Program Fidelity: Concept, Strategies and Assessment

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Workshop Objectives

- Have an overview of Florida substance abuse prevention program
- Understand the concept of Fidelity Assessment, its role in program evaluation, and the most commonly used approaches to fidelity assessment.
- Be knowledgeable about what is being done in Florida and the future steps in the development process of the Florida fidelity assessment system.
- Be able to use the information to develop or improve own fidelity assessment system.
DCF Drug Prevention Program Description

- 200+ sites from Pensacola to Key West
- Cover Life-Span
- Most: Adolescent and School-based
- Level 1: Universal Programs - most
- Level 2: Selective & Indicated Programs
- Replication Programs: Replication of Science-based programs – most: 34 different programs are being replicated
- Validation Programs: Validation of locally designed programs
- Prevention Services
Florida – The Sunshine State
University of Miami Role

- In 1999 the University of Miami Miller School of Medicine’s Comprehensive Drug Research Center (CDRC) was selected as the evaluator of the DCF drug prevention program.
- Collaboration with Florida State University
  - Through regional seminars and individual site visits, CDRC’s Treatment and Prevention Evaluation Group (TPEG) [http://med.miami.edu/tpeg/](http://med.miami.edu/tpeg/) has walked local providers through various steps of program evaluation.
- UM Field Evaluators provide close technical support to sites
- Collaboration with KIT Solutions for an on-line database and management system
KIT Solutions

- Performance Based Prevention System (PBPS) keeps track of process and outcome data.
- Prevention Program Description (PPD), contains programs’ descriptive information.
KIT Solutions: On-line prevention database

LOGIN PROCEDURE

Connect to the Internet using your Internet browser (Internet Explorer or Netscape Navigator). In the Address (Location) box, type in the following address and press enter:

http://www.kithost.net/II

The following screen will appear

Choose the LIVE side to enter real data. If you want to practice entering data, use the TRAINING side.
The Concept of Implementation Fidelity

Fidelity is defined by Webster as “the quality or state of being faithful, the accuracy in details, exactness, and the degree to which an electronic device accurately reproduces its effect.”

- Program fidelity assessment offers another level of detail about the program as implemented by examining the degree to which interventions are implemented as theoretically planned.
- According to Scott & Sechrest (1989), it is not possible to test the effectiveness of an intervention if the intervention failed to be implemented.
- Fidelity Assessment helps to explain estimates of program impact since poor implementation is likely to result in a loss of program effectiveness.
- After all, the overall goal of enhancing program fidelity is to increase scientific confidence that changes in the dependent variable are attributable to the independent variable.
The Concept of Implementation Fidelity

The concept and the strategies involved in maintaining program fidelity have broadened significantly in past 20 years.

- In practice, fidelity consists of implementing essential components of a program.
- Each prevention program has essential components necessary to re-produce the outcomes that led to the program being certified as evidence-based.
- Prevention programs are ‘theory-based’ and each program component is the physical implementation of a specific prevention theory.
Fidelity Evaluation Criteria

- Adherence to the program
  - Dosage (length, intensity, & duration of the services),
  - Quality of program delivery (content, procedures, & activities),
- Role and Qualifications of the staff, and
- Participants–Program Match
Factors that may Influence Fidelity

- The characteristics of the provider (culture of the provider compared to the population, type of provider)
- The characteristics of the priority population and the match with the program (language, ethnicity, geographical (rural-urban))
- The characteristics of the program and
- The characteristics of the community.
Program Adaptation

Some programs may have components that do not contribute to their effectiveness or may even limit their effectiveness.

- They may also have components that are ‘alternative’ activities that are not associated with prevention theory such as those included to make participation in the program more attractive.

- Identifying, removing or changing these components can only be accomplished through rigorous, scientific research to allow these programs to retain their original scientific qualities.
Past attempts to institutionalize fidelity assessment as part of program monitoring in Florida

Existing Methods:
- Program documentation and/or client records
- Attendance data for each session
- Video-taped sessions
- Program delivery observations
- Surveys or interviews completed by individuals delivering the services
- Surveys or interviews completed by participants

UM has been tasked with developing a methodology for fidelity assessment.
Fidelity Assessment in the DCF System: The Current State of Affairs

- KIT Solutions incorporates a module capturing data for fidelity assessment across all DCF-supported prevention programs.
- Variables captured include: Fidelity Level, Fidelity Reason, Session Content, Session Duration, Age group of Participants, Population Count, and Service Description.
- Services or lessons provided are described and providers are giving the opportunity to self-assess the level of fidelity of implementation of their programs and activities.
KIT Fidelity Module

Entering Level 2 Details
In FL, this form is used to describe what the Institute of Medicine describes as indicated prevention programs. Level 2 Details is where all recurring sessions are documented for tracking the individual participant attentances.

1. Click Manage Activities from the main menu.
2. Click Level 2 Details from the submenu.
3. Click Add from the left toolbar.

4. Select the appropriate Program* from the dropdown list.
5. Select the Study Group* from the dropdown list.
   *Note: Study Groups were created in the Manage Program section.
   a. If the Group is completed, check the Group Completed check box.
      *Note: When selecting the Group Completed check box, the group will be set to inactive status and will no longer be available for other events.
      
      Group Completed?  
      # of Completers?  
      Order PEI Post?
   b. Enter the number of participants that completed the session in the # of Completers* field.
   c. To order post-tests, click the Order PEI’s Post check box.
      *Note: The Post-Test completed date will be filled in on the Group Registration page using the Service Date entered.

Service Date*
Service Code*

Session Length*  
Start Time*  
Session Content*  
Service Description*

6. Enter the date of the event in the Service Date* field as mm/dd/yyyy.
7. Select a Service Code* from the dropdown list.
## Existing Fidelity Variables

<table>
<thead>
<tr>
<th>SV date</th>
<th>Grp Name</th>
<th>SV Description</th>
<th>SV Mode</th>
<th>SV Count</th>
<th>SV Pop Code</th>
<th>Length</th>
<th>Change Date</th>
<th>Age Group</th>
<th>Session Content</th>
<th>Fidelity Level</th>
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</thead>
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<tr>
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<td>01-07DCS 01 RAMI GLIA</td>
<td>Baseline and PEI Testing</td>
<td>S00</td>
<td>29</td>
<td>-1</td>
<td>90</td>
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<td>4</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2/7/2007</td>
<td>01-07DCS 01 RAMI GLIA</td>
<td>Lesson 1- Introduction to Project ALERT</td>
<td>S00</td>
<td>28</td>
<td>-1</td>
<td>90</td>
<td>3/7/2007</td>
<td>4</td>
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<td>4</td>
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<tr>
<td></td>
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<td>Very Good Fidelity</td>
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<td></td>
<td></td>
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<td></td>
<td>Very Good Fidelity</td>
</tr>
<tr>
<td>2/14/2007</td>
<td>01-07DCS 01 RAMI GLIA</td>
<td>Lesson 2- Consequences of Smoking Cigarettes and Marijuana</td>
<td>S00</td>
<td>27</td>
<td>-1</td>
<td>60</td>
<td>3/7/2007</td>
<td>4</td>
<td></td>
<td>Very Good Fidelity</td>
</tr>
<tr>
<td>3/1/2007</td>
<td>01-07DCS 01 RAMI GLIA</td>
<td>LESSON 3. Drinking and Alternatives</td>
<td>S00</td>
<td>27</td>
<td>-1</td>
<td>60</td>
<td>4/12/2007</td>
<td>4</td>
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<td>6</td>
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<tr>
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</tr>
</tbody>
</table>
Existing System’s Weaknesses

- Overwhelming majority of sites have not entered data into these fields or have entered the wrong information,
  - Even when properly entered, the information would not be enough.
  - For instance, the data are not evaluated against any developer-approved references, and
  - Sites self-evaluate their level of fidelity of implementation of services provided without justifying their choices.
  - Lillehoj, Griffin, and Spoth (2004) found that program providers overestimate the fidelity of their own implementation practices.
- Highly important to find a balance between self-report and observation.
<table>
<thead>
<tr>
<th>Purpose</th>
<th>Dosage length, frequency</th>
<th>Target population</th>
<th>Core components</th>
<th>Instructional strategies</th>
<th>Setting &amp; providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide skills to resist social pressure to smoke, drink, and use drugs; helps them develop greater self-esteem, self-mastery, and self-confidence; enables children to effectively cope with social anxiety; increases their knowledge of the immediate consequences of substance abuse; and enhances cognitive and behavioral competency to reduce and prevent a variety of health risk behaviors.</td>
<td>1–3 YEARS Elementary school curriculum 24 sessions, each 30 to 45 minutes long, conducted over 3 years. First year: 8 sessions. Second and third years: 8 booster sessions per year. Can be conducted intensively (several times per week) or with an extended schedule (once a week). Middle school curriculum 30 sessions, each 45 minutes long, conducted over 3 years. First year: 15 sessions. Second year: 10 booster sessions. Third year: 5 booster sessions.</td>
<td>Upper elementary middle and junior high school students 11-14 years old.</td>
<td>The curriculum includes anywhere from 28 to 56 lesson plans covering topics such as building self-esteem, identifying emotions and stress, increasing communication and problem-solving skills, recognizing and eliminating self-destructive behavior, learning about suicide, role-playing around suicide prevention, and setting personal and community goals. The curriculum typically is delivered over 30 weeks during the school year, with students participating in lessons 3 times per week.</td>
<td>Lessons are interactive and incorporate situations and experiences relevant to American Indian adolescent life, such as dating, rejection, divorce, separation, unemployment, and problems with health and the law. Most of the lessons include brief, scripted scenarios that provide a chance for students to employ problem solving and apply the suicide-related knowledge they have learned.</td>
<td>in-school substance abuse prevention and violence prevention program</td>
</tr>
<tr>
<td>Purpose</td>
<td>Dosage length, frequency</td>
<td>Target population</td>
<td>Core components</td>
<td>Instructional strategies</td>
<td>Setting &amp; providers</td>
</tr>
<tr>
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</tr>
<tr>
<td>Prevent adolescent non-users from experimenting with these drugs, and prevent youths who are already experimenting from becoming more regular users or abusers.</td>
<td>The curriculum is comprised of 11 lessons in the first year and 3 lessons in the second year.</td>
<td>Age: 13-17</td>
<td>Lessons involve small-group activities, question-and-answer sessions, role-playing, and the rehearsal of new skills to stimulate students' interest and participation. Focuses on helping students understand the consequences of drug use, recognize the benefits of nonuse, build norms against use, and identify and resist pro-drug pressures</td>
<td>Designed to help motivate young people to avoid using drugs and to teach them the skills they need to understand and resist prodrug social influences.</td>
<td>Project ALERT is a school-based prevention program for middle or junior high school students that focuses on alcohol, tobacco, and marijuana use.</td>
</tr>
</tbody>
</table>
## Search for Fidelity Checklists

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Instrument Available?</th>
<th>Instrument Received?</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Stars</td>
<td>Yes</td>
<td>web-based system, need to purchase program for use ($200 +)</td>
</tr>
<tr>
<td>ATLAS/ATHENA</td>
<td>Yes/Yes</td>
<td>Yes/Yes</td>
</tr>
<tr>
<td>CASA-START</td>
<td>No - currently working on one</td>
<td>N/A</td>
</tr>
<tr>
<td>Creating Lasting Family Connections</td>
<td>Yes</td>
<td>need to purchase for $300</td>
</tr>
<tr>
<td>Dare to Be You</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Early Risers for Success</td>
<td>Yes</td>
<td>only web-based system</td>
</tr>
<tr>
<td>Guiding Good Choices</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Keep a Clear Mind</td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td>Keepin' It Real</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Positive Action</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Project ALERT</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Project Northland</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Project Towards No Drug Abuse</td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td>Second Step</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Team Awareness</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Implementation Checklist

Self-Esteem

1. For each Major Objective, Activity, or Point to Make listed below, please check “yes” or “no” to indicate if it was covered when the session was taught.

Yes No
• Discuss how self-esteem is developed.
• Differentiate between high self-esteem and low self-esteem.
• Define self-esteem.
• Copy the definition of self-esteem into “My LST Dictionary”.
• Discuss how self-esteem is variant, from person to person and from situation to situation.
• Discuss how self-esteem affects behavior.
• Identify things students would like to improve about themselves.
• Discuss how identifying achievements can help students improve their self-esteem.
• Session Summary
<table>
<thead>
<tr>
<th>Program</th>
<th>Setting</th>
<th>Class size</th>
<th>Target Pop</th>
<th>Site Prep</th>
<th>Teacher Qualifications</th>
<th>Teacher training</th>
<th>Training of Others</th>
<th>Length of Lessons</th>
<th>Timing of Delivery</th>
<th>Curriculum Details</th>
<th>Add-ons accepted</th>
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<tbody>
<tr>
<td>Project Alert</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<td>Project Northland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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<td>Life Skills</td>
<td>X</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Dare</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Team Awareness</td>
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<td></td>
<td></td>
<td>X</td>
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<td>Positive Action</td>
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<td></td>
<td>X</td>
<td></td>
<td></td>
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<td>X</td>
</tr>
</tbody>
</table>
Considerations

- Efforts have been inadequate and need to be reinforced and/or reconsidered.
- DCF-based Florida’s drug prevention system consists of a wide variety of science-based programs exhibiting a limited number of similarities, which therefore is hardly amenable to a one-size-fit-all solution.
- It is necessary to have an individualized fidelity evaluation plan for each discrete program.
- Since many programs are implemented by several organizations once an evaluation plan has been devised for this finite number of programs, the ‘individualized fidelity evaluation plan’ may be appropriate for many sites.
Multi-step approach for Fidelity assessment of the DCF drug prevention program

Creation of a Fidelity Assessment System to be used in conjunction with KIT

Step 1: Use of Fidelity Scales or checklists (Kelly, et al. (2000):
- If a checklist is not available, the program developer and researcher will be contacted to determine what was used in their research to check fidelity.
- If this fails, the field evaluator and implementer may work with the program manager and the published literature supporting the program to develop a fidelity checklist.
- The fidelity checklist of each program could then be programmed into KIT Solutions to be used in conjunction with drop-down menus.

○ Step 2: Training of providers, Field Evaluators and DCF field staff on the use of the system

○ Step 3: Implementation of the system
  - Piloting of system by a carefully selected group of sites.
  - Full-scale implementation

○ Step 4: Use of the System to assess program fidelity implementation
<table>
<thead>
<tr>
<th>Service Date</th>
<th>Group Name</th>
<th>Lesson#</th>
<th>Service Description (Drop-down list)</th>
<th>Fidelity</th>
<th>Service Count</th>
<th>Session Length</th>
<th>Age Group</th>
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<td>1</td>
<td>Introduction to Project ALERT</td>
<td>Yes/No</td>
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<td>2/14/2007</td>
<td>01-07DCS 01</td>
<td>2</td>
<td>Consequences of Smoking Cigarettes and Marijuana</td>
<td>Yes/No</td>
<td>27</td>
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<td>4</td>
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<td>3/1/2007</td>
<td>01-07DCS 01</td>
<td>3</td>
<td>Drinking and Alternatives</td>
<td>Yes/No</td>
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<td>3/14/2007</td>
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<td>Introductions to Pressures</td>
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<td>4/11/2007</td>
<td>01-07DCS 01</td>
<td>5</td>
<td>Social Pressures to Use Drugs</td>
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<td>60</td>
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<td>4/18/2007</td>
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<td>Resisting Internal and External Pressures to Use Drugs</td>
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<td>75</td>
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</table>
Issues

- Scores to be assigned and Fidelity Categories to be created from scores
- To minimize data entry: drop-down lists will be created for each program for: Lessons, Age groups, and Fidelity Self-Assess
- Will be made Mandatory
- A validation system to be added whereby DCF contract monitors and field evaluators will be trained to observe and double-check the accuracy of the information entered into KIT.
  - Every year a number of sites will be selected to be visited to witness the delivery of one or several lessons using the relevant fidelity checklist.
Future Steps

- Additional variables can be added later
- Adaptation issues can be addressed
- Continuing training, technical assistance and refinement of the system will be necessary given the high staff turn-out, addition of new programs, and the emergence of implementation issues.
THANK YOU!

- For Copies of this presentation please e-mail me at:
  - Gsaint@med.miami.edu