Implementation of Three Evidence-based Practices Across Two Levels of Care

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Institute for Translational Research in Adolescent Behavioral Health
Largest provider of behavioral health services in the Tampa Bay area

Multiple levels of care:
- Inpatient (Residential)
- Outpatient
- Prevention

Works with all age groups
Pasco County Adolescents: Past 30 Day Use, 2012

<table>
<thead>
<tr>
<th>Substance</th>
<th>Pasco County</th>
<th>Florida Statewide</th>
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</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>24.3%</td>
<td>24.6%</td>
</tr>
<tr>
<td>Binge Drinking</td>
<td>10.0%</td>
<td>11.3%</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>7.2%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>11.6%</td>
<td>12.4%</td>
</tr>
<tr>
<td>Synthetic Marijuana</td>
<td>5.4%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Any Illicit Drugs</td>
<td>15.8%</td>
<td>17.2%</td>
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</tbody>
</table>
Background

The “Pipeline” Concept of Disseminating Research to Get Evidence-Based Practice*

Evidence-Based Programs (EBP)

- Implementation evaluation was conducted on adolescent substance abuse prevention and treatment programs that were shown empirically to produce positive outcomes

- Too Good for Drugs (TGFD)
- Project ALERT
- Living in Balance (LIB)
Reliable Benefits

Consistent uses of Innovations

Performance Assessment (fidelity)

Implementation Drivers

Coaching

Training

Selection

Competency Drivers

Systems Intervention

Facilitative Administration

Decision Support Data System

Integrated & Compensatory

Organization Drivers

Leadership Drivers

Technical

Adaptive

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Study Objectives

- Discuss the facilitators and challenges associated with the implementation of evidence-based practices at each service sector within BayCare Behavioral Health.
- Investigate how implementation drivers function within a real-world practice setting.
- Provide various lessons learned and recommendations based upon this research experience.
**Project Timeline**

**Phase 1**
- Initiate Institute Coursework
- Attend Children’s Mental Health Conference

**Phase 2**
- Develop research project
- Build knowledge base on Pasco County Issues
- Continue Institute Coursework
- Develop data collection tools

**Phase 3**
- Data collection
- Key Stakeholder Interviews
- Program observations
- Parent Questionnaires
- Program pre-/post-test data (Prevention Only)
- Continue Institute Coursework

**Phase 4**
- Complete data analysis
- Present findings to BayCare Behavioral Health
- Present findings at the Children’s Mental Health Conference
## Methods

<table>
<thead>
<tr>
<th></th>
<th>Observations $N = 25$</th>
<th>Pre/Post Test Data $N = 453$</th>
<th>Parent Questionnaires $N = 125$</th>
<th>Interviews $N = 12$</th>
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<tbody>
<tr>
<td>Project ALERT</td>
<td>7</td>
<td>161</td>
<td>0</td>
<td>-</td>
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<tr>
<td>Too Good for Drugs</td>
<td>15</td>
<td>274</td>
<td>117</td>
<td>-</td>
</tr>
<tr>
<td>Living in Balance</td>
<td>3</td>
<td>0</td>
<td>8</td>
<td>-</td>
</tr>
</tbody>
</table>
Observations

• First-hand experience of how programs are working
• Contextualize other data pieces
• Fidelity Checklists
  • 12 items
  • Adapted from Project ALERT
• 3 lessons each, 25 total observations
Pre/Post Knowledge Tests

- Used in prevention
- Assess implementation
- Identify if changes in student knowledge occurred
Program Satisfaction Surveys

- Adolescent residential facility
- Adolescent follow-up surveys
  - 42 items
Parent Questionnaires

- 19 Item Questionnaire
  - Substance Abuse Perceptions
  - Attitudes toward School-based prevention or residential treatment
  - Knowledge of and attitudes towards program
  - Program fit and family needs
  - NIDA principles
Interviews

- Participants
  - BayCare Behavioral Health Administrators
  - BayCare Behavioral Health Program Facilitators/Clinicians
  - Pasco County Teachers
- Concepts Measured
  - EBP and implementation attitudes/perceptions
  - Program Selection
  - Program Implementation
    - Implementation Drivers
      - Organizational
      - Competency
      - Leadership
Preliminary Results

- Too Good for Drugs
- Project ALERT
- Living in Balance
Too Good for Drugs (TGFD)

- School-based prevention program
- Ten 50-minute lessons
- 5 Schools in Pasco County
  - 3 middle schools
  - 2 alternative schools (grades 8-12)
- Reaches ≈ 500 students
- Unique experiences
- Preliminary results
Observations

- 6 Total Observations
- 3 TGFD Sessions
- 2 8th grade classes at 1 Pasco County middle School
  - Fundamentals of Culinary Careers
<table>
<thead>
<tr>
<th><strong>Challenges</strong></th>
<th><strong>Strengths</strong></th>
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<tbody>
<tr>
<td>• Large classes</td>
<td>• Student engagement</td>
</tr>
<tr>
<td>• Time</td>
<td>• Facilitator preparedness</td>
</tr>
<tr>
<td>• Group activities</td>
<td>• Facilitator background</td>
</tr>
<tr>
<td>• Facilitator absences</td>
<td>• Facilitator adaptability</td>
</tr>
<tr>
<td>• Home workouts</td>
<td>• Facilitator/teacher relationship</td>
</tr>
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</table>
## Pre/Post Test Data

<table>
<thead>
<tr>
<th>Group</th>
<th>Grade</th>
<th>Pre-Test (out of 20)</th>
<th>Post-Test (out of 20)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Mean (SD)</strong></td>
<td><strong>95% CI</strong></td>
</tr>
<tr>
<td>1*</td>
<td>8</td>
<td>17.02 (1.94)</td>
<td>16.46, 17.58</td>
</tr>
<tr>
<td>2*</td>
<td>8</td>
<td>14.70 (3.19)</td>
<td>14.07, 15.32</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>15.08 (2.77)</td>
<td>14.46, 15.69</td>
</tr>
<tr>
<td>Total*</td>
<td>-</td>
<td>15.32 (2.95)</td>
<td>14.94, 15.70</td>
</tr>
</tbody>
</table>

* Indicates pre/post test scores were significantly different at p < .05
Parent Questionnaires

- $N = 117$
  - Five 8th grade classes
  - 3 middle schools
- Attitude towards school-based prevention
- Awareness and attitude towards TGFD
- Homework activities
- Across-school differences
## Attitudes and Awareness

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree/Disagree</th>
<th>Unsure</th>
<th>Strongly Agree/Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug prevention programs in schools are appropriate/useful</td>
<td>3.4</td>
<td>5.1</td>
<td>91.5</td>
</tr>
<tr>
<td>Aware child receives TGFD</td>
<td>7.7</td>
<td>-</td>
<td>82.9</td>
</tr>
<tr>
<td>Topics are appropriate</td>
<td>0.0</td>
<td>17.1</td>
<td>79.5</td>
</tr>
<tr>
<td>TGFD is an effective prevention program</td>
<td>1.8</td>
<td>13.7</td>
<td>81.2</td>
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# Homework Activities

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree/Disagree</th>
<th>Unsure</th>
<th>Strongly Agree/Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participate in homework</td>
<td>24.8</td>
<td>22.2</td>
<td>47.0</td>
</tr>
<tr>
<td>Makes sense to my family</td>
<td>10.3</td>
<td>33.3</td>
<td>50.4</td>
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<tr>
<td>Time in schedule</td>
<td>10.2</td>
<td>24.8</td>
<td>60.7</td>
</tr>
<tr>
<td>Homework helped talk about drugs</td>
<td>17.9</td>
<td>30.8</td>
<td>46.1</td>
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</table>
Parent Questionnaires – Differences Across Schools?

- Preliminary results – Bivariate analyses
  - Which drugs do you worry most about in your family?
<table>
<thead>
<tr>
<th>Drug Type</th>
<th>School 1 (n = 51)</th>
<th>School 2 (n = 41)</th>
<th>School 3 (n = 25)</th>
<th>Total (N = 117)</th>
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</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>62.7</td>
<td>46.3</td>
<td>56.0</td>
<td>55.6</td>
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<tr>
<td>Tobacco*</td>
<td>57.4</td>
<td>41.5</td>
<td>24.0</td>
<td>46.2</td>
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<tr>
<td>Marijuana</td>
<td>45.1</td>
<td>43.9</td>
<td>36.0</td>
<td>42.7</td>
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<tr>
<td>Synthetic Marijuana</td>
<td>25.5</td>
<td>24.4</td>
<td>12.0</td>
<td>22.2</td>
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<tr>
<td>Cocaine</td>
<td>19.6</td>
<td>24.4</td>
<td>20.0</td>
<td>21.4</td>
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<tr>
<td>Methamphetamine</td>
<td>17.6</td>
<td>14.6</td>
<td>24.0</td>
<td>17.9</td>
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<tr>
<td>Hallucinogens</td>
<td>9.8</td>
<td>9.8</td>
<td>8.0</td>
<td>9.4</td>
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<tr>
<td>Opiates</td>
<td>15.7</td>
<td>4.9</td>
<td>8.0</td>
<td>10.3</td>
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<tr>
<td>Inhalants*</td>
<td>11.8</td>
<td>2.4</td>
<td>24.0</td>
<td>11.1</td>
</tr>
<tr>
<td>MDMA</td>
<td>11.8</td>
<td>14.6</td>
<td>24.0</td>
<td>15.4</td>
</tr>
<tr>
<td>OTC Medications</td>
<td>21.6</td>
<td>14.6</td>
<td>20.0</td>
<td>18.8</td>
</tr>
<tr>
<td>Prescription Drugs</td>
<td>37.3</td>
<td>14.6</td>
<td>12.0</td>
<td>23.9</td>
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</tbody>
</table>
Interviews

- Inter-agency communication
- Training/coaching opportunities
- Working with the schools
  - Building relationships
  - Working around school schedules
- Improving parental engagement
TGFD – Summary

- Both challenges and strengths
- Implications for Implementation
  - Implementation drivers
Unique Experiences

- Development of Parent Perception Survey
- Performing Evaluation Research within the Schools
  - Restrictions within the schools on visitors
- Practical application of coursework to something experiential within the community
- Working collectively with the USF and BayCare mentors
- Experience of professional dissemination through presentations and publications
Parent Perception Survey

- Background research of other Parent Perception Surveys
  - DARE
  - HPV
  - Girls PYD/Obesity Prevention Program
- Lack of published literature on theoretically based surveys
  - NIDA prevention principles
- Revised the survey with USF academic mentors
- Survey was adapted for residential program, Living in Balance
- Distribution within the schools among the various programs
My Lessons Learned

- Evidence Based Programs
  - Importance of achieving a balance of program fidelity and fit
  - Best intentions of everyone working with EBPs
- Open Communication and Buy-in
  - USF research team
  - BayCare within the schools and community setting
- Community engagement and interaction
  - ASAP collation
  - BayCare Organization Involvement
Project ALERT

- ALERT = Adolescent Learning Experiences in Resistance Training

- School-based prevention

- Developed by RAND Corporation/Disseminated by BEST Foundation

- Program Focus

- 11 lessons - 1st year; 3 booster lessons- 2nd year
  - Average lesson length ≈ 45 minutes

- Program implemented in one middle school in Pasco County
Unique Experiences

Issues
• Finger-printing Requirement
• Parent Questionnaires

Positive
• Great American Teach-In
Preliminary Results: Observations

- Groups receiving Project ALERT:
  - Two 8th grade classes
  - Nine 7th grade classes

- 7th grade groups receive condensed version of Project ALERT

- Lesson cancellation or postponement
Observations

- Lesson completion
- Student engagement

Teacher-Facilitator Relationship
  - Working relationship
  - Teacher Presence
  - Classroom Management
## Pre/Post Test Data

<table>
<thead>
<tr>
<th>Grade</th>
<th>Pre-Test (out of 26)</th>
<th>Post-Test (out of 26)</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td>95% CI</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8*</td>
<td>19.60 (2.58)</td>
<td>18.78, 20.41</td>
</tr>
<tr>
<td>7*</td>
<td>19.70 (2.99)</td>
<td>19.16, 20.24</td>
</tr>
<tr>
<td>Total*</td>
<td>19.67 (2.88)</td>
<td>19.23, 20.12</td>
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</tbody>
</table>

* Indicates pre/post test scores were significantly different at p < .05
Interviews

- Teacher-Facilitator Relationship
  - Classroom Management
    - Facilitator: “For the most part, yes, but not always... Sometimes, I think she [the teacher] should step up and say something but, for the most part, it’s good.”

- Training/Coaching

- Program selection
Project ALERT-Summary
Living in Balance (LIB)

Program Description:
- Drug Treatment
- Outpatient, Short/Long Term Residential, etc.
- 12 Core principle sessions
- 21 Supplemental sessions

Population:
- Adults & Adolescents
- Maximum “customization”
The Academy

- Site
  - Residential “short-term” inpatient treatment
- Population Served
  - Adolescent Boys & Girls
  - Ages 12-17
- Services Provided
  - Substance Abuse
  - Dual-Diagnosis (Mental Health)
“Unique” Data Collection

- Observations
  - 3 residential groups
- Interviews
  - 1 Administrator/ 2 Counselors
- Parent Surveys
  - 10 surveys received
- Satisfaction Surveys
  - 10 months of adolescent feedback
Observations

• Delivery:
  • Length (≈ 45-55 minute sessions)
  • Topics
    • 3 Sessions on “Negative Emotions” & “Anger”
  • Time of Day
    • Morning/ Afternoon sessions (1-2 per week)
  • Group size (9-12 adolescents)

• Outcomes:
  • Communication, Activities, Discussions, Engagement, Participation, etc.
Interviews

- Length:
  - ≈ 45-60 minutes
- Focus:
  - Management, Organizational & Curriculum
- Outcomes:
  - Program Selection/ Fit
  - Training/ Coaching
  - Collaboration/ Communication
Parent Survey Results

• Modified from School-Based Surveys
  • Terminology for residential treatment

• Outcomes:
  • “Comfort talking to child about drugs”
  • “Drug prevention in schools”
  • 100% “Worry” about OTC drugs/ Synthetic Marijuana
  • 100% suggest that expansive topics (e.g. education/ refusal skills/ attitude, etc.) needed in drug treatment

• Limitations:
  • Small sample size (n = 8)
<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Description</th>
<th>Mean Score</th>
<th>Sample Size</th>
<th>“Implementation Driver”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Therapist Care (satisfaction)</td>
<td>Teamwork among staff</td>
<td>93.75</td>
<td>N = 28</td>
<td>Organizational</td>
</tr>
<tr>
<td>Therapist Care (satisfaction)</td>
<td>Explanation of care</td>
<td>92.86</td>
<td>N = 28</td>
<td>Organizational</td>
</tr>
<tr>
<td>Therapist Care (satisfaction)</td>
<td>Respect/Compassion</td>
<td>92.24</td>
<td>N = 29</td>
<td>Organizational</td>
</tr>
<tr>
<td>Treatment Outcomes</td>
<td>Recommend</td>
<td>92.19</td>
<td>N = 32</td>
<td>Organizational/Competency</td>
</tr>
<tr>
<td>Treatment Outcomes</td>
<td>Best Care Provided</td>
<td>91.07</td>
<td>N = 28</td>
<td>Organizational/Competency</td>
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<tr>
<td>Problem Resolution</td>
<td>Needs Addressed</td>
<td>90.91</td>
<td>N = 33</td>
<td>Competency</td>
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<tr>
<td>Problem Resolution</td>
<td>Minimal Complaints</td>
<td>90.62</td>
<td>N = 32</td>
<td>Competency</td>
</tr>
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</table>
## Lessons Learned - Prevention

<table>
<thead>
<tr>
<th>Program</th>
<th>Implementation Ideal</th>
<th>Implementation Variations</th>
</tr>
</thead>
</table>
| **Too Good for Drugs** | • School-based substance use prevention  
• Middle school  
• 10 consecutive weekly Lessons  
• 50 minutes  
• In-class activities  
• Home Workouts | • Condensed version for 7th grade  
• Differences across schools based on class rotation schedule  
• Do-now activities and time constraints  
• Some activities left out  
• Home workouts as extra credit |
| **Project ALERT**  | • School-based substance use prevention  
• Middle school  
• 11 consecutive lessons for 7th grade  
• 3 booster lessons for 8th grade  
• 45 minutes  
• In-class activities  
• Homework | • Full lessons for 8th grade  
• Condensed version for 7th grade  
• No booster lessons  
• Do-now activities and time constraints  
• Homework as participation points |
# Lessons Learned – Residential

<table>
<thead>
<tr>
<th>Program</th>
<th>Implementation Ideal</th>
<th>Implementation Variations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living in Balance</td>
<td>- Residential/outpatient substance Use treatment</td>
<td>- Ages 12-17</td>
</tr>
<tr>
<td></td>
<td>- Late teens - adult</td>
<td>- 12 core sessions and supplemental material as needed</td>
</tr>
<tr>
<td></td>
<td>- 12 core and 21 supplemental sessions</td>
<td>- 1-2 times per week</td>
</tr>
<tr>
<td></td>
<td>- 3 times per week; 1.5 to 2 hours</td>
<td>- Sessions broken up over several days (≈45 to 60 minutes at a time)</td>
</tr>
<tr>
<td></td>
<td>- Rolling admission</td>
<td>- Used during parent sessions</td>
</tr>
<tr>
<td></td>
<td>- Group activities</td>
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Lessons Learned - Recommendations

- Implementation training
- Program-specific training/coaching/technical assistance
- Inter/intra-agency meetings
  - Facilitator/Teacher (prevention)
  - BayCare Behavioral Health program team
  - School/community (prevention)
- Ongoing data collection and use
- Apply pre/post test (residential)
- Consistent use of program materials (residential)
BayCare Perspective

- Timely and Well Designed Project
- Historical Approach – EBP
- Importance to Future State Approach - EBP
- Current State of Urgency in HealthCare – FFS to Value Based Payment and Population Health Management
- Future Implementation Drivers – EBP, Outcomes, Access and Integrated Care, Shared Information.
- Transforming system from volume to value.
- Measure. Measure. Measure. All levels of care.
Next Steps

- In-depth data analysis
- Present at other conferences and meetings
- Present back to BayCare Behavioral Health and Pasco County
- Publish in peer-reviewed journals
- Refine recommendations
Acknowledgements

BayCare Behavioral Health and Alliance for Substance Abuse and Prevention Coalition
- Doug Leonardo, Executive Director
- Tracey Kaly, Clinical Services Manager, ASAP Chairperson
- Ed Monti, Director Ambulatory Care
- Chrissie Parris, ASAP Coalition Coordinator

Academic Mentor
- Dr. Kathleen Moore

Institute for Translational Research in Adolescent Behavioral Health
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- Dr. Julie Baldwin, Principal Investigator
- Dr. Donna Burton, Project Director
- Dr. Tom Massey, Co-Investigator & Evaluation Director
References


