Implementation and Outcomes from Connecticut’s Mobile Crisis Intervention Service

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A recent study using nationally representative data (Torio et al., 2015)
- Overall, youth hospitalizations for all conditions did not increase between 2006 and 2011
- Hospitalizations for mental health conditions increased by 50%
- ED visits for mental health conditions increased by 21%
- $11.6 billion spent on hospital visits for mental health

Historically, high utilization and costs associated with “deep-end” treatment

In 2000, CT legislation expanded access to home- and community-based services and supports (including mobile crisis services)

Subsequent data suggests shifting resources from deep-end to community-based care; yet, there continues to be high utilization of EDs for behavioral health
What is EMPS?

- A team of trained mental health professionals who can respond immediately on-site, or by phone, when a child is experiencing a mental health need or is in crisis
- Funded by state grants (DCF) with third party reimbursement from Medicaid and commercial insurers

Who can receive EMPS?

- Anyone can call on behalf of a youth who is in crisis or has a mental health need
- **A “crisis” is defined by the family...**
- Any child 18 or younger in Connecticut (19 year olds, if in school)
- Available regardless of system involvement, insurance, ability to pay
- **Exclusions**: Youth in Residential Treatment Centers, Sub-Acute Units, Inpatient Hospitals
The EMPS Service System

- **EMPS Provider Network**
  - Six primary contractors
  - Fourteen total sites (subcontracts, satellites, statewide coverage)
  - 170+ full time and part time/per diem employees

- **Statewide Call Center**
  - Call triage; warm transfer to EMPS provider
  - Clinical coverage during non-mobile hours, EMPS follow-up during next available mobile hours

- **Performance Improvement Center (EMPS-PIC)**
  - Web-based Data Collection and Entry
  - Data Analysis, Reporting, and Quality Improvement
  - Standardized Training Curriculum
  - Standardized Practice Development
  - Evaluation Research and Ad Hoc Data Requests

Accessing EMPS

**EMPS Mobile Hours**
- 6am to 10pm Mon-Fri
- 1pm to 10pm Sat/Sun/Holidays
- Crisis clinician response during non-mobile hours, with EMPS mobile follow-up offered at next mobile hours
- Capacity to handle multiple calls simultaneously

**Key Provider Performance Benchmarks**
- **High volume**: Reach your community
- **Be mobile**: 90% or higher mobility
- **Respond quickly**: 45 minutes (or less) for at least 80% of all mobile responses
- All measured and reported transparently by the EMPS PIC
Available Services

- **Mobile response** to homes, schools, EDs, community locations
- **Crisis stabilization**
- **Diversion from the ED, collaboration** with ED, inpatient hospitals, law enforcement intervention, schools
- **Clinical assessment** using standardized instruments
- **Follow-up services** for up to 45 days (and unlimited episodes of care)
- Access to **psychiatric evaluation** and medication management
- **Collaboration** with families, schools, hospitals, other providers
- **Referral and linkage** to ongoing care as needed
Standardized Training

Core Modules - 1
1. Crisis Assessment, Planning, and Intervention
2. Columbia Suicide Severity Rating Scale (C-SSRS)
3. Emergency Certificate Training
4. Assessing Violence Risk in Children and Adolescents

Core Modules - 2
1. 21st Century Culturally Responsive Mental Health Care
2. Disaster Behavioral Health Response Network (DBHRN)
3. An Overview of Intellectual Disabilities and Positive Behavioral Supports
4. Question, Persuade, and Refer (QPR)
5. Strengths-Based Crisis Planning
6. Traumatic Stress and Trauma-Informed Care

➢ Parents are paid co-trainers and members of agency Quality Improvement teams
➢ Each module delivered 3X/year, in different regions of the state
EMPS Episodes of Care

- **Phone Only**
  - 22% of all episodes

- **Face to Face**
  - 46% of all episodes
  - 1 to 5 days
  - Streamlined assessment and intake process

- **Stabilization and Follow-Up**
  - 32% of all episodes
  - Comprehensive standardized intake process
  - Assessment and outcome measures at intake and discharge
  - No limit on repeat episodes of care
Staffing

- 170+ full time and part time/per diem clinicians statewide
- Most EMPS teams housed within large community-based mental health clinics with full service array
- Clinicians are typically Master’s Level (MSW, LPC, or LMFT), licensed or license-eligible clinicians
- .50 to 1.0 FTE Directors at each site (MA or Doctoral level)
- Each contract includes capacity for psychiatric consultation and medication management
- Family partners used in some teams, primarily for parent engagement and follow-up
- Team responses are preferred, but less likely to occur as volume has increased over time
Demographic and Clinical Characteristics
Age

(N = 12,413)

- <=5: 0.4%
- 6-8: 3.5%
- 9-12: 22.7%
- 13-15: 12.1%
- 16-18: 26.4%
- 19+: 35.0%
Racial Background

- 58.1% White
- 21.3% Black/African American
- 18.0% Asian
- 1.5% Native Hawaiian Pacific Islander
- 0.8% American Indian/Alaska Native
- 0.3% Other Race

(N = 10,669)

Note: Clients may self-identify more than one Race.
Ethnic Background

(N = 10,832)

- Non-Hispanic Origin: 69.1%
- Mexican, Mexican American, Chican@: 18.8%
- Puerto Rican: 9.4%
- Cuban: 1.7%
- South or Central American: 0.9%
- Hispanic/Latino Origin: 0.1%
Presenting Problems

Dial 2-1-1
Trauma Exposure

- Central: 50%
- Eastern: 73%
- Hartford: 61%
- New Haven: 77%
- Southwestern: 63%
- Western: 73%
- Statewide: 65%
Referral Sources

- Self/Family: 43.0%
- School: 39.7%
- Other community provider: 8.6%
- Emergency Department (ED): 3.3%
- Probation/Court: 2.8%
- Dept. Children & Families: 0.4%
- Foster Parent: 0.3%
- Police: 0.4%
- Other: 1.4%
Referrals from Emergency Departments

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>FY2011</td>
<td>12.0%</td>
</tr>
<tr>
<td>FY2012</td>
<td>11.2%</td>
</tr>
<tr>
<td>FY2013</td>
<td>10.1%</td>
</tr>
<tr>
<td>FY2014</td>
<td>10.6%</td>
</tr>
<tr>
<td>FY2015</td>
<td>9.2%</td>
</tr>
<tr>
<td>FY2016</td>
<td>8.6%</td>
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</tbody>
</table>
Performance Measures
Statewide Call and Episode Volume
(EMPS FY2011 – FY2016)

FY11 Total: 12,265
FY12 Total: 13,789
FY13 Total: 15,574
FY14 Total: 18,002
FY15 Total: 16,644
FY16 Total: 16,789

FY 2011
FY 2012
FY 2013
FY 2014
FY 2015
FY 2016

EMPS Episodes
211 Only

DCF
Child Health and Development Institute of Connecticut, Inc.
Statewide EMPS Utilization Per 1,000: FY2016 (By Service Area)

- Central: 15.27
- Eastern: 16.26
- Hartford: 20.62
- New Haven: 14.95
- Southwestern: 11.88
- Western: 12.92
- Statewide: 15.24

+/−1 StdDev. (12.1-18.4)
Statewide Mobility Rates

Goal = 90%
Service Area Mobility Rates (FY2016)

- Central: 91.1%
- Eastern: 95.1%
- Hartford: 92.9%
- New Haven: 91.9%
- Southwestern: 88.5%
- Western: 95.7%
- Statewide: 92.5%

Goal = 90%
Statewide Response Times Under 45 Minutes (EMPS Episodes FY2010 – FY2016)

Goal = 80%
Service Area Response Times Under 45 Minutes (FY2016)

<table>
<thead>
<tr>
<th>Service Area</th>
<th>Response Rate</th>
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<tbody>
<tr>
<td>Central (914)</td>
<td>89%</td>
</tr>
<tr>
<td>Eastern (924)</td>
<td>94%</td>
</tr>
<tr>
<td>Hartford (1572)</td>
<td>84%</td>
</tr>
<tr>
<td>New Haven (976)</td>
<td>90%</td>
</tr>
<tr>
<td>Southwestern (1107)</td>
<td>95%</td>
</tr>
<tr>
<td>Western (1116)</td>
<td>83%</td>
</tr>
<tr>
<td>Statewide (6609)</td>
<td>89%</td>
</tr>
</tbody>
</table>

Goal = 80%
Outcomes and Costs
Clinical Outcomes (FY2016)

- EMPS is a brief intervention (average length of stay is under 20 days)
- Getting parent-completed discharge measures has proven increasingly challenging
- All changes are statistically significant
- SAMHSA Service to Science outcome measure development

<table>
<thead>
<tr>
<th>Table 1. Statewide Ohio Scale Scores (based on paired intake and discharge scores)</th>
<th>N</th>
<th>Mean (intake)</th>
<th>Mean (discharge)</th>
<th>t-score</th>
<th>Sig.</th>
<th>% Clinically Meaningful Change</th>
</tr>
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<tbody>
<tr>
<td>Parent Functioning Score</td>
<td>302</td>
<td>42.61</td>
<td>46.09</td>
<td>5.52</td>
<td>p &lt; .000</td>
<td>16.2%</td>
</tr>
<tr>
<td>Worker Functioning Score</td>
<td>3115</td>
<td>43.27</td>
<td>45.15</td>
<td>17.44</td>
<td>p &lt; .000</td>
<td>7.1%</td>
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<tr>
<td>Parent Problem Severity Score</td>
<td>300</td>
<td>26.72</td>
<td>23.35</td>
<td>-4.96</td>
<td>p &lt; .000</td>
<td>16.3%</td>
</tr>
<tr>
<td>Worker Problem Severity Score</td>
<td>3102</td>
<td>28.89</td>
<td>26.22</td>
<td>-22.45</td>
<td>p &lt; .000</td>
<td>8.5%</td>
</tr>
</tbody>
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Service Referrals at Discharge

- Outpatient Services (5377): 41.3%
- None (3083): 23.7%
- Intensive Outpatient Services (1403): 10.8%
- Other: Community-Based (867): 6.7%
- Inpatient Hospital Care (639): 4.9%
- Intensive In-Home Services (425): 3.3%
- Partial Hospital Program (494): 3.8%
- Extended Day Program (229): 1.8%
- Care Coordination (251): 1.9%
- Other: Out-of-Home (165): 1.3%
- Group Home (39): 0.3%
- Residential Treatment (47): 0.4%

DCF CONNECTICUT

Dial 211
Average Cost of Episodes of Care: Inpatient vs. EMPS

- Inpatient: $11,439
- EMPS: $842
ED USAGE OF EMPS FOR INPATIENT DIVERSION

- EDs referred to EMPS **1,070 times** in FY 2016
- ED staff coded 324 referrals as “inpatient diversions”
- Approximately 66% (210) of those were for youth enrolled in Medicaid
- 210 inpatient diversions $\times$ $10,597$ (avg. cost savings between inpatient and EMPS episode) $= \$2,225,370$
- Other possible savings: ED diversion; arrest/incarceration diversion; higher level of care diversion; savings to commercial insurance
Lessons Learned

- Develop contracts with key model specifications and performance expectations
- Institute culture of “crisis defined by caller”
- Institute culture of “JUST GO!”
- Single statewide Call Center: Easier for families; enhances access
- Standardized practice model for all sites
- Promote access, quality, and outcomes using performance data analysis and reporting, workforce development, data transparency
- Mobile crisis creates an important linkage to EDs
  - Divert from ED (by responding to schools, homes)
  - Help connect youth and families in ED back to the community
- Programs are kept fiscally viable by combining grant funds and third party reimbursement
- Adapt/leverage the model to link and integrate with other services/systems (e.g., SBDI)
Next Steps & Future Directions

- Complete MOAs with Schools; continue outreach
- Continue EMPS diversion from EDs
  - Build out full array of crisis-oriented services
  - Alternative behavioral health crisis assessment center
    - SFIT Beds
    - EMPS serves gatekeeping function and triages to three options
      - Inpatient hospitalization
      - Crisis stabilization units
      - Emergency respite
      - Achieved March 1: S-FIT
- Complete study of EMPS and ED utilization among Medicaid-enrolled youth
- Continued outreach to police (e.g., REACT)
- Statewide SBDI expansion
  - Implementing SBDI in 18 schools and looking to expand further to address arrest diversion, discipline, chronic absenteeism
Presenter Contact Information

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Questions and Discussion