

Winter 2009

# Bully Prevention in Positive Behavior Support

Scott W. Ross  
*Utah State University*

R. H. Horner

Follow this and additional works at: [http://digitalcommons.usu.edu/sped\\_facpub](http://digitalcommons.usu.edu/sped_facpub)

 Part of the [Special Education and Teaching Commons](#)

---

## Recommended Citation

Ross, S. W., & Horner, R. H. (2009) Bully prevention in positive behavior support. *Journal of Applied Behavior Analysis*, 42, 747-759.

This Article is brought to you for free and open access by the Special Education and Rehabilitation at DigitalCommons@USU. It has been accepted for inclusion in SPER Faculty Publications by an authorized administrator of DigitalCommons@USU. For more information, please contact [dylan.burns@usu.edu](mailto:dylan.burns@usu.edu).



**Bully Prevention in Positive Behavior Support:  
Preliminary evaluation of 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> grade attitudes toward bullying**

Scott W. Ross, PhD

Utah State University

Special Education and Rehabilitation

2865 Old Main Hill

Logan, UT 84322-2865

Scott.ross@usu.edu

&

Robert H. Horner, PhD

University of Oregon

Educational and Community Supports (ECS)

1235 University of Oregon

Eugene, Oregon 97403-1235

robh@uoregon.edu

This research was supported by a federal training grant, Project Vanguard:  
Leadership Preparation in Literacy and Positive Behavior Support, Number  
H325D030039, from the United States Department of Education.

## **Bully Prevention in Positive Behavior Support:**

### **Preliminary evaluation of 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> grade attitudes toward bullying**

Major concern about bullying continues to grow across the country, particularly following high-profile school shootings, suicides, or when a student takes the life of another. States and districts have been quick to respond, demanding punishment-oriented consequences, resource-intensive interventions, and increased accountability for teachers and administrators. As of this writing, forty-nine states have passed anti-bullying laws, including clear prohibitions on bullying, legislative findings of its deleterious effects, and specific response requirements for schools (<http://bullypolice.org>).

Studies assessing the prevalence rates of bullying and victimization have demonstrated prevalence rates between 15% and 35% depending on sample characteristics and methodology (Cook, Williams, Guerra, & Kim, 2010; Eslea & Mukhtar, 2000; Espelage & Swearer, 2011; GLSEN, 2009; Hinduja & Patchin, 2007; Kowalski & Limber, 2007; Li, 2007; Nansel, et al., 2001; Pellegrini, et. al., 2010 Williams & Guerra, 2007; Ybarra & Mitchell, 2004). Students with disabilities are even more at-risk than their than non-disabled peers (Carter & Spencer, 2006; Rose, 2011; Blake, et al., 2012) and bullying and victimization are commonly a direct result of that disability (Whitney, Smith & Thompson, 1994). Students with disabilities are disproportionately more likely to face peer rejection (Martlew & Hodson, 1991; Whitney, et al, 1994; and Hodges and Perry, 1996), and have significant social skills deficits, either as a core trait of their disability or as a result of social isolation (Young, Ne'eman, & Gelser, 2012). In addition, the special education category of emotional and behavioral disorders may yield the greatest number of bullies, victims, and bully/victims. In particular, students with

Emotional Disturbance (ED) experience significantly higher rates of bully victimization than all other disabilities, with rates ranging from 39% to 52% (Blake, et al., 2012).

Attributes including genetic predispositions towards impulsivity and violence, as well as environmental factors such as dysfunctional families, negative role models, and fewer and poorer friendships may contribute to increased bullying behavior (Schonert-Reichl, 1993). These students may also experience increased victimization due to low self-esteem, shyness, and pervasive unhappiness (Heward, 2003).

### **Past Efforts**

Responses to bullying primarily employ tactics of exclusion and punishment. While these reactions are necessary at times, decades of research have revealed their clear insufficiency. As a primary response, exclusion and punishment have been ineffective at producing long-term reductions in problem behavior (Costenbader & Markson, 1998). In particular, punishment in schools *without* a proactive support system has been associated with increases in (a) aggression, (b) vandalism, (c) truancy, and (d) dropping out (Mayer, 1995; Mayer & Sulzar-Azaroff, 1991; Skiba & Peterson, 1999). Instead, collective research efforts to date point to the need for an effective school-wide framework for implementing and sustaining bully prevention efforts (Espelage & Swearer, 2004).

*Comprehensive bully prevention approaches.* The past two decades have seen the development of a plethora of school-wide bully prevention programs. The most commonly researched and implemented of which involve multiple components including school-wide prevention efforts, classroom-focused lessons, parent training, teacher training, activities aimed at increasing community involvement (e.g., mental health workers), and targeted activities for children involved in bullying (Bradshaw &

Waasdorp, 2011). While each of these practices can help students, three critical issues have reduced their impact. First, many pre-packaged programs require a significant amount of time and resources to implement. Often they include a list of practices embedded as standard protocol rather than as a systemic response to contextual need. Second, when pre-packaged programs are employed, they typically focus on initial intervention or lesson delivery but lack specific programming for the generalization of skills. When this occurs, staff are likely to view the programs as one more task to complete, are not well trained, and are not motivated to implement with integrity (Biggs, Vernberg, Twemlow, Fonagy, & Dill, 2008; U.S. Department of Education, National Center for Education Research, Institute of Education Sciences, 2010). Third, while comprehensive bully prevention programs prescribe a considerable amount of intervention, they often lack the system and data infrastructures necessary for decision-making, modification, and sustainability. As a result, schools have had a difficult time implementing them without additional funding and personnel (Ferguson, San Miguel, Kilburn, & Sanchez, 2007; Limber et al., 2004; Merrell, Gueldner, Ross, & Isava, 2008; Roland, 1993).

One particularly important contribution to the development of comprehensive bully prevention is the Olweus Bully Prevention Program (OBPP), which is the most highly researched and implemented program on the market. The OBPP is an important early influence and standard of high quality bullying prevention in schools. An increasing number of validation replications and enhancements are being conducted in schools outside of Norway and in the United States (Limber, 2004; Nansel et al., 2001; Olweus, 1997; Olweus, 2005; Solberg & Olweus, 2003), which acknowledge the utility and

interest in the OBPP. Results from this research support school-wide approaches like OBPP, and reveal that additional program development and research are needed. For example, Limber et al. (2004) reported some initial reductions in self-report measures of peer victimization in boys after implementation of OBPP. However, two years later, differences from the baseline level of peer victimization were insignificant. Additionally, an analysis of results obtained in a study conducted in Rogaland, Norway, indicated an actual increase in bullying behavior three years after the implementation of the Olweus program (Roland, 1993). These types of findings reinforce the need for further enhancements and extensions of school-wide bully prevention efforts.

### **Bully Prevention in Positive Behavior Support**

The following pilot study was conducted to demonstrate the potential promise of a different approach to comprehensive bully prevention. Rather than struggle to embed manualized, resource-intensive school-wide programs, “Bully Prevention in Positive Behavior Support” (BP-PBS) uses an RtI-like framework to build durable, responsive supports that fit individual contexts. Schools start with practices that support the most students possible for the least amount of required resources (i.e., simple school-wide components). Then, once these strategies are in place, additional interventions are embedded, systematically increasing in intensity and individualization until every student in the school is provided with the necessary level of support.

*Positive Behavior and Intervention Supports (PBIS).* A PBIS approach to bullying prevention starts with the development of an infrastructure that supports positive student behavior. Over 20 years of research has demonstrated that the implementation of a few simple strategies can have a substantial impact on student outcomes. These strategies,

when implemented well, have resulted in demonstrated effectiveness when implemented by typical state agents (Horner et al., 2009; Waasdorp, Bradshaw, & Leaf, 2012), as well as over long periods of time (Colvin & Fernandez, 2000; Luiselli, Putnam, & Sunderland, 2002; Putnam, Luiselli, & Sunderland, 2002; Taylor-Greene & Kartub, 2000).

The first critical PBIS strategy involves the formation of a representative school problem-solving team. This team collects specific data and uses that data to modify student supports on a regular basis (Sprague & Horner, 2006). While most schools in the country have teams making decisions concerning administrative, academic, and social support issues, PBIS teams use best practices for data-based problem solving (e.g., Deno, 2005; Jorgensen, Scheier, & Fautsko, 1981; Newton, Horner, Algozzine, Todd, & Algozzine, 2009; Ysseldyke et al., 2006), and recent research has demonstrated the specific impact of PBIS team training on improved problem solving practices (Todd, et. al., 2011).

Once an effective problem-solving team is established, the second PBIS strategy involves explicit school-wide instruction on the behaviors that are expected (Colvin & Kame'enui, 1993). Rather than focusing on rules about what students *shouldn't* do (no bullying, no fighting, no harassment, etc.), staff teach a small number of positively stated expectations to all students (respect, responsibility, safety, kindness, etc.). A matrix operationally defines those expectations in each school setting, and posters are displayed around the school to describe what the expected behaviors look like. These posters make the expectations easy for students to learn and remember, they prompt staff to catch kids doing the appropriate behavior, and they increase the consistency of staff response.

Finally, after the problem-solving team is established and behavioral expectations

are defined and taught explicitly, schools implement a system of reinforcement for following the expected behaviors. This school-wide reinforcement system helps develop a positive school culture, increases skill acquisition, and augments skill maintenance. Research has demonstrated that the use of such as system contributes to more consistent attendance, higher student achievement, prevention of peer conflict, and reduced incidents of bullying (e.g., Gottfredson & Gottfredson, 1985; Malecki & Demaray, 2004; Rigby, 1996; Whitney & Smith, 1993).

*Specific bullying prevention strategies added to PBIS.* By themselves, the Tier I PBIS strategies described above significantly reduce incidents of bullying (Waasdorp, Bradshaw, & Leaf, 2012). But even with them in place, many schools find a certain proportion of students exhibiting continued bullying behavior. Up until recently, the next step of intervention in the PBIS framework involved small-group or individual interventions for indicated students, commonly referred to as Tier II or secondary supports. For example, Check-in, Check-out (CICO; Crone, Hawken, & Horner, 2010), is a Tier II intervention commonly employed in a PBIS system, which involves a brief meeting with an adult at the beginning and end of the day along with a generic behavior card assessed throughout the day. CICO has demonstrated effectiveness across many studies and is quickly gaining support as an evidence-based tier II practice (Campbell & Anderson, 2011; Fairbanks, Sugai, Guardino, & Lathrop, 2007; Hawken, MacLeod, & Rawlings, 2007; Hawken & Horner, 2003; Hawken, MacLeod, & Rawlings, 2007).

But while small group interventions like CICO are extremely effective for many students, they are not the ideal next step in bully prevention. Research on bullying reveals that peers (bystanders) play a critical role (Atlas & Pepler, 1998; Craig & Pepler, 1995;



Salmivalli, 2002; Soutter & McKenzie, 2000). From a social learning perspective, children support or imitate bullying because (a) bullies are typically powerful figures, (b) they share similar characteristics with their peers, and (c) they are rarely punished for the bullying behavior (Bandura, 1977; Craig & Pepler, 1997; O'Connell, Pepler & Craig, 1999). From a group involvement perspective, bullying behavior is motivated by a pursuit for status and power in a peer group (Juvonen & Galvan, 2008; Salmivalli & Peets, 2008). When witnesses either encourage bullying or stand by and allow it to happen, they give bullies the power they seek. Finally, from a behavioral perspective, bystanders reinforce bullying behavior by laughing at victims, fighting back/harassing perpetrators in retaliation, or watching the problem behavior and doing nothing about it (Atlas & Pepler, 1998; Craig & Pepler, 1995; Salmivalli, 2002; Soutter & McKenzie, 2000). Over time, students learn that bullying others is an efficient and effective means of gaining peer attention. Therefore, it is clear that intervening with the bully, victim, or small group alone will not address the social support or maintaining peer attention, and is unlikely produce the desired outcome. To address the peer context critical for bullying, Bully Prevention in Positive Behavior Support (BP-PBS) adds simple, school-wide (Tier I) strategies to (a) remove the specific triggers and reinforcement for bullying behavior, and (b) increase generalization of specific skills to settings where bullying is most likely to occur.

First, the added BP-PBS intervention involves school-wide instruction of a simple, "stop signal" that students use when experiencing or witnessing disrespectful behavior. If the stop signal does not effectively remove the disrespectful behavior, students are then taught to "walk" away or help others walk away from the incident.

Finally, if disrespect continues even after using the stop signal and walking away, students are taught to “talk” to an adult. Talking to an adult only after using the stop and walk steps allows students to address minor disrespectful behavior on their own, effectively removing the peer attention that fuels it. At the same time, it gives students a clear rule for how to get help from adults appropriately without “tattling”.

Research indicates that youth may be hesitant to report and address incidents of “bullying” because they associate victimization with weakness (Hamby and Finkelhor, 2000). In contrast, responding to hitting, teasing, or disrespect may feel like it reflects on the inappropriate behavior rather than on a personal deficiency. For this reason, the term “bullying” is not used while teaching the stop response in BP-PBS. Instead, instruction focuses on how to respond to situations when other students do not follow the school-wide “respectful” expectation. By avoiding the bullying language, students learn to use the stop/walk/talk response with bullying behavior as well as more general disrespectful behavior. While this may be considered a weakness for better understanding the various forms of bullying, it removes the need for students and adults to evaluate incidents for frequency, intent, and power prior to responding to it.

It is also worth noting that previous arguments have contended that bullies have a “spirit of violence”, making them less motivated to change their behavior (Olweus, 1978). While it is true that some children are extremely motivated to exhibit bullying behavior, from a behavioral perspective, this is due to the extensive peer attention they have received for that problem behavior over time. To combat it, BP-PBS focuses on putting the bullying behavior on extinction using the stop/walk/talk procedure. By removing the reinforcement, bullying behavior becomes ineffective and inefficient at

obtaining peer attention, and over time students learn to find other, more appropriate ways of acquiring it.

While the advantages of a simple, specific stop routine are clear, instruction also addresses specific challenges students commonly encounter (e.g., gossip, bullying on the bus, cyber-bullying). First, the 3-step stop sequence is used when problem behavior is directed toward the student *or* someone else. This is critical in situations of gossip, when the victim is rarely in the vicinity. Second, the “stop” signal is used up-close (on the bus), from across the cafeteria (by using an accompanying “stop” hand signal), or online (typing “stop” into Facebook messages or texts). Third, students learn that if steps in the response don’t *eliminate* the problem, they should move on to the next step. For example, if the “walk away” step is not possible (e.g., on the bus), or does not *eliminate* the problem (e.g., inappropriate texts sent out in mass), the student should move on to the “talk” step and tell an adult. In cyber-bullying situations, the “stop” signal is almost always followed up with talking to an adult because “stop” rarely eliminates the problem. It does, however, provide students with an opportunity to stand up to the problem behavior prior to adults getting involved.

The BP-PBS stop/walk/talk instruction takes a very short period of time (one 45 minute session), along with 2-3 minute weekly follow-ups to ensure ongoing use of the skill in locations where disrespect remains an issue (e.g., cafeteria, playground, parking lot). In addition, all adults in the school are trained to (a) reinforce students at a high rate for attempts to use the stop routine, (b) practice skills with students on a daily basis, and (c) use a universal review and resolve routine for responding to student reports of problem behavior. These additional strategies are critical for the success of the

intervention because they strengthen generalization of the stop/walk/talk skills to environments where those skills are needed, and they provide clarity for students about how adults will respond when incidents are reported.

Some have questioned if such a simple set of strategies could have a significant impact on bullying behavior. Recently an experimental validation of BP-PBS demonstrated a 72% reduction in the observed problem behavior of the most challenging students in three elementary schools (Ross & Horner, 2009). It also demonstrated that other students (victims and bystanders) responded more effectively to incidents, thereby putting the problem behavior on extinction. But while these results reveal the power of the intervention with specific challenging students, they do not show the intervention's effect on the *attitudes* of the students in the school. These attitudes (via self report surveys) are important to consider because (a) they are the most commonly used approach for identifying bullies and victims, (b) national studies rely on self report to determine prevalence rates of bullying (Nansel, Overpeck, Pilla, Ruan, Simons-Morton, & Scheidt, 2001; Solberg & Olweus, 2003), and (c) schools that undertake programs to reduce bullying have been advised to rely on self-report surveys to measure the effectiveness of their efforts (Olweus, 1997; Olweus, Limber, & Mihalic, 1998).

Therefore, the goal of the current pilot study was to demonstrate the potential promise of adding the simple and efficient BP-PBS strategies to already established PBIS Tier I systems using the self-report surveys of 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> grade students from three elementary schools that received the intervention during the 2008-2009 school-year. More specifically, the study assessed the relationship between the implementation of Bully Prevention in Positive Behavior Support and 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> grade student attitudes

related to bullying, harassment, and school safety.

## **METHODS**

The present pilot study is the second part of an evaluation trial of Bully Prevention in Positive Behavior Support (BP-PBS; Ross, Horner, & Stiller, 2008). The first part used single-subject methodology to demonstrate a 72% decrease in incidents of bullying-related problem behavior for two nominated students in three elementary schools (Ross & Horner, 2009). The current (second) part examined the intervention's relationship to student attitudes related to bullying – more specifically - how 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> grade students responded to a short survey in the Fall prior to implementation and in the Spring following a year of implementation.

### **Participants**

Data were collected in three elementary schools in one suburban district in the Pacific Northwest. Inclusion in the project required: (a) schools implemented Positive Behavior and Intervention Supports (PBIS) with fidelity meeting an 80% criterion on the School-wide Evaluation Tool (Todd, et. al, 2003); (b) all school staff attended the intervention training; (c) all 3<sup>rd</sup> through 5<sup>th</sup> grade teachers completed the student perception surveys with their students; (d) schools refrained from introducing similar interventions during the study; and (e) each school included grades K-5.

Of the 12 interested schools within the district, the 3 selected schools included between 319 and 567 students, and were attended by students of varying levels of socioeconomic status (SES) as determined by the percent of students on free and/or reduced lunch programs. After school consent was obtained, passive parental consent was sent home through a newsletter, describing the intervention and providing an opportunity for

parents to opt their child out of the intervention and data collection. All but the parents of 3 students provided consent (99.38%). Once consent was attained, the three schools implemented the program sequentially in the fall, one school at a time. The sequential implementation was due to part 1 of the evaluation, where a multiple baseline-across-schools was employed to assess the interventions impact with each school (Ross & Horner, 2009). Also, because no control schools were used in the study, only pre-post outcomes were evaluated (See table 1 for school selection criteria including SET score, SES, overall student enrollment, and school grade levels).

(Insert Table 1 here)

### **Survey Measure**

The Student Experience Survey (Frey, et. al, 2004) was used to assess 3rd, 4th, and 5th grade student perceptions 1-2 weeks prior to intervention and again at the end of the school year. The Student Experience Survey is a 21-item measure designed to assess bullying related perceptions and attitudes. The survey includes four scales with descriptive and psychometric statistics calculated using a sample of 1126 students across six elementary schools. Perceived Assertiveness items assessed each student's willingness to stand up to bullying ( $\alpha = .81$ ). For example, "Kids at school are pushing you around. How hard would it be to calmly tell them to stop?" Perceived Adult Responsiveness items are related to perceptions of adults and their willingness to help ( $\alpha = .59$ ). For example, "If I were being bullied, I would ask an adult at school for help."). Bystander Responsibility items assessed students' willingness to stand up for others ( $\alpha = .88$ ). For example, "If my friends were passing mean notes about another kid, I would tell them to stop."). Finally, Acceptance of Bullying/Aggression items

assessed the acceptability of bullying and retaliatory behaviors ( $\alpha = .86$ ). For example, “Its okay to say someone mean to a kid who’s pushing you around. In addition, a standard confirmatory factor analysis validated the model fit for each construct using three standard fit indices: the Bentler Bonnet Index, the Comparative Fit Index, and the model Chi Square.

In addition to the 21 items of the Student Experience Survey, nine items were added to address specific behaviors related to the BP-PBS intervention. Students were asked to indicate how often (a) they said mean things, teased, or called other kids names, (b) other kids said mean things, teased, or called them names, (c) they hit, kicked, or pushed other kids at school, (d) other kids hit kicked, or pushed them at school, (e) they told friends secrets they heard about other people, (f) other kids told secrets about them, (g) when someone did something to them that they didn’t like, they calmly told them to stop, (h) when someone did something to them that they didn’t like, they walked away, and (i) when someone continued to do something to them that they didn’t like even after they told them to stop and walked away, they told an adult. The set of available responses for these items were: *never, once in a while, once a week, once a day, or more than once a day.*

The Student Experience Survey and nine additional items (labeled SES+ for the remainder of the article) was administered by the classroom teachers and took approximately 15-20 minutes to complete at each time point. Following an introduction to the measure, examples and survey items were read aloud. The survey was also read aloud if reading difficulties or limited English proficiency were of concern.

## **Procedure**

Before implementation of the program began in the fall, each school sent a newsletter to parents describing the intervention and providing them an opportunity to opt their child out of the project. Pre-intervention surveys were then completed by all consenting 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> grade students, 483 students in total. Next, a 3-hour staff training was provided to each school. Once the school staff were trained, they were given one week to provide the BP-PBS instruction to their students. This was critical to ensure that all students in the school learned the new skills at nearly the same time and could begin using them with each other immediately. Finally, in May at the end of the school year, the 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> graders again filled out the student self-report perception survey.

### **Fidelity of Implementation**

Fidelity of the BP-PBS intervention was assessed through both student knowledge of the curriculum, and staff adherence to program components. In regards to the student knowledge of the curriculum, ten randomly selected students were interviewed at three different points during the course of the intervention, and were asked to tell the interviewer the 3-step response to disrespect. The results indicated that at each of the 3 assessment points, students knew the 3-step response with more than 93% accuracy. With regard to staff adherence, across the course of the study, all supervisory staff completed a daily checklist about the number of times they (a) checked in with students, (b) delivered positive reinforcement for use of the stop routine, (c) received reports of problem behavior from students, (d) practiced the stop routine with students, and (e) gave office discipline referrals for continued bullying behavior.

All teachers and supervisory staff in the three schools were asked to fill out the daily checklist ( $n=52$ ). Overall, staff participated in an average of 1.97 check-ins with



victims and perpetrators, delivered positive reinforcement to students for using the BP-PBS curriculum components 2.25 times per day, received 2.27 student reports of problem behavior, practiced the stop routine with students 2.95 times, and delivered office discipline referrals to students exhibiting continued problem behavior a total of 10 times throughout the study, for an average of 0.06 times per day.

### **Social Validity**

At the conclusion of the study, all teachers and staff were also asked to complete a 4-item social validity questionnaire. The questionnaire used a 6-point scale (1 through 6), with higher scores indicating a higher satisfaction with the intervention components. The items asked respondents if the BP-PBS intervention (a) resulted in improved behavior, (b) was worth the time and effort, (c) would be recommended to others, and (d) was easy to implement. All 52 staff members completed the survey (100% completion rate).

### **Study Design**

A between-subjects multivariate analysis of variance (MANOVA) was used to evaluate student perceptions and attitudes about bullying before and after the intervention. It was anticipated that student scores on the SES+ would improve significantly when compared to pre-intervention. More specifically, the analysis was conducted to determine if (a) the pre and post SES+ survey were equivalent, (b) grade 3, 4, and 5 were equivalent, and (c) grade level and intervention level had an interaction effect on the 13 dependent variables of the survey: the 4 Student Experience Survey scales and the nine additional items.

## **RESULTS**

A MANOVA was conducted in SPSS to determine the relationship between the students' ( $n = 483$ ) level of intervention (*pre or post BP-PBS*), their grade level ( $3^{rd}$ ,  $4^{th}$ , or  $5^{th}$ ), their school (school A, B, or C), and their scores on the self-report survey. Results of the overall test for all outcomes indicated that there was a significant effect of level of intervention, grade, and interaction, but no significant effect of school. Wilks' Lambda reported  $F(1, 482) = 27.63, p < .001$  for intervention level,  $F(2, 481) = 2.91, p < .001$  for grade level, and  $F(1, 481) = 3.73, p < .001$  for the interaction effect.

### **Effects of Intervention Level**

To better understand these main effects, a comparison between pre and post BP-PBS surveys was analyzed for each of the 13 specific components of the SES+. Results indicated that 12 out of the 13 dependent variables were significantly different in the post survey (See Table 2). The only dependent variable not significantly different was the score of perceived gossip towards others (i.e., "How often did you tell friends secrets you heard about other people?"),  $F(1, 482) = 1.10, p = 0.29$ .

(Insert Table 2 here)

### **Effects of Grade**

Next, comparisons between  $3^{rd}$ ,  $4^{th}$ , and  $5^{th}$  grades were analyzed. Results indicated that  $3^{rd}$  and  $4^{th}$  graders scored significantly better than  $5^{th}$  graders on six of the dependent variables. More specifically, fifth grade students scored significantly lower than the other grades on perceived assertiveness,  $F(2, 964) = 4.57, p = 0.01$ . They scored significantly higher on their acceptance of bullying and aggression,  $F(2, 964) = 3.24, p = 0.04$ . They scored significantly higher in their use of gossip toward other students,  $F(2, 964) = 5.11, p = 0.06$ . Finally,  $5^{th}$  graders were significantly less likely, while  $4^{th}$  graders

were significantly more likely, to use all 3 parts of the stop/walk/talk routine when experiencing disrespectful behavior:  $F(2, 964) = 9.05, p < 0.001$  for “stop;  $F(2, 964) = 11.37, p < 0.001$  for “walk away”; and  $F(2, 964) = 6.46, p = 0.002$  for “talk to an adult” (grade level outcomes for each dependent variable are provided in table 3).

(Insert Table 3 here)

### **Interaction between Intervention and Grade**

Finally, the interaction effect of intervention and grade level was analyzed. Results indicated significant positive effects for 3<sup>rd</sup> graders on 4 critical variables: Assertiveness ( $F(1, 481) = 13.89, p > .001$ ), Acceptance of Bullying and Aggression ( $F(1, 481) = 5.41, p = .005$ ), Verbal aggression toward others ( $F(1, 481) = 5.39, p = .005$ , and Verbal aggression by others ( $F(1, 481) = 4.93, p = .007$ ). These results make a case that the BP-PBS intervention had the greatest impact on 3<sup>rd</sup> grader attitudes and perceptions (See Table 4 for interaction effects for the 4 significant dependent variables).

(Insert Table 4 here)

### **Social Validity**

Fifty-two 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> grade staff from the three schools completed the social validity questionnaire at the end of the study (100% completion rate). The questionnaire used a 6-point scale (1 through 6), with higher scores indicating a higher satisfaction with intervention components. Overall, staff indicated that BP-PBS (a) resulted in improved behavior ( $M = 4.43, SD = 1.04$ ), (b) was worth the time and effort ( $M = 4.74, SD = 1.10$ ), (c) would recommend it to others ( $M = 4.6, SD = 1.23$ ), and (d) was easy to implement ( $M = 5.51, SD = 0.77$ ).

## **DISCUSSION**

The current pilot study examined 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> grade student self-report surveys of perceptions related to bullying before and after the implementation of Bully Prevention in Positive Behavior Support. Overall results indicated significant differences in 12 of the 13 dependent variables of the survey. In particular, the intervention may have had the strongest impact on student perceptions of assertiveness, or willingness to stand up to incidents of problem behavior, perceptions of bystander support, and use of the “stop” signal. These findings are likely attributable to the stop routine that all students in the school learned. Teaching the skills school-wide gave students a simple and effective way to stand up to problem behavior and remove the peer attention reinforcing it.

Another interesting finding in the study was that overall, 5<sup>th</sup> graders were less willing to stand up against incidents of bullying, were more accepting of it, were more likely to gossip, and were less likely to say stop, walk away from, or tell an adult about problem behavior. These findings are troubling yet not surprising considering incidents of bullying tend to increase as students move into middle school (Cook, Williams, Guerra, & Kim, 2010; Kowalski & Limber, 2007; Williams & Guerra, 2007). In their meta-analysis of 153 studies, Cook, et al. (2010) indicated that while bullies appeared to be rejected by their peers during childhood, they became more accepted and popular as they entered adolescence. If students find it more socially acceptable to behave disrespectfully as they get older, they are less likely to intervene in incidents of disrespect or bullying. In addition, strategies like stop/walk/talk might be considered childish to older students, and modifications might be necessary to increase buy-in. For example, since the initial implementation of BP-PBS, several middle schools and high schools have piloted the program and have made specific changes to increase its effectiveness with older students.

First, students drive the intervention in secondary settings, starting with the development of student focus or leadership teams. These teams discuss the issues of disrespect in their school, develop the stop response that the school will use (not necessarily stop/walk/talk), help teach the skills to the other students (often employing video), and report data to the rest of the school both before and after implementation.

Finally, the interaction between grade and intervention revealed that BP-PBS may have had the largest effect on the perceptions of 3<sup>rd</sup> graders regarding their assertiveness, acceptance, and verbal aggression. Third grader perceptions were drastically different after the intervention had been delivered, and while we see the most severe incidents of bullying at later ages, third grade (and possibly before) may be when educators can have the greatest impact on it.

Overall, these preliminary results support the use of BP-PBS as a possible “next step” in bully prevention for schools implementing Tier I PBIS. By responding effectively to incidents of bullying behavior, victims and bystanders learn to remove the peer attention reinforcing bullying behavior, decreasing the motivation to bully in the future. This not only reduced actual incidents of bullying (as indicated in part one of the study see Ross & Horner, 2009), it importantly indicated significant reductions in student attitudes and perceptions. Staff were able to implement the program with a high degree of fidelity, and gave the intervention high scores regarding its effectiveness and efficiency.

### **Implications for Practice**

These findings have potential implications for educators. First, addressing bullying early may be important for achieving the most positive student outcomes. If educators wait until students reach high school, middle school, or even 5<sup>th</sup> grade, students

may be too accepting of the inappropriate behavior and too unwilling to do anything about it. Second, preliminary results indicate that explicit instruction of a simple response to disrespectful behavior along with conspicuous strategies for the generalization of those skills, when embedded within a framework of PBIS, may be an effective and sustainable strategy for reducing bullying behavior. Because the BP-PBS strategies were embedded in schools that had already established Tier I Positive Behavior and Intervention Supports, the intervention was substantially less intrusive. Each school had previously invested in a school-wide PBIS team, explicit school-wide instruction on expected behaviors, and formal systems for recognition of that expected behavior. Since all students in the schools already understood the common behavioral expectations, it took relatively little effort on the part of the staff to teach the added instruction of BP-PBS – what to do when someone is not following those expectations. Also, because the initial instruction was so simple, adults were very willing to implement the coaching and planned generalization strategies absolutely critical for skill maintenance. For this reason it is likely that the foundational elements of Tier I PBIS increased the effectiveness and sustainability of BP-PBS, and educators should be wary of implementing bully prevention efforts without such a foundation in place.

In addition, it is not enough to simply teach the BP-PBS skills and reinforce them regularly. Regular follow-up is necessary to address continued problem areas and areas where the BP-PBS skills aren't enough. While this may sound simple, maintenance of adult implementation, awareness and motivation can be a major challenge. To make it work, the school's PBIS team should provide ongoing support to administrators, teachers, and supervisors by collecting, sharing, and coaching around implementation and outcome

data. Good practice also includes ongoing training and brainstorming about how to make the program fit within the context of the school. This can include weekly supervisor meetings to discuss upcoming issues and ongoing evaluation of program effectiveness.

### **Limitations**

While the results of the current study are promising, severe limitations should prompt caution in interpreting the results. First of all, this study only implemented a simple pre-post, between subjects, non-experimental design. As no control group was included, significant threats to internal validity must be considered, and conclusions must be tempered as a result. Future research should evaluate the effectiveness of BP-PBS across many schools over an extended period of time, using pre-post, within-subjects, control group designs. It would also be valuable to determine the effects of BP-PBS over multiple years, through middle school, high school, and even into adulthood.

A second major limitation in the study is the non-independence of observations. The current analysis did not account for the clustering of students within classrooms and schools. Future research should involve more schools along with control schools in the evaluation of the intervention's effects, especially if self-report is used as the primary outcome measure.

A third major limitation in the study involves the exclusive reliance on self-report. While part 1 of the study (see Ross & Horner, 2009) evaluated direct observation and conditional probabilities of bullying behavior, the self-report data reported here is open to many biases and may not reflect actual behavior. Evaluating self-report surveys is important because it allows for a comparison with other common interventions (Olweus, 1997; Olweus, Limber, & Mihalic, 1998), but the results are less trustworthy than more

direct measures, which has been indicated as a major problem in the literature (Ttofi & Farrington, 2011).

Finally, incidents of bullying commonly increase as the school-year progresses. Because of this, student perception surveys conducted in the spring will often show a worsening of student perceptions and attitudes about bullying when compared to fall measurements. While the current study demonstrated significant results despite implementing the survey in the fall and spring, it is likely that more pronounced effects would have been demonstrated if the survey had been conducted in the spring prior to the intervention. Future research should take this issue into account and conduct pre-intervention surveys in the spring prior to implementation to get a better idea of the project's true impact.

## **Conclusion**

BP-PBS is an example of a simple intervention implemented with high fidelity by regular faculty and staff in three elementary schools. The intervention was associated with significant improvements in perceptions of problem behavior, and staff evaluated the strategies as effective in improving behavior, “worth the time and effort,” and “easy to implement”. As schools build environments to prevent problem behavior and support adaptive behavior, a perspective of efficiency is growing in importance. Resources in schools are scarce and must be carefully considered as interventions move up the triangle of intensity. School-wide Positive Behavior and Intervention Support has demonstrated its value as a foundation for supporting student behavior. The evaluation of BP-PBS has provided preliminary evidence that it can serve as an efficient and effective “next step” when bullying continues to be a problem.



## References

- Atlas, R. S., & Pepler, D. J. (1998). Observations of bullying in the classroom. *Journal of Educational Research, 92*, 86-99.
- Batsche, G., Elliott, J., Graden, J. L., Grimes, J., Kovaleski, J. F., Prasse, D., et al. (2005). *Response to Intervention: Policy considerations and implementation*. Alexandria, VA: National Association of State Directors of Special Education.
- Biggs, BK, Vernberg, E, Twemlow, SW, Fonagy, P, & Dill, EJ (2008). Teacher adherence and its relation to teacher attitudes and student outcomes in an elementary school-based violence prevention program. *School Psychology Review, 37*, (4) 533-549.
- Blake, J.J., Lund, E.M., Zhou, Q., Kwok, O., & Benz, M.R. (2012). National prevalence rates of bully victimization among students with disabilities in the United States. *School Psychology Quarterly, 27*(4), 210-222.

- Bradshaw, C., Waasdorp, T. O'Brennan, L., & Gulemetova, M. (2011). *Findings from the National Education Association's Nationwide Study of Bullying: Teachers' and Education Support Professionals' Perspectives on Bullying and Prevention*. Report prepared for the National Education Association (NEA). Washington, DC.
- Bosworth, K., Espelage, D. L. and Simon, T. R. (1999). Factors associated with bullying behavior in middle school students, *Journal of Early Adolescence*, 19,341-62.
- Campbell, A., & Anderson, C. M. (2011). Check-In/Check-Out: A Systematic Evaluation and Component Analysis. *Journal of Applied Behavior Analysis*, 44(2), 315–326.
- Carney, A. G., & Merrell, K. W. (2001). Bullying in schools: Perspectives on understanding and preventing an international problem. *School Psychology International*, 22, 364-382.
- Carter, B. B. and Spencer, V. G. (2006) The fear factor: Bullying and students with disabilities. *George Mason University. International Journal of Special Education*, 21. Retrieved December 15, 2012 <http://www.forockids.org/PDF/Docs/Bullying.pdf>.
- Cole, J., Cornell, D. G., & Sheras, P. (2006). Identification of school bullies by survey methods. *Professional School Counseling*, 9,4, 305-313.
- Colvin, G., & Fernandez, E. (2000). Sustaining effective behavior support systems in an elementary school. *Journal of Positive Behavior Interventions*, 2, 251-253.
- Colvin, G., & Kame'enui, E. J. (1993). Reconceptualizing behavior management and school-wide discipline in general education. *Education and Treatment of Children*, 16, 4, 361-81.

- Cook, C.R., Williams, K.R., Guerra, N.G., & Kim, T.E. (2010). Variability in the prevalence of bullying and victimization. In S.R. Jimerson, S.M. Swearer, & D. L. Espelage (Eds.), *Handbook of bullying in schools: An international perspective* (pp. 347-362). New York: Routledge.
- Costenbader, V., & Markson, S. (1998). School suspension: A study with secondary school students. *Journal of School Psychology, 36*, 59–82.
- Craig, W. M. & Pepler, D. J. (1995). Peer processes in bullying and victimization: An observational study. *Exceptionality Education Canada, 5*, 81-95.
- Crone, D. A. & Horner, R. H. (2010). *Building positive behavior support systems in schools: Functional behavioral assessment*. New York: Guilford Press.
- Deno, S. L. (2005). Curriculum-based measurement: Development and extensions. In B. G. Cook & B. R. Schirmer (Eds.), *What is special about special education: Examining the role of evidence-based practices*. Austin, TX: PRO-ED.
- Due, P., Holstein, B. E., Lynch, J., Diderichsen, F., Gabhain, S. N., Scheidt, P., et al. (2005). Bullying symptoms among school aged children: International comparative cross-sectional study in 28 countries. *European Journal of Public Health, 15*, 128–132.
- Eslea, M. and Mukhtar, K. (2000) Bullying and racism among asian schoolchildren in britain, *Educational Research, 42*(2), 207–17.
- Espelage, D. L., Bosworth, K., & Simon, T. S. (2001). Short-term stability and change of bullying in middle school students: An examination of demographic, psychosocial, and environmental correlates. *Violence and Victims, 16*(4), 411-426.

- Espelage D. L., Holt, M. K. (2001) Bullying and victimization during early adolescence: Peer influences and psychosocial correlates. In Geffner R, Loring M (Eds) *Bullying behaviors: Current issues, research, and interventions*. The Haworth Press, Binghampton, NY.
- Espelage, D. L., & Swearer, S.M. (Eds.) (2011). *Bullying in American schools: A social-ecological perspective on prevention and intervention* (2<sup>nd</sup> edition). New York: Routledge.
- Fairbanks, S., Sugai, G., Guardino, D., & Lathrop, M. (2007). Response to Intervention: Examining Classroom Behavior Support in Second Grade. *Exceptional Children*, 73(3), 288.
- Farrington, David P and Ttofi, Maria M. (2009). *School-based programs to reduce bullying and victimization*. Campbell Systematic Reviews. Oslo: Campbell Colaboration.
- Ferguson, C. J., San Miguel, C., Kilburn, J., & Sanchez, P. (2007). The effectiveness of school-based anti-bullying programs: A meta-analytic review. *Criminal Justice Review*, 32. 401-414.
- Frey, K. S., Dietsch, B. J., Diaz, M., MacKenzie, E. P., Edstrom, L. V., Hirschstein, M. K., & Snell, J. L. (2004). *The student experience survey: What school is like for me*. Seattle, WA: Committee for Children.
- Gay, Lesbian, Straight Education Network (GLSEN). (2009). *Harsh realities: The experiences of transgender youth in our nation's school*. New York.
- Gottfredson, G. D., & Gottfredson, D. C. (1985). *Victimization in Schools*. New York: Plenum.

- Hawken, L. S., MacLeod, K. S. & Rawlings, L. (2007). Effects of the Behavior Education Program (BEP) on problem behavior with elementary school students. *Journal of Positive Behavior Interventions*, 9, 94-101.
- Hawken, L. S., & Horner, R. H. (2003). Implementing a targeted intervention within a school-wide system of behavior support. *Journal of Behavioral Education*, 12, 225-240.
- Hawken, L. S., Sandra MacLeod, K., & Rawlings, L. (2007). Effects of the “Behavior Education Program” (BEP) on Office Discipline Referrals of Elementary School Students. *Journal of Positive Behavior Interventions*, 9(2), 94–101.
- Heward, W. (2003). *Exceptional Children: An introduction to special education*. Upper Saddle River, N J: Merrill/Prentice Hall.
- Hinduja , S. & J. W. Patchin, J. W. (2007). Offline consequences of online victimization: school violence and delinquency.” *Journal of School Violence* , 6 (3): 89 – 112 .
- Hodges, E.V.E. & Perry, D.G. (1996). Victims of peer abuse: An overview. *Journal of Emotional and Behavioral Problems*, 5, 23-28.
- Horner, R. H., Sugai, G., Smolkowski, K., Eber, L., Nakasato, J., Todd, A. W., & Esperanza, J. (2009). A randomized, wait-list controlled effectiveness trial assessing school-wide positive behavior support in elementary schools. *Journal of Positive Behavior Interventions*, 11(3), 133-144.
- Houbre, B., Tarquinio, C., Thuillier, I. & Hergott, E. (2006). Bullying among students and its consequences on health. *European Journal of Psychology of Education*, 21(2), 183-208.

- Jorgensen, J. D., Scheier, I. H., & Fautsko, T. F. (1981). *Solving problems in meetings*. Chicago, IL: Nelson-Hall.
- Juvonen, J., & Galvan, A. (2008). Peer influence in involuntary social groups: Lessons from research on bullying. In M. J. Prinstein & K. A. Dodge (Eds.), *Understanding peer influence in children and adolescents* (pp. 225–244). New York: Guilford.
- Kert, A. S., Coddling, R. S., Tryon, G. S., & Shiyko, M. (2010). Impact of the word “bully” on the reported rate of bullying behavior. *Psychology in the Schools, 47*, 2. Published online in Wiley InterScience, [www.interscience.wiley.com](http://www.interscience.wiley.com).
- Kowalski, R.M. & Limber, S.P. (2007). Electronic bullying among middle school students. *Journal of Adolescent Health, 41*, S22–S30.
- Li, Q. (2007). New bottle but old wine: A research of cyberbullying in schools. *Computers in Human Behavior, 23*(4), 1777-1791.
- Limber, S. P. (2004). Implementation of the Olweus Bullying Prevention Program in American Schools: Lessons Learned from the Field. In *Bullying in American Schools: A Social-Ecological Perspective on Prevention and Intervention*, edited by Dorothy L. Espelage and Susan M. Swearer, 351–63. Mahwah, NJ: Lawrence Erlbaum Associates.
- Luiselli, J. K., Putnam, R. F., & Sunderland, M. (2002). Longitudinal evaluation of behavior support intervention in a public middle school. *Journal of Positive Behavior Interventions, 6*(3), 182-188.
- Malecki, C. K., & Demaray, M. K. (2004). The role of social support in the lives of bullies, victims, and bully-victims. In D. L. Espelage, & S. M. Swearer (Eds.),

*Bullying in American schools: A social-ecological perspective on prevention and intervention* (pp. 211-225). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Martlew, M., & Hodson, J. (1991). Children with mild learning difficulties in an integrated and in a special school: Comparisons of behaviour, teasing and teachers' attitudes. *British Journal of Educational Psychology*, *61*, 355-372.

Mayer, G. R. (1995). Preventing antisocial behavior in the schools. *Journal of Applied Behavior Analysis*, *28*, 467-478.

Mayer, G. R., & Sulzer-Azaroff, B. (1991). Interventions for vandalism. In G. Stoner, M. K. Shinn, & H. M. Walker (Eds.), *Interventions for achievement and behavior problems*. Washington, DC: National Association of School Psychologists Monograph.

Merrell, K., Gueldner, B., Ross, S. W., & Isava, D. (2008) How effective are school bullying intervention programs? A meta-analysis of intervention research. *School Psychology Quarterly*, *23*, 1, 26-42.

Mrazek, P.J. & Haggerty, R.J., Eds. (1994). *Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research*. Washington, D.C.: National Academy Press.

Nansel, T. R., Overpeck, M., Pilla, W., Ruan, J., Simons-Morton, B., & Scheidt, P. (2001). Bullying Behaviors Among US Youth: Prevalence and Association with Psychosocial Adjustment. *Journal of the American Medical Association* *285*, 16, 2094–2100.

- Newton, J. S., Todd, A. W., Algozzine, K., Horner, R. H., & Algozzine, B. (2009). *The Team Initiated Problem Solving (TIPS) Training Manual*. Educational and Community Supports, University of Oregon, unpublished training manual.
- O'Connell, M.E., Boat, T., & Warner, K.E. (Eds). (2009). *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities*. DC: National Academy Press.
- O'Connell, P., Pepler, D., & Craig, W. (1999). Peer involvement in bullying: Insights and challenges for intervention. *Journal of Adolescence*, 22, 437-452.
- Olweus, D. (1978). *Aggression in the schools: Bullies and whipping boys*. New York: Wiley.
- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Malden, MA: Blackwell.
- Olweus, D. (1997). Bullying/Victim Problems in School: Facts and Intervention.” *European Journal of Psychology of Education* 12, no. 4 (1997): 495–510.
- Olweus, D., Limber, S., & Mihalic, S. (1998). Bullying prevention program. In D. S. Elliott (Ed.), *Blueprints for violence prevention book nine* (pp. 1-79). Golden, CO: Venture Publishing and C & M Press.
- Oskamp, S., & Schultz, P. W. (2005). *Attitudes and opinions* (3<sup>rd</sup> ed.). Mahwah, NJ: Lawrence Erlbaum.
- Pellegrini, A.D., Long, J.D., Solberg, D., Roeth, C., DuPuis, D., Bohn, C., & Hickey, M. (2010). Bullying and social status during school transitions. In S.R. Jimerson, S.M. Swearer, & D. L. Espelage (Eds.), *Handbook of bullying in schools: An international perspective* (pp. 199-210). New York: Routledge.



- Putnam, F.R., Luiselli, J.K. & Sunderland, M. (2002). Longitudinal evaluation of behavior support intervention in a public middle school. *Journal of Positive Behavior Interventions*, 4,3, 182-188.
- Rigby, K. (1996) What should we do about school bullies? *Australian Journal of Counselling and Guidance*. 6, 71 - 76.
- Roland, E. (1993). Bullying: A developing tradition of research and management. In D. P. Tattum (Ed.), *Understanding and managing bullying* (pp. 15-30). Oxford, England: Heinemann Educational.
- Rose, C. (2011). Bullying among students with disabilities. In D.L. Espelage & S.M. Swearer, (Eds.). *Bullying in North American schools* (2nd edition) (pp. 34-44). NY: Routledge.
- Ross, S. W., Horner, R. H, Stiller, B. (2008). Bully Prevention in Positive Behavior Support Manual. Eugene, OR: University of Oregon.
- Ross, S. W., & Horner, R. H. (2009). Bully prevention in positive behavior support. *Journal of Applied Behavior Analysis*, 42, 747-759.
- Salmivalli, C. (2002). Is there an age decline in victimization by peers at school? *Educational Research*, 44, 269–277.
- Salmivalli, C., & Peets, K. (2008). Bullies, victims, and bully-victim relationships. In K. Rubin, W. Bukowski, & B. Laursen (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 322–340). New York: Guilford.
- Schonert-Reichl, K.A. (1993). Empathy and social relationships in adolescents with behavioral disorders. *Behavioral Disorders*, 18, 189-204.

- Skiba, R. J., & Peterson, R. L. (1999). The dark side of zero tolerance: Can punishment lead to safe schools? *Phi Delta Kappan*, *80*, 372-382.
- Smith, P. K., & Ananiadou, K. (2003). Interventions to reduce school bullying. *Canadian Journal of Psychiatry*, *48*(9), 591-599.
- Smith, P. K., & Brain, P. (2000). Bullying in schools: Lessons from two decades of research. *Aggressive Behavior*, *26*, 1-9.
- Solberg, M. E., & Olweus, D. (2003). Prevalence Estimation of School Bullying with the Olweus Bully/Victim Questionnaire. *Aggressive Behavior*, *29*, 239-68.
- Soutter, A., & McKenzie, A. (2000). The use and effects of anti-bullying and anti-harassment policies in Australian schools. *School Psychology International*, *21*, 96-105.
- Sprague, J. R. & Horner, R. H. (2006). Schoolwide Positive Behavior Supports. In S. R. Jimerson & M. J. Furlong (Eds.), *The handbook of school violence and school safety: From research to practice*. Mahway, NJ: Lawrence Erlbaum Associates.
- Swearer, S. M., & Espelage, D. L. (2004). Bullying in American schools: A social-ecological perspective on prevention and intervention. *British Journal of Developmental Psychology*, *23*, 2, 316.
- Taylor-Green, S.J., & Kartub, D.T. (2000). Durable implementation of school-wide behavior support: The high five program. *Journal of Positive Behavior Interventions*, *2*, 233-235.
- Todd, A. W., Horner, R. H., Newton, J. S., Algozzine, R. F., Algozzine, K. M., & Frank, J. L. (2011). Effects of team-initiated problem solving on decision making by

schoolwide behavior support teams. *Journal of Applied School Psychology*, 27, 42-59.

Ttofi, M.M. & Farrington, D.P. (2011). Effectiveness of school-based programs to reduce bullying: A systematic and meta-analytic review. *Journal of Experimental Criminology*, 7, 27 – 56.

U.S. Department of Education, National Center for Education Research, Institute of Education Sciences, (2010). *Efficacy of Schoolwide Programs to Promote Social and Character Development and Reduce Problem Behavior in Elementary School Children*. Report From the Social and Character Development Research Program.

Waasdorp, T. E., Bradshaw, C. P., & Leaf, P. J. (2012). The impact of School-wide Positive Behavioral Interventions and Supports (SWPBIS) on bullying and peer rejection: A randomized controlled effectiveness trial. *Archives of Pediatrics and Adolescent Medicine*, 116 (2), 149-156.

Walker, H. M., Horner, R. H., Sugai, G., Bullis, M., Sprague, J. R., Bricker, D., & Kaufman, M. J. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. *Journal of Emotional and Behavioral Disorders*, 4(4), 194-209.

Whitney, I. & Smith, P. K. (1993) A survey of the nature and extent of bullying in junior/middle and secondary schools. *Educational Research*, 35, 3–25.

Whitney, I., Smith, P.K., & Thompson, D. (1994). Bullying and children with special educational needs. In P.K. Smith & S. Sharp (Eds.), *School bullying: Insights and perspectives*. London: Routledge.

Williams, K. R. and Guerra, N. G. (2007). Prevalence and predictors of internet bullying.

*Journal of Adolescent Health*, 41(6): S14–S21.

Ybarra, M.L., & Mitchell, K.J. (2004). Youth engaging in online aggression:

Associations with caregiver–child relationships, Internet use, and personal

characteristics. *Journal of Adolescence*, 27, 3, 319–336

Ysseldyke, J., Burns, M., Dawson, P., Kelley, B., Morrison, D., Ortiz, S., & Telzrow, K.

(2006). *School psychology: A blueprint for training and practice III*. Bethesda, MD:

National Association of School Psychologists.

Table 1. School selection criteria

School	<i>SET</i> <i>score</i>	<i>SES*</i>	<i>Grades</i>	<i>3<sup>rd</sup></i> <i>Graders</i>	<i>4<sup>th</sup></i> <i>Graders</i>	<i>5<sup>th</sup></i> <i>Graders</i>	<i>Total 3<sup>rd</sup>,</i> <i>4<sup>th</sup> and 5<sup>th</sup></i>	<i>Total</i> <i>Enrollment</i>
School A	90%	32%	K-5	90	71	94	255	567
School B	98%	87%	K-5	40	37	39	116	319
School C	93%	71%	K-5	39	38	38	115	341

\* Percentage of students who qualify for free and/or reduced lunch.

Table 2. Between-subjects effects for level of intervention.

<i>Dependent Variable</i>	<i>Pre Survey</i>	<i>Post Survey</i>	<i>F</i>	<i>p</i>
	<i>M(SD)</i>	<i>M (SD)</i>		
SES assertiveness	0.83(.70)	1.26(.75)	97.08	>.001
SES adult responsiveness	1.15(.94)	1.36(.78)	10.34	.001
SES bystander responsibility	0.85(.70)	1.36(.78)	90.10	>.001
SES acceptance of bullying	1.26(.50)	1.14(.51)	11.87	.001
Verbal toward others	0.87(.95)	0.55(.90)	25.80	>.001
Verbal toward them	1.75(1.37)	1.10(1.00)	60.04	>.001
Physical toward others	0.32(.69)	0.20(.44)	13.08	>.001
Physical toward them	0.95(1.14)	0.62(.74)	29.99	>.001
Gossip toward others	0.56(.79)	0.52(.67)	1.10	.294
Gossip toward them	1.07(1.26)	0.87(.84)	6.87	.009
Use of “stop”	1.59(1.25)	2.41(1.17)	98.90	>.001
Use of “walk away”	1.39(1.09)	1.95(1.11)	42.71	>.001
Use of “talk to an adult”	1.55(1.34)	1.91(1.18)	15.26	>.001

Table 3. Between-subjects effects for grade level.

<i>Dependent Variable</i>	<i>3<sup>rd</sup> grade</i>	<i>4<sup>th</sup> grade</i>	<i>5<sup>th</sup> grade</i>	<i>F</i>	<i>p</i>
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>		
SES assertiveness	2.12(.76)	2.06(.76)	1.95(.75)	4.57	.011
SES adult responsiveness	2.32(.80)	2.24(.79)	2.22(.97)	1.30	.272
SES bystander responsibility	2.09(.79)	2.11(1.08)	2.11(.79)	0.05	.953
SES acceptance of bullying	2.16(.63)	2.18(.43)	2.26(.44)	3.24	.040
Verbal toward others	0.71(.96)	0.65(.78)	0.76(1.03)	0.99	.371
Verbal toward them	1.52(1.31)	1.45(1.27)	1.32(1.14)	2.31	.099
Physical toward others	0.29(.66)	0.26(.55)	0.25(.53)	0.40	.672
Physical toward them	0.77(1.00)	0.89(1.02)	0.71(.91)	2.76	.064
Gossip toward others	0.52(.76)	0.45(.69)	0.63(.74)	5.11	.006
Gossip toward them	0.89(1.01)	1.05(1.06)	0.99(1.14)	1.73	.179
Use of “stop”	2.00(1.31)	2.24(1.34)	1.81(1.16)	9.05	>.001
Use of “walk away”	1.60(1.11)	1.90(1.21)	1.54(1.06)	8.99	>.001
Use of “talk to an adult”	1.68(1.31)	1.94(1.30)	1.59(1.19)	6.46	.002

Table 4. Between-subjects interaction effects between intervention and grade level.

Perceived assertiveness							
<i>3<sup>rd</sup> grade</i>		<i>4<sup>th</sup> grade</i>		<i>5<sup>th</sup> grade</i>		<i>F</i>	<i>p</i>
Pre	Post	Pre	Post	Pre	Post		
M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)		
1.78(.67)	2.46(.69)	1.82(.69)	2.32(.75)	1.89(.74)	2.01(.75)	13.89	>.001
Perceived acceptance of bullying and aggression							
<i>3<sup>rd</sup> grade</i>		<i>4<sup>th</sup> grade</i>		<i>5<sup>th</sup> grade</i>			



Pre	Post	Pre	Post	Pre	Post	<i>F</i>	<i>p</i>
M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)		
2.30(.63)	2.03(.60)	2.19(.40)	2.16(.45)	2.29(.43)	2.23(.44)	5.41	.005

---

Verbal aggression toward others

<i>3<sup>rd</sup> grade</i>		<i>4<sup>th</sup> grade</i>		<i>5<sup>th</sup> grade</i>		<i>F</i>	<i>p</i>
Pre	Post	Pre	Post	Pre	Post		
M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)		
1.00(1.12)	0.42(.65)	0.75(.79)	0.55(.77)	0.84(.90)	0.68(1.15)	5.39	.005

---

Verbal aggression by others

<i>3<sup>rd</sup> grade</i>		<i>4<sup>th</sup> grade</i>		<i>5<sup>th</sup> grade</i>		<i>F</i>	<i>p</i>
Pre	Post	Pre	Post	Pre	Post		
M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)		
1.99(1.41)	1.05(1.01)	1.79(1.39)	1.11(1.03)	1.50(1.27)	1.13(.96)	4.93	.007

---