Using the National GAIN Dataset to Support Addiction Health Services Research on Adolescent Treatment and Continuing Care

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Presentation Aims

• Historical perspective on addiction health services (AHS) research with adolescents

• Development of CSAT – GAIN Adolescent Treatment dataset

• Illustrate opportunities to AHS researchers in using this unique dataset for adolescent research
  – Examples of research on health disparities
  – An investigation of post-treatment recovery monitoring and support
Status of Adolescent Treatment Research Prior to 1997

• Few national samples included adolescents (1996 DATOS-A study followed 1,785 youth)

• Few randomized trials of adolescent treatment and virtually no empirically validated treatment manuals.

• Data on co-occurring mental health disorders, treatment services, and response to treatment was not well understood.
Cannabis Youth Treatment Study (1997 – 2001)

- 600 youth with Cannabis abuse or dependence
- Randomization to one of 5 manual-guided treatments
- The Global Appraisal of Individual Needs (GAIN) used to assess baseline functioning and clinical outcomes
- Outcomes – established the cost-effectiveness of several outpatient treatments for youth (Dennis et al., 2004)
- CSAT has used the GAIN in most adolescent grant initiatives since
Features of CSAT-GAIN Dataset (1997 – present)

• Over a dozen grant initiatives
• GAIN administered at intake, and follow-up at 3, 6, and 12 months
• GAIN data from 21,531 adolescents (12-17) and, 3,153 young adults (18-25) including 88% with one or more follow-up interviews
• Data made available for program evaluation and secondary analysis
• Approximately 200 scientific publications
CSAT Sites with adolescent clients 12-17 and included in the CSAT - GAIN Analytic Data Set
Utilization of Mental Health Services Among Adolescents in Community-Based Substance Abuse Outpatient Clinics

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Abstract

This study examined the rates and correlates of self-reported receipt for mental health services among 1,190 adolescents, aged 12–19, who were admitted to community-based substance abuse outpatient clinics and had a co-occurring mental health problem. Utilization of mental health service was ascertained 3 months post-intake. About one third (35%) of adolescents with a co-occurring mental health problem identified at intake received mental health service in the 3 months after treatment entry. After holding other correlates constant, history of mental health treatment, suicidal behavior family history of mental disorder and insurance coverage at intake were associated with mental health service utilization at the 3-month follow up. Predictors of service utilization varied by gender and racial/ethnic status. Implications for integrated substance use and mental health services are discussed.

Introduction

Substance use disorders are highly intertwined with a wide variety of psychological and behavioral difficulties. Yet, a substantial proportion of individuals with substance use and co-occurring mental disorders do not receive mental health services during the course of treatment for...
Objectives

• To estimate the prevalence of untreated mental disorders in substance treatment-seeking adolescent in a large outpatient national cohort
• To describe patterns of MH problems & correlates of MH Tx access
• To assess health disparities in MH treatment access
• Offer suggestions for improving delivery of MH services to adolescents with Substance Use Disorders
Sample

• Data were pooled from 32 substance abuse treatment sites across 4 different CSAT grant initiatives
• The study sample consisted 2,854 adolescents (1,960 boys; 894 girls), aged 12-19, who were admitted to outpatient substance abuse treatment programs
• 1,190 (74%) completed a 3 month follow-up interview
Assessment

- Intake measures assessing past 12-month major mental disorders via standardized interview were gathered at treatment entry using the Global Appraisal of Individual Needs (GAIN).
- Disorders were categorized into internalizing disorders (mood disorder, anxiety disorder and traumatic distress disorder) and externalizing disorders (attention deficit hyperactivity disorder and conduct disorder).
- MH Tx utilization was obtained from self reports 3 months after intake using the GAIN M-90.
Past-Year Internalizing and Externalizing Problems at Treatment Entry (n=1,190)

- Any Internalizing Disorder: 57.6%
- Mood Disorder: 51.3%
- Anxiety Disorder: 14.6%
- Traumatic Stress Disorder: 32.5%
- Any Externalizing Disorder: 88.7%
- Conduct Disorder: 71.2%
- ADHD: 61.5%
Potential Evidence of Health Disparity

% of those in need getting MH services within 90 days

- Total: 35%
- Male: 30%
- Female: 42%
- Caucasian: 40%
- African-American: 20%
- Hispanic: 20%
- Other/Mixed: 38%
- Single Parent: 29%
- Other Family: 38%
Top 25% of Clinics Have Less Health Disparity

% of those in need getting MH services within 90 days

- Total: 35% (All sites), 53% (Top Quartile)
- Male: 30% (All sites), 45% (Top Quartile)
- Female: 42% (All sites), 64% (Top Quartile)
- Caucasian: 40% (All sites), 54% (Top Quartile)
- African-American: 20% (All sites), 46% (Top Quartile)
- Hispanic: 20% (All sites), 56% (Top Quartile)
- Other/Mixed: 38% (All sites), 55% (Top Quartile)
- Single Parent: 29% (All sites), 55% (Top Quartile)
- Other Family: 38% (All sites), 51% (Top Quartile)
Gender and Racial Differences in Treatment Process and Outcome Among Participants in the Adolescent Community Reinforcement Approach

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Increasingly, evidence-based treatments are being implemented by community treatment providers, and it is important to understand whether they can be implemented with similar quality and equivalent effectiveness across gender and racial groups. This study examined whether initiation, engagement, dosage, treatment satisfaction, or outcomes for adolescents who received the Adolescent Community Reinforcement Approach (ACRA) in a large implementation effort were equivalent by gender or racial group. Analyses of data from 2,141 adolescents representing 33 sites across the United States revealed no significant differences for initiation, engagement, or retention by gender or race. Ninety-six percent of the sample reported being satisfied with treatment; however, male adolescents had significantly higher rates of treatment satisfaction than female adolescents, and African American adolescents had significantly higher rates of treatment satisfaction than Caucasian adolescents. A subset of the initial sample (n = 1,810) was used to investigate outcomes. All racial groups had significant increases in days abstinent from alcohol and other drugs and in the percentage in recovery across the measurement period but did not differ from one another at the six-month follow-up. Female adolescents had a higher percentage of days abstinent from alcohol and other drugs and were more likely to be in recovery at the six-month follow-up than male adolescents. Overall, process indicators suggest the intervention was well implemented across gender and racial groups and equally effective across racial groups, with males having equivalent gains in abstinence and recovery compared with females despite males having greater intake severity and differential outcomes at six months.

Keywords: evidence-based treatment, gender, race, cultural competence, implementation

In 2008, 1.0 million adolescents living in the United States needed treatment for an illicit drug or alcohol use problem (Substance Abuse and Mental Health Services Administration, 2009). The 141,682 youth aged 12 to 17 who entered substance abuse treatment were very diverse: 39% were female, 20% were African American, 24% were Hispanic, and 5% were White (United States Department of Health and Human Services, 2008). Increasingly, funders are requiring that substance use treatment providers use evidence-based treatments (EBTs) that have been found effective in randomized clinical trials (Garnier, 2009; Gotham, 2006).

However, concerns have been raised about the widespread implementation of these models because of the growing diversity among those presenting for treatment and the unknown generalizability of EBTs that were not specifically developed for or tested with different cultural groups (Bernal & Scharfren-del-rico, 2001; Hwang, 2006; Lau, 2006; Santisteban, Vega, & Suarez-Morales, 2006). Others have suggested that the assumptions and methods that support EBT development might have negative ramifications

Susan H. Godley and Brooke Hunter, Chestnut Health Systems, Normal, IL; Kristin Hedges, University of Arizona Southwest Institute for Research on Women, Tucson, AZ. Susan H. Godley directs the Evidence-Based Treatment (EBT) Center, which provides training in ACRA and ACC. The authors thank the grantee listed below for agreeing to share their data, as well as the GAIN Coordinating Center Data Management team for creating the characteristics profile used to support this article. The authors also thank Brandi Banes, Monica Davis, Michael O’Neil, Luis Flores, Rod Funk, Bryan R. Garner, Alison Guenthe, Karen Erall, Stephanie Merkle, Bridget Ruiz, Jery Sanchez, Sally Stevens, and all the members of the AAPT Cultural Responsiveness Committee for their assistance preparing the manuscript. The opinions are those of the authors and do not reflect official positions of the contributing grants/ project directors or government. The development of this paper was supported by the Center for Substance Abuse Treatment (CSAT) and the Substance Abuse and Mental Health Services Administration (SAMHSA) contract 270-07-0191 using data provided by the following grants and contracts from CSAT: T177589, T177604, T177605, T177638, T177646, T177648, T177673, T17782, T177719, T177724, T177728, T177747, T177744, T177751, T177755, T177761, T177763, T177765, T177769, T177775, T177779, T177786, T177788, T177812, T177817, T177820, T177825, T177830, T177831, T177847, T177864, T178013, and T119253. Project location: PI’s name, name of the funded agency, and the type of treatment provided are available online at: http://www.chestnut.org/Links/downloads/training_memos/ Acknowledgement.pdf. CSAT has posted data from these and other demonstration grants using the GAIN and made these data available by permission for this article and secondary analysis in general. Information on screening CSAT’s GAIN data is available at http://www.chestnut.org/Links/downloads/training_memos/Acknowledgement.pdf Susan H. Godley directs the Evidence-Based Treatment (EBT) Center, which provides training in ACRA and ACC.

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Objectives

• To estimate equivalence in response to A-CRA outpatient treatment across 33 provider organizations for different ethnic and gender groups on:

  – Treatment Initiation and Engagement
  – 6 month treatment outcomes
  – Participant Satisfaction with A-CRA
A-CRA Participant Characteristics
(N = 2141)

Rates of Initiation (N = 2141)
Average Treatment Dosage (N=2141)

Note: The total sample attended an average of 15.7 sessions
Average % of Days Abstinent from AOD by Race (N = 1819)

- African American
- Caucasian
- Hispanic
- Mixed/Other

Note: African American, Hispanic, and Mixed/Other adolescents were equivalent to reference group (Caucasian adolescents).
Average % of Days Abstinent from AOD by Gender (N = 1819)

Note: \( d = .33 \)
Recovery Monitoring & Support for Adolescents (Godley & Passetti, 2011)

- Monitor 200 youth discharged from treatment for substance use problems weekly for first 90 days
- Decrease or increase contact frequency depending on client functioning
- Goal of support: increase prosocial activities that support recovery
- Baseline, 3 and 6 month research interviews using the GAIN and urine tests

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Telephone-based Adaptive Continuing Care for Adolescents

Seattle, WA
Tucson, AZ
Bloomington, IL
Fitchburg, MA
CSAT – GAIN Dataset Comparison Group

• 4,710 cases with 6 mo outcome data age 13-19 from 64 CSAT grant sites
• Unweighted intake values had 64 matching variables differences
• After propensity score matching – intake differences were reduced to 4
• Final weighted matched sample: 174 Recovery Support vs. 264 matched comparison
Outcome Measures

- Pre-post change scores in the following areas collected with the Global Appraisal of Individual Needs (GAIN):
  
  - Change in recovery environment and social risk (e.g., 12 step attendance; nonusing friends)
  - Days of substance use in the community
  - Substance Problem Scale
Days Attended Self-Help Meetings

Comparison RSAF

- Intake: Comparison: 1, RSAF: 3
- 3 Months: Comparison: 4, RSAF: 19
- 6 Months: Comparison: 4, RSAF: 12
Outcomes of Adaptive Telephone Continuing Care

Adaptive Telephone Continuing care was compared to a matched control group receiving standard referrals for continuing care only.

All coefficients > .10 are statistically significant.
Summary and Implications

• These examples demonstrate the utility of the CSAT-GAIN adolescent treatment dataset for:
  – Better understanding access to healthcare disparities for adolescents with co-occurring disorders
  – Assessing gender and ethnic equivalence in response to an EBP (Adolescent Community Reinforcement Approach)
  – Developing a comparison group to better understand and inform future development of a promising recovery management protocol

• With 21,000 cases and growing - adolescent treatment researchers have a rich resource available for studying adolescents in treatment

• To learn more or request access to the CSAT – GAIN dataset contact: gaineval@chestnut.org
Thank You!

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