Tailored Motivational Interviewing (TMI) in Multidisciplinary Adolescent HIV Clinics
ATN 146: An Implementation-Effectiveness Hybrid Trial

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R34 NIMH Program Officer: Susannah Allison

Consultant: Greg Aarons
YOUTH ARE A KEY POPULATION

• Youth account for almost a quarter of new infections
• Half of youth do not know they are infected
• Youth are the least likely age group to be linked to care
• Half of these new infections are among black youth with Hispanic/Latino youth at growing risk

HIV Diagnoses Among Youth in the 50 States and District of Columbia, 2010-2016

Youth overall: **down 6%**

- Young women: **down 32%**
- Young men: **remained stable**

Young gay and bisexual men by race/ethnicity:
- Black/African American: **down 5%**
- Hispanic/Latino: **up 17%**
- White: **down 6%**
TRANSLATIONAL BEHAVIORAL SCIENCE AS A KEY FOCUS

- **T1**: Basic Behavioral and Social Science Research
- **T2**: Early Phase Intervention Development Studies and Pilot Clinical Trials
- **T3**: Later Phase Clinical Trials (RCTs and Alternatives)
- **T4**: Effectiveness and Implementation Trials
- **T5**: Large Scale Implementation Trials and Policy Trials

- Translating discoveries into new, adapted, or more potent interventions
- Controlled studies leading to treatment recommendations and guidelines
- Disseminating and implementing evidence-based interventions in practices, clinics, schools, neighborhoods
- Disseminating and implementing evidence-based Interventions in Communities and public policy

Naar et al. Methods paper in AIDS Patient Care and STDs
Tailored Motivational Interviewing Implementation (T4): TMI

- **AIM:** Promote adoption and sustainment of evidence-based patient-provider behavior change communication across disciplines in adolescent HIV clinics to improve youth HIV-related self-management (R34 NIMH → U19 NICHD)

- **EPIS MODEL**
  - **EXPLORATION** – choosing Evidence-based Practice (EBP)*, understanding barriers and facilitators, refining implementation strategies and outcome measurement
  - **PREPARATION** – Local Teams to adapt (Dynamic adaptation Process)
  - **IMPLEMENTATION** – Delivering implementation strategies to implement the EBP with ongoing input from teams to resolve barriers
  - **SUSTAINMENT** – Continuing implementation without external resources

*from research, from ATN site interest, from funders
EXPLORATION
EXPLORATION Aim 1: CHOOSING AN EBP
MI and the YOUTH HIV TREATMENT CASCADE

Cascade of Care in HIV-Infected Youth in the United States

- Infected: 78,949
- Diagnosed: 31,979 (40%)
- Linked: 19,824 (25%)
- Retained: 8,723 (11%)
- Suppressed: 4,449 (6%)

Outlaw et al., 2010
ATN 128 Fortenberry et al.
Naar-King et al., 2009
Naar-King et al., 2010
Under review – 20-35% increase in viral suppression
EXPLORATION Aim 1: CHOOSING AN EBP

Other Factors

- Motivational Interviewing can be implemented in many formats from brief to longer sessions (versus a specific MI-based intervention like Healthy Choices)
- Motivational Interviewing can be delivered by multiple provider types clinic-wide (versus only certain provider types)
- Motivational Interviewing has been utilized for lifestyle behavior change like substance use, smoking, physical activity and may improve depression
- Motivational Interviewing may have higher effect sizes with minority populations
- Motivational Interviewing provides a communication foundation for client-centered care (critical for differentiated care)
- Motivational Interviewing provides a communication foundation for behavior change (critical for HIV prevention and care delivery)
- Motivational Interviewing may provide a communication foundation to reduce stigma in service settings
- Focus on health workforce development which is lacking in the research literature
...but Fidelity to MI is Hard

<table>
<thead>
<tr>
<th></th>
<th>Beginner &lt;2.0</th>
<th>Novice 2.0-2.6</th>
<th>Intermediate 2.61-3.3</th>
<th>Advanced &gt;=3.31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall N=151</td>
<td>66% (N = 99)</td>
<td>28% (N = 42)</td>
<td>6% (N = 9)</td>
<td>.7% (N = 1)</td>
</tr>
<tr>
<td>Medical Staff N=58</td>
<td>35% (N = 35)</td>
<td>48% (N = 20)</td>
<td>33% (N = 3)</td>
<td>0% (N = 0)</td>
</tr>
<tr>
<td>Psych/Social Work* N=26</td>
<td>12% (N = 12)</td>
<td>24% (N = 10)</td>
<td>44% (N = 4)</td>
<td>0% (N = 0)</td>
</tr>
<tr>
<td>Other N=67</td>
<td>53% (N = 52)</td>
<td>29% (N = 12)</td>
<td>22% (N = 2)</td>
<td>100% (N = 1)</td>
</tr>
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</table>
EXPLORATION Aim 2: Assess Determinants of Adoption and Sustainment of Evidence-based Behavioral Interventions

- Qualitative interviews with 140 staff in 10 sites (pilot at 2 sites) of inner and outer organizational factors – adapted from Aaron’s EPIS interview
- Rapid thematic/content analysis with interviewer recording immediate impressions into a themes spreadsheet
- Coded 35 medical encounters and 34 psychosocial encounters to determine primary communication behaviors linked to adolescent motivational statements (Idalski Carcone et al., in press, AIDS CARE)
- Developed efficient and effective communication measure (primary outcome) utilizing standard patient interaction model
- Developed procedures for Electronic Health Record downloads (secondary outcome) but determined that treatment cascade was primary focus (sites doing limited PrEP and prevention services not well documented)
PREPARATION
PREPARATION Aim 1: Refining Implementation Strategies

- Utilize best practices in educational psychology (cooperative learning environments) and behavioral skills training (modeling, behavioral rehearsal and feedback)
- Adapt training to highlight specific MI communication elements for this context (e.g., language to emphasize autonomy, stigma reducing communication)
- Utilize real-world examples – utilize MI trainers who are trained in TMI for youth living with HIV, develop HIV youth specific videos
- Refine standard patient models and train actors
- Develop trigger-based coaching model (if providers are at novice or beginner levels provide mandatory coaching, if providers achieve intermediate or advance coaching then coaching optional)
- Provide automated feedback via Qualtrics with video learning
- Standardize coaching based on new measure
PREPARATION Aim 1: Refining Implementation Strategies with Data-driven Coaching

<table>
<thead>
<tr>
<th>SAMPLE ITEM</th>
<th>SAMPLE COACHING ACTIVITY</th>
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<tbody>
<tr>
<td>The counselor cultivates empathy and compassion with clients</td>
<td>Feelings Reflections: Rating Samples For Spirit (Rosengren)</td>
</tr>
<tr>
<td>The counselor supports the autonomy of clients</td>
<td>It’s All About YOU; Menu Of Options</td>
</tr>
<tr>
<td>The counselor balances the client’s agenda with focusing on the target behaviors.</td>
<td>Focusing Funnel; Agenda Map; Meet MI Half Way</td>
</tr>
<tr>
<td>The counselor uses reflections strategically</td>
<td>Reinforcing Change Talk; Complex Reflections Five Ways; Picking Flowers</td>
</tr>
<tr>
<td>The counselor works to evoke client’s ideas and motivations for change</td>
<td>Values; Ruler; Planning Questions</td>
</tr>
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PREPARATION Aim 2: iTEAMS

• Implementation Team development at each site (iTEAM) with external facilitator

• Reviewed determinants from exploration phase
  • Barriers: Caseload/ Clinic Visit Constraints, Organizational/ Clinic Culture, Training Considerations, Resource Issues, Patient Considerations
  • Facilitators: Management/Administrative Support, Organizational/ Clinic Culture, Culture Building, Logistics

• Developed individual site implementation plans using Dynamic Adaptation Process
  • Delineate clearly what is necessary for fidelity and what is flexible

• Determine ongoing quality assurance methods

• Be champions within the organization
**PREPARATION Aim 2: iTeams’ Dynamic Adaptation Process to Balance Fidelity and Flexibility**

<table>
<thead>
<tr>
<th>Component</th>
<th>Required</th>
<th>Adaptable</th>
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<tbody>
<tr>
<td><strong>Initial Workshop</strong></td>
<td>12 hours of tailored MI workshop</td>
<td>Hours may be spread over 2-3 days to avoid clinic closure; up to 6 hrs virtual</td>
</tr>
<tr>
<td><strong>Fidelity Monitoring</strong></td>
<td>Quarterly</td>
<td>Audiorecordings or standard patient model</td>
</tr>
<tr>
<td><strong>Coaching Feedback</strong></td>
<td>Written feedback of competency ratings; Two sessions immediately after workshop then triggered coaching quarterly over one year</td>
<td>Format of written feedback and delivery; Scheduling preferences</td>
</tr>
<tr>
<td><strong>Organizational Supports</strong></td>
<td>Leadership monitoring of program adherence and provider competence, $3000 incentives, ongoing iTTeam meetings</td>
<td>Who monitors and how frequently; delivery of program adherence feedback; corrective actions and supports; incentives structure</td>
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* (Aarons et al., 2012)
## PREPARATION Aim 2: iTeams’ Dynamic Adaptation Process to Balance Fidelity and Flexibility

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<td><strong>Communities of Practice for Sustainment</strong></td>
<td>Opportunities for group practice</td>
<td>Context and formality; discipline-specific or multidisciplinary; hierarchical or parallel; virtual or face-to-face;</td>
</tr>
<tr>
<td><strong>Internal facilitator for Sustainment</strong></td>
<td>Identified facilitator to conduct quarterly fidelity rating and coaching for those below competency</td>
<td>Choice of facilitator based on competency, passion and organizational structure; audiorecording or standard patient model; group or individual coaching, resources (materials, videos, website, booster training)</td>
</tr>
</tbody>
</table>
SUMMARY: Evidence Informed Logic Model Tailored for Each Site

- **Determinants:** Barriers - Caseload/ Clinic Visit Constraints, Organizational/ Clinic Culture, Training Considerations, Resource Issues, Patient Considerations; Facilitators: Management/Administrative Support, Organizational/ Clinic Culture Building, Logistics, Resources

- **Implementation Strategies:** skills training, support data driven quality assurance and feedback, improve organizational culture climate through iTems, communities of practice and internal facilitation

- **Mechanisms:** improved provider knowledge and skill, reduced stigmatizing communication among health workforce, improved youth-centered communication (e.g. autonomy support), improved behavior change communication in routine care

- **Outcomes:** fidelity to Tailored Motivational Interviewing, clinic-level retention in care and viral suppression from EHR, youth patient perceptions, cost-effectiveness
IMPLEMENTATION AND SUSTAINMENT: Randomized Trial
TMI Trial Design
Provider Competency (primary) and EHR (secondary) and EPIS analysis of barriers/facilitators

Baseline period of fidelity assessments and EPIS interviews/surveys (episframework.com) then randomization of 2 sites in 5 clusters every 2 months, annual EHR downloads

12 month Implementation Period with second round of EPIS interviews/surveys, EHR downloads, patient perceptions

After implementation, clusters re-randomized to Internal Facilitation (10% FTE) versus Communities of Practice for Sustainment

Follow-up period with EHR downloads, EPIS site visits and policy analysis, cost effectiveness analysis
STEPPED WEDGE DESIGN
8 of 10 sites in sustainment currently; study will complete Nov-2020; two years of EHR data >1000 youth 12-24