

Telepsychiatry Program Impact on Emergency Department Outcomes

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Problem Statement

Mental health patients that present to an Emergency Department (ED) can spend hours or days waiting for a mental health evaluation and final disposition. This delays the specialized psychiatric care they need and requires more resources, reduces bed availability, increases cost, and contributes to potential safety hazards.

Purpose

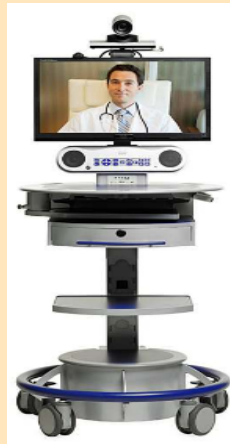
To determine if a telepsychiatry intervention program improved Emergency Department outcomes to include: length of stay, timeliness of mental health consultation, final disposition, cost of care, and 30-day return visit rates.

Background

- **1 out of 8 ED visits** are Mental Health/ Substance Abuse:
Mood disorder 42.7%
Anxiety 26.1%
Alcohol Abuse 22.9%
Drug/Schizo/Other Psychosis 8.3%
- **ED LOS 3x longer** for psychiatric patients
- **Resources consumed doubled** that of non-psychiatric patients (security, safety partner, provider time, training)
- **Increase threat** to provider & patient safety events
- **Financial loss** estimated at \$2,264 per psychiatric patient
- **Below target psychiatric bed** per capita rate 14.1 beds/100,000 (Target is 50/100,000)
- **Decline # ED facilities** from 5035 to 4460
- **Increase # ED visits** from 90 million to 133 million
- Telepsychiatry had been proven to be just as reliable as an in-person evaluation

Research Question

Is there a difference in length of stay, timeliness of mental health consultation, final disposition, re-visit rate, and cost of care between psychiatric patients evaluated with and without telepsychiatry?



Methods

Retrospective chart review study (n=256).

Twelve months of outcomes data was collected and analyzed using SPSS.

Study site: Sentara Princess Anne Emergency Department in Virginia Beach, VA. 160-bed acute care hospital with a 47-bed ED.

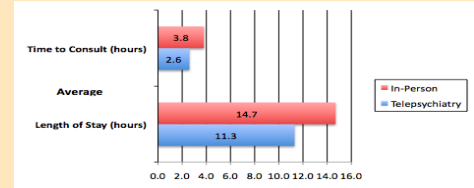
Intervention Group: Psychiatric patients (ages 5 to 99+) evaluated using telepsychiatry

Control Group: Psychiatric patients (ages 5 to 99+) evaluated in-person

Timeframe: 5/1/2014 to 4/30/2015

Variables: Length of stay, time to mental health consultation, final disposition (Admit, Transfer, Discharge), cost of care, 30-day return visit rate.

Results (N=256 chart reviews)



| Variable | Telepsychiatry | | | In-Person | | | t-value | p-value |
|------------------------|----------------|--------|--------|-----------|--------|--------|---------|---------|
| | n | M | SD | n | M | SD | | |
| Length of Stay (hours) | 53 | 11.36 | 9.05 | 203 | 14.71 | 13.00 | 2.169 | .032 |
| Consult Time (hours) | 53 | 2.63 | 2.82 | 203 | 3.84 | 3.19 | 2.506 | .013 |
| Cost of Care (dollars) | 53 | 506.49 | 175.92 | 203 | 577.78 | 188.72 | 2.482 | .014 |

| Variable | Telepsychiatry | | In-Person | | Total | | p-value |
|-------------------|----------------|------|-----------|------|-------|------|---------|
| | n | % | n | % | n | % | |
| Final Disposition | 53 | 20.7 | 203 | 79.3 | 256 | 100 | .018 |
| Transfer | 19 | 35.8 | 84 | 41.4 | 103 | 40.2 | |
| Discharge | 32 | 60.4 | 119 | 58.6 | 151 | 59.0 | |
| AMA | 2 | 3.8 | 0 | 0 | 2 | 0.6 | |

| Variable | Telepsychiatry | | In-Person | | Total | | p-value |
|-------------------|----------------|------|-----------|------|-------|------|---------|
| | n | % | n | % | n | % | |
| Return Visit Rate | 53 | 20.7 | 203 | 79.3 | 256 | 100 | .249 |
| Yes | 0 | 0 | 5 | 2.5 | 5 | 2.0 | |
| No | 53 | 100 | 198 | 97.5 | 251 | 98.0 | |

Conclusion / Significance

The telepsychiatry program showed a decrease in the boarding time of psychiatry patient's in the ED setting. This will help to reduce safety events, cost of services, and expedite the specialized psychiatric care needed by the patient's.

Acknowledgements

Old Dominion University, School of Nursing
Joani Brough, MSHA, BSN, RN, NE-BC, Vice President, Nurse Executive
Leslie Smith, DNP, RN

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