Effectiveness of the Transformative Life Skills (TLS) program on Adolescent Stress and Well-Being

Jennifer L. Frank, Ph.D
Bidyut Bose, Ph.D
Universal classroom-based program designed to reduce stress and increase youth adaptive coping skills through instruction in centering meditation, breath awareness and yoga.

Three core practices are referred to as the ABC’s
  » Action-Breathing-Centering

Four Units: Stress Management, Body and Emotional Awareness, Self Regulation, and Building Healthy Relationships.
Transformative Life Skills

» Delivered as an 18-week semester-long program

» Each unit includes 12 lessons that can be delivered in 15, 30, or 60 minute segments.

» Scripted lesson plans, integrated video demonstration segments (if required), fidelity checklists, and student activity workbooks.
The full TLS curriculum is 48 lessons divided into 4 units. TLS can be implemented as versions for:
- 15-minutes
- 30-minutes
- 60-minutes

In most typical implementation scenarios, 3 lessons per week are delivered. Lessons focus on mastery of a particular mindful movement, breathing, and centering techniques.

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Action</th>
<th>Breathing</th>
<th>Centering</th>
<th>Lesson Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Understanding what stress is about</td>
<td>Mountain Pose</td>
<td>4:8 breath</td>
<td>Learn what the stress response is about and why it is important; tools to deactivate it when not helpful</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Centering: Using your pulse to recognize the relaxation response on the exhale</td>
</tr>
<tr>
<td>1.2</td>
<td>Recognizing stress in your body</td>
<td>Crescent Moon</td>
<td>Deep breathing</td>
<td>Recognize physical signals: practice noticing body sensations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Centering: Noticing what moves as you breathe</td>
</tr>
<tr>
<td>1.3</td>
<td>Knowing what stresses you</td>
<td>Forward Warrior</td>
<td>4:8 breath</td>
<td>Know your stressors; practice noticing uncomfortable sensations while remaining calm</td>
</tr>
<tr>
<td>1.4</td>
<td>How stress affects your breath</td>
<td>Side Warrior</td>
<td>Smooth, long breaths</td>
<td>Notice how stress affects your breath; practice noticing your breathing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Centering: Counting number of breaths per minute</td>
</tr>
</tbody>
</table>
## Content Units

- Four Content Units
- Each unit contains 12 coordinated lesson plans

## Unit Themes
- Stress Response
- Physical and Emotional Awareness
- Self Regulation
- Healthy Relationships

### Unit 1. The Stress Response
- 1.1: Understanding What Stress is About
- 1.2: Recognizing Stress in Your Body
- 1.3: Knowing What Stresses You
- 1.4: How Stress Affects Your Breath
- 1.5: Using Your Breath as a Tool
- 1.6: How Stress Affects Your Ability to Learn
- 1.7: Clearing Your Mind, Calming Your Body
- 1.8: Feeling Tired vs. Feeling Relaxed
- 1.9: How Stress Affects the Choices We Make
- 1.10: Releasing Stress
- 1.11: Long-term Benefits of Managing Stress
- 1.12: Review and Re-teaching

### Unit 2. Physical and Emotional Awareness
- 2.1: Understanding Self-awareness
- 2.2: Building Body Awareness
- 2.3: Being Aware of Your Body When You Move
- 2.4: Building Awareness of the Breath
- 2.5: Recognizing How Your Emotions Affect Your Breath
- 2.6: Using the Breath to Manage Emotion
- 2.7: Building Awareness of Thought Patterns
- 2.8: Thoughts and Feelings Always Change
- 2.9: Watching your Thoughts
- 2.10: Focusing Inward vs. Focusing Outward
- 2.11: Choosing Where to Focus Your Mind
- 2.12: Review and Reteaching

### Unit 3. Self-Regulation
- 3.1: Your Environment Affects Your Thoughts and Feelings
- 3.2: You Can Manage Your Thoughts and Feelings
- 3.3: Centering Yourself
- 3.4: Your Thoughts and Feelings Affect Your Actions
- 3.5: The Importance of Being Centered when You Act
- 3.6: Acting vs. Reacting
- 3.7: Your Actions Affect Your Brain
- 3.8: Using Tools to Calm Down
- 3.9: Using Tools to Energize
- 3.10: Practicing Making Choices
- 3.11: Imagining Possibilities
- 3.12: Review and Reteaching

### Unit 4. Healthy Relationships
- 4.1: Your Behavior Affects Your Environment
- 4.2: Understanding Your Habits
- 4.3: Building Healthy Relationships
- 4.4: What Does “Karma” Mean to You?
- 4.5: Your Role in Creating Your School Culture
- 4.6: Sharing What You Learn
- 4.7: Recognizing That You Are Complete
- 4.8: Connecting with Your Best Self
- 4.9: Seeing the Good in Yourself and Others
- 4.10: We Are All Connected
- 4.11: Strengthening Yourself to Strengthen Your Community
- 4.12: Review & Reteaching
Lesson Overview

» Designed to be implemented by variety of individuals

» Provide introductory professional development session

» Each lesson has overview, objectives, materials, activities, and timelines

» Fidelity Checklists
Lesson Overview

» Manualized administration

» Predictable instructional sequence
  » Review Expectations
  » Daily Agenda
  » Background Knowledge
  » Action-Breathing-Centering

» Wrap Up

» Extension Activities

Mindful Movement and Pose of the Week (6 minutes)

Arm Movement with Hands Clasped (Seated)

Say: If it feels comfortable, sit up a little bit straighter. Clasp your hands together in front of you. As you breathe in, reach your palms up toward the ceiling as high as feels comfortable. As you breathe out, watch your hands as they come back down to your lap. As we do this, we’ll breathe in for 4 counts and out for 8 counts. Breathe in 1, 2, 3, 4, breathe out 1, 2, 3, 4, 5, 6, 7, 8.

Lead students in 4-5 rounds of rhythmic 4:8 breathing while demonstrating the movement. Then invite them to let relax their arms and go back to breathing normally, letting their hands just rest on their lap or desk.

Robin (Seated)

Say: For the next movement, feel free to start really small, and experiment with making the movement bigger as you feel comfortable. When you breathe in, draw the shoulders back. When you breathe out, bring the shoulders forward and the chin down.

Guide students while they try a few rounds.

Say: If you want to get more of a stretch in your back: when you breathe in, take the shoulders back and lift the center of your chest. And when you breathe out: round the back, pulling the belly in and letting the head drop forward. Try a few more rounds, noticing what this movement feels like in your body.
Extension Activities

» Student workbook help personalize, extend, or transfer content learned during lesson

» Often involve some sort of critical thinking or academic-related skills

» Content provides forum for group discussions
Reflective Implementation

» Instructors monitor fidelity and engagement throughout

» Re-teaching is built into the program to ensure maximum dosage

<table>
<thead>
<tr>
<th>Component</th>
<th>Rating</th>
<th>Observer Notes/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction to Lesson</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>2. Activation of Background Knowledge</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>3. Connection to Real World Applications</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>4. Student Check In</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>5. Bell &amp; Focused Breathing</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>6. Mindful Movement</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>7. Breathing</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>8. Silent Sitting</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>9. Closing Bell</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>10. Use of Precorrections, Reminders, Reinforces</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>OPTIONAL</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Group Discussion</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Creative Reflection</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Mindful Exercise</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES ABOUT LESSON OR THINGS THAT MAY NEED TO BE RE-TAUGHT:**
What it Looks Like in Practice

» Instruction occurs in-class or in other classroom setting

» Both mat or non-mat based options
Research Study Design

» Goal: investigate whether exposure to TLS has a significant impact on school engagement and social-emotional well-being of youth in high-crime urban settings.

» Sample: N=159 students in grades 6 and 9 in a diverse charter school in high-crime neighborhood in California.

» Classrooms randomly assigned to treatment or wait-list control conditions.
Measures

» School Engagement Scale (Cernkovich & Giorano, 1992)
  » \( \alpha = 0.72 \)

» Attitudes Towards Violence Scale (Bosworth & Espelage, 1995)
  » \( \alpha = 0.75 \)

» Positive and Negative Affect Schedule for Children (PANAS-C)
  » Positive Affect \( \alpha = 0.89 \)
  » Negative Affect \( \alpha = 0.87 \)

» Child Behavior Checklist – Somatization (CBCL, Achenbach & Edelbrock, 1983)
  » \( \alpha = 0.74 \)
Measures

» Responses to Stress Questionnaire (RSQ Connor-Smith et al., 2000)
  › Primary Engagement: $\alpha = 0.74$
  › Secondary Engagement: $\alpha = 0.75$

» Extant Student Records
  › Unexcused Absences, Detentions, Suspensions, Grades English & Mathematics

» Children’s Intervention Rating Profile (CIRP Witt & Elliott, 1983) $\alpha = 0.74$
Analysis

» Analysis of Covariance (ANCOVA)
  » Controlled for: Student grade, gender, race

» P-values were corrected for multiple pairwise comparisons using Benjamini-Hochberg (BH) correction

» Attrition of 10 students (6% of total sample, 4 treatment and 6 control) due to mid-year school transfers, or inability to complete post-assessment questionnaires

» No significant differences on any outcome measures at baseline
Analysis

» Analysis of Covariance (ANCOVA)
  » Controlled for: Student grade, gender, race

» P-values were corrected for multiple pairwise comparisons using Benjamini-Hochberg (BH) correction

» Attrition of Ten students (6% of total sample, 4 treatment and 6 control) due to mid-year school transfers, or inability to complete post-assessment questionnaires

» No significant differences on any outcome measures at baseline
## Results

<table>
<thead>
<tr>
<th></th>
<th>Post Means</th>
<th>F value</th>
<th>p-value</th>
<th>Adj. p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tx</td>
<td>Ctl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unexcused Absences</td>
<td>1.98</td>
<td>4.83</td>
<td>9.16</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Detentions</td>
<td>1.02</td>
<td>2.43</td>
<td>5.52</td>
<td>0.01</td>
<td>0.05</td>
</tr>
<tr>
<td>Suspensions</td>
<td>0.77</td>
<td>0.82</td>
<td>0.01</td>
<td>0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>School Engagement</td>
<td>3.25</td>
<td>2.94</td>
<td>9.76</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>English Grades</td>
<td>3.38</td>
<td>3.58</td>
<td>1.67</td>
<td>0.20</td>
<td>0.34</td>
</tr>
<tr>
<td>Math Grades</td>
<td>3.37</td>
<td>3.08</td>
<td>1.58</td>
<td>0.21</td>
<td>0.31</td>
</tr>
</tbody>
</table>
## Results

<table>
<thead>
<tr>
<th>Attitude/Violence</th>
<th>Post Means</th>
<th>F value</th>
<th>p-value</th>
<th>Adj. p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tx</td>
<td>Ctrl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes Violence</td>
<td>1.92</td>
<td>2.14</td>
<td>4.00</td>
<td>0.05</td>
<td>0.09</td>
</tr>
<tr>
<td>Somatization</td>
<td>1.64</td>
<td>1.55</td>
<td>0.58</td>
<td>0.45</td>
<td>0.57</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>3.14</td>
<td>3.25</td>
<td>0.64</td>
<td>0.43</td>
<td>0.58</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>1.51</td>
<td>1.47</td>
<td>0.089</td>
<td>0.77</td>
<td>0.86</td>
</tr>
<tr>
<td>Primary Coping</td>
<td>2.15</td>
<td>1.83</td>
<td>12.39</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>Secondary Coping</td>
<td>2.33</td>
<td>2.03</td>
<td>9.75</td>
<td>0.01</td>
<td>0.01</td>
</tr>
</tbody>
</table>
## Results

<table>
<thead>
<tr>
<th></th>
<th>Post Means</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tx</td>
<td>Ctl</td>
<td>F value</td>
<td>p-value</td>
<td>Adj. p</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>2.30</td>
<td>2.10</td>
<td>3.10</td>
<td>0.08</td>
<td>0.86</td>
</tr>
<tr>
<td>Emotion Regulation</td>
<td>1.83</td>
<td>1.60</td>
<td>4.90</td>
<td>0.03</td>
<td>0.05</td>
</tr>
<tr>
<td>Emotional Expression</td>
<td>2.10</td>
<td>1.87</td>
<td>3.26</td>
<td>0.07</td>
<td>0.14</td>
</tr>
<tr>
<td>Positive Thinking</td>
<td>2.53</td>
<td>2.25</td>
<td>5.75</td>
<td>0.02</td>
<td>0.05</td>
</tr>
<tr>
<td>Cognitive Restructuring</td>
<td>2.04</td>
<td>1.66</td>
<td>11.65</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Acceptance</td>
<td>2.45</td>
<td>2.27</td>
<td>2.12</td>
<td>0.15</td>
<td>0.26</td>
</tr>
</tbody>
</table>
Discussion

» TLS is a promising intervention for enhancing several aspects of well-being among youth at risk.
  » Reductions in: unexcused absences, detentions, and increases in school engagement.
  » Increases in: student emotion regulation, positive thinking, and cognitive restructuring in response to stress
» No effects were found for measures of somatization, suspensions, academic grades, or general affect.
» High degree of acceptability and socially valid by teachers and students
Thank You for Your Participation

Comments or Questions?

For additional information
Please Contact Jennifer L. Frank (jfrank@psu.edu)

http://www.prevention.psu.edu/projects/PEACE_Area2.html