Helping our patients in crisis
The art, science, & systems of emergency psychiatry

Scott Simpson MD MPH
Medical Director, Psychiatric Emergency Services
Denver Health Medical Center

Minnesota's Mental Health Traffic Jam
Minnesota Psychiatric Society

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Disclosures

- Publishing
  - Taylor & Francis

- Advisory/Consulting
  - Impel Neuropharma

Objectives

- Describe systems for behavioral crisis care in Colorado
- Describe clinical innovations in emergency psychiatry
- Identify challenges and opportunities for improvement in emergency psychiatry
Colorado | Minnesota
---|---
Population | 5.7 million | 5.6 million
% pop change 2008-18 | +1.5% | +0.7%
Major metro population (% of state) | Denver 2.9 million (51%) | Minneapolis 3.3 million (59%)
Inpatient beds/100k | 43 | 54
Suicides/100k | 20 | 14
Overdose deaths/100k | 18 | 13

DENVER HEALTH. est. 1860
FOR LIFE’S JOURNEY

- Level 1 Trauma Center
- 525 bed hospital
- Affiliated with University of Colorado
- 9 Family health centers
- 17 school based clinics
- Public health department

Emergency Services

- Psychiatric Emergency Services
  - 16 bed unit
  - Mobile crisis services
  - Consultation services
- Emergency department
  - Adults and kids
  - 120+k patient encounters/year
- CARES
  - 60 bed detox
- Paramedic division
- Community nurseline
Incidence of delirium among ED patients >64 years old
Emdon 2018 (29523559)

Incident ED delirium

6 month mortality of discharged elderly patients with delirium:
- Not delirious: 14%
- Delirium detected: 12%
- Delirium missed: 31%

Missing delirium=deadly?
Kakuma 2003 (12657062)
Boarding and its (many) causes

- Increasing number of ED presentations
- Lack of behavioral health training
- Conservative practice
- Lack of specialized treatment in the ED
- Poor care navigation
- Lack of hospital alternatives
- Unavailability of inpatient beds

Who boards?

- Arrive on Fri/Sat/Sun
- Experience restraint or seclusion
- Diagnosis of psychosis/mania
- Tobacco use
- Medicaid
- Hospital factors
How do we get there?
Access

- Fast
- Well-known to patients, families, and providers
- Appropriate level of care

Mobile crisis services

- Mobile crisis averts some hospitalizations

Guo 2001 (11157123)
Law enforcement

- Frequent mental health encounters
- Court decisions
- Regulatory expectations
- Community pressure
- Cost

Crisis Intervention Training

- Denver: 100% CIT trained
- 40 hour initial training
  - Skills assessment
  - Test
- Annual refresher

<table>
<thead>
<tr>
<th>Weekly Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro &amp; pre-test</td>
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<tr>
<td></td>
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<tr>
<td>Law &amp; police with city attorney</td>
</tr>
<tr>
<td>Lunch</td>
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<tr>
<td>Overview of mental illness</td>
</tr>
<tr>
<td>Intro to verbal techniques</td>
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<tr>
<td>Stages of an escalating crisis</td>
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</tbody>
</table>
Developing CIT

- Integrating CIT at all levels
  - Level 1 training is universal
  - Level 2 mentors
  - Level 3—hostage negotiation

- Outcome tracking
  - Diagnoses encountered
  - Use of M1 holds
  - Utilization of non-jail services

The test: no joke!

- What is the most common of all the mental health disorders?
- Antisocial Personality Disorder is characterized by a long standing pattern of what?
- What moves the discussion off the factual level to the emotional level?

The police twist on BH

- Where should you look first when a patient with autism wanders?
- Working with veterans, use “radio someone” rather than “call someone.”
- What should you do with a demented patient who is shoplifting?
- Maintain safety of co-responders
- Appropriate use of Tazers and firearms
Ongoing work

- >100 published studies of such collaborations
- Avoid use of jail where reasonable
- Field identification of substance use
- Coordination of care
- Co-responders through community mental health
- Data analysis to understand outcomes from MH-related encounters

Parker 2018 (29588323)

Substance treatment

No Wrong Door

<table>
<thead>
<tr>
<th>Outpatient services</th>
<th>Inpatient services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detox (n=36, 6%)</td>
<td>Jail (n=59, 10%)</td>
</tr>
<tr>
<td>Inpatient services</td>
<td></td>
</tr>
<tr>
<td>(n=85, 14%)</td>
<td></td>
</tr>
<tr>
<td>Emergency services</td>
<td></td>
</tr>
<tr>
<td>(n=307, 49%)</td>
<td></td>
</tr>
<tr>
<td>Specialty clinic</td>
<td></td>
</tr>
<tr>
<td>(n=36, 6%)</td>
<td></td>
</tr>
<tr>
<td>Community (n=129, 21%)</td>
<td></td>
</tr>
<tr>
<td>627 patients</td>
<td></td>
</tr>
</tbody>
</table>

2018 opioid treatment referrals
Current state in the ED: Treatment-on-demand

- Launched December 2018
- 24/7 on-demand team largely funded by City of Denver
- Narcotic treatment program intake completed in the ED

Pre & Post Treatment on Demand

<table>
<thead>
<tr>
<th>Induction Location</th>
<th>2018</th>
<th>Projected 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED</td>
<td>307</td>
<td>516</td>
</tr>
</tbody>
</table>

**Linkage**

- 2018: 51%  2019: 70%

**Retention**

- 2018: 34%  2019: 60%

Avg Time to Follow-Up:
- 2018: 7 days  2019: 2 days
- 2018: 30 day  2019: 60 day
Quality

4 Aims

Access
Cost
Quality
Provider resiliency

Evidence-based
Trauma-informed
Identification and diagnosis
Crisis resolution
Symptomatic treatment
Connection to care and community

Values-Based Performance Metrics
CRISES: Crisis Reliability Indicators Supporting Emergency Services

- Flexibility
- Safe
- Accessible
- Least Restrictive
- Effective
- Consumer and Family Centered
- Preferred

- % Community Dispositions
- % Conversion to Voluntary Status
- Hours of Physical Restraint Use
- Days of Seclusion Use
- Rate of Self-directed Violence with Moderate or Severe Injury
- Rate of Other-directed Violence with Moderate or Severe Injury
- Incidence of Workplace Violence with Injury
- % Denials

- Relationship Quality
- Effective
- Consumer and Family Centered
- Preferred

- Decrease in Inpatient Admissions
- Shorter Time to ED Discharge
- Decrease Time from ED Discharge to ED Discharge
- length of Stay Reduced
- Patient Satisfaction
- Patient Outcome

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Bodenheimer 2014
(25384822)

Emergency telepsychiatry

- Well-accepted by patients
- Correlates with improved 30d f/u (46% v 16%)
- Correlates with fewer admissions (11% v 22%)
- Correlates with overall lower LOS
- Might save provider time
- Cost effective

What are these consults?

<table>
<thead>
<tr>
<th>SI</th>
<th>Hi</th>
<th>Altered MS</th>
<th>Med mgt</th>
</tr>
</thead>
<tbody>
<tr>
<td>80%</td>
<td>6%</td>
<td>13%</td>
<td>6%</td>
</tr>
</tbody>
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Telepsychiatry limitations

- Not appropriate for all patients
- Cost is not negligible—often need multiple sites
- Confounding in data
- Limited impact across larger ED culture
- Doesn’t fix disposition issues
Integrated care in the ED

ED integrated care (Stanford)

Length of stay decreased by 20% (to 12h)
No change in discharge rate (42%)
Integrated care at Denver Health

Interventions Provided (n=52)

- Disposition Planning: 75%
- Relaxation Training: 36.5%
- Motivational Interviewing: 22.7%
- Behavioral Therapy/Parenting Training: 23.1%
- Safety Planning: 13.5%

Psychiatric Emergency Services

- Handles most severe cases
- Experienced staff to appropriately diagnose
- Maintain relationships with alternative levels of care
- As a community resource, allows sicker patients to be treated in the community
- Supports other models
A good PES evaluation

<table>
<thead>
<tr>
<th>Standard</th>
<th>Justification</th>
</tr>
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<tbody>
<tr>
<td>Obtain an accurate medication reconciliation</td>
<td>In studies, most patients have medication errors on admission.</td>
</tr>
<tr>
<td>Obtain collateral information</td>
<td>Published standards of care for risk assessment expect collateral.</td>
</tr>
<tr>
<td>Write a safety plan</td>
<td>Safety planning decreases ED return rates, inpatient admission, and self-harm after discharge.</td>
</tr>
<tr>
<td>Identify one next best provider</td>
<td>Identifying one best provider and making an appointment decreases ED return rates.</td>
</tr>
<tr>
<td>Contact that provider</td>
<td>Consulting with the follow-up provider improves adherence and reduces return ED visits.</td>
</tr>
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Data on safety planning

- 3 phase ED-SAFE study shows 20% in suicide attempts over 12 months

Improving connection to care

- In this retrospective review, patients with an appointment within 3 days take longer to return to the ED
Zero Suicide

Lead
- System wide culture change committed to reducing suicides

Train
- Competent, confident, caring workforce

Identify
- Individuals with suicide risk via screening and assessment

Engage
- All individuals at risk of suicide using a suicide care management plan

Treat
- Suicidal thoughts and behaviors using evidence based treatments

Transition
- Individuals through care with warm hand-offs and supportive contacts

Improve
- Policies and procedures through continuous quality improvement

Quality PES evaluations

Completion Rates of PES Standard Work
For paramedics:

- Leadership group
- Gatekeeper and specialized training
- Epic enhancements to leverage screening

For patients:

- PES leveraged to immediately engage patients
- Provision of evidence-based treatments
- Improve transitions of care
- Monitor best practices
- Monitoring of implementation

For experience:

- Epic enhancements to leverage screening
Transition

- Improve transitions of care

% Eligible PES Patients Offered Follow-Up Call


Bodenheimer 2014

OSHA, "Workplace Violence in Healthcare"

Violent injuries resulting in missed work days

Provider resiliency

Cases per 10,000 full-time employees


Healthcare and social assistance
Private industry (overall)
Retail trade
Construction
Manufacturing
Provider resiliency

Abuse is Universal Among ED RNs

- Verbal abuse: 96%
- >1 verbal abuse episode/wk: 25%
- Physical assault in 1 year: 52%
- Feel violence is part of the job: 49%

Gacki-Smith 2009 (19644132); Khademloo 2013 (23777737); Stene 2015 (25902352)

Provider resiliency

- Use of scales improves perceptions of staff safety

Changes in staff perception after BARS rollout (n=20)

Staff responding "yes":
- A scale is helpful: Pre 55%, Post 78%
- Team addresses agitation rapidly: Pre 95%, Post 100%
- I feel this is a safe unit: Pre 85%, Post 95%
- I feel safe on the unit: Pre 85%, Post 95%

tinyurl.com/verbaldeescalation

Curriculum Improves Comfort, Confidence, and Safety in Verbal De-escalation (n=151)

- How comfortable?: Pre 17%, Post 81%
- How confident?: Pre 17%, Post 87%
- How safe?: Pre 28%, Post 77%
Specialized training

Implementation and Evaluation of a Military–Civilian Partnership to Train Mental Health Specialists

Scott A. Simpson; COL Matthew Goodwin; LTC Christian Thompson

ABSTRACT: Introduction: Mental health specialists (MHS) or MOS 6808 play a central role in meeting the growing demand for mental health care among Service Members. Performing with civilian institutions may reduce the MHS's comfort with assessing suicide risk and other clinical skills. The MHS and civilian partners were designed to address these issues. Methods: From April 2015 to June 2016, U.S. Army Reserve MHSs in the psychiatric category, served 476 of a public, military, and hospital-based medical specialties' comfort with clinical skills.

Mental health specialists' comfort with clinical skills

- Collecting a patient history
- Providing brief psychotherapy
- Completing a safety plan
- Presenting a patient to a colleague
- Assessing for suicide or violence risk
- Diagnosing a patient
- Recommending treatment

0% 20% 40% 60% 80% 100%

Specialists responding

Simpson 2019 (30775659)

Brief psychotherapy

A Single-session Crisis Intervention Therapy Model for Emergency Psychiatry

Scott A. Simpson, MD, MPH

Denver Health Medical Center, Psychiatric Emergency Services, Department of Behavioral Health, Denver, Colorado

Abstract. Background. Although there are many critical interventions for emergency psychiatry, little is known about Backpack therapy.

Purpose. The purpose of this study was to evaluate the effectiveness of a brief, single-session, crisis intervention therapy model compared with no treatment.

Methods. The treatment group received a brief, single-session, crisis intervention therapy (Backpack) model, and the comparison group received no treatment.

Results. The treatment group had significantly higher efficacy scores than the comparison group, indicating that Backpack was effective.

Conclusion. Backpack is an effective treatment for emergency psychiatry.

Simpson 2019 (30775693)
Brief psychotherapy

PGY5 Emergency Psychiatry Fellowship

Denverhealth.org/EPF

Overview

The Denver Health Emergency Psychiatry Fellowship is designed to train physician leaders in the subspecialty of emergency psychiatry. Over 10% of emergency department (ED) visits in the United States involve a psychiatric or substance use disorder—over 17 million visits per year. This volume continues to increase. Upon presentation, behavioral health patients experience longer lengths of stay, increased resource utilization, and significant morbidity and mortality after ED discharge. Thus, EDs play a vital role in identifying and treating behavioral health patients early in the continuum of care.

4 Aims

Access

Quality

Cost

Provider resiliency

Bodenheimer 2014

(23384622)
Challenges in mental health system cost assessment

- Cost of no treatment
- Co-morbid illness
- Ascertaining costs across systems
- Valuation of outcomes (e.g., suicide)
- Does not consider incentive structures at institutional level

How much for a life?

- ED-SAFE: 8 EDs nationally with 3 phase roll-out

Cost per patient per month

$5,023 per averted suicide attempt or death
ED substance treatment

- Bup in the ED: Most effective, at any cost

![Diagram showing Treatment Engagement vs. Health system cost for 1% improvement in outcome (dollars)](Busch 2017 (28815789))

A few principles

- You are seeing patients at their worst.
- Treat, not just triage.
- Someone will always be upset if you do the job right.

Comments? Questions?

Scott Simpson MD MPH
Medical Director, Psychiatric Emergency Services, Denver Health Medical Center
Associate Professor of Psychiatry, University of Colorado Anschutz Medical Campus
scott.simpson@dhha.org

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