

Yoga in United States Urban Schools: Outcomes for Student Response to Stress and Academic Achievement

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ABSTRACT

A large, United States urban school district implemented a yoga program in five public elementary schools. A private, philanthropic foundation funded, trained, and supported an instructor at each school to deliver a yoga and mindfulness-based curriculum. The program targeted students in the fourth and fifth grade ages 9-12 years. The program was evaluated using a quasi-experimental design, matching five of the nine schools to comparison schools with similar socio-economic and demographic characteristics. Analysis of variance and linear regression tests found that some positive outcomes were more pronounced among fourth grade students which received the yoga program for two years, suggesting there is value among repeated exposure to the curriculum. Descriptive data suggested that most students liked the program, with many students reporting using the program's breath and movement strategies outside of the school settings. Improvements in academic achievement, as measured by standardized test scores, however, were not found. While the findings from this large-scale outcomes study of a children's yoga program contributes to the literature by showcasing the value of these types of programs, the study also highlights the importance of mixed methods studies and the need to develop more robust methods for detecting the outcomes associated with these and other types of programs.

Keywords: Health, yoga, wellness, stress, student academic

INTRODUCTION

Many young people experience high levels of chronic stress resulting from systemic challenges, both in and outside of the school day, including peer victimization, [1,2] high stakes testing, [3] poverty [4] and violence. [5] Though experiencing certain types of short-term stressful encounters can contribute to learning and growth, long-term exposure to chronic stress can negatively affect students' health [6] and academic success. [7] Studies have shown that children living in poverty are more likely to be

exposed to chronic stress [8] and victims of chronic stress experience higher levels of aggression, social withdrawal, depression, and anxiety. [9,6]

Recognition of the relationship between stress and student well-being has become an important topic of conversation among academics and practitioners alike. [10-12] Stakeholders are acknowledging that stress can negatively impact an individual as early in life as infancy, [13] and long-term exposure to stress can be harmful to a child or adolescent's mental [14] and physical

health. [6] Research also sheds light on the negative impact stress can have on the brain development of a child. [15,16]

Students who experience high levels of stress are less positively engaged in school and more likely to be disruptive than their low-stress counterparts, [17] have difficulty adjusting to the school setting, [18] and have lower attendance rates. [5] Additionally, students experiencing high levels of stress have lower levels of achievement than their low-stress counterparts. [7] In addition to academic underperformance, students who experience both psychosocial and physical stressors are also more likely to have poor social emotional learning outcomes including the ability to self-regulate. [19] As Argon, Berends, Ellis, and Gonzalez note, “poor nutrition and limited physical activity among today’s children and youth negatively impacts their physical, social, and emotional health as well as their school attendance, learning, and academic achievement”. [20] Many educators acknowledge Argon, Berends, Ellis, and Gonzalez’ perspective and are seeking out strategies to enhance students’ self-regulatory abilities to better manage stress and support their overall health and well-being.

There is a growing body of research which suggests that yoga, movement, meditation, and other interventions lead to positive outcomes for adults and children alike. [21-24] To that end, some school districts in the United States are implementing new programs that incorporate yoga, movement, meditation, breathing, relaxation exercises, and other interventions. Many of these programs are designed to improve physical fitness, increase self-confidence and self-esteem, and decrease anxiety and stress. [25-27] The research on yoga and mindfulness practices with youth suggests that there are reductions in distress, anxiety, emotional and behavioral reactivity, and improved self-awareness and sleep. [28-31] Some have describe the ability to manage oneself in

stressful circumstances as self-regulation, finding that self-regulation contributes to school readiness and long-term academic success for youth. [32, 33]

Though there is a growing body of research that supports the positive impact of yoga and wellness interventions, many interventions occur within a single school for a relatively short duration of time. [34-36]

This purpose of this study was to explore two research questions: 1) Do elementary students who participate in the yoga and wellness program improve their ability to respond to stress? 2) Do elementary students who participate in the yoga and wellness program have improved academic performance?

CONTEXT OF THE STUDY

A large, urban public school district in the United States piloted a yoga and wellness program in five elementary schools over a two-year period. The schools were selected by the school district’s leadership based on their geographical location within the city, as well as the school leadership’s commitment to supporting the implementation of the program and the associated research components.

The school district partnered with a private philanthropic foundation, which provided the funding to train and support an instructor at each school to deliver a yoga and mindfulness-based curriculum designed to promote student physical fitness, mental health, and wellness.

Guided by this curriculum, instructors led students through mindfulness practices, breathing strategies, and yoga-based movement during the instructional school day throughout the school year. Students were given dedicated time at a scheduled point in the school day to “breathe, move, and rest.” Curricular units encompassed age-appropriate themes to promote coping and mindfulness in conjunction with yoga-based movement.

Within each lesson, students learned various breathing strategies to apply to stressful situations encountered both in and

outside of school, focusing techniques that were designed to help students center or reengage in the learning environment and yoga-based movements to enhance physical strength and flexibility. Students would visit their schools' yoga room with their classmates for a 30-45 minute time period twice each week, and classroom teachers could choose to stay and practice with their students or attend to preparatory necessities while students were with the yoga instructor. At the end of the session, students would return to their academic classroom to reengage in their learning, and a new class of students would enter the yoga room for their 30-45 minute session.

During the first year of the yoga program, the rollout was staggered, with some schools implementing the program sooner than others. However, by the middle of the school year, all of the students in third and fifth grades received the program. For the second year, the rollout of the program was more consistent, with students in fourth and fifth grades receiving the program from the start of the school year to the end of the school year. The result was that the fourth grade students (previously third grade students) had more exposure to the intervention compared to the fifth grade students.

MATERIALS AND METHODS

An outcomes study was conducted during the second year of the program using a quasi-experimental design. Using school-level data maintained by the school district, district personnel matched five intervention schools to comparison schools which had similar characteristics, in terms of: enrollment; academic, demographic, and socioeconomic characteristics, and geographic location throughout the city.

To measure the students' response to stress, a survey was created based on the Response to Stress Questionnaire,^[37] which included 24 questions designed to measure Involuntary Engagement (with subscales for Rumination, Intrusive Thoughts, Physiological Arousal, Emotional Arousal,

and Involuntary Action) and Primary Control Engagement (with subscales for Emotional Regulation, Problem Solving and Emotional Expression). For each question, students were asked to indicate the frequency of different thoughts, feelings, and behaviors using a three-point scale. Responses of "Not at all" were coded as "1," responses of "A Little" were coded as "2," and responses of "A Lot" were coded as "3." For the Involuntary Engagement scale (and subscales), lower scores at post-test indicated positive changes. For the Primary Control Engagement scale (and subscales), higher scores at post-test indicated positive changes.

Students completed the response to stress questions on a survey. Paper surveys were administered at the intervention and comparison schools during a two-week period at the beginning and end of the school year. Researchers spent approximately 30 minutes in each classroom reading the each question of the survey aloud. Students could choose to complete the survey following the pacing of the researcher or complete the survey at their own pace.

Reliability for the primary scales were good (15 items for Involuntary Engagement, $\alpha = .872$; 9 items for Primary Control Engagement; $\alpha = .743$). Reliability for the subscales, however, were lower (ranging from $\alpha = .483$ for Emotional Regulation to $\alpha = .752$ for Involuntary Action) (See [Appendix A](#), Involuntary Engagement and Primary Control Engagement Coping Survey Questions).

Math and reading achievement was measured using end of year standardized test scores administered at the end of the first and second year of the study. Unsatisfactory scores were coded as "1," Satisfactory scores were coded as "2," and Advanced scores were coded as "3."

The school district provided data about the students' demographics, attendance (percent of eligible school days attended), and behaviors (number of in-

school and out-of-school suspensions) for fourth and fifth grade students.

Sample

The sample for this study included 1,051 students who participated in the second year of the study for whom there were complete data (demographic, attendance, academic achievement, and Response to Stress survey data). This

included 528 fourth grade and 523 fifth grade students at five intervention schools and five comparison schools. Imputation procedures were used (substituting the mean for a subscale item) for surveys with small amounts of missing data (surveys with less than five items missing) (See Table 1: Demographics of the Students). Data were analyzed

Table 1: Demographics of the Students (mean ± SD)

	Intervention		Comparison	
	Fourth Grade (n = 313)	Fifth Grade (n = 301)	Fourth Grade (n = 215)	Fifth Grade (n = 222)
Ethnicity				
Hispanic Latino of any race	0.62±0.48	0.62±0.48	0.69 ± 0.46	0.68 ± 0.47
Black or African American [^]	0.22± 0.42	0.22±0.42	0.14 ± 0.35	0.15 ± 0.36
White [^]	0.12± 0.33	0.13± 0.30	0.14 ± 0.35	0.14 ± 0.34
Other [^]	0.03± 0.17	0.03 ± 0.18	0.02 ± 0.14	0.04 ± 0.20
Gender (Male)	0.48±0.50	0.50± 0.50	0.45 ± 0.50	0.46 ± 0.50
Limited English Proficiency	0.33± 0.47	0.27 ± 0.44	0.33 ± 0.47	0.23 ± 0.42
Special Education	0.06 ± 0.23	0.07±0.26	0.06 ± 0.24	0.09 ± 0.28
Gifted/Talented	0.23± 0.42	0.25± 0.44	0.33 ± 0.47	0.38 ± 0.49
Economically Disadvantaged	0.80±0.40	0.74± 0.44	0.71 ± 0.46	0.70 ± 0.46

[^] Non-Hispanic

Statistical Analysis

The data were analyzed using IBM SPSS Statistics (version 23). Although the schools were matched using socio-economic and demographic aggregate data at the school level, Chi-square tests were performed to assess how well the matches held up among the students actually participating in the study. While these tests revealed some statistically significant differences between the students at the matched schools, most of these differences were small or relatively modest.

For Match 1 (n = 191), more students at the comparison school were female (58.2% vs. 43.8%, Cramer's V = .143, p = .049). For Match 2 (n = 314), more students at the comparison school were Latino (53.7% vs. 41.9%, Cramer's V = .118, p = .036) and none were black (0% vs. 7.8; Cramer's V = .195, p = .001). For Match 3 (n = 246), more students at the comparison school were Latino (91.4% vs. 75.2%; Cramer's V = .195, p = .003), gifted and talented (39.5% vs. 7.9%, Cramer's V = .384, p = .000), and fewer were economically disadvantaged (85.2% vs. 98.2%; Cramer's V = .255, p = .000). For

Match 4 (n = 174), more students at the comparison school were gifted and talented (19.7 vs. 0%, Cramer's V = .363, p = .000) and fewer were economically disadvantaged (80.3% vs. 93.5%, Cramer's V = .201, p = .008). For Match 5 (n = 126), fewer students at the comparison school were special education students (1.6% vs. 11.3%, Cramer's V = .199, p = .025).

Change scores (post minus pre) were calculated for each of the Response to Stress scales and subscales. Change scores were also calculated to see if students had improved math and reading achievement over time. One way analysis of variance and ordinary least squares regression tests (comparing the "difference in difference") were conducted to see if students at the intervention schools reported having fewer issues with self-regulation (as measured by the Involuntary Engagement Scale and the five subscales), greater coping skills (as measured by the Primary Control Engagement Coping scale and the three subscales), and improved academic achievement (as measured by standardized test scores). A conventional content analysis was also conducted of the open-ended

survey question that asked students at intervention schools if they were interested in sharing additional information about their school's yoga program.

RESULT

Response to Stress

Overall Findings. When comparing the two groups, there were no statistically significant differences between the fourth grade students on any of the scales, with one exception. Analysis of variance and

ordinary least squares regression tests revealed one statistically significant difference on Intrusive Thoughts subscale, with students at the intervention schools scoring lower at post-test ($\beta = -.100$, $t = -2.306$, $p = .022$). The adjusted R square value, however, was low (at .008) explaining very little of the observed variance (See Table 2: Mean Response to Stress Scores among Fourth Graders).

Table 2: Mean Response to Stress Scores among Fourth Graders

Scales	Intervention Fourth Grade (n = 313)			Comparison Fourth Grade (n = 215)		
	Pre Mean	Post Mean	Change	Pre Mean	Post Mean	Change
Involuntary Engagement	25.88 ± 7.11	24.54 ± 6.71	-1.34	24.80 ± 7.12	24.50 ± 7.21	-0.31
Rumination	5.28 ± 1.90	4.94 ± 1.75	-0.34	5.07 ± 1.79	5.05 ± 1.75	-0.02
Intrusive Thoughts*	5.05 ± 1.88	4.75 ± 1.67	-0.30	4.73 ± 1.67	4.79 ± 1.75	0.06
Physiological Arousal	4.81 ± 1.63	4.47 ± 1.54	-0.34	4.65 ± 1.59	4.48 ± 1.60	-0.17
Emotional Arousal	5.40 ± 1.81	5.18 ± 1.65	-0.21	5.16 ± 1.75	5.02 ± 1.73	-0.13
Involuntary Action	5.34 ± 1.86	5.19 ± 1.91	-0.15	5.20 ± 1.95	5.16 ± 2.04	-0.04
Primary Control Engagement	17.00 ± 3.94	16.99 ± 4.15	-0.01	17.08 ± 3.96	17.26 ± 4.18	0.18
Emotional Regulation	5.53 ± 1.62	5.60 ± 1.61	0.07	5.41 ± 1.59	5.55 ± 1.70	0.14
Problem Solving	5.90 ± 1.61	5.90 ± 1.81	0.00	5.90 ± 1.64	6.04 ± 1.67	0.14
Emotional Expression	5.57 ± 1.60	5.48 ± 1.64	-0.08	5.77 ± 1.72	5.67 ± 1.66	-0.10

$p < .05$

Comparing the two groups, there were no statistically significant differences between the fifth grade students on any of the scales (See Table 3: Mean Response to Stress Scores among Fifth Graders).

Table 3: Mean Response to Stress Scores among Fifth Graders

Scales	Intervention Fifth Grade (n = 301)			Comparison Fifth Grade (n = 222)		
	Pre Mean	Post Mean	Change	Pre Mean	Post Mean	Change
Involuntary Engagement	25.45 ± 6.43	24.86 ± 6.96	-0.59	24.78 ± 6.38	25.02 ± 6.49	0.23
Rumination	5.43 ± 1.78	5.17 ± 1.86	-0.25	5.30 ± 1.69	5.21 ± 1.81	-0.09
Intrusive Thoughts	4.75 ± 1.60	4.70 ± 1.56	-0.05	4.69 ± 1.59	4.83 ± 1.64	0.14
Physiological Arousal	4.55 ± 1.56	4.42 ± 1.53	-0.13	4.39 ± 1.47	4.37 ± 1.42	-0.01
Emotional Arousal	5.30 ± 1.59	5.19 ± 1.74	-0.11	5.31 ± 1.73	5.23 ± 1.67	-0.08
Involuntary Action	5.42 ± 1.87	5.38 ± 1.94	-0.04	5.11 ± 1.84	5.38 ± 1.98	0.27
Primary Control Engagement	17.51 ± 3.81	17.32 ± 3.91	-0.19	17.80 ± 3.58	18.05 ± 3.08	0.25
Emotional Regulation	5.63 ± 1.59	5.43 ± 1.61	-0.07	5.78 ± 1.57	5.75 ± 1.48	-0.04
Problem Solving	6.28 ± 1.66	6.20 ± 1.50	-0.08	6.23 ± 1.54	6.27 ± 1.64	0.04
Emotional Expression	5.59 ± 1.56	5.56 ± 1.55	-0.03	5.78 ± 1.47	6.03 ± 1.55	0.25

Matched Schools. A closer look at the five sets of matched schools revealed small, but statistically significant, positive findings at three of the intervention schools (Match 1, Match 2, and Match 5). These findings were supported by comments made by the students throughout the year on the open-ended survey question.

Specifically, for Match 1, there were statistically significant differences among fourth graders for the Involuntary Engagement Scale ($\beta = -.205$, $t = -2.062$, $p = .042$, Adjusted R Square = .032) and two of the subscales (Intrusive Thoughts, $\beta = -.244$, $t = -2.480$, $p = .015$, Adjusted R Square = .050; Involuntary Action, $\beta = -.227$; $t = -2.297$, $p = .024$, Adjusted R

Square = .042). Students at this school offered a number of comments to support these findings, saying: “In yoga, I feel relax[ed] and forget bad things,” “I love yoga because it calms me down. And help[s] me sleep,” “I love health and wellness because it makes me calm down,” and “Muchas gracias porque antes no sabia que hacercuando me enojaba y con yoga yo se que hacer!” The English translation is “Thank you, because before I did not know what to do when I was mad and with yoga I know what to do!”

Specifically, for Match 2, there were statistically significant differences among fifth graders for the Involuntary Engagement Scale ($\beta = -.174$, $t = -2.172$, $p = .031$, Adjusted R Square = .024) and one of the subscales (Involuntary Action, $\beta = -.212$; $t = -2.668$, $p = .008$, Adjusted R Square = .038). Students at this school also offered comments in support of these findings, saying: “It gets my anger and frustration out of my body,” “Sometimes I walk in mad or sad into yoga, but after yoga I feel great,” “I think that health and wellness helps me a lot when I am having problems at home, at school, or even with my friends,” and “I feel like it helps me be more confident.”

For “Match 5”, there were statistically significant differences among fourth graders for the Involuntary Engagement Scale ($\beta = -.356$, $t = -3.003$, $p = .004$, Adjusted R Square = .113) and two of the subscales (Physiological Arousal, $\beta = -.413$, $t = -3.576$, $p = .001$, Adjusted R Square = .158 and Rumination, $\beta = -.276$; $t = -2.260$, $p = .027$, Adjusted R Square = .061). Students at this school also gave

comments that supported these findings, saying: “What I like about yoga is it stretches you out. It makes you feel relaxed. And it is good,” “I think it's helping me with my anger,” and “I think yoga class helps me get unstress[ed].” For this match, the Primary Control Engagement Scale was also significant, but the finding was opposite from the expected direction ($\beta = -.253$, $t = -2.057$, $p = .044$, Adjusted R Square = .049).

Academic Achievement

Overall findings. Academic achievement data were only available for a subset of the fourth graders (60.7% of the students at the intervention schools and 56.3% of the students at the comparison schools). Among these fourth grade students, there were no significant differences between the intervention and comparison schools with respect to Reading or Math Achievement.

Matched schools. A closer look at the differences in academic achievement of matched schools revealed a decreasing score at the intervention school for Match 1 ($\beta = -.549$, $t = -4.738$, $p = .000$, adjusted R square = .288) and an increasing score at the intervention school for Match 2 ($\beta = .203$, $t = 2.299$, $p = .023$, adjusted R square = .033) (See Table 4: Average Math and Reading Achievement among Fourth Graders). There were no significant differences at the other matched schools.

When gender and attendance (percent of eligible school days attended) was included in the models, none of the findings relating to the outcome variables were significant. Robustness checks using hierarchal linear modeling revealed similar patterns in the findings.

Table 4: Average Math and Reading Achievement among Fourth Graders

	Intervention				Comparison			
	Fourth Grade				Fourth Grade			
	(n)	Pre Mean	Post Mean	Change	(n)	Pre Mean	Post Mean	Change
Math Achievement	190	1.95 ± 0.71	2.01 ± 0.82	0.06	121	2.03 ± 0.73	2.17 ± 0.96	0.14
Reading Achievement	190	1.95 ± 0.75	2.03 ± 0.75	0.08	121	2.22 ± 0.70	2.20 ± 0.68	-0.02

Student Attitudes and Perspectives

While changes in the outcome variables of interest (response to stress and

academic achievement) were relatively few, small, or somewhat mixed, other questions from the survey administered at the end of

the year suggested that many of the students at the intervention schools liked the yoga program “a lot.” Students, especially the fourth graders who had experienced the program for two years, also reported they

used yoga and the breathing tools various capacities in and outside of school (See Table 5: Attitudes and Use of Yoga among Fourth Graders and Table 6: Attitudes and Use of Yoga among Fifth Graders).

Table 5: Attitudes and Use of Yoga among Fourth Graders

	Fourth Grade			
	(n)	Not at All	A Little	A Lot
I like health and wellness (yoga) at school.	(312)	15.4%	28.5%	56.1%
I feel like health and wellness (yoga) helps me calm down when I get angry.	(311)	23.5%	28.0%	48.5%
I feel like health and wellness (yoga) helps me control my behavior.	(310)	24.5%	32.6%	42.9%
I use the breathing tools from health and wellness (yoga) when I am at school.	(310)	25.5%	39.7%	34.8%
I use the breathing tools from health and wellness (yoga) when I am at home.	(311)	33.8%	41.8%	24.4%
I feel like health and wellness (yoga) helps me fall asleep at night	(313)	39.9%	29.1%	31.0%

Table 6: Attitudes and Use of Yoga among Fifth Graders

	Fifth Grade			
	(n)	Not at All	A Little	A Lot
I like health and wellness (yoga) at school.	(297)	17.5%	32.7%	49.8%
I feel like health and wellness (yoga) helps me calm down when I get angry.	(300)	23.3%	34.0%	42.7%
I feel like health and wellness (yoga) helps me control my behavior.	(294)	25.9%	33.0%	41.2%
I use the breathing tools from health and wellness (yoga) when I am at school.	(299)	33.1%	38.5%	28.4%
I use the breathing tools from health and wellness (yoga) when I am at home.	(298)	43.6%	33.6%	22.8%
I feel like health and wellness (yoga) helps me fall asleep at night	(300)	47.3%	26.0%	26.7%

DISCUSSION

Findings from this study align with much of the research currently being conducted in the field of school-based health and wellness programs. The outcomes, as measured by self-reported survey data and data collected by schools, were relatively modest (and occasionally mixed). Yet, they do suggest some changes, as measured by the Involuntary Engagement Scale and some of the subscales, occurred among the fourth and fifth grade students at three of the intervention schools. The qualitative and descriptive components of the research, in contrast, more broadly suggest that students liked the yoga program and were benefitting from using the yoga and breathing tools both in and outside of school.

The findings from the study also highlight challenges associated with conducting quasi-experimental research in schools and relying on existing data maintained and compiled by the school district. Academic achievement data were missing for some of the students, and the study might have benefited from using more nuanced or different measures. In addition, given that there were more positive

outcomes among students who had received the program longer (the fourth graders), tracking the intervention for a longer period of might also have yielded more positive findings.

There are also a number of opportunities for future research into the efficacy of yoga programs. For example, there are a number of factors which might predict why some students respond to the yoga experience differently than others, such as the teaching style of the instructor, the instructor’s race or gender, or even the physical space of the classroom or instructional setting. Other factors, such as greater levels of student engagement and interest in health and wellness, or the presence or absence of other enrichment activities taking place within the school setting may also play a role. Future research is needed.

CONCLUSION

As district and school leaders respond to the need for resources to support the physical and mental well-being of students, they often gravitate toward implementing programs or interventions that their counterparts from other schools or

districts have described as successful, or they pursue adopting a program or intervention that has been deemed effective by research and evaluative measures. However a school or district leader proceeds to adopt a yoga program, his or her decision is influenced by positive findings or testimonials about its impact on student wellness.

Though findings from the study suggest some positive changes in self-regulatory and school-based outcomes did occur at some of the intervention schools, most students across all five schools shared testimonials as to how they were using tools from yoga in positive ways to support their well-being. While quantitative data revealed small effects, the qualitative data did suggest that students were benefiting from the experience. Findings from this study reinforce the value of mixed methods studies, particularly when evaluating pilot programs and replicating them.

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Appendix A: Response to Stress Scales

Involuntary Engagement Scale ($\alpha = .872$)

Rumination ($\alpha = .690$)

- When problems with other kids come up, I can't stop thinking about how I'm feeling.
- When I have problems with other kids, I can't stop thinking about what I did or said.
- When I have problems with other kids, I can't stop thinking about why they happened to me.

Intrusive Thoughts ($\alpha = .678$)

- I keep remembering what happened with the other kids or can't stop thinking about what might happen.
- When I'm having problems getting along with other kids, I can't stop thinking about them when I try to sleep, or I have bad dreams about them.
- Thoughts about the problems with other kids just pop into my head.

Physiological Arousal ($\alpha = .566$)

- When I have problems with other kids I get sick to my stomach or get headaches
- I get really jumpy when I'm having problems getting along with other kids.
- When I have problems with other kids, I feel it in my body.

Emotional Arousal ($\alpha = .600$)

- When I have problems with other kids, right away I feel really angry, sad, scared, or worried.
- When problems with other kids come up, I get upset about things that don't usually bother me.
- My thoughts start racing when I'm having a tough time with other kids.

Involuntary Action ($\alpha = .752$)

- When problems with other kids happen, I can't always control what I do.
- When I'm having a problem with other kids, sometimes I act without thinking.
- When I have problems with other kids, sometimes I can't control what I do or say.

Primary Control Engagement Coping Scale ($\alpha = .743$)

Emotional Regulation ($\alpha = .483$)

- I get help from other people when I'm trying to figure out how to deal with my feelings.
- I do something to calm myself down when I'm having problems with other kids.
- I keep my feelings under control when I have to, let them out when they won't make things worse.

Problem Solving ($\alpha = .592$)

- I try to think of different ways to change the problem or fix the situation.
- I ask other people for help or for ideas about how to make the problem better.
- I do something to try to fix the problem or take action to change things.

Emotional Expression ($\alpha = .540$)

- I let someone or something know how I feel.
- I let my feelings out.
- I get sympathy, understanding or support from someone.

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