Testing the Getting To Outcomes implementation support intervention in prevention-oriented, community-based settings

A 32-site RCT

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GTO model supports high quality program implementation in many domains

1. Choose which problem(s) to focus on.
2. Identify goals, target population, and desired outcomes.
3. Find existing programs and best practices worth copying.
4. Modify the program or best practices to fit your needs.
5. Assess capacity (staff, financing, etc.) to implement the program.
6. Make a plan for getting started: who, what, when, where, and how.
7. Evaluate planning and implementation. How did it go?
8. Evaluate program’s success in achieving desired results.
9. Make a plan for Continuous Quality Improvement.
10. Consider how to keep the program going if it is successful.

Steps 1-6 PLANNING
Steps 7-10 EVALUATING AND IMPROVING
GTO uses multiple implementation strategies to build capacity

**ERIC* (Expert Recommendations for Implementing Change)**

- **PRIMARY**
  - Train and Educate Stakeholders
  - Provide Technical Assistance
  - Multiple evaluative and iterative strategies
  - Adapt and Tailor to the Context
  - Support clinicians/practitioners

- **SECONDARY**
  - Stakeholder relationships
  - Change infrastructure

- **Usually not done**

*Powel, Waltz, Chinman, Damschroder, Smith, Matthieu, Proctor, Kirchner*
GTO components:

- Social cognitive theories of behavior change
  - Knowledge → beliefs → behaviors

- Consolidated Framework for Implementation Research (CFIR)*
  - Intervention characteristics
    - GTO helps practitioners digest evidence-based interventions and plan & evaluate them
  - Characteristics of the individuals involved
    - GTO builds knowledge & skills to plan, implement, and evaluate interventions
  - Implementation process
    - GTO is proactive and helps organizations change
  - Inner setting
    - GTO helps practitioners adjust their organizational context, provides accountability

* Damschroder et al 2009
Enhancing Quality of Interventions Promoting Healthy Sexuality (EQUIPS) – RCT similar to large scale role outs

- MPC is an 8 session EBP – promotes condom use/less sex

Implemented MPC twice in all sites in 2011-2013

Compared GTO and MPC-only sites on:
- Performance of key program implementation tasks specified by GTO (e.g., goal setting, planning, evaluation) (interview)
- Fidelity to MPC (observation/attendance logs)
EQUIPS is a team effort

- **RAND evaluators**
  - Joie Acosta, Patricia Ebener, Patrick Malone, Mary Slaughter, Lynn Polite, RAND Survey Research Group

- **Technical Assistance providers**
  - Georgia Campaign for Adolescent Power & Potential
    - Jennifer Driver, Cody Sigel, Kim Nolte
  - Alabama Campaign to Prevent Teen Pregnancy
    - Jamie Keith

- **Boys & Girls Clubs delivering MPC**
  - Greater Atlanta, North Alabama, Montgomery
Two year GTO training and TA process

- GTO training (Steps 1-3)
  - Work w/ TA staff to set Desired Outcomes on Goals tool

- GTO training (Steps 4-6)
  - Work w/ TA staff to complete Fit, Capacity, & Plan tools

- Implement MPC

- Data collection Fidelity Outcomes

- GTO Evaluation and CQI workshop (Steps 7-9)
  - Work w/ TA staff to revise plans for second cycle

- GTO training (Step 10)

65 HOURS OF TA

Year

2
GTO logic model links support to outcomes

- Implementation Support
- Performance
- Fidelity
- Outcomes
Data collection instruments assess many domains

<table>
<thead>
<tr>
<th>TIMING</th>
<th>Staff Survey</th>
<th>TA Monitoring Form</th>
<th>Performance Interview</th>
<th>Fidelity monitoring, Attendance records</th>
<th>Youth Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td>Ongoing during TA</td>
<td>2X, after each Year (13% double coded)</td>
<td>Ongoing during GTO; Double coding:</td>
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<td>□ 36% Yr 1</td>
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<td>□ 25% Yr 2</td>
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<td>Baseline, Post, 6 Month at each site, Year</td>
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<table>
<thead>
<tr>
<th>DOMAIN</th>
<th>EBP attitudes &amp; support</th>
<th>Implementatio n Support</th>
<th>Performance in areas targeted by GTO (High=5 to Low=1)</th>
<th>Fidelity</th>
<th>Outcomes</th>
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<tr>
<td></td>
<td></td>
<td>Hours of Technical Assistance</td>
<td>□ Total</td>
<td>Adherence (% MPC activities completed fully, in part, none)</td>
<td>(follows Jemmott et al.)</td>
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<td></td>
<td></td>
<td>□ By GTO Step</td>
<td>□ Goals</td>
<td>□ Quality of delivery (1-7 on class control, teacher enthusiasm, student interest)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>□ Fit</td>
<td>□ Behavior (sex, condoms)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>□ Capacity</td>
<td>□ Beliefs (sex, condoms)</td>
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<td>□ Planning</td>
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<td>□ Process eval</td>
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<td>□ Outcome eval</td>
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<td>□ CQI</td>
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</table>
MPC+GTO sites had better performance in Years 1 and 2

*Goals
**Fit*
***Capacity
****Plan***
***Proc
Eval^***
Out
Eval
CQI*
Sustain*
TOTAL

*p<.05,  **p<.01, ***p<.001 Linear mixed effects regression models,  Year 1 to Year 2 (MPC+GTO), Year 1 to Year 2 (MPC only)*
MPC+GTO sites had better adherence in Years 1 and 2

Year 1

- MPC Only: 56% Completely, 32% Partially, 12% Not at all
- MPC+GTO: 57% Completely, 39% Partially, 4% Not at all

Year 2

- MPC Only: 55% Completely, 36% Partially, 9% Not at all
- MPC+GTO: 92% Completely, 7% Partially, 1% Not at all
MPC+GTO sites had better classroom delivery in Year 2

Year 2: \(^1\text{MPC+GTO} > \text{MPC only}, p = .016 \text{ to } <.0001\)

Year 1-2: \(^\wedge\text{MPC+GTO} > \text{MPC only}, p = .01 \text{ to } .04\)

YearxGroup: \(^\vee\text{MPC+GTO} > \text{MPC only}, p = .04\)
MPC+GTO sites had better Year 2 attendance rates, but not statistically.

Linear mixed effects regression, NS

<table>
<thead>
<tr>
<th></th>
<th>Percent sessions attended</th>
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<tbody>
<tr>
<td>Year 1 MPC+GTO</td>
<td>74%</td>
</tr>
<tr>
<td>Year 2</td>
<td>78%</td>
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<tr>
<td>Year 1 MPC only</td>
<td>73%</td>
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<tr>
<td>Year 2</td>
<td>62%</td>
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</table>
Compared MPC+GTO vs MPC-only on youth measures

- **Abstinence** (4 scales on beliefs, link to goals, intentions)
- **Condoms** (8 scales on beliefs, intentions, availability, skills, efficacy, impulse control)
- **Knowledge** (2 scales on HIV/STD, Condoms)
  - Multivariate four-level linear regression modeling, parameterized as a 2 (Condition, between site) X 3 (Time, within site) factorial model
- **Sex** (sex ever, use of condoms)
  - Intercourse and unprotected/condom intercourse outcomes – logistic regression
  - Days of intercourse and unprotected intercourse outcomes – linear regression
  - Adjusted for baseline

- **Covariates** (Grade; Social desirability; Race; Living arrangement; Parent education; employment)
In Year 2 (n=419), MPC+GTO sites improved more than MPC only sites on mediators.

Within Group:* = significant improvement* = significant decline

**Percent of Knowledge Qs Correct**

**Condom Attitudes/Beliefs**

Between group: GTO+MPC > MPC

- Response rates: 80% at post, 63% at 6 months
- Condoms & Knowledge: both groups improve, GTO group improves more
- No improvement on Abstinence
Conclusions

- **GTO sites had better performance/fidelity, more in Year 2**
  - Highly structured EBP gets modest fidelity, need more support for high fidelity (only 65 hours over 2 years)

- **Performance**

- **Youth outcomes**
  - **Mediators**
    - Yr1: Similar improvement across all sites
    - Yr2: Improvement across all sites, GTO sites improve more (better than Jemmott)
  - **Sex**: low base rates make comparisons difficult
Implications

- The GTO doable on a large scale: 1 TA provider helps one site for about 32 hours per year
- Training and manuals/tools were helpful, but proactive, ongoing TA was key
- Back and forth between sites and TA staff on tools was critical to ensure good decisions, accountability
- Quality improvement step in between Years 1 and 2 very important to improved success in Year 2
For More Information

http://www.rand.org/gto

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**Goals Tool** prompts decisions, planning, and record keeping

<table>
<thead>
<tr>
<th>Behavior or Determinant</th>
<th>SMART Desired Outcome Statement</th>
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<tbody>
<tr>
<td></td>
<td>Aligned with:</td>
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<tr>
<td></td>
<td>□ Recent sexual activity</td>
</tr>
<tr>
<td></td>
<td>□ Number of sexual partners</td>
</tr>
<tr>
<td></td>
<td>□ Frequency of sexual activity</td>
</tr>
<tr>
<td></td>
<td>□ Contraceptive use and/or use consistency</td>
</tr>
<tr>
<td></td>
<td>□ Sexual initiation and abstinence</td>
</tr>
<tr>
<td></td>
<td>□ Pregnancy or birth</td>
</tr>
<tr>
<td></td>
<td>□ STIs (including HIV)</td>
</tr>
</tbody>
</table>

**SMART Checklist**

**Intention to practice abstinence**

At the completion of the program, 80% of participants’ will report that they plan to abstain from sex for the next 90 days.

Aligned with:

- [x] Recent sexual activity
- [x] Number of sexual partners
- [x] Frequency of sexual activity
- [x] Contraceptive use and/or use consistency
- [x] Sexual initiation and abstinence
- [ ] Pregnancy or birth
- [ ] STIs (including HIV)

**Specific** - Plans to abstain from sex for the next 90 days

**Measurable** - 80% at post survey

**Achievable** - Abstinence promotion is in line with program goals

**Realistic** - Similar youth have achieved this Desired Outcome before

**Time-bound** - By the completion of the program
An average of 65 hours of TA per site was provided over the two years.

**Year 1**
21 hours per site

**Year 2**
44 hours per site

- **Needs Assessment**, 1
- **Goals**, 0.9
- **Fit**, 3.4
- **Capacity**, 3.7
- **Planning**, 6.2
- **Process Evaluation**, 0.7
- **Outcome Evaluation**, 0.3
- **Continuous Quality Improvement (CQI)**, 4.8
- **Sustainability**, 0

**Year 1**
- **Needs Assessment**, 0.52
- **Goals**, 0.89
- **Fit**, 2.1
- **Capacity**, 3.7
- **Planning**, 6.8
- **Process Evaluation**, 1.3
- **Outcome Evaluation**, 0.9
- **Continuous Quality Improvement (CQI)**, 15.5
- **Sustainability**, 0.4
Response rates were good, similar across groups and years

**Year 1**
- **Omegas** (.71-.91, .40 on one)
- **Baseline** (N=484)
  - MPC = 236
    - Ave gr=6.31
    - 44% male
    - 83% Afr-American
  - GTO+MPC = 248
    - Ave gr=6.57
    - 47% male
    - 91% Afr-American
- **Post** (N= 391, 81%)
  - MPC only = 188 (80%)
  - GTO+MPC = 203 (82%)
- **6 Month** (N= 323, 65%)
  - MPC only = 165 (70%)
  - GTO+MPC = 158 (60%)

**Year 2**
- **Omegas** (.55 to .92, .35 on one)
- **Baseline** (N=419)
  - MPC = 197
    - Ave gr=6.42
    - 47% male
    - 88% Afr-American
  - GTO+MPC = 222
    - Ave gr=6.69
    - 47% male
    - 88% Afr-American
- **Post** (N= 334, 80%)
  - MPC only = 151 (78%)
  - GTO+MPC = 180 (81%)
- **6 Month** (N= 264, 63%)
  - MPC only = 117 (60%)
  - GTO+MPC = 147 (66%)
Sexual behaviors similar across groups, but low base rates

<table>
<thead>
<tr>
<th>Sexual Behavior in Past 3 Months</th>
<th>MPC+GTO</th>
<th>MPC</th>
<th>p=, MPC+GTO vs MPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>% who had sex</td>
<td>5.8 (8/147)</td>
<td>7.3 (8/117)</td>
<td>0.67</td>
</tr>
<tr>
<td>Adjusted mean frequency of sex, days</td>
<td>0.10</td>
<td>0.08</td>
<td>0.59</td>
</tr>
<tr>
<td>Sexually inexperienced at baseline</td>
<td>0.08</td>
<td>0.04</td>
<td>0.48</td>
</tr>
<tr>
<td>Sexually experienced at baseline</td>
<td>0.39</td>
<td>0.48</td>
<td>0.82</td>
</tr>
<tr>
<td>% Reporting consistent condom use</td>
<td>50 (4/8)</td>
<td>75 (6/8)</td>
<td>0.31</td>
</tr>
<tr>
<td>% Reporting unprotected sexual intercourse</td>
<td>2 (3/147)</td>
<td>4 (5/117)</td>
<td>0.33</td>
</tr>
<tr>
<td>Sexually inexperienced at baseline</td>
<td>1 (2/135)</td>
<td>3 (3/100)</td>
<td>0.43</td>
</tr>
<tr>
<td>Sexually experienced at baseline</td>
<td>9 (1/11)</td>
<td>17 (2/12)</td>
<td>0.60</td>
</tr>
<tr>
<td>Adjusted mean frequency of unprotected sexual intercourse, days</td>
<td>0.03</td>
<td>0.08</td>
<td>0.19</td>
</tr>
<tr>
<td>Sexually inexperienced at baseline</td>
<td>0.03</td>
<td>0.04</td>
<td>0.72</td>
</tr>
<tr>
<td>Sexually experienced at baseline</td>
<td>0.01</td>
<td>0.69</td>
<td>0.21</td>
</tr>
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