Substance Use Outcomes Among Individuals with Severe Mental Illnesses Receiving Assertive Community Treatment: A Systematic Review

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Learning Outcomes

Upon completion of this presentation, participants will be able to:

1. Describe Assertive Community Treatment (ACT) programs
2. Discuss the substance use disorder (SUD) outcomes of ACT programs
Introduction

• Substance use is prevalent among individuals diagnosed with severe mental illnesses (SMI).\(^1\)

Concurrent substance use is positively associated with:\(^5\)

• Greater mental illness symptoms
• Higher treatment resistance
• Poor medication adherence
• Frequent hospitalizations
• Patient mortality

The prevalence of Substance Use among people with SMI

- Schizophrenia 2 (42%)
- Bipolar Disorder 3 (33%)
- Major Depressive Disorder 4 (25%)
• Individuals with SMI and substance use problems required higher care intensity than those with no comorbid substance use

• One of the community-based interventions available for this group of patients is the “assertive community treatment” (ACT)

• Originally developed by Stein and Test in the 1970s for people with SMI
Assertive Community Treatment

- Team-based approach to support people with SMI achieve recovery\(^1\)
- Described as a “hospital without walls”\(^1\)
- It is evidence-based practices
- ACT team member roles \(^2\)
  - Rehabilitation services to individuals with SMI
  - Flexible and tailored substance use treatment

1- Stein & Test, (1980); 2- Stein & Santos, (1998)
Provide services to individuals with SMI 24/7

Cost effective

Goal
To ensure that patient with SMI received all service needed

NAMI 2013
How do ACT clients compare with those receiving traditional treatment

1. Spend significantly less time in hospitals
2. Spend more time in independent living situations
3. Have less time unemployed and earn more income from competitive employment
4. Experience more positive social relationships
5. Have less symptoms severity
6. Express greater satisfaction with life
Prior reviews have demonstrated that ACT services may:
- Enhance patients’ engagement in substance use treatment
- Reduce substance use severity.
- Decrease hospitalization rates

These reviews were limited:

One review only examined four randomized controlled trials (RCT).¹

Another had only eleven publications (six of them are sub studies).²

Both reviews used strict search strategies, which limit their abilities to include the full spectrum of research in this field.

Purpose

• Provide an updated review of ACT services contributions to substance use outcomes among those with SMI.

• Address the research gaps regarding the incorporation of substance use treatment within ACT services.
Method

• Inclusion criteria:
  • English language
  • Enrolled patients diagnosed with SMI and receiving ACT services
  • Measured substance use outcomes over time.

• Exclusion criteria:
  • Literature reviews
  • Qualitative studies
  • Articles addressing practitioners’ perspectives on patients’ substance use
Results

• Study Characteristics:

• 29 articles included:
  • 8 Cohort studies
  • 21 Controlled Studies (including 6 secondary data analyses)

Address substance use outcomes at different time-point

- USA (n=22)
- Canada (n=4)
- Norway (n=1)
- France (n=1)
- Netherlands (n=1)

6 months 12 months 18 months 24 months 36 months
Outcomes from Substance Use Treatment Services among ACT Services recipients

- Alcohol and drug use severity (n=20)
- The prevalence of alcohol and drug use (n=6)
- The stage of change in the substance use treatment (n=5)
- Days of hospitalization and intoxication (n=2)
Cohort Studies Results

**Substance use severity (n=8)**
- Decreased rates of alcohol and drug use in the past month
- Reduction in alcohol and drug difficulties
- Reduction in problematic substance use

**Prevalence of substance use (n=3)**
- Inconsistent findings regarding changes in the proportion of alcohol & other drug use

**Stage of change, hospitalization, and days of intoxication (n=4)**
- No significant improvement in the stage of change from pre-engagement to engagement or achievement stage
- Decreased hospitalization days due to substance use problems
- Reduction in the number days of intoxication
RCT and CT Studies Results

**Substance use severity (n=12)**
- Decreased rates of alcohol and drug use in the past month and the past 6 months
- Reduction in alcohol and cocaine dependence scores
- Inconsistent findings regarding changes in problematic substance use

**Prevalence of substance use (n=2)**
- Inconsistent findings regarding changes in the proportion of alcohol and other drug use

**Stage of change, hospitalization and remission rates (n=6)**
- Significant increases in the Substance Abuse Treatment Scale scores
- Decreased hospitalization days due to substance use
- Slight improvements in alcohol and other drug remission rates
Cont.

• Fidelity to ACT model was not systematically reported

• There were no significant differences in the substance use outcomes between groups

• Staff often lacked the requisite skills to treat substance use problems and depended on community providers to deliver substance use treatment
<table>
<thead>
<tr>
<th>Study Limitations</th>
<th>Impact of these limitations</th>
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</thead>
<tbody>
<tr>
<td>Small sample sizes or non-representative samples</td>
<td>Limits generalizability</td>
</tr>
<tr>
<td>Differences in participant characteristics</td>
<td>Affects main outcomes</td>
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<tr>
<td>Extraneous factors affecting outcomes in comparison groups</td>
<td>It is unknown how these factors may have affected the outcomes</td>
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<tr>
<td>Variability in the duration of the ACT interventions</td>
<td>Increases threats to internal validity</td>
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<tr>
<td>Unspecific about type of substance used for main outcome</td>
<td>Different substances may require different types of treatment</td>
</tr>
<tr>
<td>No studies examined tobacco use outcomes as a result of receiving ACT services</td>
<td>Tobacco use is a primary disorder among people with SMI.</td>
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Conclusions

• Results indicate that enrollment in ACT services can improve substance use outcomes among those with SMI

• Findings may provide a basis for future research on ways to integrate substance use treatment programs within ACT services
Implication

• We recommend using ACT services as a vehicle to support specialized substance use treatment

• Given the lack of studies addressing tobacco treatment in ACT services, we recommend a focus be given to integrating tobacco treatment within ACT services
References


Thank you!