“Pause Anger:” Emotion Regulation Effects of a Mindfulness Intervention

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ABSTRACT
This study used a mixed-methods approach to examine changes in students’ self-reported anger regulation strategies towards the beginning and end of a mindfulness intervention. 194 elementary school students reported their anger regulation strategies in response to likert-style and open-ended questions. Intervention effects suggested that students increased their reported use of anger withdrawal and “pause anger,” in addition to gender differences.

BACKGROUND
- Emotion regulation: “The extrinsic and intrinsic processes responsible for monitoring, evaluation, and modifying emotional reactions” (Compass et al., 2014), including anger (e.g., Zeman, et al., 2007).
- Unlike “deactivating” emotions (e.g., hopelessness), anger urges students to action (Pekrun, Goetz, Titz, & Perry, 2002).
- One anger regulation strategy that is gaining increasing attention is mindfulness, which includes “nonreactivity” (Christopher, Woodrich, & Tiernan, 2014). Yet, little research has measured or examined nonreactivity among elementary school children.

INTERVENTION
- In the current study, two elementary schools created a mindfulness intervention, and we conducted emotion regulation assessments of the students towards the beginning of the intervention and four months later at the end of the school year.
- One of the goals of the intervention was to help teachers promote students pausing before acting on angry or frustrated feelings.
- Other goals were to promote mindful strategies like breathing deeply to manage anxiety.
- The intervention involved school-based mindfulness training with teachers, a school wide presentation with students, and one of the two schools set aside 10 minutes per day for mindful activities like coloring book drawing.

HYPOTHESES
a) The schools’ intervention would increase students’ self-rated nonreactivity over the course of the intervention.
   b) The changes in nonreactivity would be most pronounced among older elementary students.
   c) We expected an increase in mindfulness-related responses to open-ended questions on anger regulation.

METHODS
- Assessed 3rd - 5th grade students’ (n = 194) regulation strategies in February, towards the beginning of the intervention, and four months later at the end of the school year in June of 2015.
- Graduate students individually administered interviews and entered the data in SPSS.

Quantitative Methods
- Emotions as a Child questionnaire of anger regulation strategies (EAC; Magai & O’Neal, 1997)
- Added a “pause anger” subscale to the EAC.
- All scales had adequate internal consistency.

Qualitative Methods
- Asked students: What strategies would you use to wait before acting on your anger?
- Five categories were devised to code responses:
  1. Express thoughts/feelings to others
  2. Withdraw from others/feel the anger in private
  3. Distract yourself
  4. Use a pause anger strategy
  5. No strategy

RESULTS

CONCLUSIONS
- Overall, students’ use of a mindfulness strategy, Pause Anger, significantly increased by the end of the schools’ mindfulness intervention.
- Other emotion regulation strategies changed as well. Intervention effects differed by gender.
- Students may respond somewhat differently to open-ended versus close-ended emotion regulation questions. Both methods showed an increase in Pause Anger, but quantitative results also indicated an increase in Withdraw, while qualitative results indicated a decrease in both Withdraw and Express.

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Quantitative Results Continued:
- No change in Anger Distract, Anger Express to Caregiver, and Anger Express with Body.
- Significant increase in Pause Anger (p < .05) AND Anger Withdrawal (p < .05).
- For boys: Decrease in Express Anger with Body (p = .06), increase in Pause Anger (p < .05).
- For girls: Increase in Anger Distract and Anger Withdraw (p < .05). The girls may not have increased in Pause Anger over time because their T1 levels were already higher than for boys.
- Strategies changed for all age groups.

Qualitative Results: In response to open-ended questions, students increased in Pause Anger and decreased in Anger Withdraw and Express.