self-actualization and empowerment in treatment and discharge planning.
- Social problems leading to relapse are more easily identified and addressed.
- CRUs focus more directly on co-occurring disorders.
- Alumni program can be used for relapse prevention.
Without incurring significant additional cost, and to further the goal of reducing episodes of ER visits, hospitalizations and use of jail services, the CRU has developed an ad hoc alumni program which provides an additional safeguard against reoccurring crises.

The CRU staff members provide services to alumni on an informal basis and alumni can receive brief individual therapy as they transition out of the CRU and into the community or if the need arises after they are living in the community.
Lagniappe contd.

- Alumni are allowed to use the CRU facilities and have meals at the CRU the budget permits and providing they adhere to Alumni Rules
- Alumni are invited to participate in all holiday activities with CRU residents
- The alumni program is an attempt to provide a home/family of choice setting for individuals who long ago burned family (and other) bridges
Alumni

- The alumni program has formal meetings on at least a quarterly basis
- Efforts are being made to provide a group therapy/aftercare track specific to alumni needs
- Many alumni report anecdotally that they would have returned to emergency rooms and jails had it not been for having access to the CRU
Readmission

- The original design of the CRU did not permit readmission. As the program became operational, it became apparent that, at times, readmission presents a viable alternative to hospitalization which is more cost effective and less traumatic.
Readmission, contd.

- Readmissions to the CRU are decided on a case by case basis by the staff, reviewed by the Medical Director, and limited to a maximum of 5 days.
- In several difficult cases, readmission on a date chosen by the client has been used as an incentive to keep clients out of ERs and hospitals.
Crisis Residential Unit
Program Outcomes
CRU Admission Data for 2009

- 364 Consumers admitted to the program
- Average Length of Stay: 16 days

Bipolar d/o: 40%
MDD: 31%
MDD w/psychosis: 12%
Schizoaffective: 11%
Schizophrenia: 5%
Psychotic d/o: 1%
CRU Discharge Data for 2009

- 80% Completed the Program to Become CRU Alumni

**Discharge Disposition - 2009**

- Completed Program: 80%
- Consumer Left w/o Discharging: 6%
- Consumer/Program Decision: 6%
- Transfer to Higher Level of Care: 3%
- Other (incarceration, missing data, etc.): 5%
CRU: Program Effectiveness

Effectiveness measured by three indicators:

- Admission & Discharge Assessments
- Relapse Occurrences
- Alumni Participation
Pre- and Post-treatment Comparison

Admissions by Diagnosis

- Bipolar d/o: 40%
- MDD: 31%
- MDD w/psychosis: 12%
- Schizoaffective: 11%
- Schizophrenia: 5%
- Psychotic d/o: 1%

Sample taken from 2009 admissions who completed the program (n=235)
Beck Depression Inventory

<table>
<thead>
<tr>
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<tr>
<td>91.7%</td>
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Young Mania Rating Scale

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<tr>
<td>No change</td>
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Beck Anxiety Inventory

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<tr>
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<tr>
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n=74
**Brief Psychiatric Rating Scale**

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<td>No change</td>
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<tr>
<td>Decreased Score</td>
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### WHO Well-Being Index

- The majority (88%) of consumers who reported improvement reported greater than a two-fold improvement in overall well-being.

<table>
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<th>% Improved</th>
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<th>% Decreased Score</th>
<th>n=223</th>
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</thead>
<tbody>
<tr>
<td>Improved</td>
<td>97.9%</td>
<td>5.4%</td>
<td>6.7%</td>
<td></td>
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![Pie Chart](chart.png)
Clinical Global Impression

The majority (98%) reported a Clinical Global Impression (CGI) of improvement was between Much Improved and Very Much Improved.

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Global Assessment of Functioning

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<td></td>
<td></td>
</tr>
<tr>
<td>No change</td>
<td>11.1%</td>
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<tr>
<td>Decreased GAF</td>
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## Pre- and Post-treatment Comparison

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<tr>
<td>YMRS (n=92)</td>
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<td>Beck-A (n=74)</td>
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<tr>
<td>WHO (n=223)</td>
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<td>CGI (n=235)</td>
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<tr>
<td>GAF (n=234)</td>
<td>87.2%</td>
<td>11.1%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

- The data indicates that the majority of consumers who complete the program improve during their time at the CRU.
Linkages: Where do they go after completing the CRU program?

Of the 80% who completed the program…

- 59% Substance Abuse Treatment
- 71% Social Services
- 72% Housing
- 79% MHMRA Clinic Services
- 6% No Referral Needed
- 4% Refused Referral
The high percentage of one-time visits in the first six months could be attributed to consumers who have not yet had an intake appointment at the clinic and are in need of medication refills.

Data is for any consumer who stayed at the CRU for 5 days or longer, regardless of whether they completed the program (n=1797).
Comparison of Six-Month Pre-CRU and Six-Month Post-CRU Visits to PES

Consumers reduced the number visits to the PES by 47% following their CRU admission.
Comparison of One-Year Pre-CRU and One-Year Post-CRU visits to PES

Consumers reduced the number visits to the PES by 34% following their CRU admission.
Post-Discharge Visits to Harris County Psychiatric Center (HCPC)

- Some percentage, perhaps the majority, of the HCPC admissions come through the PES.
- Data is for any consumer who stayed at the CRU for 5 days or longer, regardless of whether they completed the program (n=1797).

![HCPC Hospitalizations](chart.png)
Persons Incarcerated after being discharged from the CRU

- Percent of post-CRU consumers going to jail in 2007 decreased threefold from 2005: 23.4% to 7.8%

(2005, n=637; 2007, n=695)
Readmits as a measure of CRU effectiveness

- Since the beginning of FY 2009 the CRU readmitted 19 consumers (3% of total admits)
  - All readmissions occurred more than 90 days after initial CRU discharge
  - Ten of the 19 readmissions did not successfully complete the program during their initial admission
Alumni Participation

- Example of alumni services:
  - During April, 2010 there were 443 entries in the alumni log at the CRU
  - 324 suppers were served to alumni
  - 235 lunches were served to alumni
  - 190 resource contacts by alumni
  - 56 group contacts by alumni
  - 23 alumni counselor contacts (19 hours total)
Crisis Residential Unit
Program Outcomes Summary

- Consumers improve while at the CRU
- After completing the CRU program consumers reduce the number of visits to emergency services
- The number jail bookings of CRU consumers appears to be trending downward
- Consumers with limited resources have found a supportive environment
Bed-Day Costs of CRU vs. Hospital

- The CRU bed-day cost is $220
- MHMRA pays approximately $487 per bed day for Harris County Psychiatric Center (county hospital) and $800 or more per bed day for private hospital beds
Conclusion

- The implementation of crisis redesign programs has marked the first time in which Texas CMHCs have made a concerted effort to create and implement alternatives to hospitalization on a widespread basis.

- What is clear from Sledge, subsequent research and the data produced in connection with the CRU is that residential alternatives to hospitalization can be both cost effective and can produce outcomes at least as good as the outcomes from hospitalization.
Conclusion, contd.

- It is important to note that the strength of the CRU is dependent, in large part, on the voluntary nature of the program (although we have had “involuntary” patients in our care) and on the availability of hospitalization options if necessary.

- In rural areas where voluntariness and hospitalization are not readily available options, more questions are raised about the safety of such a unit and the capacity to be flexible enough to meet the needs of involuntary patients.
Challenges

- Sledge, et al. observed that “direct personnel expense is a proxy for the essential element for effective outcomes in the provision of intensive psychiatric services.” p. 1081. This conclusion has been accurate as it relates to the CRU where many outcomes are attributable, in large part, to the quality of direct care services. The use of “direct care” here is not limited to quasi-professional staff, but includes licensed QMHPs and LPHAs. One concern this observation raises is how changes in staffing might affect the quality of care provided.
A serious recurrent issue is the impact of homelessness on relapses among CRU alumni. Ongoing homelessness with little hope of relief makes this population especially vulnerable to crisis.

The CRU still faces the challenge of adapting its treatment model to the needs of seriously psychotic patients who cannot sustain extended periods of group work.

The number of consumers with Axis II diagnoses appears to be trending upward. This creates a difficult group dynamic and illustrates the need to better serve this population.

An additional challenge is to begin offering more group services to alumni to decrease long-term use of acute care hospitals.

Quantifying and monitoring outcomes is one of the biggest ongoing challenges faced by the CRU.
It is the journey – not the destination – that has been an humbling experience to all of us who have been on the road since the beginning of the CRU. Our patients are among the most resourceful, adaptable and resilient people that any of us have ever had the privilege of working with. Not only have our patients gotten better in this setting, but so have we.