A Cause for Hope: Reflections on 25 years of Prevention Science

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Five Key Reflections

1. Science behind Prevention
2. School and Community Interventions to promote youth development
3. What we’ve learned about the brain and impact on teaching
4. How social emotional competence enhances academics
5. Challenges for moving forward
Tested drug abuse approaches were largely ineffective (Elmquist, 1995; Hanson, 1992; Moskowitz, 1989).

Drug information programs increased drug use in some studies (Tobler, 1986).

Before 1980, nine experimental tests of delinquency prevention programs were conducted in the U.S. — NONE found desired effects in preventing delinquency. (Berleman, 1980)
Public Health Approach

1. Define the Problem
2. Identify Risk and Protective Factors
3. Interventions
4. Program Implementation and Evaluation
Risk factors exist in different environments:

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Community</th>
<th>Substance Abuse</th>
<th>Delinquency</th>
<th>Teen Pregnancy</th>
<th>School Drop-Out</th>
<th>Depression &amp; Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Initiation of the Use of Drugs</td>
<td>✔</td>
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<tr>
<td>Extreme Economic Deprivation</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Neighborhood Attachment and Community Disorganization</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transitions and Mobility</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media Portrayals of Violence</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Laws and Norms Favorable Toward Drug Use, Firearms, and Crime</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of Firearms</td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of Drugs</td>
<td></td>
<td>✔</td>
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<td></td>
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<tr>
<td>Individual/Peer</td>
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<tr>
<td>Constitutional Factors</td>
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</tr>
</tbody>
</table>
Social Development Strategy

Healthy Behaviors

Family
School
Community
Individual/Peer

1. Opportunities
2. Recognition
3. Clear Standards
4. Guidelines
5. Healthy Beliefs

Individual Characteristics

Roots
We have made progress!

Trends are moving in the right direction for many key outcomes....
Feeling Unsafe at School

Teen Pregnancy has fallen rate per 1,000

Childtrends 2011
Birth Control and Condom Use are UP

- **Condom Use**
  - 1995 49%
  - 2009 61%

- **Birth control Pills**
  - 1995 17%
  - 2009 20%

*Childtrends, 2010*
Juvenile Violent Crime Arrests, Ages 10-24
Then (1995): 851 arrests/100,000
Now (2009): 521 arrests/100,000

Juvenile Homicide Rates
Then (1991): 15.6 homicides/100,000
Now (2005): 9 homicides/100,000
Youth Suicide

Youth suicide rates have decline nearly 30% since 1994

However...

It is still an enormous problem:

• Each day, there are approximately 11.3 youth suicides

• Suicide ranked as the third leading cause of death for young people (ages 15-19 and 15-24)

(American Association of Suicidology)
## Job satisfaction

<table>
<thead>
<tr>
<th>Agreed:</th>
<th>1984</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>They love to teach</td>
<td>78%</td>
<td>82%</td>
</tr>
<tr>
<td>Usually recognized for good performance</td>
<td>33%</td>
<td>48%</td>
</tr>
<tr>
<td>Feel respected in today’s society</td>
<td>47%</td>
<td>66%</td>
</tr>
<tr>
<td>Would advise a young person to pursue a career in teaching</td>
<td>45%</td>
<td>75%</td>
</tr>
<tr>
<td>The training and preparation teachers receive today does a good job of preparing them for the classroom</td>
<td>46%</td>
<td>67%</td>
</tr>
<tr>
<td>Academic standards in their school are excellent</td>
<td>26%</td>
<td>53%</td>
</tr>
</tbody>
</table>

MetLife survey of teachers and students 2009/ 2008
Public Health Approach

Define the Problem

Identify Risk and Protective Factors

Interventions

Program Implementation and Evaluation

Problem

Response
Five Key Reflections

School and Community Interventions to promote youth development
Investigators:
J. David Hawkins, Ph.D.
Richard F. Catalano, Ph.D.
Kevin Haggerty, MSW, Ph.D.
Richard Kosterman, Ph.D.
Karl G. Hill, Ph.D.
Robert Abbott, Ph.D.

Funded by:
National Institute on Drug Abuse,
National Institute on Mental Health,
Office of Juvenile Justice and Delinquency Prevention,
Robert Wood Johnson Foundation
Effects of SSDP Intervention on School Bonding from Age 13 to 18

Seattle Social Development Project Effects at Age 12: California Achievement Test Scores

- Reading: Control 517, Late 529, Full 529
- Language: Control 546, Late 556, Full 562*
- Math: Control 507, Late 518*, Full 522*
- Average: Control 523, Late 534*, Full 537*

*p<.05 compared with controls; N = 548 to 551.
SSDP Intervention Effects Compared to Controls: Less Grade Repetition

At age 18

Hawkins, et al. (1999)
SSDP Intervention Effects Compared to Controls: More High School Graduates

Hawkins, et al. (2005)

At age 21

- Control: 81%
- Full: 91%

Bar chart showing a comparison between the intervention and control groups, with the intervention group having a higher percentage of high school graduates at age 21.
SSDP: Proportion in 3 Conditions Who Met Criteria for GAD, social phobia, MDE, or PTSD diagnosis at ages 24 and 27.

Hawkins, et al. (2009)
<table>
<thead>
<tr>
<th>Program</th>
<th>Benefits</th>
<th>Costs</th>
<th>B - C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Childhood Education</td>
<td>$17,202</td>
<td>$7,301</td>
<td>$9,901</td>
</tr>
<tr>
<td>Nurse Family Partnership</td>
<td>$26,298</td>
<td>$9,118</td>
<td>$17,180</td>
</tr>
<tr>
<td>Life Skills Training</td>
<td>$746</td>
<td>$29</td>
<td>$717</td>
</tr>
<tr>
<td>Seattle Social Dev. Project</td>
<td>$14,246</td>
<td>$4,590</td>
<td>$9,837</td>
</tr>
<tr>
<td>Guiding Good Choices</td>
<td>$7,605</td>
<td>$687</td>
<td>$6,918</td>
</tr>
<tr>
<td>Multi-D Treat. Foster Care</td>
<td>$26,748</td>
<td>$2,459</td>
<td>$24,290</td>
</tr>
<tr>
<td>D.A.R.E.</td>
<td>$0</td>
<td>$99</td>
<td>-$99</td>
</tr>
<tr>
<td>Intensive Juv. Supervision</td>
<td>$0</td>
<td>1,482</td>
<td>-$1,482</td>
</tr>
</tbody>
</table>

A Continuing Problem...

Total Public Spending on Prevention and Early Intervention Programs

1. Effective evidence-based programs

2. Unevaluated programs

3. Ineffective E-B programs
The Communities That Care Operating System

Get Started

Implement and Evaluate

Get Organized

Create a Plan

Develop a Profile

Available at http://communitiesthatcare.net
Effects of CTC on Onset of Drug Use and Delinquency

- **Onset** of substance use and delinquency between grade 6 and 10:
  - Alcohol use—Odds—38% lower
  - Cigarette smoking—Odds—48% lower
  - Delinquent behavior—Odds—21% lower
  - Smokeless tobacco use (NS)
  - Marijuana use (NS)
  - Other illicit drug use (NS)

- Among 5th grade students who had not yet initiated.

Summary of Significant Findings compared to control communities:

↑ collaboration

↑ adoption of tested and effective programs

↑ High quality implementation

↓ targeted risk factors

↓ growth in community level delinquency and onset of drug use

Investment in Communities That Care Pays Off


Future Savings ($2004)

Reduced
- Initiation of Delinquency
- Initiation of Smoking

A Future Guided by Prevention Science

- Community owned and operated
- **Data Driven**: Ongoing monitoring of risk and protective factors
- **Evidence Based**: adoption of effective programs
  - Evaluations of unproven programs are required and supported.
- **Outcome Focused**: reductions in community levels of adolescent risk taking behavior
Five Key Reflections

What we’ve learned about the brain and impact on teaching
Persistent Stress Changes Brain Architecture

Normal

Typical neuron—many connections

Toxic stress

Prefrontal Cortex and Hippocampus

Damaged neuron—fewer connections

Sources: Radley et al. (2004) Bock et al. (2005)
BRAIN DEVELOPMENT

Teens MORE likely to:
- Use creativity part of brain
- Go with gut reaction

Teens brains LESS likely to use:
- Critical thinking
- Mature judgment

Teachers and counselors need to coach critical thinking

Gordon & McCain, 2001
Louisiana State University Health Sciences Center

Teens (left) used less of the prefrontal (upper) region than adults (right) when reading emotion.
Brain Activity:
Big in early childhood and teen years

- Physical
  - Basic physical needs
  - How to Learn
  - Managed by others

- Mental
  - Social Emotional Skills
  - Complex relationship skills
  - Self Management Skills
Five Key Reflections

4 How social emotional competence enhances academics
The Effects of Social and Emotional Learning in Grades K - 12

Collaboration for Academic and Social Emotional Learning (CASEL)

CASEL.org

Social Emotional Learning Key Findings

Social emotional learning affects a broad range of outcomes including academic achievement.

Teachers are effective program deliverers.

Students of different ages, ethnicities and socioeconomic backgrounds in urban, suburban and rural settings benefit.
### Does SEL programming in schools positively affect students?

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Percentile Improvement</th>
<th>Significant Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social-emotional skills</td>
<td>23</td>
<td>✓</td>
</tr>
<tr>
<td>Attitudes</td>
<td>9</td>
<td>✓</td>
</tr>
<tr>
<td>Positive social behavior</td>
<td>9</td>
<td>✓</td>
</tr>
<tr>
<td>Conduct problems</td>
<td>9</td>
<td>✓</td>
</tr>
<tr>
<td>Emotional distress</td>
<td>10</td>
<td>✓</td>
</tr>
<tr>
<td>Academic performance</td>
<td>11</td>
<td>✓</td>
</tr>
<tr>
<td>Social-emotional skill</td>
<td>Teacher</td>
<td>Non-School Personnel</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Attitudes</td>
<td>✔️</td>
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</table>
Future Challenges

- Self care—
- Motivating students—
- Autism, Asthma, Addictions
- Doing more with less—
- Relevance—Opportunity Youth--
Student Success Skills

**Curriculum Activities and School Support**

**Educational Success**
1. Organization/time management
2. Study Skills
3. Self-Advocacy
4. Goal Setting
5. Educational Planning

**Interpersonal Skills**
1. Problem Solving/Conflict Management
2. Empathy/Compassion
3. Effective Group Skills
4. Social Belonging

**Knowledge of Self**
1. Self-Efficacy
2. Personal Identity
3. Citizenship

**Self-Management**
1. Self-Control
2. Stress-Management
3. Decision Making
4. Persistence
Middle School Student Success Skills

- Academic Success
- Safe and Secure
- Positively Involved
- Socially Skilled

- Education Success Skills
- Self Management
- Interpersonal Skills
- Knowledge of Self

1. Organization/time management
2. Study Skills
3. Self-Advocacy
4. Goal Setting
5. Education Planning

1. Self Control
2. Stress Mgt.
3. Decision making
4. Persistence

1. Problem Solving/Conflict Mgt.
2. Empathy/compassion
3. Effective Group Skills

1. Self-efficacy
2. Personal Identity
3. Citizenship

High School Graduation

Life and Career Ready

Foundational System Level Support
- Caring Relationships
- High Expectations
- Opportunities to participate and contribute in positive ways
- Family Involvement
There is Hope....
Five Key Reflections

1. Increase in evidence based interventions
2. Community support works to promote youth development
3. What we’ve learned about brain development and impact on teaching
4. How social emotional competence can enhance academics
5. Teacher job satisfaction