Program and Evaluation Strategies for Addressing Systemic Gatekeeper Helping:
An Example from the Tennessee Lives Count Juvenile Justice Project

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Part I: Lessons Learned from TLC (Cohort I) Grant
(September 2006- March 2010)
Tennessee Lives Count (TLC): Statewide Suicide Prevention Program and Evaluation Context

- **TLC Program Support**
  - GLS Grant project awarded to Tennessee Department of Mental Health and Developmental Disabilities; Funded September 2005 by SAMHSA (Cohort 1); Enhanced evaluation contract funded by the CDC February 2006

- **TLC Program Goals**
  - Improve skills to identify and appropriately address youth at risk for suicide
  - Increase statewide awareness of youth suicide risk factors, strategies for prevention
  - Improve access to mental health resources and services for youth at risk for suicide
  - Ensure sustainability through policy change, gatekeeper trainings, and statewide partnerships

- **Gatekeeper Training Intervention Provided:**
  - Enhanced QPR (Question, Persuade, Refer) gatekeeper training (QPR, Quinnett)
  - Included role play and lethality assessment training

- **Target Populations Trained State-wide:**
  - Child Welfare Staff (n=2500)
  - Foster and Resource Parents (n=1500)
  - Education Staff (n=7,000)
  - Nurses and Nurse Practitioners (n=900)
  - Juvenile Justice Staff (n=1200)
  - GLBT Youth (n=50)
TLC Logic Model and Evaluation Design Focused on Measuring Change at the Individual Level

- TLC Logic Model – Individual Theory of Gatekeeper Change:
  - **Input:** Individuals in the community in multiple service systems state-wide will be trained in QPR
  - **Intermediate Training Outcomes:** Training will result in increased perceived suicide knowledge, increased self-efficacy to prevent suicide, and decreased suicide inevitability attitudes
  - **Long-Term Training Outcomes:** Increased intermediate outcomes will lead to individuals recognizing suicide at an earlier level of risk, and referring those youth for professional services

- TLC Evaluation Design:
  - **Study I:** Study of Participant Characteristics and Training Effectiveness (pretest/posttest)
  - **Study II:** Six-Month Follow-up Study
  - **Study III:** Qualitative Study of Gatekeeper Identification and Helping Behaviors in the Child Welfare System
Lesson Learned: Results Indicate Overall Program Effectiveness, but not All Training Populations Responded in Same Way to Training

**Purpose of the Study:**
- Examine immediate and long-term outcomes of TLC training (QPR) for gatekeepers

**Research Design:**
- Within-subjects longitudinal design
- Pre-test/post-test surveys; six month follow-up

**Outcomes Assessed:**
- Perceived knowledge of suicide
- Self-efficacy to help suicidal youth
- Suicide preventability attitudes

**Sample Composition:**

<table>
<thead>
<tr>
<th>Training Population</th>
<th>Participants Pre/Post</th>
<th>Participants 6 Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>5374 (56%)</td>
<td>279 (49%)</td>
</tr>
<tr>
<td>Child Welfare</td>
<td>1379 (14%)</td>
<td>117 (20%)</td>
</tr>
<tr>
<td>Juvenile Justice</td>
<td>953 (10%)</td>
<td>115 (20%)</td>
</tr>
<tr>
<td>Public Health Nurses</td>
<td>676 (7%)</td>
<td>63 (11%)</td>
</tr>
<tr>
<td>University Students</td>
<td>651 (7%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>University Staff</td>
<td>175 (2%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Resource Parents</td>
<td>179 (2%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Other</td>
<td>270 (3%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Total</td>
<td>9657 (100%)</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Perceived Knowledge:**
- Two item likert scale
  - Scores increased at post-test and decreased at six months
  - Pre-test/Posttest ES = 1.73
  - Pre-test/6-mo ES = 1.04

**Self-Efficacy:**
- Seven item likert scale
  - Scores increased at Post-test/
    decreased at six months for all groups
  - Pre-test/Post-test ES = 1.45
  - Pre-test/6-mo ES = .87

**Suicide Inevitability Attitudes:**
- Eight item likert scale
  - Scores decreased at post-test and increased at six months
  - Pre-test/Posttest ES = -.35
  - Pre-test/ 6-mo ES = -.21
Lesson Learned: Results Indicate Overall Program Effectiveness, but not All Training Populations Responded in Same Way to Training

Six Month Follow Up Questions about Helping Behaviors:
- “In the past six months, please estimate the number of youth who said things or showed behaviors that might indicate they were at risk for suicide.”
- “Of the youth you identified in the previous question, please estimate the number with whom you did the following:”
  - Talked with the young person and asked whether he/she was considering suicide
  - Talked with the young person and asked about his/her suicide plan
  - Spent some time listening to the young person about his/her problems
  - Tried to convinced the young person to seek help
  - Notified appropriate referral resources
  - Made sure the young person received help for his/her suicidal thoughts/intentions

Participants reported difficulty in answering these questions as worded and sought clarification from interviewers on how to respond.

Results Indicated that there were notable differences by Child Service Position in the Number of Youth “Identified”/Services Provided
Small Group Discussion 1:

What factors may contribute to observed differences between child service systems’ training outcome levels of:

- Perceived Knowledge of Suicide Prevention
- Self Efficacy to Prevent Suicide
- Suicide Inevitability Attitudes
- Number of Youth “Identified” as Suicidal/ Services Provided

What environmental differences might future gatekeeper training programs address in specific training populations to generate similar training outcomes across systems?
Study III: Qualitative Study of Gatekeeper Surveillance in Tennessee's Child Welfare System

- **Evaluation Purpose:**
  - Stemmed from Macro International’s national evaluation EIRF framework
  - Secondary purpose was to describe process of identifying youth at risk for suicide and connecting them to services

- **Qualitative Method of Data Collection:**
  - Collected Tennessee Department of Children's Services (DCS), Serious Incident Reports (SIRs)
  - Created a literature-based search strategy of keywords relating to suicide
  - 1,356 Records yielded (Jan. 2007 – Aug. 2008) were cleaned, de-identified and screened for suicidal features according to Posner et al. (2007) criteria

- **Qualitative Analysis Strategy:**
  - Random sample of 125 Suicide Incidents stratified by month over a 12 month period (April 1, 2007-March 31, 2008) selected for analysis
  - Constant Comparison Analysis (Glaser & Strauss, 1967) to identify central themes
  - Classical Content Analysis (Krippendorff, 2004) to determine relative frequencies (saturation) of themes
Lesson Learned: Process of Gatekeeper Helping Involves Multiple Stages in a Dynamic Process

(1) Early Identification
- Setting
- Source

Context of ID
- Signs of suicidality
- Plan disclosure
- Acting on plan
- Method

(2) Initial Helping Behaviors
- May involve multiple helpers
- Removal of immediate Means
- Therapeutic Hold
- Estimating Risk
- Safety Planning

(3) First Referral and Follow-up
- Mental Health Services
  - Place
  - Date
  - OR
- Non-Mental Health
  - Services & Support
  - Reason for no referral
- Accounts for multiple referrals
- BOTH mental health AND non-mental health captured
- Identifies gatekeeper responsible for each stage of referral

4. Subsequent Referrals and Continuing Care
- Ensuring safety
- Ongoing care management
- Identifies subsequent referrals and services stemming from initial referral
- Types of care received from referrals
Lesson Learned: Process of Gatekeeper Helping Involves Multiple Stages in a Dynamic Process

Original EIRF Continuum: One Gatekeeper, Linear Process

Youth displays suicidal behaviors…

Early ID Referral Follow-Up

Gatekeeper A

Emerging EIRF Continuum: Several Gatekeepers, Complex Process

Youth displays suicidal behaviors…

Early ID Initial Response Referral Follow-Up

Gatekeeper A (Foster Parent)

Gatekeeper B (ER Nurse)

Gatekeeper C (Mobile Crisis)
Lesson Learned: Process of Gatekeeper Helping Involves Multiple People in a Dynamic Process

- “Helping Network” defined by the number and type of persons/entities involved in providing Identification, Referral, and Follow-Up to a single youth

- “System” consists of all organizations in a general community who provide a primary service to the community (e.g. education, child welfare, mental health, physical health, juvenile justice)

- Levels of “Helping Networks” Coded:
  - Level 1: Individual Helper
  - Level 2: Organization
  - Level 3: Single System
  - Level 4: Multi-System Community
Lesson Learned: Process of Gatekeeper Helping Involves Multiple People in a Dynamic Process

<table>
<thead>
<tr>
<th>Highest Level of Gatekeeper Helping Stage Received</th>
<th>Frequency (N=120)</th>
<th>Percent</th>
<th>Typical Number of Systems Involved</th>
<th>Typical Composition of Helping Network</th>
<th>Average Number of Helping Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification</td>
<td>1</td>
<td>1%</td>
<td>1</td>
<td>Organization</td>
<td>1</td>
</tr>
<tr>
<td>Initial Helping</td>
<td>21</td>
<td>18%</td>
<td>1</td>
<td>Organization</td>
<td>4</td>
</tr>
<tr>
<td>First Formal Referral</td>
<td>37</td>
<td>31%</td>
<td>2</td>
<td>Multi-System Community</td>
<td>7</td>
</tr>
<tr>
<td>Subsequent Referrals/Continuing Care</td>
<td>61</td>
<td>51%</td>
<td>3</td>
<td>Multi-System Community</td>
<td>9</td>
</tr>
</tbody>
</table>
Original Conceptualization of TLC Program Outcomes
Emphasized Gatekeepers Acting INDEPENDENTLY to Identify and Help Youth at Risk for Suicide

Input: GK Trained as Individuals

Intermediate Training Outcomes: Individuals increase in Perceived Knowledge, Self-Efficacy, Suicide Preventability Attitudes

Long-Term Training Outcomes: Individuals identify and intervene with increased number of suicidal youth

Diagram Key:
- EIRF Network
- Youth

TLC Trainer

Individualized Training

Staff Psychologist

Case Manager Supervisor

Case Manager

Food Service Worker

Referral to Community Resources
Emerging Conceptualization TLC Program Outcomes
Emphasized Gatekeepers Acting INTERDEPENDENTLY to Identify and Help Youth at Risk for Suicide

Systemic Logic Model:

Input:
GK Trained as Individuals and System

Intermediate Training Outcomes:
1) INDIVIDUALS increase in Perceived Knowledge, Self-Efficacy, Suicide Preventability Attitudes;
2) SYSTEM Increases understanding of interactions which promote successful interventions and how to overcome barriers

Long-Term Training Outcomes:
Individuals AND systems identify/intervene with increased number of suicidal youth

Diagram Key:

System Network
Helping Network
Youth
System Barrier
Small Group Discussion 2:

- How might knowledge of “System-Level” gatekeeper helping interventions be incorporated in current/future gatekeeper training PROGRAMS? What factors should be considered?

- How might knowledge of “System-Level” gatekeeper helping interventions be incorporated in current/future gatekeeper training EVALUATIONS? What factors should be considered?
Part II:

TLC-JJ (Cohort IV) Program
Strategies for Addressing Systemic Gatekeeper Helping
The Problem: Youth Suicide Nationally

- Youth suicide in the general population has been identified as a significant public health problem.

- 34,688 youth suicide deaths from 1999-2006 equaling a rate of 7.05 per 100,000.

- 13.8% of all suicide deaths from 1999-2006 were among young people.

- Suicide rate of young people tripled from 2.7 per 100,000 in 1950 to 9.9 per 100,000 in 2001.

- Suicide rate of young people was 7.01 per 100,000 in 2006.

Sources: Arias et al., 2003
CDC WISQARS™
Hayes, 2009
Did You Know?  
More from the NCIA Survey …

More than two-thirds (69.6 %) of victims had a history of suicidal behavior
  – Suicide attempt(s) -- 45.5 %
  – Suicidal ideation/threat -- 30.9 %
  – Suicidal gesture/self-mutilation -- 23.6 %

Half (50.6 %) of suicides occurred between 6 p.m. and midnight
  – 29.1 % occurred between 6 and 9 p.m.
  – 70.9 % occurred during waking hours: 6 a.m. to 9 p.m.
  – 29.1 % occurred during non-waking hours: 9 p.m. to 6 a.m.

Source: Hayes, 2009
Juvenile suicide in confinement has received little attention.

- Caucasian youth held in detention attempted suicide at a rate approximately 3.5 times that of African American youth.

- At confinement, 39% of those who died by suicide had a second charge. 79% had prior offenses.

- Via surveys an NCIA study identified 110 juvenile suicides occurring between 1995 and 1999 across 38 states.
  - 79 cases that had complete survey information.
    - 42 percent (33 cases) occurred in training schools and other secure facilities
    - 37 percent (29 cases) in detention centers
    - 15 percent (12 cases) in residential treatment centers
    - 6 percent (5 cases) in reception or diagnostic centers

- Granted, 67 percent of private facilities queried, did not respond to survey requests.

- Many more attributes considered – demographics, length of confinement, medical history, abuse history, date, time, location of death, family characteristics, etc.

Source: Hayes, 2009
What might you do to develop a customized curriculum?

We …
Planned TLC-JJ Program Activities

- 650 JJ staff will receive ASIST gatekeeper training
- 4100 community contacts will receive basic gatekeeper training, specifically including:
  - 100 university faculty and 1,000 students or student leaders also training in lethality assessment (QPR)
  - 500 youth in community placement obtaining peer suicide awareness training (Jason Foundation’s Promise for Tomorrow)
- Partner with TLC-JJ taskforce members/ state and national partners to develop customized gatekeeper training curriculum for staff working with JJ youth
Consistent with national correctional standards and practices, all juvenile facilities, regardless of size and type, should have a detailed written suicide prevention policy that addresses each of the following critical components:

- Training
- Identification/Screening
- Communication
- Housing
- Levels of Supervision
- Intervention
- Reporting
- Follow-up/Mortality Review

Source: Hayes, 2009
TLC-JJ Curriculum Development: Recommendations from NCIA

- 8 hours of initial training for all facility staff (i.e. direct care, mental health, and medical personnel), including discussion on:
  - why the facility environment may be conducive to suicidal behavior
  - predisposing factors for juveniles in confinement
  - warning signs
  - high risk periods
  - components of the facility’s suicide prevention protocol
  - any recent suicidal behavior in the facility

- 2 hours of refresher training annually, to include:
  - review of the items discussed in the initial training
  - any changes to the facility’s suicide prevention protocol

- Training in using any emergency equipment maintained by the facility, including the location of rescue tools

- CPR training for all staff who have regular contact with confined youth

Wootten, personal communication
The Council of Juvenile Correctional Administrators produced a report for SPRC on improving suicide prevention training for directors and direct care staff in juvenile correctional facilities. For direct care staff training, the report:

- Provides an outline for staff training that includes an explanation of state policies and protocols, forms documenting youths’ behavior, different levels of supervision for at-risk youth, and different responsibilities among qualified mental health professionals and corrections staff.

- Recommends that staff training address:
  - appropriate/inappropriate attitudes about suicide prevention,
  - suicidal behaviors among youth,
  - juvenile correctional environments as facilitators of suicidal behavior,
  - potential risk factors to suicide,
  - identification of high-risk suicide behaviors,
  - warning signs,
  - components of the facility’s suicide prevention policy,
  - liability issues associated with juvenile suicide, and

Source: Hayes, 1999; 2001; 2004 & 2009 Wootten, personal communication
TLC-JJ Curriculum Development: Recommendations from TLC Cohort I Evaluation Team

- Cultivation of awareness of work role within system protocol for identifying and helping youth at risk for suicide
- Customized portions for direct care vs. management level staff (work role)
- Strategies for effective communication/interaction among system members
- Strategies for recognizing and overcoming system barriers for helping suicidal youth
- Developing interagency protocol/agreements for helping suicidal youth
- Group (Systemic) Role Play
Part III:

TLC-JJ (Cohort IV) Evaluation
Strategies for Addressing
Systemic Gatekeeper Helping
TLC-JJ EVALUATION TEAM HAS EXPAND EVALUATION DESIGN FOR CAPTURING INDIVIDUAL AND SYSTEM LEVEL CHANGE

• QPR Gatekeeper Training:
  • Quantitative: Pretest/Posttest to Pilot New Measures of GK Helping Behavior
  • Qualitative: Semi-Structured Interviews to Learn IF/What/How to Tailor GK Trainings to Multiple Child Service Systems

• ASIST Gatekeeper Training:
  • Quantitative: Pretest/Posttest/ 6 Month Follow-Up Measures with New Measures of GK Helping Behavior
  • Qualitative: Focus Group Interviews to Learn IF/What/How to Tailor GK Trainings to Multiple Child Service Systems
  • Mixed Methods Hybrid: Interrupted Time Series Design with Serious Incident Report Data
  • Will Conduct Pilot Evaluation TLC-JJ Enhanced Curriculum if possible
TLC-JJ Evaluation Team is re-defining Unit of Analysis/ Measures of Gatekeeper Helping Behaviors for Local Evaluation

**TLC Measurement Model:**
- Goal: Measure Individual gatekeeper helping behaviors provided to suicidal youth
- Measurement Assumption: Individual gatekeepers responsible for helping suicidal youth through all stages of intervention model
- Measurement Tool:
  1. Knowledge of Individual helping behaviors provided to suicidal youth “identified”

**TLC-JJ Measurement Model:**
- Goal: Measure Individual AND Systemic helping behaviors provided to suicidal youth
- Measurement Assumption: Individual gatekeepers responsible for helping suicidal youth according to work role, and following up with others in the system to assure progress
- Measurement Tools:
  1. Gatekeeper perception of work role responsibilities in the system
  2. Knowledge of individual helping behaviors provided to suicidal youth “encountered”
  3. Knowledge of system level helping behaviors provided to suicidal youth “encountered”
  4. Interrupted Time Series Design
So, let’s take a few minutes, group up, and consider how you might do this with a specific population of importance to your group…
“Analysis finally makes clear what would have been most important to study, if only we had known beforehand. Evaluation reports finally make clear to decision makers what they had really wanted to know, but couldn’t articulate at the time.”

Cited in Qualitative Research and Evaluation Methods (Patton, 2002)
The Tennessee Lives Count Juvenile Justice Project (TLC/JJ) and this presentation was developed under a grant (#2U79SM057400-04) from the Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (HHS). The views, policies, and opinions expressed are those of the authors and do not necessarily reflect those of SAMHSA or HHS.

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