RESPONSE TO BULLYING (RTB): BEHAVIORAL SKILLS AND IN SITU TRAINING FOR INDIVIDUALS DIAGNOSED WITH INTELLECTUAL DISABILITIES

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This study evaluated behavioral skills training (BST) and in situ training (IST) to teach a response to bullying (RtB) to four adults with intellectual disabilities who were victims of bullying. The RtB consisted of refraining from retaliating, stating disapproval, walking away, and telling a staff member. In situ assessments were conducted in the natural setting to assess the effects of BST and IST. BST alone was successful in teaching the RtB to two participants. When BST did not result in the use of the RtB, IST was effective for one participant, and IST plus an incentive was effective for the other participant. The results of this study are consistent with previous BST and IST research.

Key words: adults, behavioral skills training, in situ training, intellectual disabilities, response to bullying

Bullying is a serious problem that necessitates effective intervention. Although definitions of bullying vary across studies, it generally consists of physical aggression (e.g., hitting, pushing), vocal attacks (e.g., threatening harm, name-calling), or other actions meant to harm the victim (e.g., taking possessions; McGrath, Jones, & Hastings, 2010; Olweus, 1994). Although researchers have not reported a functional analysis of bullying, it is likely that bullying is often maintained by attention (e.g., emotional reactions of the victim, support from peers) or tangibles (e.g., obtaining the victim’s possessions) reinforcement. Victims of bullying may be at an increased risk for depression, anxiety, sleep difficulties, and poor school adjustment (Center for Disease Control [CDC], 2015), often report low self-esteem, and may be prone to engage in aggression (Fried & Fried, 1996). Bullying also can lead to physical injury and even death of the victim or the bully. For this reason, bullying should be considered a major problem and should never be ignored (Fried & Fried, 1996).

Bullying may be an even greater problem for individuals who have intellectual disabilities. Reiter and Lapidot-Lefler (2007) found that 83% of students in two special education schools reported experiencing some type of bullying. McGrath et al. (2010) found that 43% of adults with intellectual disabilities reported having been bullied within the preceding three months. Mencap (1999) found that nearly 9 of 10 individuals with learning disabilities had been bullied in the last year, and two-thirds had been bullied on a regular basis. Individuals with intellectual disabilities may perceive bullying as being of high intensity and stressful even if bullying is reported to be less prevalent (Bramston, Fogarty, & Cummins, 1999). Because bullying can result in physical harm and social isolation (Fried & Fried, 1996), effective behavior-analytic interventions are needed to teach victims a way to respond to bullying that ensures safety while minimizing the likelihood of that response serving as reinforcement for bullying.

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Most studies on bullying have included typically developing children and have occurred in the school system (Ross & Horner, 2009; Yang & Salmivalli, 2015). For example, Ross and Horner (2009) implemented School Wide Bully Prevention in Positive Behavior Support (BP-PBS); an intervention in which children learned to withhold social consequences thought to maintain bullying. The intervention was designed to teach “being respectful” by encouraging all students to use a three-step response (stop, walk, talk). The results showed an overall steady decrease in the frequency of bullying for each of the six target students following intervention (Ross & Horner, 2009), suggesting that bully victims can learn to minimize attention by engaging in a three-step response to bullying (RtB) and that doing so can decrease bullying (Ross & Horner, 2009).

Behavioral skills training (BST) has been used to teach various safety skills to many different populations by combining instructions, modeling, rehearsal, and feedback (Gatheridge et al., 2004; Himle, Miltenberger, Flessner, & Gatheridge, 2004; Miltenberger, Roberts, Ellingson, & Galensky, 1999; Miltenberger et al., 2004, 2005; Sanchez & Miltenberger, 2015). For example, Travis and Sturmey (2013) decreased aggression in individuals with intellectual disabilities by using BST to teach replacement responses for aggression. Because of the promising results of Ross and Horner (2009) and those of Travis and Sturmey, we hypothesized that BST might be an effective strategy for teaching adults with intellectual disabilities a safe way to respond to bullying.

Although BST is often successful at teaching skills, participants do not always show generalization of learned skills to natural settings (Himle et al., 2004). Researchers have found that adding in situ training (IST) improves generalization of learned skills to natural settings (Himle et al., 2004; Miltenberger et al., 1999; Miltenberger et al., 2005). In situ training is implemented immediately after the participant fails to perform the safety skills during an in situ assessment. Each failed in situ assessment is an opportunity to teach the participant the correct responses by implementing corrective feedback and providing opportunities to rehearse the correct behavior in the moment (Egemo-Helm et al., 2007; Himle et al., 2004; Miltenberger et al., 1999; Miltenberger et al., 2005; Sanchez & Miltenberger, 2015).

In situ training has been used to increase stimulus generalization after the use of BST (Himle et al., 2004; Miltenberger et al., 1999). For example, Miltenberger et al. (2004) used IST to increase participants’ use of safety skills when encountering firearms. When a participant did not demonstrate the safety skills after receiving BST, the participants demonstrated the desired safety skills consistently after one to four IST sessions. Himle et al. (2004) showed that nearly half of the children required IST for the safety skills to generalize. Other studies have shown the necessity of IST following BST when teaching skills to individuals with intellectual disabilities. For example, Miltenberger et al. (1999) used IST following BST to increase sexual-abuse-prevention skills in women with intellectual disabilities. Sanchez and Miltenberger (2015) used IST to increase abduction-prevention skills in young adults with intellectual disabilities when the skills taught in BST did not generalize to the natural environment.

Considering the success of BST and IST for teaching safety skills to children and adults with and without intellectual disabilities, research should evaluate BST and IST to address bullying in individuals with disabilities. Therefore, the purpose of this study was to (a) evaluate a BST program that teaches adults with intellectual disabilities an RtB and (b) evaluate IST if the skills taught in BST failed to generalize to the natural environment.
METHOD

Participants and Setting

Four men with intellectual disabilities participated in this study. Sheldon, 42 years old, was diagnosed with mild intellectual disability and impulse-control disorder with psychotic features. Leonard, 64 years old, was diagnosed with severe intellectual disability. Raj, 48 years old, was diagnosed with mild intellectual disability and anxiety. Howard, 34 years old, was diagnosed with mild intellectual disability.

All participants resided at Intensive Behavioral Residential Habilitation, community-based group homes that provide behavior services to reduce problem behavior and increase daily living skills. Intensive Behavioral Residential Habilitation group homes promote the independence of individuals who display severe problem behavior by providing support and training designed to reduce or replace problem behavior. The residents selected for inclusion in this study were chosen based on clinical and direct-care staff referrals. Residents who lived in one of the group homes for at least 6 months and who staff reported were currently experiencing bullying by peers were included in this study. Participants were excluded from the study if they had engaged in aggression within the past 3 months.

Confederates were recruited to conduct in situ assessments. Confederates consisted of three men with mild intellectual disabilities who lived in a supported-living setting (i.e., a personal apartment with supported-living coaches and behavior-analysis supports). Inclusion criteria for confederates required that they had engaged in social interactions with the participants at previous social events. Confederates provided written consent and answered seven questions about the study. These questions helped to ensure that confederates understood that their participation consisted of only role-play, what we were asking them to do in the role-play, that they must attend a debriefing following the study and receive the same BST the participants received upon completion of the study, and that they understood they could terminate their participation at any time and without any consequences for doing so.

In situ assessments and BST sessions were conducted in participants’ residential group homes and at an Adult Day Training center.

Target Behavior

The target behavior was participants’ RtB, which consisted of four steps: (a) refrain from retaliating against the bully by avoiding physical contact or vocal statements other than those taught during training, (b) state only a short comment of disapproval, such as “I don’t like that,” (c) walk away from the bully, and (d) tell a staff member about the interaction. Following a bullying statement from the confederate directed to the participant, participants’ RtB was scored on a 5-point scale (0 to 4). A score of 0 was given if the participant retaliated against the confederate vocally or physically, regardless of whether he engaged in any of the other three steps. Scores of 1 through 4 corresponded with the number of steps completed correctly with a score of 4 indicating that the participant completed all four steps correctly. If participants completed the step of “telling a staff member about the interaction,” staff were instructed to respond by saying, “Thank you for letting me know.” During each in situ assessment, an unobtrusive observer collected data on the completion of each step of the RtB using a data sheet.

Training and Treatment Fidelity of Confederates

Behavioral skills training was used to teach the confederates to implement the bully statement during in situ assessments. Behavioral skills training consisted of instructions, modeling, rehearsal, and feedback. The four steps of the bully statement included: (a) walking up to

RESPONSE TO BULLYING
within 1.6 m of the participant, (b) stating the short bully statement, (c) walking away from the participant within 5 s, and (d) not doing or saying anything else to the participant. The confederate was required to demonstrate 100% use of the four steps in three consecutive role-plays with the researcher prior to participating in an in situ assessment.

Treatment integrity of the confederates implementing the bully statement was measured during 100% of in situ assessments for each step of the bully statement. Treatment integrity scores averaged 99% across all confederates. One confederate scored 50% during one in situ assessment, due to speaking back to the participant when asked about an unrelated topic and not walking away within 5 s. He was re-trained immediately thereafter.

Interobserver Agreement

Two independent observers simultaneously scored participants’ RtB on 41% of in situ assessments across all phases of the study. Observers recorded the occurrence or nonoccurrence of the four steps of the RtB for each in situ assessment and calculated interobserver agreement by dividing the number of agreements per in situ assessment by four (the total number of steps). Interobserver agreement averaged 95% for Sheldon, 100% for Leonard, 95.8% for Raj, and 100% for Howard.

Design and Procedures

A nonconcurrent multiple baseline across participants design was used to evaluate the effects of BST and IST (when necessary) on the use of the RtB by participants when confronted by a bully statement during in situ assessments. All of the participants had a behavior analysis services plan developed by a Board Certified Behavior Analyst® that was designed to address challenging behavior and skill acquisition based on the hypothesized function of the target behaviors. This plan remained unchanged throughout all phases of the study. A staff member remained within sight of the participants during in situ assessments to intervene if necessary to ensure safety. The staff member did not need to intervene at any point during the study. During all in situ assessments, staff were instructed to respond as they typically would according to the participant’s behavior analysis service plan.

Bully statements were based on discussions with clinical and direct-care staff at the group homes regarding the types of bullying comments that clients were likely to say to each other. Bully statements were categorized into four categories consisting of four statements threatening personal harm, six statements threatening loss of privileges/property, four statements of personal defamations/name calling, and three statements of obscenities (including swearing or rude gestures). Specific bully statements are available from the corresponding author upon request. Bully statements were chosen from a list at random prior to each in situ assessment, and different categories of statements were presented across phases.

Baseline. During baseline, the confederate entered the room, walked up to the participant, stated the randomly selected bully statement (e.g., “I’m going to rip your head off”), and then walked away within 5 s. For all in situ assessments, confederates did not vocally respond to any statements made by the participant. Assessments typically took place in either the living or dining area of the group home and occurred during free time activities. The participants were often watching TV or engaging in other leisure activities.

Behavioral Skills Training (data not displayed). Two 30-min BST sessions were conducted with each participant following baseline. These sessions took place in a classroom at the Adult Day Training setting, with the exception of Sheldon’s, whose sessions took place in an office at the group home. At the beginning of the training session, the researchers provided
information to each participant on the definition of bullying, what behaviors bullying consisted of, and questioned the participants about bully situations that occurred to them recently to ensure the participants understood what behaviors to respond to when they encountered these situations and to confirm that the statements from the list were actually perceived as bullying by the participants. If participants reported that they did not perceive certain statements as bullying, those statements were excluded for subsequent in situ assessments with that participant.

The first component of BST was instructions, which consisted of the researcher telling the participants how to respond to bullying by using the RtB. Participants were told to refrain from retaliating (e.g., do not cry, whine, hit, laugh, or engage in vocal aggression), say a short statement of disapproval (e.g., “I don’t like that”), walk away from the area, and tell a staff member about the incident, who in turn would praise their actions. The second component was modeling, which consisted of the researcher and research assistants modeling the correct RtB in a role-play when a bully statement was presented (one individual acted out the bully statement, and the other acted out the correct RtB). The third component was rehearsal, which consisted of three to five role-play situations in which the researcher and research assistants acted as the bully by presenting a bully statement, providing an opportunity for the participants to demonstrate the RtB. Feedback consisted of the researcher and research assistants providing praise for correct responses and corrective feedback for incorrect responses.

Each participant was required to display all four steps of the RtB at least three times consecutively to complete the training. After each participant displayed the RtB with 100% accuracy in role-plays during the two BST sessions, in situ assessments were conducted in the same way as in baseline to assess the generality of the skills taught. The intervention was considered complete once the participant demonstrated all steps of the RtB correctly on two consecutive in situ assessments.

If the participant did not demonstrate all steps in the RtB correctly during the first in situ assessment, a booster BST training session was conducted prior to the second in situ assessment. The BST boosters included the same components from the BST intervention described above, and the participants were required to execute the RtB skills with 100% accuracy across three different role-play scenarios to complete the BST booster training. Booster training sessions lasted an average of 15 min. If the participant failed to demonstrate all four steps of the RtB during the in situ assessment that followed the first booster training, a second booster training was provided, followed by additional in situ assessments.

In Situ training. Participants who failed to perform the RtB at 100% accuracy after the second BST booster training received IST. This training consisted of the same training that took place in BST sessions but was conducted in vivo. If the participant demonstrated any step of the RtB incorrectly during in situ assessments, the trainer immediately intervened to conduct a training session once the confederate left the area. The trainer first pointed out that the participant did not use the RtB. The trainer then modeled the correct response, instructed the participant to rehearse the correct response, and then provided praise and corrective feedback when needed. The participant was required to rehearse the correct response twice with the trainer.

Incentive. Due to Leonard’s low scores across all phases, an incentive was added in an attempt to increase his motivation to use the RtB. During this phase, the researcher met with Leonard and explained to him that he would earn an item of his choosing (from an array of items identified by staff as highly preferred by Leonard) if he engaged in the RtB.
correctly. Leonard was then given the opportunity to role-play the RtB with the researcher, and after three consecutive trials with 100% accuracy, he received one of the preferred items. After this training, in situ assessments were conducted in the same way as in baseline with the only difference being that Leonard would receive a highly preferred item if he scored 100% during in situ assessments.

Follow up. Maintenance of the RtB was assessed 3 weeks after the last phase for three of the participants. Follow-up in situ assessments were identical to the baseline in situ assessments.

Debriefing. Following completion of the study, each participant met with the researcher to be debriefed. The researcher explained the nature and reasons for deception, informed the participants that the confederates were also participating in the research, and explained why this was necessary. Participants and confederates were encouraged to ask any questions they had during debriefing and to see the clinical director if they were upset or wished to discuss any concerns. The confederate was then reintroduced to the participant by the researcher. The confederate apologized, explained that he was acting like a bully because of the study and that he was just pretending to be mean and then thanked the participant for being a “good sport.” Following the debriefing, all of the participants reported that they understood that the confederate was “just pretending” or “didn’t mean it.” Once he was told that the confederate was just pretending, Sheldon stated that he knew we were testing him. There were no signs that the other three participants previously knew that the confederate was “pretending.”

Social Validity

Social validity questionnaires were completed by all participants, confederates, and staff involved in the study. The participant and confederate social-validity questionnaire consisted of questions regarding the likability of the procedure, whether the participants would continue using the RtB, and if they had used the RtB at other times since the training. These were administered to the confederates only after they completed all in situ assessments with the participants and underwent the BST sessions themselves. The staff social-validity questionnaire asked questions specific to the efficacy of the procedure and if they would recommend it for other individuals.

RESULTS

Figure 1 shows the number and type of steps of the RtB completed correctly in each in situ assessment for all participants across baseline, BST, IST, and incentive phases. All participants scored consecutive 0s or 1s in baseline with the exception of Howard, who scored between 0s and 2s during baseline. Three of the four participants showed an increase in steps correct following the initial BST session. Two participants received a score of 4 during two consecutive in situ assessments following BST and two BST boosters. Two participants required IST, and one participant required an incentive phase to increase correct steps. Follow-up in situ assessments were conducted for three of the four participants 3 weeks following the last in situ assessment. All three participants showed maintenance of the skills taught during follow up in situ assessments.

Sheldon exhibited one step of the RtB during baseline in situ assessments (i.e., he did not retaliate towards the confederate vocally or physically during baseline). After receiving BST and two booster BST sessions, Sheldon eventually completed all four steps of the RtB on two consecutive in situ assessments, and he maintained a score of 4 at the 3-week follow up in situ assessment.

Leonard did not engage in any of the four steps of the RtB during baseline in situ assessments. Leonard vocally retaliated towards the
Figure 1. Number of steps of the RtB completed correctly by participants during in situ assessments across all phases of the study. The circles represent in situ assessments conducted with Confederate 1, the squares represent in situ assessments conducted with Confederate 2, and the triangles represent in situ assessments conducted with Confederate 3. The secondary y-axis indicates which specific steps were completed.
confederate by yelling at him specifically about the bully statement in all baseline in situ assessments. Leonard showed an immediate increase to two steps correct during the first in situ assessment following BST, but his steps correct decreased following the booster BST sessions. IST was implemented for Leonard, but his scores remained low. Following feedback given by the researcher during BST boosters and IST, Leonard responded by yelling that he already did the steps correctly and by rambling about other clients who lived in the home and how they are mean to him. Leonard’s sessions often took longer to complete, relative to the other participants, due to these delays and problems staying on task with the training. An incentive phase was added for Leonard to increase motivation during training and during in situ assessments, which resulted in an increase to two steps completed correctly during four consecutive in situ assessments. However, Leonard never received the incentive after in situ assessments in this phase due to responding below the criterion. Leonard reported that he did not want to engage in the RtB because he felt that no one was bothering him (i.e., he did not interpret the statement as bullying).

Raj consistently engaged in one of the four steps of the RtB correctly during baseline in situ assessments by not retaliating towards the confederate. Raj displayed a slight increase in steps correct (to two) after both BST sessions and both BST boosters. In situ training was implemented for Raj, which further improved his responding to three correct steps. Raj reported to the researcher that he did not want to tell staff because a staff member was present and had observed each bully statement. The researchers agreed that this step was not necessary during incidents in which a staff was present and observed the bully statement. This last step of telling a staff member was removed from Raj’s completion criteria. Raj’s training was complete once he engaged in the other three steps of the RtB, and his engagement in these three skills maintained at the 3-week follow up.

Howard’s baseline data ranged from 0 to 2 steps correct. Howard initially retaliated vocally towards the first confederate during the initial three baseline in situ assessments. When the second confederate presented the bully statement (in situ assessments 4 and 5), Howard stopped retaliating and continued to not retaliate when the first confederate returned. Howard’s score immediately increased to four following the first BST session. Unfortunately, there was a 1-week delay between In Situ Assessments 9 and 10, and Howard’s score dropped to 1. Two booster BST sessions were provided, and after the second booster, Howard scored 4 on two consecutive in situ assessments, meeting completion criteria with BST alone. Howard’s skills maintained at the 3-week follow up.

Social validity. The social validity questionnaires were completed by each individual approximately 2 weeks after completion of the study. All participants and confederates indicated that using the RtB would help them stay safe. Four of seven indicated that they had used the RtB since training occurred and that the response had stopped others from bullying them. All four staff said in the staff social-validity questionnaire that they would recommend the RtB training and three of four staff indicated they thought the training changed how the participants responded to bullying and that it resulted in less bully interactions overall.

**DISCUSSION**

This study evaluated an intervention for teaching victims of bullying a way to respond to instances of bullying in a way similar to that described by Ross and Horner (2009). Participants were taught to engage in an RtB that consisted of not retaliating, saying a statement of disapproval, walking away, and telling a staff
member. All four participants showed improvements in the RtB by the end of training. Results of the social-validity questionnaires suggested that the training procedures and outcomes of the training were highly acceptable by both participants and staff. Staff and clients reported that they would recommend the intervention to other clients in the group home. All participants and confederates also reported that they felt using the RtB helps keep them safe. Additionally, the RtB training used in this study was inexpensive and did not require many materials.

Although this intervention focused on teaching the victims an RtB, and did not directly target the perpetrators of bullying, if bullying consistently goes unreinforced, bullying should decrease. In a setting such as a group-home residence, in which all residents may come into contact with the perpetrators of bullying on a daily basis, bullying might decrease if all residents are taught to respond consistently to bullying incidents in a way that withholds reinforcement. We taught participants in this study to withhold vocal and physical attention that might otherwise reinforce bullying.

Our study extends the literature by evaluating BST and IST to teach a skill that had not been trained in individuals with intellectual disabilities. Similar to other BST and IST research (e.g., Himle et al., 2004; Miltenberger et al., 2004), not all of the participants demonstrated the skills during in situ assessments following BST alone. In the present study, two of the four participants (Sheldon and Howard) demonstrated all four steps of the RtB during in situ assessments following BST boosters. Raj required the addition of IST to achieve three steps correct, and Leonard required IST plus an incentive to achieve two steps correct. All participants displayed an increase in steps correct during in situ assessments following one or more phases of intervention. Our data suggest that BST may be an effective training approach to teach the RtB to some individuals; however, other individuals may require additional training.

Modifications made to the training procedures for some participants are worth discussing.

During IST, the termination criteria were modified for Raj after he stated that he did not want to tell staff because staff were present, had observed the bully statement, but did not respond to the incident. Therefore, the final step of the RtB (telling staff) was removed from his termination criteria. Raj completed training soon after this modification. These results are consistent with those of Sanchez and Miltenberger (2015) who found that only half of the participants told an adult about the incident but, nevertheless, completed all other safety skills. Future research could assess the importance of this step and conduct a component analysis to determine which steps are necessary to decrease bullying and keep the participants safe. For adults, this step may be more stigmatizing than it is necessary if telling the adult occurs in view of peers. When including this step, the environment should be arranged so that the adult who is to be told about the bully interaction is not in view of other individuals to ensure the privacy of the participants.

Throughout the course of training, we encountered some difficulties with Leonard. The BST sessions conducted with Leonard often took more than 30 min due to distractions, resistance with feedback, and difficulty with the role-plays. For example, Leonard rambled about unrelated topics and refused to respond to the researchers as if they were the bully perpetrators during training, despite them saying the bully statements. He claimed they were “nice” and listed off many “mean men” who lived in the house with him or who attended Adult Day Training with him. Despite these issues, Leonard often asked the researcher when the next training would be and reported that he enjoyed the trainings.
throughout the study and at the debriefing session. The incentive phase was added in an attempt to increase motivation, but Leonard scored 2 on four consecutive trials during this phase and never earned the incentive. Leonard’s participation ended at this point. Leonard was the only participant diagnosed with severe intellectual disability, which may have affected his acquisition of the RtB. Additional research is needed to determine the generality of the RtB training in the present study with individuals diagnosed with more severe intellectual disabilities.

One limitation of this study is that the confederates had previously lived with the participants but had since moved into supported living settings. As such, the confederates had been exemplified as role models to the participants in the study. This may have contributed to why Leonard did not respond with the RtB and why he often stated that the confederates were not mean to him. Future research could assess other possibilities for confederate selection to increase the likelihood that participants will perceive the confederates as bullies.

Another limitation of this study is that the effect of the intervention on bullying was not measured. Ross and Horner (2009) evaluated the frequency of bullying following their intervention during 10 min increments. Future research should evaluate the effects of this intervention on the behavior of the perpetrators of bullying, as well as participants’ responses to bully situations in the natural environment. Another difficulty encountered was that few confederates volunteered to complete in situ assessments and ISTs, and those who did volunteer were sometimes unavailable for weeks at a time, which limited the number of opportunities to assess generalization in responding to different confederates.

Future research could evaluate RtB procedures with in situ assessments in which peers are present in the environment to assess whether participants would respond the same when they are surrounded by peers who may encourage them to respond differently. Furthermore, a functional analysis of bullying may be beneficial in selecting intervention options (e.g., what reinforcing stimulus to withhold and provide for desirable social behavior). Finally, given that all participants in this study required additional training in the form of booster BST sessions or IST, future studies could consider using a more robust initial training procedure (e.g., a longer training consisting of more exemplars and rehearsal trials). In conclusion, this study is one of only a few that taught victims of bullying a way to respond to bullying by removing the hypothesized reinforcer (Ross & Horner, 2009) and is the first study of which we are aware that taught these skills to adults with intellectual disabilities.

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