The High School Transition Study
University of Washington & Seattle Children's Hospital & Seattle Public Schools

High School Transition Study: Team
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- Intervention Specialists, Clinical Evaluators, Screeners

Background and Overview
What is HSTS all about????
Test an evidenced based Preventive Intervention to see if we can reduce risk of
- Depression
- School Problems
- Drug Use
as "at-risk" 8th graders transition into high school

Background and Overview
Why the focus on Depression?

Scope of the Problem
- World Health Organization
  - Unipolar depression leading cause of disability worldwide in 15-44 year age range
- Depressive Disorders
  - Population studies:
    - Children--1 yr prevalence 2%
    - Adolescents--1 yr prevalence 4% to 7%
  Lifetime prevalence (up to age 18) of 15% to 20% among adolescents
  - 65% of adolescents report some depressive symptoms

Scope of the Problem
- WA State--Mental Illness reason for 1 in 5 hospitalizations among adolescents 15-19 yrs. of age (1999)
- 15% of adolescents w MH admits + for substance use
FR: The State of Washington's Children's, Fall-2001
Background and Overview

- Stress-Diathesis Model of Depression
  - Vulnerability of Early Adolescents = Diathesis
  - Biological, Social and Cognitive changes
  - Transition to high school = stressor
- Transition to high school is associated with declines in school performance and increased depression and behavioral problems.
- Early intervention designed to support and strengthen the skills of vulnerable students may increase chances of a successful start in high school.

The High School Transition Study uses a randomized controlled design to evaluate a skills-based program for at-risk 8th grade students:
- Coping and Support Training (CAST)
- Students are followed from middle of 8th grade through the end of their 9th grade year.
- Currently, finishing intervention for first cohort and recruiting new cohort of 8th grade students. Two additional cohorts will follow.

CAST Model

- Coping and Support Training (CAST) was developed at the UW School of Nursing for use with at-risk high school students (Eggert & Nicholas)
- CAST is a brief, preventive intervention with three main goals: Improving School Performance, Mood Management (depression/aggression/suicide risk) & Drug Use Control
- CAST uses a peer group approach to building personal competencies and social resources for vulnerable youth.

Why CAST?

- 416 at risk high school students
- Risk determined by school records (attendance, credits, grades, referrals from school personnel)
- Students randomly assigned to CAST or “usual care”.
- Findings:
  - Significant decreasing linear trends in depression and suicide risk for both
  - Group x time interaction- significantly greater reductions in depression for youth participating in the CAST preventive intervention over all times whereas the effects of usual care leveled off
  - 62% reduction in hard drug use, 16% reduction in alcohol use

CAST intervention was also superior in enhancing:
- self-esteem ($F_{1,281} = 8.59, p < .01$),
- personal control ($F_{1,281} = 4.88, p < .05$),
- problem-solving coping ($F_{1,281} = 13.18, p < .001$),
- family support ($F_{1,281} = 5.17, p < .001$)

These are posited mediating factors of depression and are targeted directly in the CAST skills training.
Evidence of CAST Efficacy

**Graphs showing evidence of CAST efficacy for Depression, Personal Control, and Problem-solving Coping.**

Prevention Spectrum

**Increasing Specificity of Prevention Interventions**

- **Universal General Public**
- **Selective Targeted Risk Groups**
- **Indicated Targeted High-Risk Individuals**

- **Solid Protective Factors**
- **Few Risk Factors**
- **Early Warning**
- **Related Risk Factors**
- **Weak Protective Factors**

HSTS Model

**“At-risk” in Middle School Successful in High School**

- **Antecedent Factors**
  - Self-esteem
  - Personal Control
  - Level of Stress
  - Problem-solving Coping
  - Prior Levels of Outcomes (Depression, School Performance, Substance Use)

- **CAST in 8th Grade**
- **Enhanced by**
  - Booster Sessions and Case Management for Students in 9th grade
  - Parent Sessions—8th and 9th grades

CAST Group Structure and Content

- **Goals**—Increasing school performance, mood management, drug use control
- **Skills based curriculum**
  - 12, 1-hour sessions over six week period
  - Welcome Session; A Graduation Celebration
  - 10 skills training sessions

- **Increasing Social Support**—teacher, family, peer
- **6-7 students per group**
- **Conducted twice weekly by specially selected and trained group leaders**

CAST Content

- **Skills**
  - Self-esteem enhancement
  - Decision-making
  - Personal control (anger, depression, stress management)
  - Interpersonal communication
- **Applied to**
  - School Smarts
  - Mood Management #1 and #2
  - Drug Use Control

High School Transition Study: (HSTS/CAST)

- **Target 8th grade students at risk for depression as they transition to high school**
- **Goals**—Increased Mood Management, School Smarts and Drug Use Control
- **Components**
  - Evidenced based CAST in 8th grade
  - Enhanced by:
    - Booster Sessions and Case Management for Students in 9th grade
    - Parent Sessions—8th and 9th grades
HSTS 9th Grade Intervention

- Following skills group in 8th grade, group leaders met individually with each member from group 4 times during fall and winter of 9th grade.
- Boosters designed to reinforce skills from 8th grade, and tailor them to student’s current challenges as well as provide ongoing support.

CAST-T Boosters

- Boosters:
  1. Getting Started in High School
  2. Staying Positive Under Pressure
  3. Monitoring school performance, Taking control of your moods
  4. Staying on Track
  5. Getting through end of semester, starting out strong 2nd semester
  6. Relapse Prevention

CAST-T Parent Intervention

- Parents met one-on-one with a parent leader: twice in spring of 8th grade, twice in fall of 9th grade.
  1. Getting Acquainted and Monitoring Support
  2. Communicating with Support
  3. Taking the Pulse of teen’s transition to HS
  4. Staying on Track—School success

How to identify kids at-risk for depression?

- Parental History
- Life Stress
- School Performance
- Signs and Symptoms of Depression

BUT HSTS/CAST is a...

- School based, prevention study
- School performance
- Signs of distress

School GPA and Depression

- Hemmingsen et al., 1997
- Total Depression Score (MFQ)

Procedures: Identifying kids at-risk for depression

- HSTS/CAST screening tools:
  - Moods and Feelings Questionnaire (MFQ: Angold et al., 1995)
  - Youth Self Report (Achenbach, 1991)

Only students with high MFQ scores (>15) and low YSR scores (< 18) were invited to Part 2 (randomization to HSTS/CAST or school as usual).
Procedures: Clinical Evaluations

- Before invitation to Part 2, one-on-one follow-up interviews were conducted with every student who scored in the top 30-40% on screen (indicating more distress)
- Clinical evaluators utilized a standardized interview that addressed impairment: mood and disruptive behavior and protective factors: social support and personal control
- Clinical evaluators work with parents and school counselors to provide any needed referrals or additional resources (e.g., tutoring, mental health referrals, after school activities).

Procedures: Assessment

- Students complete 5 questionnaires: Baseline, end of 8th, beg, middle and end of 9th grade
- Parents complete three questionnaires: Baseline, end of 8th, middle of 9th (at completion of intervention)
- Teachers also are asked to complete a TRF for students. Each student nominates the teacher who knows them best in 8th and in 9th

Cohort 1:

- 493 8th grade students were screened last spring in 3 Seattle middle schools
- 174 received a follow-up clinical evaluation.
- 51 of the 174 students were connected to other services (e.g., tutor, after school program, mental health referrals).
- 88 students and their parents participated in the second part of the study: 44 in the skills group, 44 in the school as usual condition

Cohort 1: Description

<table>
<thead>
<tr>
<th></th>
<th>Screened</th>
<th>Part 2</th>
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<tbody>
<tr>
<td>Male</td>
<td>48.3%</td>
<td>31.8%</td>
</tr>
<tr>
<td>Female</td>
<td>51.7%</td>
<td>68.2%</td>
</tr>
<tr>
<td>White</td>
<td>55.6%</td>
<td>56.8%</td>
</tr>
<tr>
<td>Black</td>
<td>18.9%</td>
<td>20.5%</td>
</tr>
<tr>
<td>Asian</td>
<td>20.1%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Native Am.</td>
<td>5.3%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8.1%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Other</td>
<td>0.6%</td>
<td>1.1%</td>
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Preliminary Results

Mood based on Moods and Feelings Questionnaire (higher scores indicate more distress):

<table>
<thead>
<tr>
<th>MFQ Means (SD)</th>
<th>Control</th>
<th>Intervention</th>
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<tbody>
<tr>
<td>Baseline**</td>
<td>9.04 (5.74)</td>
<td>8.53 (5.23)</td>
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<tr>
<td>End of 8th</td>
<td>7.07 (4.83)</td>
<td>7.68 (4.92)</td>
</tr>
<tr>
<td>Beg. of 9th</td>
<td>6.09 (5.52)</td>
<td>6.89 (6.51)</td>
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** Baseline scores based on brief MFQ with 13 items and 11 as clinical cutoff, versus longer MFQ used in screen with 15 as our cutoff for "distress"

Preliminary Results

Percentage of students who had tried following:

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<thead>
<tr>
<th>Smoking % tried</th>
<th>Intervention</th>
<th>Control</th>
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<tbody>
<tr>
<td>Baseline</td>
<td>19.0</td>
<td>23.3</td>
</tr>
<tr>
<td>End of 8th</td>
<td>23.3 (N = 44)</td>
<td>20.9 (N = 44)</td>
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<tr>
<td>Beg. of 9th</td>
<td>30.2</td>
<td>31.0</td>
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<table>
<thead>
<tr>
<th>Drink % tried</th>
<th>Intervention</th>
<th>Control</th>
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</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>35.7</td>
<td>57.1</td>
</tr>
<tr>
<td>End of 8th</td>
<td>42.9</td>
<td>46.5</td>
</tr>
<tr>
<td>Beg. of 9th</td>
<td>44.2</td>
<td>46.5</td>
</tr>
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<table>
<thead>
<tr>
<th>Marijuana % tried</th>
<th>Intervention</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>27.9</td>
<td>31.0</td>
</tr>
<tr>
<td>End of 8th</td>
<td>30.2</td>
<td>30.2</td>
</tr>
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Summary: Preliminary Thoughts

- Feasible
- Acceptable to 8th/9th graders and their parents
- Things people like:
  - Schools: Screening, rotation of pull outs, FU in 9th
  - Students: Being "asked", "stuff", individual FU
  - Parents: Home visits, chance to talk about their teen, focus on school performance
  - HSTS folks: Clinical evals, chance to follow indiv, parent and child feedback, curriculum!
- Efficacy – Too soon to tell........