INTEGRATING EVIDENCE INTO OUTCOMES

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GOALS & OBJECTIVES

- Provide a backdrop to evidence based intervention
- Provide information and education on addiction in the US today
- Explore program redesign opportunities to improve outcomes
- Increase insight into what influences outcomes in SUD treatment
- Participate in active discussion to explore program application
1968
Incorporation with 80 beds and first TC in the U.S.

1964
CURA

1970’s
Grew to 10 residential and outpatient sites.

1980
Began providing in-custody substance use treatment throughout Illinois.

1985
Diversified to special populations, including women and adolescents while expanding in-custody care nationally.

1993
Created one of the first co-occurring units in the country

1993-2008
Consistent expanding nationally with diversified services in correctional and community settings.

2008
Diversified into commercial insurance treatment as public dollars decreased.

2010-2017
Negotiated and secured contracts with all private insurers and Illinois based MCOs.

TODAY
Largest non-profit provider of substance use treatment in the U.S. treating more than 9,000 consumers per day with 1,400 employees throughout 75 facilities in 9 states.

PORTRAIT OF A LEGACY
WHAT IS ADDICTION

Experiment gone wrong

Disease of the mind, body and spirit

Lifestyle disease like diabetes, obesity and cancer

Compulsive drug seeking and use despite consequences

Powerlessness to regulate once begun
COURSE OF ADDICTION

Person takes the drug, the drug causes a surge in dopamine levels, which increases feelings of pleasure, the brain remembers the pleasure and wants it repeated.

The person begins to seek out the drugs with a renewed significance, as if the drug were linked to survival, like food, to relieve distress instead of just for pleasure.

Over time, that desire to seek out and use the drug becomes more powerful than other motivators.

The individual eventually loses control and the ability to choose and the addiction takes control destroying families, careers and other aspects of the person’s life.
AN EVER CHANGING CLIENT

A confluence of factors are changing the complexity of symptom presentation and consequently required clinical intervention.

- **MEDICAL**: With a shift to opiates and IV drug use, medical symptoms and comorbidity has skyrocketed.

- **DRUG OF USE**: The recent increase in opiate use and consequent overdose forces providers to expand services to include MAT intervention.

- **SOCIAL**: Technology has changed core components of our cultural fabric and resources available to substance users.

- **PAYER**: Historically low income uninsured patients now are insured and commercially funded have increased access but also, increased barriers.

- **FINANCIAL**: High deductible low quality insurance plans have shifted the financial burden from the state and employer to the individual.

- **PSYCHIATRIC**: 40-60% of substance use patients also have a mental illness requiring treatment.
Research demonstrates that SUDs are a major driver of health care costs and also shows that coordinating and providing care makes for cost reductions.

- **ER VISITS**: Reduce time in ER with more treatment resources
- **READMISSIONS**: Reductions in inpatient medical and psychiatric admissions/readmissions
- **LENGTH OF STAY**: Shortened average length of stay when an admission does take place

1:4 HOSPITAL ADMISSIONS INVOLVES SUBSTANCE USE DISORDERS (SUDS)

Estimated Annual Cost of Addiction in US - $300 Billion to $1 Trillion
OVERCOMING ADDICTION IS NOT EASY

Addiction Medicine is a medical specialty that deals with the treatment of addiction. Incorporated within the specialty are the processes of detoxification, rehabilitation, harm reduction, abstinence based treatment, individual and group therapies, oversight of halfway houses, treatment of withdrawal-related symptoms, acute intervention, and long-term therapies designed to reduce likelihood of relapse.

- Early Intervention
- Outpatient
- Intensive Outpatient
- Day Treatment
- Residential Treatment
- Medical Treatment

- 12-Step Recovery Programs
  - 5,000,000 members | 25,000 meetings
- Medications for cravings, replacement, deterrence or mental illness

- Mental Health Treatment
- Housing
- Peer Support
- Primary Care
- Disease Management
- Social Determinants of Health
DRUG ADDICTION & CHRONIC ILLNESS
SIMILAR RELAPSE RATES

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage of Patients who Relapse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug Addiction</td>
<td>40% to 60%</td>
</tr>
<tr>
<td>Type I Diabetes</td>
<td>30% to 50%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>50% to 70%</td>
</tr>
<tr>
<td>Asthma</td>
<td>50% to 70%</td>
</tr>
</tbody>
</table>
IS THERE HOPE?

Well, this isn't a cheerful sign.
According to national statistics, effective substance use treatment...

Reduces criminal recidivism and activities as much as 64%.

Success rate after 1 year for individuals who participate in treatment and 12-Step fellowships: 80%.

Produces SAVINGS of $7.00 for every $1.00 spent on treatment programs in the areas of public assistance, costs to victims of crimes, criminal justice costs, thefts, automobile accidents, hospitalizations and other medical care.
TREATMENT – THE NEW PARADIGM
The best treatment programs provide a combination of therapies and other services to meet the needs of the individual patient.
Transtheoretical curative elements (common factors) for effective addiction treatment
Evidence-Based Practice

Best Available Research

Clinical Expertise

Client Characteristics, Culture, and Preferences

EBP
Empirically-Supported Treatments

CBT – most researched of all therapies for SUDs
Motivational Interviewing/MET
Twelve Step Facilitation
Contingency Management
Community Reinforcement Approach
Medication Assisted Treatment
Relapse Prevention
Behavioral Couples Therapy & other family therapies
Seeking Safety
Mindfulness-based therapies: DBT, ACT
DDCAT
A CASE STUDY IN DATA COLLECTION AND ANALYSIS
# Outcomes: What Defines Recovery?

## Recovery

Improvement in health and wellness, a self-directed life, and reaching one’s full potential (SAMHSA, 2018)

- Health
- Home
- Purpose
- Community

## Outcomes

- Abstinence or reduction in substance use
- Treatment Retention
- Psychiatric Symptom Severity
- Medical Problems
- Legal Problems
- Family/Social Relationships
- Occupational Functioning
- Client Satisfaction
- Self-Reported Quality of Life
Evaluation Goals

Gateway had three goals for the longitudinal outcomes evaluation:

1. Understand the characteristics of patients at Gateway

2. Understand patients’ success in recovery from substance use

3. Pilot protocols and procedures to determine if evaluation efforts were scalable
150 residential treatment patients selected randomly with an 18 day average length of stay

Assessed with 40 question standardized tool at admission, discharge and 30 days, 90 days, 6 months and 12 months post treatment completion

Gift cards were given to increase participation rates and over 60% completed the year of data collection

All data collection and analysis was completed by OMNI Institute, a national leader in outcome measurement and management
Mental Health

45% of participants were seeing a mental health professional prior to intake, 53% were taking medications for a mental health condition prior to intake.

More than three quarters of participants reported experiencing anxiety in the past 30 days.

Nearly three quarters of participants reported experiencing serious depression (74%).
30 Day Substance Use and Treatment History

62% of participants had received treatment before, 29% had previously received treatment at Gateway.

Three quarters of participants used alcohol in the past month at intake to treatment.

Thirty-three percent of participants used one or more opioids (heroin, prescription opioids, other opioids).
Life satisfaction significantly increased between intake and discharge and intake and all follow-up time points ($p<.05$).
Recovery Capital scores were significantly higher at discharge and all follow-up time points than at intake ($p<.05$).

Participants significantly exceeded the benchmark score at discharge, 1 month and 12 month follow-up ($p<.05$).
## Abstinence

<table>
<thead>
<tr>
<th>Follow-up Survey</th>
<th>Number of Survey Respondents</th>
<th>Abstinent from All Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-month</td>
<td>82</td>
<td>63% (52)</td>
</tr>
<tr>
<td>3-month</td>
<td>74</td>
<td>50% (37)</td>
</tr>
<tr>
<td>6-month</td>
<td>79</td>
<td>51% (40)</td>
</tr>
<tr>
<td>12-month</td>
<td>73</td>
<td>49% (36)</td>
</tr>
</tbody>
</table>

Abstinence from opioids over 95% successful – alcohol lowest success rate at 76% abstinence. Those actively engaged in treatment for 12-months 80% success rate.
Factors Predicting Abstinence

Gateway Foundation Longitudinal Outcomes Evaluation

There were four characteristics that predicted abstinence at the 12-month follow-up: Self-Reported Effort, Life Satisfaction at Discharge, Recovery Capital at Discharge, and Support Group Attendance. Each chart displays the probability that a participant was abstinent at the 12-month follow-up based on their level of self-reported effort, life satisfaction, recovery capital, or support group attendance. For example, individuals who felt they had put forth 90% effort into the program had a 37% likelihood of being abstinent at 12-months after treatment.

Self-Reported Effort

Participants who felt that they put more effort into the program were more likely to be abstinent at 12-months after discharge.

Life Satisfaction at Discharge

Participants who report higher overall life satisfaction at discharge were more likely to be abstinent at 12-months after discharge.
Recovery Capital at Discharge

Participants with higher recovery capital scores at discharge were more likely to be abstinent at 12-months after discharge.

Support Group Attendance

Note, the following chart displays the probability that participants were abstinent at the 12-month follow-up based on the frequency that they attended AA meetings at the 6-month follow-up. The same pattern of probabilities was also found with the frequency of attending AA meetings at the 12-month follow-up.

Participants who attended AA meetings more frequently at the 6-month follow-up were more likely to be abstinent at 12-months after discharge.
gate
way
FOUNDATION

ACT ON YOUR DATA
Implementation of EBPs and Organizational Change

- Define problem
- Survey stakeholders
- Select EBP
- Determine fit, feasibility, funding
- Identify resources, barriers
- Determine outcome measures

- Personnel, supplies, technology
- Staff training
- Policies and procedures
- Client materials

- Evaluate outcomes
- Evaluate model fidelity

- Disseminate findings
- Address fidelity shortfalls
- Identify next steps
- Continuous process improvement
**DEFINED: ADDICTION MEDICINE**

**Addiction medicine** is a medical specialty that deals with the treatment of addiction. The specialty often crosses over into other areas, since various aspects of addiction fall within the fields of public health, psychology, social work, mental health counseling, psychiatry, and internal medicine, among others. Incorporated within the specialty are the processes of detoxification, rehabilitation, harm reduction, abstinence based treatment, individual and group therapies, oversight of halfway houses, treatment of withdrawal-related symptoms, acute intervention, and long-term therapies designed to reduce likelihood of relapse.
DUAL DIAGNOSIS TREATMENT

CENSUS DATA

Illinois Adults 18-66 3,963,548
6 County Area Adults 2,387,802
(Cook, Lake, DuPage, Will McHenry, Kane)

SAMHSA STATS: ILLINOIS
8.4% SUD 332,938
5.1% Co-occurring 202,140
10.8 receive SUD treatment 35,957
10.8 of Dual Dx 21,831

SAMHSA STATS: 6 COUNTY AREA
8.4% SUD 200,575
5.1% Co-occurring 121,777
10.8 receive SUD treatment 21,662
10.8 of Dual Dx 13,151

RECOMMENDATIONS

Fully integrating mental health and SUD treatment is a nationwide trend among-leading edge providers and improves overall outcomes.
DDCAT ELEMENTS

PROGRAM STRUCTURE
General organizational factors

PROGRAM MILIEU
Culture and physical environment

TREATMENT
One of the clinical process dimensions

CONTINUITY OF CARE
Long-term treatment and external supportive care

STAFFING
Staffing patterns and operations support

TRAINING
Appropriateness of training and supports

ASSESSMENT
The second clinical process dimension
SEQUENCE

BASELINE
First Assessment

TRAINING
Trainings by the rating agency

RESPONSE
Point by point action plan for improvement

IMPLEMENTATION
Enhance documentation, integration, clinical care

REASSESSMENT
Organized presentation of improvements
KEY ENHANCEMENTS

- **POLICY**: The program’s policies were updated in identified areas.

- **MILIEU**: The physical space was enhanced to reflect emphasis on co-occurring disorder treatment.

- **TRAINING**: Staff participated in internal and external training.

- **DOCUMENTATION**: Improvements in treatment planning, progress notes, and discharge planning.

- **INTEGRATION**: Enhanced integration of clinical, psychiatric, and nursing subsystems.

- **CONTINUITY**: Discharge planning to ensure comprehensive continuity of care.
MEDICATION-ASSISTED TREATMENT

- Studies show that replacement therapy can aid and be very helpful in increasing chances of sobriety long-term.
- Medications work to decrease craving or block the effect of the substance in case of relapse.
- MAT needs to be implemented with primary addiction treatment services.
- Most effective when patients are engaged in active treatment and along with solid program work.
- Patients need to remain engaged in aftercare, meetings and therapy.

ALCOHOL USE DISORDER

FDA APPROVED MEDICATIONS:
- Disulfiram (Antabuse)
- Acomprosate (Campral)
- Naltrexone (Revia)
- Naltrexone once monthly injection (Vivitrol)

OPIOID USE DISORDER

FDA APPROVED MEDICATIONS:
- Methadone
- Buprenorphine
  Various formulations:
  - Oral Film/tab, Once monthly injectable
  - 6 month implant
- Naltrexone oral and once monthly injectable
MINDFULNESS BASED SOBRIETY
A NEW LOOK AT TRAUMA

12-STEP FACILITATION

THERAPY

MINDFULNESS

SEEKING SAFETY

RECOVERY

DBT
MAINTAINING THE LINE

Data Collected and Method:

1. Data is gathered on all publicly funded patients and entered into a database that analyzes outcome and key data points
2. All patients complete a standardized periodic collection instrument in Avatar called the Brief Addiction Monitor at admission, every two weeks and at discharge
3. Data collected includes demographics, participation rates, substance use, self-reported quality of life and information from the 6 dimensions provided by ASAM representing symptom severity and acuity

Data Response Feedback Loop:

1. Avatar runs reports consistently on case loads for clinicians that provide them with the information to work directly with patients on their progress in treatment incorporating outcomes into treatment and treatment planning
2. Leadership has access to reporting and uses outcomes in staff supervision and development
3. In final vetting process of aftercare application to continue application of BAM to facilitate long-term client engagement and recovery
4. Chief Clinical Council reviews outcomes and integrates into performance enhancement plans
NAATP EBP Resource Guide

Deeper discussion of concepts in this presentation

Guide to resources for EBPs

SAMHSA

NREPP –  https://nrepp.samhsa.gov
  • No longer being updated – “skewed” registry
  • Example:  https://nrepp.samhsa.gov/Legacy/ViewIntervention.aspx?id=346

Evidence-Based Practice Resource Center (new):  https://www.samhsa.gov/ebp-resource-center

APA:  https://www.div12.org/treatments/

UW ADAI:  http://adai.uw.edu/ebp/ - last updated 2013