A Tailored Approach to Implementing Cognitive Behavioral Therapy in Youth Residential Facilities: Lessons Learned from Wolverine Human Services’ Journey

Cara C. Lewis, PhD
Associate Investigator, Kaiser Permanente Washington Health Research Institute
Co-Founding Editor-in-Chief of SIRC Journal

@CaraCLewis | #impsci | #groupcaresymp2019
@implementcollab | @wolverinehs | @BeckInstitute | @KPWA
Objectives

1. Identifying & prioritizing determinants
2. Selecting strategies to target determinants
3. Prospective treatment adaptation

This story is dedicated to the youth and staff at Wolverine Human Services.
### Residential Treatment Facilities (RTFs)

| More than 54,000 at-risk youth detained | Majority from disadvantaged backgrounds and are of minority status (41% Black, 31% White, 22% Hispanic, 2% American Indian) |
|More than 2/3 report mental health care needs | Between 69% (males) and 81% (females) have a mental health or substance use disorder |
| 88% do not meet with a mental health professional | 40% of boys and 30% of girls in RTFs still had a behavioral health need 5 years after initial assessment |
A snapshot at the beginning of our story

Wolverine Human Services

• Youth residential treatment facility in Michigan, USA
• Secure and non-secure facilities
• 6 programs and sites
• Approximately 300 youth, staying 6 months to 3 years at a time

▪ No use of evidence-based practices for mental health care despite required weekly therapy with a masters-level clinician.
▪ No training in mental health for operations staff — the non-clinical staff who have the most contact with youth.
▪ Use of Therapeutic Crisis Intervention was suboptimal in its delivery.
A 5-year, tailored CBT implementation effort

*Wolverine’s journey begins in October 2012, as they start exploring CBT.*

*Our first visit to their facility was October 2013.*


---

Training  
Research &  
Implementation  
in Psychology
A snapshot at the beginning of our story
A snapshot at the beginning of our story

Director of Operations: “I was very hesitant that instituting CBT in the culture would have productive outcomes. I wasn’t a fan of the positive reinforcement aspect.”
A snapshot at the end of our story

Wolverine Human Services

• As of April 2017: **USE OF PHYSICAL RESTRAINTS WAS AT ITS LOWEST IN YEARS**, despite maximum capacity

• They now use a “reinforcement system” for skill building

- 4 coaches are **CBT certified** by the Academy of Cognitive Therapy

- All masters-level therapists use **progress monitoring** in 100% of their therapy sessions

- 2/3 of all staff are **endorsed at level 2** (of 3) in CBT
A snapshot at the end of our story
A snapshot at the end of our story

Site Leadership: “So much more has changed than the way we work with youth. We’ve made investments in our computers and phones. Our ability to communicate has improved, the way we view and value staff has improved.”
A 5-year, tailored CBT implementation effort

Wolverine’s journey begins...

- Oct. 2013
- July 2014
- March 2015
- April 2016
- Nov. 2017
- Sept. 2018
EPIS Model (Aarons et al., 2011, 2012)
October 2013 – July 2014

Exploration | Preparation | Implementation | Sustainment


Visits: 1 2 3 4 5 6 7 8 9
A methodology for generating a tailored implementation blueprint: an exemplar from a youth residential setting

Cara C. Lewis¹,²,³*, Kelli Scott² and Brigid R. Marriott⁴

Objective 1: Prioritize determinants

1. Needs assessment
2. Mixed methods analysis
3. Identify determinants

Objective 2: Match strategies to determinants

4. Select strategies
5. Form implementation team
6. Create implementation blueprint

Conjoint analysis
# Step 1: Needs Assessment

<table>
<thead>
<tr>
<th>System-level assessment</th>
<th>Organizational-level assessment</th>
<th>Provider assessment</th>
<th>Client characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding resources</td>
<td>Training space &amp; resources</td>
<td>Education level</td>
<td>Age/gender</td>
</tr>
<tr>
<td>Internal or contracted services</td>
<td>Senior leadership buy-in</td>
<td>Primary discipline</td>
<td>Culture</td>
</tr>
<tr>
<td>Politics</td>
<td>Team-level leadership</td>
<td>Experience with EBPs</td>
<td>Previous treatment</td>
</tr>
<tr>
<td>Policies</td>
<td>Culture/climate</td>
<td>Dispositional innovativeness</td>
<td>Co-occurring problems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attitudes toward EBP</td>
<td>Mental health</td>
</tr>
</tbody>
</table>

- Key informant interviews
- Organizational culture survey
- EBPAS
- Focus groups with youth
Step 1: Needs assessment

Objective 1: Prioritize determinants

1. Needs assessment
2. Mixed methods analysis
3. Identify determinants

Objective 2: Match strategies to determinants

4. Select strategies
5. Form implementation team
6. Create implementation blueprint

Conjoint analysis

Participants:

- **Surveys:**
  - Mental health clinicians (N = 21)
  - Operations staff (N = 49)

- **Focus groups:**
  - Mental health clinicians (N = 15)
  - Operations staff (N = 38)
  - Youth (N=8)
Staff gender and ethnicity

- Female: 60%
- Male: 40%

- African American: 49%
- Caucasian: 43%
- Hispanic/Latino: 5%
- Native American/Alaskan Native: 1%
- Other: 2%
Staff education

- High school: 32%
- Some college: 18%
- Associate's degree: 11%
- Bachelor's degree: 29%
- Master's degree: 10%
Staff experience

0-6 months: 9
6-11 months: 1
1-3 years: 12
3-5 years: 10
5-10 years: 12
10-20 years: 12
> 20 years: 4
Step 2: Mixed methods analysis

1. Mixed methods: Connecting QUAL + QUAN for the purposes of expansion

2. Revealed N = 76 unique determinants
“I feel like they’re kind of more housing the kids instead of giving them therapy.”
Step 3: Identify determinants

Objective 1: Prioritize determinants
1. Needs assessment
2. Mixed methods analysis
3. Identify determinants

Objective 2: Match strategies to determinants
4. Select strategies
5. Form implementation team
6. Create implementation blueprint

Conjoint analysis

Modified conjoint analysis:
- WHS administrators prioritized N = 76 determinants
  
Visit 2
  

High Importance

High Feasibility

Determinant = 23
Modified conjoint analysis: CBT and implementation experts prioritized 73 strategies according to:
- Feasibility (High/Low)
- Potential impact on CBT fidelity (0=None to 3=High)

36 strategies selected
Step 5: Form implementation team

Implementation Resource Team:

- ~10 opinion leaders & champions from all staff levels at each site
- Oversee implementation strategies & serve as onsite experts of both implementation & CBT
- Chair, Secretary, Program Evaluator, Incentives Officer, Communication Officer
Step 6: Create implementation blueprint

Objective 1: Prioritize determinants
1. Needs assessment
2. Mixed methods analysis
3. Identify determinants

Objective 2: Match strategies to determinants
4. Select strategies
5. Form implementation team
6. Create implementation blueprint

Conjoint analysis

Work across phases: Preparation, Implementation, Sustainment

- Strategy
- Timeline/Phase
- Goals
- Potential for Impact
- Feasibility
- Importance
- Responsibility
### Preparation

**Goals:**
1. Improve climate, satisfaction, communication, and teamwork;
2. Re-establish consistency/quality of restraints;
3. Prep materials to support CBT

**Timeline:** Revisit in 6-8 months (truncated surveys, focus groups)

<table>
<thead>
<tr>
<th>Importance</th>
<th>Goal</th>
<th>Responsible</th>
<th>Feasibility</th>
<th>Impact</th>
<th>Implementation Category</th>
<th>Implementation Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1, 2, 3</td>
<td>IT</td>
<td>H</td>
<td>3</td>
<td>Develop stakeholder interrelationships</td>
<td>Implementation Team- reserve biweekly meetings</td>
</tr>
<tr>
<td>C</td>
<td>1, 3</td>
<td>IT</td>
<td>L</td>
<td>1.5</td>
<td>Support clinicians</td>
<td>Restructure clinical teams</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>B</td>
<td>H</td>
<td>2</td>
<td>Train &amp; educate stakeholders</td>
<td>Select training methods that fit preferences of staff</td>
</tr>
<tr>
<td>C</td>
<td>1, 2, 3</td>
<td>IT</td>
<td>L</td>
<td>3</td>
<td>Develop stakeholder interrelationships</td>
<td>Recruit, designate, and train for leadership (pick chair/lead)</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>B/IT</td>
<td>L</td>
<td>3</td>
<td>Adapt &amp; tailor to context</td>
<td>Fit intervention to clinical practice (link points &amp; levels with CBT and outcome monitoring)</td>
</tr>
<tr>
<td>C</td>
<td>1, 3</td>
<td>B/IT</td>
<td></td>
<td></td>
<td>Use evaluative &amp; iterative strategies</td>
<td>Develop and implement tools for quality monitoring (identify program level measures)</td>
</tr>
<tr>
<td>*</td>
<td>3</td>
<td>B</td>
<td>H</td>
<td>1</td>
<td>Develop stakeholder interrelationships</td>
<td>Develop implementation glossary</td>
</tr>
<tr>
<td>*</td>
<td>3</td>
<td>B</td>
<td>H</td>
<td>1</td>
<td>Develop stakeholder interrelationships</td>
<td>Develop structured referral sheets</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>L</td>
<td>2</td>
<td></td>
<td>Train &amp; educate stakeholders</td>
<td>Prep client materials re: mental health</td>
</tr>
<tr>
<td>*</td>
<td>1</td>
<td>IT</td>
<td>L</td>
<td>3</td>
<td>Utilize financial strategies</td>
<td>Shift resources for incentives, support, and to reduce turnover</td>
</tr>
<tr>
<td>*</td>
<td>1, 2</td>
<td>B/IT</td>
<td>H</td>
<td>2</td>
<td>Develop stakeholder interrelationships</td>
<td>Conduct local consensus discussions- mix with educational meetings</td>
</tr>
<tr>
<td>1, 2</td>
<td>IT</td>
<td>H</td>
<td>1</td>
<td></td>
<td>Train &amp; educate stakeholders</td>
<td>Conduct educational meetings</td>
</tr>
<tr>
<td>3</td>
<td>IT</td>
<td>L</td>
<td>2</td>
<td></td>
<td>Change infrastructure</td>
<td>Modify context to prompt new behaviors- change note template</td>
</tr>
<tr>
<td>*</td>
<td>3</td>
<td>B/IT</td>
<td>L</td>
<td>3</td>
<td>Utilize financial strategies</td>
<td>Access new funding</td>
</tr>
</tbody>
</table>
## Implementation

**Goals:** 1. Continue to enhance climate, teamwork, communication, attitudes, and satisfaction; 2. Increase CBT knowledge, skill-integrate into care; 3. Demonstrate benefit to youth

**Timeline:** 3 years total; 3-5 day training every 6 months

<table>
<thead>
<tr>
<th>Importance</th>
<th>Goal</th>
<th>Responsible</th>
<th>Feasibility</th>
<th>Impact</th>
<th>Implementation Category</th>
<th>Implementation Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1, 2</td>
<td>B</td>
<td>H</td>
<td>3</td>
<td>Train &amp; educate stakeholders/Provide interactive assistance</td>
<td>Beck/IU Training/Supervision</td>
</tr>
<tr>
<td>C</td>
<td>1, 2</td>
<td>IT</td>
<td>L</td>
<td>2</td>
<td>Develop stakeholder interrelationships</td>
<td>Hold cross-staff clinical meetings</td>
</tr>
<tr>
<td>C</td>
<td>1, 3</td>
<td>B/IT</td>
<td>H</td>
<td>2</td>
<td>Adapt &amp; tailor to context</td>
<td>Facilitate, structure, and promote adaptability (Beck to work with IT to modify CBT to fit the sites)</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>B</td>
<td>L</td>
<td>3</td>
<td>Train &amp; educate stakeholders</td>
<td>Conduct educational outreach visits</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>IT</td>
<td>L</td>
<td>3</td>
<td>Utilize financial strategies</td>
<td>Shift resources (ensure strategy for monitoring outcomes)</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>IT</td>
<td>H</td>
<td>1</td>
<td>Develop stakeholder interrelationships</td>
<td>Identify early adopters (have person shadowed, talk in clinical meetings about overcoming barriers)</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>B</td>
<td>L</td>
<td>3</td>
<td>Provide interactive assistance</td>
<td>Provide clinical supervision- include IT on calls</td>
</tr>
<tr>
<td>C</td>
<td>1, 2</td>
<td>B/IT</td>
<td>L</td>
<td>3</td>
<td>Train &amp; educate stakeholders</td>
<td>Use train-the-trainers strategies</td>
</tr>
<tr>
<td>C</td>
<td>2, 3</td>
<td>IT</td>
<td>L</td>
<td>3</td>
<td>Change infrastructure</td>
<td>Increase demand-present data to courts and state level</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>IT</td>
<td>H</td>
<td>2</td>
<td>Support clinicians</td>
<td>Change performance evaluations, change professional roles</td>
</tr>
<tr>
<td>*</td>
<td>2</td>
<td>B/IT</td>
<td>H</td>
<td>1</td>
<td>Use evaluative &amp; iterative strategies</td>
<td>Develop and institute self-assessment of competency</td>
</tr>
<tr>
<td>*</td>
<td>2, 3</td>
<td>IT</td>
<td>H</td>
<td>2</td>
<td>Develop stakeholder interrelationships</td>
<td>Capture and share local knowledge</td>
</tr>
<tr>
<td>*</td>
<td>2</td>
<td>IT</td>
<td>H</td>
<td>1</td>
<td>Support clinicians</td>
<td>Remind clinicians</td>
</tr>
<tr>
<td>3</td>
<td>B/IT</td>
<td>L</td>
<td>2</td>
<td>Train &amp; educate stakeholders</td>
<td>Prep CBT client handouts (Beck to provide examples)</td>
<td></td>
</tr>
<tr>
<td>1, 2</td>
<td>B/IT</td>
<td>L</td>
<td>2</td>
<td>Utilize financial strategies</td>
<td>Alter incentives (certification, vacation, salary)</td>
<td></td>
</tr>
</tbody>
</table>
**Goals:** 1. Train new staff efficiently; 2. Maintain climate and communication; 3. Sustain integration and penetration of CBT

**Timeline:** Monitor 1 year post formal training

<table>
<thead>
<tr>
<th>Importance</th>
<th>Goal</th>
<th>Responsible</th>
<th>Feasibility</th>
<th>Impact</th>
<th>Implementation Category</th>
<th>Implementation Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1, 2, 3</td>
<td>IT</td>
<td>H</td>
<td>3</td>
<td>Develop stakeholder interrelationships</td>
<td>Engage implementation team</td>
</tr>
<tr>
<td>C</td>
<td>1, 3</td>
<td>IT</td>
<td>L</td>
<td>2</td>
<td>Develop stakeholder interrelationships</td>
<td>Hold cross-staff clinical meetings</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>IT</td>
<td>L</td>
<td>3</td>
<td>Use evaluative &amp; iterative strategies</td>
<td>Develop and implement for quality monitoring- must monitor fidelity through observation regularly and randomly</td>
</tr>
<tr>
<td>C</td>
<td>1, 3</td>
<td>IT</td>
<td>H</td>
<td>1</td>
<td>Train &amp; educate stakeholders</td>
<td>Conduct educational meetings- hold regularly for new staff and as refreshers</td>
</tr>
<tr>
<td>C</td>
<td>1, 3</td>
<td>IT</td>
<td>L</td>
<td>3</td>
<td>Train &amp; educate stakeholders</td>
<td>Use train-the-trainer strategies- only those certified in CBT</td>
</tr>
<tr>
<td>C</td>
<td>1, 2, 3</td>
<td>IT</td>
<td>L</td>
<td>2</td>
<td>Provide interactive assistance</td>
<td>Centralize technical assistance- create standard operating procedure for training and use of CBT at each staff level</td>
</tr>
<tr>
<td>1, 2</td>
<td>IT</td>
<td>L</td>
<td>2</td>
<td>Utilize financial strategies</td>
<td>Alter incentives- provide raise earlier based on competency</td>
<td></td>
</tr>
<tr>
<td>1, 3</td>
<td>IT</td>
<td>L</td>
<td>2</td>
<td>Use evaluative &amp; iterative strategies</td>
<td>Obtain and use consumer feedback w/ PQI data collection</td>
<td></td>
</tr>
<tr>
<td>1, 3</td>
<td>IT</td>
<td>L</td>
<td>2</td>
<td>Train &amp; educate stakeholders</td>
<td>Shadow other experts- elongate period for new staff</td>
<td></td>
</tr>
<tr>
<td>1, 2, 3</td>
<td>IT</td>
<td>L</td>
<td>2</td>
<td>Train &amp; educate stakeholders</td>
<td>Develop learning collaborative</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>B/IT</td>
<td>L</td>
<td>2</td>
<td>Use evaluative &amp; iterative strategies</td>
<td>Stage implementation scale-up to generate plan across site</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>B/IT</td>
<td>L</td>
<td>2</td>
<td>Engage consumers</td>
<td>Use mass media- get press release out with data from implementation</td>
<td></td>
</tr>
</tbody>
</table>
## July 2014 – March 2015

<table>
<thead>
<tr>
<th>Visits</th>
<th>Preparation</th>
<th>Implementation</th>
<th>Sustainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Exploration</td>
<td>Phase 1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Phase 2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Timeline:**
- Oct. 2013
- July 2014
- March 2015
- April 2016
- Nov. 2017
- Sept. 2018
Implementation Resource Team Functions

- Moving the project/initiative through the stages of implementation
- Identifying barriers and finding solutions
- Identifying facilitators and institutionalising them
- Building linkages with external systems
- Engaging in data-based decision making
- Installing and sustaining the implementation infrastructure
- Assessing and reporting on fidelity and outcomes
- Increasing buy-in
- Bringing about changes in behaviour at individual, organisation and system level
- Social Exchange: Engaging with stakeholders and community
- Problem-solving and promoting sustainability

@CaraCLewis | #impsci | #groupcaresymp2019
Wolverine Human Services: Tailored CBT implementation

**Top 3** determinants significantly improved

**24 additional** determinants improved or removed

**Only 7** determinants remaining

- Resources
- Program needs
- Internet quality
- Computer access
- Offices
- Desire for training

Top 3 determinants significantly improved

24 additional determinants improved or removed

Only 7 determinants remaining
March 2015 – April 2016

Exploration | Preparation | Implementation | Sustainment


Visits: 1 2 3 4 5 6 7 8 9
Training and Dissemination of Cognitive Behavior Therapy for Depression in Adults: A Preliminary Examination of Therapist Competence and Client Outcomes

Anne D. Simons
University of Oregon

Jeremy Montemarano
University of Notre Dame

Kristen Lamb and Sharon DeVinney
The Madison Center

David A. Smith
University of Notre Dame

Christine A. Padesky
Center for Cognitive Therapy

Cara C. Lewis and Jessica Murakami
University of Oregon

Mark Reid
University of Oregon

Aaron T. Beck
The Beck Institute

Research article
Implementing Cognitive Behavioral Therapy in the real world: A case study of two mental health centers
Teresa L Kramer*1 and Barbara J Burns2

Address: 1Department of Psychiatry, University of Arkansas for Medical Sciences, Little Rock, AR, USA and 2Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC, USA

Email: Teresa L Kramer* - KramerTeresaL@uams.edu; Barbara J Burns - bjb@geriduke.edu
* Corresponding author
Partial sustainability most common

Fewer than 50% of providers continued to practice with fidelity

Sustainability influences relate to:
  - Context (outer & inner)
  - Intervention itself (fit)
  - Process (efforts to align intervention with context)
  - Capacity to sustain (e.g., funding, workforce)
More about Wolverine’s clients

- Most are court ordered to treatment
- Common diagnoses and presenting problems:
  - Disruptive, impulse-control, and conduct disorders
  - Substance use disorders
  - Mood and anxiety disorders
  - Aggression
  - Truancy
  - Self-harm behaviors

*This is a picture of Wolverine’s secure treatment facility.*
More about Wolverine’s staff

- Bachelors and masters degree-level staff
  - Lead psychoeducation, skill, and therapy groups
  - Individual therapy
  - Family Therapy
  - Case management
  - Family liaison
  - Supervision of therapists
More about Wolverine’s staff

- High school degree-level staff:
  - Line-of-sight and ongoing safety management
  - Guide clients through daily schedule
  - Emergency response (physical aggression, property damage, self-harm)
  - Lead psychoeducation, skill, and therapy groups

*This is a picture of Wolverine’s secure treatment facility.*
CBT Core Skills

- 6 CBT Core Skills, across 3 Levels
- Used across ALL staff to promote consistency of care
- Taught in individual therapy, groups, and on the unit
- Monthly campaigns
ACTIVE LISTENING

Skill
• Thought empathy
• Feeling empathy

Addresses
• All diagnoses
• Poor emotion regulation/emotional awareness
• Motivation for treatment
• Aggression

Evidence-base
• Basic counselling skills
• Dialectical Behavior Therapy (DBT)
• Motivational Interviewing
CAPES

Skill
- Closeness; Accomplishment;
  Physical Activity; Enjoyment; Sleep
- Activity scheduling
  Set at beginning of day & review at end of day

Addresses
- Proactive for mood disorders
- Preventative for all disorders and presenting problems

Evidence-base
- CBT
- Behavioral activation
- CBT-I
Site visits

4-day site visits, 2-3 times per year
Training visits

- Intro to CBT & core competencies
- Specific CBT techniques
- Principles of behaviorism
- Assessment & documentation
- Progress monitoring
- Daily CBT integration
- Train-the-trainer

- CBT structure in therapy sessions
- Core skills: developing competency
- CBT endorsement & supervision
- How to use CBT in your role
- CBT and family therapy
- Intake checklist
- Core skills follow up

- March 2015
- August 2015
- March 2016
- March 2017
- October 2017
Train-the-trainers for sustainment

Supervision

- Weekly group supervision with CBT coaches
- Taught CBT based on individualized cognitive conceptualizations
- Rotating tape review
- Initial focus on supervision of clients
- Transitioned to supervision of supervision
- Certification by the Academy of Cognitive Therapy
April 2016 – November 2017

Visits:
- Exploration: 1
- Preparation: 2
- Implementation (Phase 1): 3, 4
- Implementation (Phase 2): 5, 6
- Sustainment: 7, 8, 9

Timeline:
- Oct. 2013
- July 2014
- March 2015
- April 2016
- Nov. 2017
- Sept. 2018
CBT fidelity

Critical to monitor fidelity across staff

- Evaluate both knowledge and practice to ensure CBT is delivered as intended
- Monitoring fidelity breeds fidelity (sustainment strategy)
CBT endorsement system

Multi-level, core skill aligned, practice with feedback

Knowledge: Provide the rationale, generate examples, name best SPEED for use

Practice: Behavioral rehearsal/role play methodology

- CBT coaches role-played youth
- Developed standardized scripts for each core skill
- Developed a 0-6 rating scale (based on the CTRS) with specified scoring criteria (4 is needed to pass)
CBT endorsement system (cont.)

Level 1:
Behaviorism: 10 multiple choice questions
CBT Model: 1 open-ended question

Level 2:
Active Listening, ITCH, SPEED Maps
Adherence checklist (✔️): Critical elements
Competence (≥4): Behavioral rehearsal

Level 3:
CAPES, TIP, CBT Chat Forms
Adherence checklist (✔️): Critical elements
Competence (≥4): Behavioral rehearsal

*Required for promotion
<table>
<thead>
<tr>
<th>Skill</th>
<th>Time/Date</th>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPEED check</td>
<td>Morning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Afternoon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active Listening</td>
<td>Morning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Afternoon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITCH</td>
<td>Morning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Afternoon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPEED Maps</td>
<td>Morning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Afternoon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPES</td>
<td>Morning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Afternoon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBT Chat Forms</td>
<td>Morning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Afternoon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIP</td>
<td>Morning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Afternoon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Use this scale to rate how you used the core skills:

- 0  Didn’t think about it
- 1  Thought about using but didn’t
- 2  Tried using but it didn’t help
- 3  Tried using and it helped
## Reinforcement System

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>R1 – 50</td>
<td>R1 – 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00 AM</td>
<td>L – 75</td>
<td>L – 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00 AM</td>
<td>R2 – 100</td>
<td>C – 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00 AM</td>
<td>C – 50</td>
<td>E – 75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00 PM</td>
<td>N – 25</td>
<td>N – 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:00 PM</td>
<td>R1 – 50</td>
<td>R1 – 75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:00 PM</td>
<td>R1 – 50</td>
<td>L – 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:00 PM</td>
<td>R3 – 75</td>
<td>R1 – 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00 PM</td>
<td>E – 75</td>
<td>R3 – 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 PM</td>
<td>E – 25</td>
<td>C – 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:00 PM</td>
<td>R3 – 50</td>
<td>C – 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00 PM</td>
<td>R1 – 25</td>
<td>L – 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 PM</td>
<td>L – 50</td>
<td>N – 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>500</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Used:</strong></td>
<td>100</td>
<td>250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Saved:</strong></td>
<td>400</td>
<td>250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Principle Reality (R1)  Responsibility (R2)  Respect (R3)  Communication (C)  Negotiation (N)  Education (E)  Love (L)**
Training visits – Experiential, Games!

- Mock Unit exercises – moving from point system to reinforcement system
- Staff generated vignette-based, small group competitions for reinforcement system
- SPEED Map Scenarios
- Staff-led trainings
What is the best thing CBT brought to WHS?

“CBT has provided...numerous ways to cope when in crisis.”

“A common vocabulary, assessment, and understanding with staff and clients.”

“The ability to problem solve and reduce SPEED.”

“It has changed the way we think.”

“Skills to work with the clients in a way that [helps] them in the community and reinforces the positives they do.”

“Learning to listen to clients to help them solve their issues rather than making decisions for them.”

“The ability to truly listen.”

“More awareness of self and the ability to self-regulate.”

“A consistent treatment model and language to use across all programs.”

“Helping kids figure themselves out.”
Implementation Costs

5-year contract ~ $60,000 - $70,000 each year
  – Staff
  – Travel
  – Materials
  – Certification

In-kind support from my research lab ~ $25,000 - $30,000
  – Personnel
    • Preparing handouts, slides, manuals, surveys
    • On-site support
  – CEU’s
  – Incentives for survey completion
  – Travel for additional on-site support

Total Costs across 5 years: $399,900
OBJECTIVE 1

1. Identifying & prioritizing determinants
2. Selecting strategies to target determinants
3. Prospective treatment adaptation
Identifying & prioritizing determinants

What I learned from Wolverine

- Self-report batteries are expensive (need to incentivize, personnel hours)
- Self-report batteries are only as good as the measures
- Few pragmatic measures exist
- Stakeholder input is subject to bias, limits of recall, limits of insight, and social desirability (sometimes)
- New determinants may emerge over time
OBJECTIVE 2

1. Identifying & prioritizing determinants
2. Selecting strategies to target determinants
3. Prospective treatment adaptation
Potential methods for selecting and tailoring

Methods to Improve the Selection and Tailoring of Implementation Strategies

Byron J. Powell, PhD
Rinad S. Beidas, PhD
Cara C. Lewis, PhD
Gregory A. Aarons, PhD
J. Curtis McMillen, PhD
Enola K. Proctor, PhD
David S. Mandell, ScD


Methods for designing interventions to change healthcare professionals’ behaviour: a systematic review

Heather L. Colquhoun1*, Janet E. Squires2,3, Nilia Kolehmainen4, Cynthia Fraser5 and Jeremy M. Grimshaw2,6
How implementation strategies should be selected
Identifying & prioritizing determinants

What I learned from Wolverine

- There is insufficient theory to help us select strategies based on their mechanisms.
- By engaging numerous strategies simultaneously, it is unclear what “worked.”
- Implementation teams can own strategy deployment, but strategy selection is often misguided toward a less critical barrier.
Examples of tailoring strategies to determinants

<table>
<thead>
<tr>
<th>Identified determinants</th>
<th>Implementation strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of knowledge</td>
<td>Interactive education sessions</td>
</tr>
<tr>
<td>Perception/reality mismatch</td>
<td>Audit &amp; feedback</td>
</tr>
<tr>
<td>Lack of motivation</td>
<td>Incentives/sanctions</td>
</tr>
<tr>
<td>Beliefs/attitudes</td>
<td>Peer influence/opinion leaders</td>
</tr>
<tr>
<td>Systems of care</td>
<td>Process redesign</td>
</tr>
</tbody>
</table>
OBJECTIVE 3

1. Identifying & prioritizing determinants
2. Selecting strategies to target determinants
3. Prospective treatment adaptation
Dynamic sustainability framework

Chambers et al., 2013
Intervention core components

What I learned from Wolverine

- Adapt the intervention prospectively, with stakeholders to ensure it is sustainable
- Be able to distill the effective parts of the intervention down to their core
- Clarify their mechanisms and treatment targets
- Monitor fidelity to their core components and link to outcomes
- Continue to monitor fidelity as a strategy for sustainment
A methodology for generating a tailored implementation blueprint: an exemplar from a youth residential setting

Cara C. Lewis¹,²,³*, Kelli Scott² and Brigid R. Marriott⁴
SIRC 2019
5th Biennial Society for Implementation Research Collaboration: September 13-14, 2019
With heartfelt gratitude to the staff and clients of Wolverine Human Services

Thank you!

Contact me: Cara.C.Lewis@kp.org

Twitter: @CaraCLewis
References

<placeholder for list of citations>