SCHOOL and COMMUNITY-BASED PREVENTATIVE APPROACHES: “TOP DOWN” and “BOTTOM-UP” INTERVENTIONS

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The Melissa Institute 17th Annual Conference-
Preventative Interventions With Children, Adolescents
And Their Families
PREVENTATIVE INTERVENTIONS: AN OVERVIEW and CRITICAL QUESTIONS

Donald Meichenbaum, Ph.D.

1. Incidence and Impact of Poverty: Evidence of a Widening Gap

2. Accompanying Impact of Poverty and Stressors

3. Adverse Childhood Experiences (ACE) Study

4. CRITICAL QUESTIONS

   a. How to reduce risk factors and bolster protective factors?

   b. What should be the student population and what level of intervention (Universal, Selected, Indicated)?

   c. How to incorporate school mental health programs?

   d. What are dangers in early identification?

   e. How to increase the generalizability and sustainability of intervention programs? What is the role of the Principal?

   f. Should interventions be TOP DOWN or BOTTOM UP?

   g. What are the financial benefits for preventative effects?
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1. The challenge

2. Characteristics of “Resilient” Students: Goals of Interventions
   a. Behavioral and emotional self-regulation
   b. Cognitive and metacognitive development
   c. Prosocial behaviors
   d. Social supports and community resources

3. “TOP DOWN” Interventions
   a. School-based interventions
   b. School Mental Health Programs
   c. Family-based Interventions
   d. Community-based Interventions
   e. Technology-based Interventions

4. How to Foster Generalization and SUSTAINABILITY

5. “BOTTOM UP” Interventions
   a. Antecedent-based Interventions
   b. Consequating Desired Behaviors
   c. Change Behavioral Routines, Scripts and Mindsets

How can the adverse effects of persistent poverty and all the stressors that accompany such exposure be overcome? How can the “vicious cycle” of poverty be broken? As Joseph Stiglitz, the Nobel Laureate and author of “The price of inequality” observes:

“The upward mobile American is becoming a statistical oddity. Today,
the U.S. has less equality of opportunity than almost any other industrial country.”

While addressing the negative impact of poverty is a complex problem, in this presentation I will focus on what role schools and community-based interventions can play. Two preventative approaches will be highlighted, namely, “TOP DOWN” that employs evidence-based programs that have been implemented successfully across the full developmental cycle. The second approach is to use a “BOTTOM UP” intervention strategy that is designed to imbue the entire school environment with behavior influence procedures in order to create a “safe, inviting and educationally stimulating” environment.

Additional examples of possible preventative interventions can be found on the Melissa Institute Website www.melissainstitute.org, under the heading Conferences (left side of the Home Page). See especially, the handouts for the 9th, 15th and 16th conferences. Also, see the Reference Section and Website addresses at the end of this handout.

Before we examine these two forms of prevention interventions, let us first consider what the research literature indicates are the key assets that contribute to resilience in such “high risk” students and that helps them endure and overcome such adversities. A number of authors have enumerated the characteristics of resilient students (Buckner et al., 2009; Buckner & Waters, 2011; Farahmand et al. 2011, 2012; Kumankiko & Trier, 2006; Lopez et al. 2012; Masten et al. 2011; Meichenbaum, 2012; Stack, 1974; Tough, 2012). As enumerated in Table 1, these attributes include the development of behavioral and emotional self-regulation skills, and the fostering of cognitive and metacognitive executive skills, and prosocial competence. These skill areas need to be supported by school, family, and community resources.

Teachers are likely to identify “resilient” students as having the following characteristics and “resilient” adolescent students are likely to endorse the following statements:

“I am eager to explore new things.”

“I finish whatever I begin.”

“I think that putting out effort will improve my chances of success.”

“I am aware of other people’s feelings.”

“I try to help other people if their feelings have been hurt.”

“I think it is important to help.”

“I treat others with respect.”

“I think about my future. I believe I will graduate high school and even graduate college. I will have caring relationships (a family) and a job that pays well.”
A consideration of these characteristics challenges educators as to what they can do to help develop “thriving” students. What “TOP DOWN” and “BOTTOM UP” preventative interactions can be implemented to nurture these attributes?

“TOP DOWN” PREVENTATIVE INTERVENTIONS

As noted, “TOP DOWN” interventions derive from research-based programs that disseminate evidence-based treatment manuals and guidelines. These intervention programs may be:

(1) Universal that focus on the entire population (primary prevention and school-wide) and not based on identified risk strategies;

(2) Selected preventative secondary interventions that focus on a higher than average risk population, such as students who evidence a disruptive behavior disorder, or a mental disorder, or who are at risk for academic failure;

(3) Indicated preventative interventions that seek to help high-risk students who exhibit measureable behaviors, symptoms, and adjustment difficulties signaling the onset of a high-risk developmental trajectory. This tertiary form of prevention may warrant “wrap-around” services that require multiple resources. Shinn and Walker (2012) provide a detailed description of this Three Tier Model intervention strategy.

What role should schools play in the maintenance of the socio-emotional well-being of students since there is a dynamic interplay between student’s emotional well-being and their academic success?

A number of researchers have addressed this question (see Adelman & Taylor, 2012; Durlack et al. 2012; Farahmand et al. 2011; Rones & Hoagwood, 2000; Shinn & Walker, 2010; Tough, 2012). As these authors highlight, there are several intervention options that include child only, child plus family, family only, in school, after school programs, coordinated interventions with mental health professionals following early identification programs.

How can school personal conduct a Needs Assessment in order to choose from the following list of intervention alternatives? Examine the list of illustrative intervention programs enumerated in Table 2 that have been implemented in schools, with families, and in communities. These illustrative programs cover the full range of populations from prenatal care in pregnant teenage students, through school readiness programs, and middle school bully-reduction programs, all the way to college preparation courses. The systemic and collaborative implementation of such programs could help “high risk” students and families break the vicious cycle of poverty and increase their likelihood of “beating the odds.”

When considering these school-based mental health interventions, a caveat is warranted. The most successful prevention programs have relatively modest deterrent effects, approximately a 15% to 25% reduction in the onset of problematic behaviors such as anxiety, depression, and disruptive behavior problems. Effect sizes (ES) are a modest .30. These effects tend to dissipate over a 12 month period. Selected interventions tend to be more effective than school-wide Universal-based interventions. Relatively brief universal intervention programs are insufficient to yield long-term lasting effects. There is a need to build into any prevention program, treatment
guidelines to facilitate the generalization and maintenance of the training effects. One cannot “train and hope” for generalization or transfer, but rather, interventionists need to include a set of procedures designed to increase the likelihood of generalization and maintenance, as outlined in Table 3.

A “BOTTOM-UP” Approach to school-based intervention has been advocated by Dennis Embry and Anthony Biglan (Biglan, 2004; Embry, 2002, 2004; Embry & Biglan, 2008). They use the concept of “KERNELS” to describe simple readily available behavioral influence procedures that are evidence-based. Some of these behavioral influence procedures manipulate antecedants such as providing reminders, cues and guides to transitional behaviors like having signs posted, or, teachers flicking on and off classroom lights to signal students. Other behavioral influence KERNELS include personal consequences such as the use of teacher praise notes, prize bowls, posting student work. A third category of KERNELS focuses on creating behavioral scripts (routines) using language-based and conceptual (changed “Mindsets”) interventions such as having students view themselves as “Peace Builders” or performing ascribed roles such as being a “teacher’s helper.”

Table 4 provides a list of potential ways that educators can incorporate a BOTTOM-UP mode of behavioral interventions. These same type of KERNELS can be used by educators with the students’ parents. (See Meichenbaum’s handout for the 16th Melissa Institute Conference on ways to involve parents in the education of their children.)

How many of these KERNELS do you use with your students? Which KERNELS can you add? See The Melissa Institute Website www.teachsafeschools.org for other examples of KERNELS.
TABLE 1

Characteristics of Resilient Children

**Behavioral Self-regulation Skills**

- Control impulses and slow down
- Stay focused and avoid distractions
- Delay gratification
- Particular abilities or talents that are valued by others
- Do well at school (multiple sources of “strengths”)

**Emotional Self-regulation skills**

- Have an easy temperament
- Manage emotions-calm self down when provoked
- Persistent, show grit, and evidence a “passion” for a given area
- Optimistic, future orientation and positive outlook
- Hopeful
- Self-control and self-discipline
- Have a sense of humor

**Cognitive and Metacognitive Skills**

- Cognitively flexible
- Evidence “executive”/metacognitive skills (planfulness, self-monitoring, self-interrogative, reflective, organized).
- Aware of thought processes and choices

**Prosocial Skills**

- Committed to a relationship within and outside family
- School connectedness, participate in school activities and extracurricular activities
- Advocate for self - willing to seek help and access Kin
- Hang around with the “right” people (prosocial mentors and peers)
- Believe in the need “to give to get.”
- Mindful of thoughts and feelings of others
- Willing to help others - share in family responsibilities
- Hold a part time job
- Respect others and rules
- Part of group who evidences cohesion or a collective sense of togetherness (e.g., church attendance, kinship gatherings)
- Part of a group that has family rituals and routines and evidences a “collective efficacy.” Exposed to family ”story-telling ” that includes positive moments, but also the ability to bounce back from difficulties (Intergenerational transmission of RESILIENCE).
### TABLE 2

**EXAMPLES OF “TOP DOWN” EVIDENCE-BASED INTERVENTIONS**

#### School-based Interventions

- School readiness programs
- Head Start Programs
- Perry Point Preschool Programs
- Anti-bullying Programs
- Bystander Intervention Training
- Positive Behavior Support
- Good Behavior Game
- Peace Builders Program
- Promoting Alternative Thinking Strategies (PATHS)
- Character Education Programs
- Social-Emotional Learning Problem-Solving
- School drop-out prevention programs
- After school programs
- Programs for pregnant teenage students (prenatal care)
- Lunch and nutritional programs
- College preparation programs - - One Goal Program

#### School Mental Health Programs

Target behaviors include:
- CBITS – Cognitive-behavioral Intervention for Trauma in Schools
- Trauma-focused Cognitive Behavior therapy
- Copy Cat for students with Anxiety Disorders
- Courses in treating depressed students and preventing depression in high-risk students
- Treatment for children whose parent suffers mental disorders, substance abuse disorders and family violence
- Student Bereavement Groups
- New Beginning Program for students whose parents have recently been divorced
- Students whose military parents have been deployed and/or returned injured

#### Family-based Interventions

- Nurse-family home visitation program
- Child-parent psychotherapy
- Parent training programs (focus on parenting skills, monitoring)
- ACT programs for parents
- Incredible Years Program
- Parent Management Training (Use computer technology, see Jones et al. 2012).
Triple P Program (Positive Parenting Practices)
Multidimensional Foster Care Treatment Program
Home-school Liaison Programs

**Community-based Interventions**

Civic engagement programs for students (Helping Others)
Reduction of the availability of guns
Medical health insurance for students
Income supplement programs
Earned Income Tax Credits (ETIC)

**Technology-based Interventions**

Websites for students (e.g., www.reachout.com)
Web-based treatment (See Meichenbaum -- Future of psychotherapy and computers on www.melissaistitute.org)
TABLE 3

REPORT CARD ON HOW WELL YOUR TRAINING PROGRAMS FOSTER GENERALIZATION AND SUSTAINABILITY

In order to foster transfer at the OUTSET OF TRAINING, my training program:

- Establishes a **good working relationship** with trainees, so the trainer is viewed as a supportive constructive “coach.”
- Uses explicit collaborative goal-setting to nurture hope. Discusses the reasons and value of transfer and relates training tasks to treatment goals.
- Explicitly **instructs, challenges and conveys an “expectant attitude”** about transfer.
- Uses **discovery learning, labeling** transfer skills and strategies. Uses a **Clock metaphor**. (12 o’clock refers to internal and external triggers; 3 o’clock refers to primary and secondary emotions and accompanying beliefs/theories about emotional expression; 6 o’clock refers to automatic thoughts, thinking patterns such as rumination and beliefs and developmental schemas; 9 o’clock refers to behavioral acts and resultant consequences). These contribute to a “vicious cycle.”
- Solicits trainees’ **public commitment** and uses behavioral contracts.
- Anticipates and discusses **possible barriers** to transfer.
- Chooses training and transfer tasks **carefully** (builds in similarities and uses ecologically-valued training tasks).
- Develops a **“community of learners”** (e.g., advanced trainees, an Alumni Club).

In order to foster transfer **DURING TRAINING**, my training program:

- Keeps training **simple-** uses **acronyms** and **reminders** (wallet-size cards and a “Hope Chest”).
- Uses **performance-based training** to the point of mastery. Provides regular feedback and has trainees self-evaluate and record performance.
- **Accesses prior knowledge and skills**, uses **advance organizers and scaffolded instruction**.
- Teaches **metacognitive skills**-involving self-regulation, planning and self-rewarding.
- Conducts training **across settings**, using **multiple trainers** and environmental supports, and **parents**
➢ Uses cognitive modeling, think alouds, journaling, rehearsal and role playing procedures.

➢ Promotes generalization through between session assignments and between session coaching. Has trainees engage in deliberate practice.

➢ Includes relapse prevention activities throughout training that decreases the chances of setbacks after training is completed. “Inoculates” against failure.

**In order to foster transfer at the CONCLUSION, my training program:**

➢ Puts trainees in a consultative role (uses reflection of reasons why engaging in these behaviors will help achieve the training goals, provides trainees with an opportunity to teach others, puts trainees in a position of responsibility).

➢ Ensures trainees directly benefit and receive reinforcement for using and describing their transfer skills.

➢ Provides active follow-up supervision-fades supports and “scaffolds” assistance, and where indicated, provides continuation treatment.

➢ Ensures trainees take credit and ownership for change (self-attributions). Nurtures personal agency.

➢ Ensures trainees design personal transfer activities and become self-advocates.

➢ Involves training significant others and ensures that they support, model and reinforce the trainees' new adaptive skills.

➢ Provides booster sessions.

➢ Conducts a graduation ceremony and offers a Certificate of Accomplishment.
A “BOTTOM UP” LIST OF BEHAVIORAL INFLUENCE “KERNELS”

ANTICEDENT-BASED INTERVENTIONS

Post reminders and signs (“Bully-free Zone”).
Post school’s mission statement.
Post classroom rules and refer to them often.
Post daily, weekly, and monthly schedules on a regular basis.
Post reminder signs of GOAL, PLAN, DO, CHECK.
Include displays and pictures of the school’s accomplishments (Reinforce concept of being a member of the school community).
Use non-verbal cues (“Teacher turn off and on classroom lights, buzzer to note transitions”).
Use Advance Organizers when giving instructions (An overview of what is going to be taught and why).
Use Informed Instruction (How the present lesson follow from previous lessons, and moreover, where the present lesson is headed. State explicitly the learning objectives. “When this lesson is completed you will be able to understand or do the following.”) Instructions should include beginning, middle and end statements.
Use “soft” reprimands (Be close by the student, use name and gentle reminders).
Use non-verbal reminders (hand or facial signals with students).
Use cue-cards and place them on student’s desk (“Behavior Chain Analysis”). For example, SLANT which stands for “Sit up, Listen, Ask Questions, Nod, Track the speaker”).
Reduce distractions.
Use video self-modeling film of a behavioral sequence.
Use visits to new school settings (switch from elementary to middle school, or from middle school to high school). Address anticipatory uncertainty.
Practice skills ahead of time (fire drill and lock down practices).

CONSEQUATING DESIRED BEHAVIORS

Use verbal praise for effort, not just for product.
Use overhead compliments.
Use peer-to-peer praise notes.
Use prize bowls (“mystery” rewards) in classroom and in afterschool settings.
Use Principal lottery (Spend special time with person of status).
Use time out procedures.
Use response cost procedures.
Use overcorrection or positive practice.
Use public posting of student’s work.
Use public posting of the class accomplishments.
“Catch them being good” and acknowledge using metacognitive action verbs when praising. (“I notice you were using your plan… You caught yourself. You backed off.”)

CHANGE BEHAVIORAL ROUTINES/SCRIPTS and MINDSETS
Assign student meaningful helper roles.
Have students engage in civic activities (help others).
Use team-based cooperative activities.
Use peer teaching (Put students in a consultative role).
Use bystander interventions (Change social norms - “Golden rule”).
Use choral responding.
Elicit commitment statements (“If … then” rules and “Whenever … if” rules).
Have students fill out planful statements and behavioral scripts.
Challenge students-use beat the clock, buzzer
Have students self-monitor (Use a Behavioral Checklist).
Have students journal, create a playbook, keep progress notes, track changes.
Use story-telling (metaphors, analogies) to teach routines and educational content. For example, use “Turtle technique.”
Use direct instruction procedures
Use discovery-based learning (The “art of Socratic questioning,” highlighting “What” and “How” questions).
Tap the process of student’s thinking. (“Walk me through how you chose that answer.”)
Model thinking – Use “think aloud”.
Have students use self-modeling procedures (video demos).
Use the language of “becoming” and “possibilities” (“As yet,” “So far”).
Use Motivational Interviewing Procedures – help student discuss topic that he/she usually avoids in a non-challenging manner (Express Empathy, Develop Discrepancies of the way things are and the way they want them to be. Avoid Argumentation, and Support self-efficacy).
Convey a “growth” mindset of the possibility of incremental change, as compared to an “entity” mindset (little hope for improvement). Convey that you can teach students the “tricks” and “strategies” that successful students use to perform such tasks. (See Dweck, 2008).
Use examples that “destinies are malleable,” and stories of how students have “beaten the odds” and overcome adversities. Use Mentors.
Bolster students’ school connectedness. Ask students the following questions:

“If you were absent from school, who besides your friends would notice that you were missing, and would miss you?”

“If you needed help from someone in school, who besides your friends would you go to for assistance?”

Encourage students to view themselves as “peace builders.”
Provide students with Metacognitive Prosthetic Devices (MPD’s) (Memory prompts, instructional reminders, organizational supports, time management routines, study habits) and ways to support the Prefrontal Cortex of executive skills.
Use metaphors; “Tool box,” “Traffic control center for the brain,” “How to CBT themselves in the moment” (CBT= Cognitive behavior therapy). “Use rules for yourself.” “How to talk back

Implement programs that encourage group support - - use of study groups
Encourage students to hang around with the “Right” people. Discuss the concept of “Right” people.
Encourage key abilities of grit, curiosity, conscientiousness. Learn the difference between wanting something and choosing it. Bolster self-confidence.
Have students “take credit” for improvements (Self-attributional training).
Provide resilience training. (See Meichenbaum (2012), Roadmap to resilience - - www.roadmaptoresilience.org).

REFERENCES


WEBSITES

National Registry of Effective Programs and Practices
http://modelprograms.samhsa.gov/template.cfm?page=nrepbutton

California Evidence-based Clearinghouse
http://www4cw.org

Center for Early Adolescence
http://www.earlyadolescence.org

Adverse Childhood Experiences Study
www.acestudy.org

Assistance to Teenagers
www.reachout.com

Prevention of Depression
http://preventionofdepression.org

Gay, Lesbian and Straight Education Network
http://www.glsen.org/educator

Neighborhood Check-up Interventions
http://Promiseneighborhoods.org

Healthy People
http://www.healthypeople.gov

Positive Parenting Programs
www.tripleP.net

UCLA Center for Mental Health
http://smhp.psych.ucla.edu/rebuild/Rebuilding.htm
http://smhp.psych.ucla.edu/pdf/docs/enhancingtheblueprint.pdf