Teaching Safety Skills to Children: Prevention of Firearm Injury as an Exemplar of Best Practice in Assessment, Training, and Generalization of Safety Skills

Raymond G. Miltenberger, Ph.D., BCBA
University of South Florida

ABSTRACT

The focus of this paper is on teaching safety skills to children with an emphasis on recent research on behavioral skills training for the prevention of firearm injury. Following a discussion of safety skills and methods for assessing these skills, the paper reviews recent research on behavioral skills training and in situ training for teaching safety skills to prevent firearm injury. Strategies for promoting generalization and increasing the efficiency of training are then discussed, along with a summary of conclusions that can be drawn from the research and guidelines for best practices in teaching safety skills to children.

Descriptors: behavioral skills training, firearm injury, prevention, safety skills

Children can encounter a variety of threats to personal safety in their interactions with the physical and social environment. These safety threats can result in injury or death if appropriate action is not taken by the child or responsible adults. Parents can minimize threats in a variety of ways, such as by storing poisons or medicines in safe places, keeping fencing around their swimming pool, requiring their children to wear safety belts in cars and helmets on bikes, locking their doors at night, keeping smoke detectors in their homes, keeping their child in close proximity in a public place, and storing firearms safely (locked and unloaded). Parents also can teach a variety of safe behaviors that could prevent injury or death, such as refusing to leave with a stranger, not playing with matches, and refusing to play with a gun found in the home or the home of a friend.

Even though it is the responsibility of parents and other adults to eliminate or minimize safety threats and to teach their children to engage in safe behavior at the appropriate time, some children still come into contact with safety threats that could result in injury or death if they lack the skills needed to respond safely. Therefore, it is important to develop, evaluate, and disseminate effective programs for teaching safety skills to children. The focus of this paper is on teaching safety skills to children with an emphasis on one particular safety skill that has been the focus of recent research, the prevention of firearm injury. However, the information on assessment, training, and generalization of skills to prevent firearm injury also can be applied to other low incidence, but highly dangerous safety threats such as the presentation of an abduction lure. Following a discussion of safety skills and methods for assessing these skills, the paper focuses on recent research on teaching safety skills, promoting the generalized use of the safety skills, and increasing the efficiency of training. The paper concludes with guidelines for conducting safety skills training with children.

Before proceeding, an important issue must be recognized. Even though this paper is about teaching safety skills to children, it is not my intention to suggest that children are responsible for ensuring their own safety. It is always the responsibility of adults to remove safety threats from the environment to ensure their children's safety. However, because safety threats will continue to occur in spite of parents' best efforts to keep their children's environments safe, it is important for children to learn safety skills and the appropriate situations in which to use these skills.

Types of Safety Skills

Although the specific safety skills needed in a particular situation will vary depending on the nature of the safety threat, three safety skills are common to most threat situations. The three skills are to discriminate the presence of the safety threat and avoid contact with it, engage in behavior that functions to escape from the threat situation, and inform a parent or teacher about the threat so the threat can be removed (e.g., Himle, Miltenberger, Flessner, & Gatheridge, 2004; Johnson et al., 2005, 2006; Lumley, Miltenberger, Long, Rapp, & Roberts, 1998).

The child must discriminate the presence of the safety threat so that the remaining safety skills (avoid, escape, and report) can be executed at the right time. Through training, a simulated safety threat becomes a discriminative stimulus in the presence of which the safety skills are executed and reinforced. As a result, the safety skills are more likely to occur in the future when a similar safety threat is present in the child's natural environment (Miltenberger, 2008). Once the child discriminates the presence of the safety threat, the first skill is to avoid contact with it. If the safety threat is in the physical environment (e.g., an unattended firearm, an open fence to a pool), the child must

refrain from approaching it (e.g., Himle & Miltenberger, 2004). If the safety threat comes from another person (e.g., an abduction lure, a sexual abuse lure), the child must refrain from engaging in the requested behavior, which also may include a verbal refusal (e.g., Johnson et al., 2005, 2006).

Once the child discriminates the presence of the threat and avoids contact with the threat (e.g., doesn't touch the gun), the second essential skill is to escape from the situation. Escaping the situation means putting physical distance between the child and the threat, most often by running away. In most safety threat situations, an immediate response is critical because the longer the child is exposed to the threat without taking action, the more likely the child will be harmed (e.g., Poche, Yoder, & Miltenberger, 1988). For example, when finding a firearm, the child escapes from the situation by running to a parent or other adult (e.g., teacher, babysitter). Once the child is away from the firearm, the child cannot be harmed by the gun if it were to be handled and discharged by a peer.

After the child gets away from the safety threat, the child is no longer at immediate risk, but the threat may continue to exist for other children or for the child at a later time. Therefore, the third safety skill is to report the threat to a parent or another responsible adult who can then take the appropriate action to eliminate the threat. For example, once the adult is alerted to its presence, the adult can remove the unattended firearm.

The three safety skills described in this section have been evaluated in recent research on teaching children skills to prevent firearm injury (e.g., Gatheridge et al., 2004; Gross, Miltenberger, Knudson, Bosch, & Brower-Breitwieser, 2007; Himle, Miltenberger, Flessner, et al., 2004; Kelso, Miltenberger, Waters, Egemo-Helm, & Bagne, 2007; Miltenberger et al., 2004, 2005). However, the same skills are applicable to numerous other safety threats such as those posed by finding an unattended bottle of medicine or poison, an open gate to a swimming pool, or a lighter or matches; and by requests to leave with an adult, engage in sexual activity or other inappropriate touch with an adult, to consume alcohol or drugs with an older child, or to engage in any dangerous behavior (e.g., Egemo-Helm et al., 2007; Johnson et al., 2005, 2006; Lumley et al., 1998). Whether the safety threat comes from contact with a danger in the physical environment or from an action of another person, the child's safety is best assured by his or her ability to (a) discriminate the presence of the threat and avoid contact with it, (b) get away from the threat, and (c) report the threat to a responsible adult.

Assessment of Safety Skills

Assessment of safety skills related to a specific threat can be a challenge because the opportunity to engage in the behavior in a natural context is infrequent (or nonexistent for many children) and because, by their very nature, these safety threats occur when a supervising adult is not present. To address these assessment challenges, researchers have devised three strategies for assessing safety skills: in situ assessment, skills assessment, and knowledge assessment. These strategies vary in terms of their ecological validity and ease of implementation.

In Situ Assessment

The most ecologically valid assessment of safety skills is an in situ assessment (e.g., Himle, Miltenberger, Flessner, et al., 2004; Johnson et al., 2005; 2006). An in situ assessment measures the use of the skills when a simulated safety threat is presented in the natural environment without the child's knowledge. Because the child is not in the presence of a supervising adult and is not aware an assessment is occurring, the child's behavior during an in situ assessment is not under the stimulus control of the trainer, a parent, or the training context. Rather, the child's use of the safety skills is under the stimulus control of the threat situation. An in situ assessment is necessary to determine whether the child will engage in the safety skills in the natural environment where exposure to an actual safety threat would occur.

To conduct an in situ assessment, the parent (or teacher) arranges a situation where the child will be alone while exposed to the simulated safety threat. The child is not cued in any way to the safety threat. From the child's perspective, the safety threat is real. To assess a child's safety skills when finding a firearm, for example, a replica of a firearm (or a disabled firearm) is placed in another room where the child would find it upon entering the room. The child is then sent to the room for another purpose and the child's behavior upon finding the gun is recorded by a hidden video camera. For example, a parent might place the gun on a kitchen counter near a snack, turn on a video camera placed out of sight on a shelf, and then send the child to the kitchen for the snack (e.g., Himle, Miltenberger, Flessner, et al., 2004; Miltenberger et al., 2004; 2005). It is important to note that the firearm used in an assessment must be a replica or be disabled if it is a real gun. A working gun should never be used in an assessment or in a training session as a mistake could be made (failure to unload it completely) that might result in unintentional injury.

In situ assessments have been shown to be useful for evaluating safety skills in response to other safety threats, including abduction and sexual abuse lures (e.g., Johnson et al., 2005; Miltenberger, et al., 1999; Poche et al., 1988). The safety skills exhibited by children during these assessments are typically scored numerically. For example, Himle, Miltenberger, Gatheridge, et al. (2004) used a 0 to 3 point scale to assess safety skills when a child found a firearm: 0 = touched the gun; 1 = did not touch the gun (avoid); 2 = did not touch the gun and immediately left the room (escape); and 3 = did not touch the gun, immediately left the room, and told an adult (report).

Skills Assessment

A skills assessment typically is conducted in the context of a role play simulating the safety threat. To conduct a skills assessment, the trainer tells the child that he or she will act out a situation and ask the child to "show me what you would do in this situation" (e.g., Gatheridge et al., 2004; Miltenberger & Olson, 1996). The trainer then creates the scenario and assesses the child's skills as the child responds to the simulated safety threat. To assess safety skills related to finding a gun, the trainer might say the following, "Pretend you walk into your parents' bedroom and see

this gun sitting on the bed," as the trainer puts a realistic replica of a handgun (or a disabled handgun) on a table. "Pretend you are alone and your parents are in the next room. I'll pretend to be your parent in the other room. Now show me what you would do if you found this gun on your parents' bed."

This assessment is useful for determining whether the skills are in the child's repertoire, but it does not provide any information about the child's use of the skills in an actual threat situation when a supervising adult is not present. Recent research has demonstrated that children may exhibit safety skills during a skills assessment in the presence of the trainer but then fail to use the skills during an in situ assessment in which they do know they are being assessed (Gatheridge et al., 2004; Himle, Miltenberger, Gatheridge et al., 2004; Kelso et al., 2007). In light of these findings, in situ assessments should be used to assess safety skills. Skills assessments are most appropriate to use during training sessions to assess skill acquisition.

Knowledge Assessment

Assessing a child's knowledge of safety skills typically is conducted by describing a scenario involving a safety threat and asking the child to describe how he or she would respond to the situation (e.g., Carroll et al., 1992; Gatheridge et al., 2004). Although these assessments are easy to conduct, they have limited validity. Numerous research studies have shown poor correspondence between what children say they would do in a given situation and what they actually do in the situation (e.g., Carroll-Rowan & Miltenberger, 1994; Himle, Miltenberger, Gatheridge et al., 2004; Miltenberger & Thiesse-Duffy, 1988; Olson-Woods, Miltenberger, & Forman, 1998). Given the poor correspondence between saying and doing, behavior during in situ assessments should be the primary measure of safety skills.

Training Strategies

Behavioral Skills Training (BST)

Research has shown that a behavioral skills training (BST) approach is superior to an informational approach for teaching various safety skills to children (e.g., Gatheridge et al., 2004; Poche et al., 1988; Wurtele, Saslawsky, Miller, Marrs, & Britcher, 1986). In BST, children first receive instructions and modeling. They then have repeated opportunities to rehearse the safety skills while receiving praise and corrective feedback during role plays simulating the safety threat. As such, BST is an active learning approach. (Recommended steps for implementing BST are shown in Table 1.) In an informational approach, information about safety threats and safety skills is presented through a variety of media, such as lectures, movies, animation, readings, coloring books, skits, or plays (Carroll et al., 1992). The children watch and listen to the information and sometimes respond verbally but do not engage in overt practice or rehearsal of the safety skills. The Eddie Eagle GunSafe Program is an example of an informational program to teach safety skills to prevent gun play (Gatheridge et al., 2004). Although this is an efficient method, research has yet to substantiate the effectiveness of such an approach to training safety skills.

BST has been shown to be effective in teaching a variety of safety skills including pedestrian safety skills (e. g., Yeaton & Bailey, 1978), fire safety skills (e. g., Jones, Kazdin, & Haney, 1981; Jones, Ollendick, McLaughlin, & Williams, 1989), sexual abuse prevention skills (e. g., Lumley et al., 1998; Miltenberger et al., 1999; Miltenberger, Thiesse-Duffy, Suda, Kozak, & Bruellman, 1990; Stillwell, Lutzker, & Green, 1988), abduction prevention skills (e. g., Johnson et al., 2005, 2006; Marchand-Martella, Huber, Martella, & Wood, 1996; Miltenberger & Olson, 1996; Poche, Brower, & Swearingen, 1981), and firearm injury prevention skills (e. g., Himle, Miltenberger, Flessner, et al., 2004; Miltenberger et al., 2004, 2005). Recent research evaluating BST for teaching skills to prevent gun play illustrates the application of BST and procedures for enhancing generalization following the use of BST.

BST to prevent gun play. Although researchers have attempted to promote safe storage practices by gun owning parents, many parents continue to store their firearms unsafely (loaded and unlocked; Azrael, Miller, & Hemenway, 2000; Grossman, Reay, & Baker, 1999). In addition, Hardy (2002), Hardy, Armstrong, Martin, and Strawn (1996), and Jackman, Simon,

Table 1: Recommended Sequence of Steps for Conducting Behavioral Skills Training

1) Describe the behavior and the contexts in which it should occur (Instructions).
2) Model the behavior in a realistic role-play context.
3) Have the learner rehearse the behavior in the role-play context.
4) Provide praise for correct performance and further instructions (feedback) for improvement if necessary.
5) Repeat until the learner performs the behavior successfully without assistance.
6) Repeat steps 1-5 using multiple exemplars and common stimuli during training (start with easier situations and work to more difficult situations).

Farah, and Kellerman (2001) have shown that when children find firearms, they are likely to play with them. Furthermore, Eber, Annest, Mercy, and Ryan (2004) reported that playing with firearms found in the home resulted in hundreds of deaths and thousands of injuries to children in the years 1993 to 2001. Clearly, children need to learn the skills to prevent gun play in order to prevent firearm injury and death.

The first study to evaluate BST for teaching safety skills to prevent gun play compared BST with the Eddie Eagle GunSafe Program (an informational approach) implemented in a small group format with 4- to 5-year-old children (Himle, Miltenberger, Gatheridge, et al., 2004). Children in the BST program received instructions and modeling and then rehearsed the skills across a variety of scenarios in which they found a gun in each of the five, 15-min sessions. Following each rehearsal, the children received praise and correction as necessary. To help promote generalization, the researchers used a real (but disabled) gun in training and created simulations in which the child found a gun in different situations in the home. The results showed that, following training, children in the Eddie Eagle and BST groups could describe the safety skills, but that only children trained with BST could demonstrate the safety skills during a skills

assessment. Unfortunately, although BST produced acquisition of the skills, most of the BST children failed to use the skills during an in situ assessment. Because the skills failed to generalize following BST, subsequent research evaluated strategies for promoting generalization.

In an attempt to promote the generalized use of the safety skills, researchers evaluated individual BST with 4 and 5 year olds (Himle, Miltenberger, Flessner, et al., 2004) and 6 and 7 year olds (Miltenberger et al., 2004). Children were trained individually in two, 30-min BST sessions. In each session, the child rehearsed the safety skills with praise and feedback until they exhibited the skills correctly five times in a row upon finding a gun in a variety of scenarios. Children then were assessed (with in situ assessments) and were given up to three BST booster sessions if not performing correctly. In situ training was implemented if the child still did not perform correctly during the assessment that followed the third booster session. During in situ training, the trainer entered the room where the child found the gun, caught the child failing to exhibit the safety skills correctly, and provided a short training session in which the child was required to rehearse the safety skills correctly five consecutive times.

The results showed that three of the eight 4 and 5 year olds demonstrated the skills following BST, but that five needed in situ training before using the skills consistently during in situ assessments (Himle, Miltenberger, Flessner, et al., 2004). Similarly, three of the six 6 and 7 year olds demonstrated the skills following BST while the other three needed in situ training before demonstrating the skills (Miltenberger et al. 2004). In both studies, the children continued to exhibit the safety skills when assessed from 2 weeks to 5 months following training. Another study with 6 and 7 year olds showed that BST could be effectively implemented in a small group format as long as children who didn't exhibit the skill following training received at least one in situ training session (Gatheridge et al., 2004). Results from these studies suggest that 4- to 7-year-old children can learn the safety skills and use them during in situ assessments following individual or group BST and in situ training.

One other recent study also compared the effectiveness of BST and Eddie Eagle with a slightly older cohort of children. Kelso et al. (2007) showed that for 8 and 9 year olds, BST and Eddie Eagle were equally effective and that in situ training increased the effectiveness of both programs. It is important to note that the Eddie Eagle program for 8 and 9 year olds incorporates rehearsal and feedback similar to BST, which may have accounted for the finding that it was as effective as BST with these older children.

In situ training. The results of Himle, Miltenberger, Flessner, et al. (2004), Miltenberger et al. (2004), Gatheridge et al. (2004), and Kelso et al. (2007) demonstrated the importance of in situ training for teaching safety skills to children. Although BST was effective for some children, in situ training resulted in successful performance for all children who did not perform the safety skills following BST. In each of these studies, in situ training was implemented following the failure of BST to promote the generalized use of the safety skills. Miltenberger et al. (2005) evaluated in situ training incorporated into the BST procedure to determine whether BST would be more effective if in situ training were implemented as part of BST and to determine whether training could be streamlined.

In this study, ten 4 and 5 year olds received two 30-min BST sessions. Within 30 min of the second BST session, an in situ assessment and in situ training were implemented. If the child did not exhibit the safety skills during the assessment, a trainer entered the room, caught the child in the presence of the gun, and had the child rehearse the skills five times. If the child engaged in the safety skills correctly and reported the gun during the in situ assessment, the trainer delivered substantial praise. Further in situ training sessions were conducted if needed until the children used the safety skills in subsequent assessments. Miltenberger et al. (2005) found that all 10 children acquired the skills in just a few training sessions and that the skills generalized and maintained over a 3-month follow-up. Furthermore, all five of the children who participated in a dyad assessment in which they found the gun while with a peer also engaged in the safety skills successfully. These results suggest that the inclusion of in situ training may increase the effectiveness and efficiency of BST. Similar results have been found while teaching abduction prevention skills to young children (Johnson et al., 2005, 2006) and sexual abuse prevention skills to women with mental retardation (Egemo-Helm et al., 2007).

Promoting Generalization

The issue of generalization is critical to child safety skills training. Generalization refers to the use of the skills by the child in the natural environment when an actual safety threat is present. Skill acquisition without the generalized use of the skills does not benefit the child. The child must use the skills in a real safety threat situation for training to be deemed successful. Research has shown that BST and in situ training are the most effective strategies for promoting generalization of safety skills. Although BST has resulted in generalization of safety skills for some children, in situ training has been required for others (Himle, Miltenberger, Flessner, et al., 2004; Miltenberger et al., 2004). Unfortunately, it is not possible to determine in advance whether in situ training will be necessary for promoting generalization for any particular child. For this reason, in situ assessment must be conducted following training to determine whether further in situ training is necessary and how many sessions should be conducted. In some cases, one in situ training session has been effective; in other cases, up to three in situ training sessions were needed before a child used the safety skills (Himle, Miltenberger, Flessner, et al., 2004; Jostad et al., in press; Miltenberger et al., 2004, 2005).

Although it is not clear why BST produces generalized responding for some children and not others, BST does incorporate two commonly used generalization strategies (e.g., see Stokes & Baer, 1977, for a review of generalization strategies). First, the trainer uses multiple exemplars when having the child role play the safety skills in response to a variety of different scenarios. For example, a child practices the safety skills when finding a firearm in a variety of different locations. Second, stimuli common to generalization settings often are used during training. For example, a variety of disabled firearms or replicas of firearms is used when

training skills to prevent gun play (Himle, Miltenberger, Flessner, et al., 2004; Miltenberger et al., 2004, 2005).

During in situ training, the contingencies that are delivered if the child is caught near a gun while failing to engage in the safety skills also may help promote generalization. Getting caught near the gun or getting caught touching the gun may become an aversive event (because the child receives disapproval from the trainer and must rehearse the safety skills five times or because a history of punishment has made "getting caught" a conditioned punisher). As a result, the child may be less likely to approach or touch a gun in the future as a result of a positive punishment process. In addition, running away and telling when finding a gun in the future are negatively reinforced by avoiding the aversive event (getting caught again).

Increasing Training Efficiency

Although the extant research shows that in situ training is the most effective procedure for promoting the generalized use of safety skills, it is complex and time consuming to implement. Staff must be trained to carry out the procedure with individual children in the natural environment, thus limiting the efficiency and possible widespread adoption of the training approach. Two potential solutions to this challenge are training packages that could be carried out by parents and the use of peers as trainers.

Recently, Jostad et al. (in press) evaluated the effectiveness of peer training for teaching safety skills to prevent gun play. BST was used to train four 6 and 7 year olds how to conduct BST and in situ training to teach safety skills to six 4 and 5 year olds. Once they were trained, the 6 and 7 year olds conducted BST and in situ training sessions without any assistance from the researchers. All of the 4 and 5 year olds exhibited the safety skills during in situ assessments following training by their peers. Similar to the results of Himle, Miltenberger, Flessner, et al. (2004) and Miltenberger et al. (2004), half of the children engaged in the safety skills following BST and half needed in situ training before engaging in the skills during in situ assessments. The children continued to engage in the safety skills when assessed many months after training.

In another recent investigation, Gross et al. (2007) developed and evaluated training materials for parents to use to teach safety skills to their own children. In this study, four parents of 4- to 7-year-old children received a training manual with step by step instructions for conducting BST and in situ training sessions with their children and a video showing two initial BST sessions and in situ training sessions. The parents read the manual and watched the video and then, without any input or training from the researchers, conducted two BST sessions with their children on consecutive days. Within 30 min following the second session, they conducted an in situ training session as well. Three of the four children trained by their parents used the safety skills during three consecutive in situ assessments conducted in their homes and in a day care setting.

Results of studies by Jostad et al. (in press) and Gross et al. (2007) provide preliminary evidence that peer training and parent training of safety skills to prevent gun play may be successful. If further research substantiates these findings, these strategies may be viable ways to increase training efficiency and make training accessible to more children. For example, practitioners could train a number of peers who could then provide training for many children. Likewise, training materials could be made widely available to parents.

Summary and Conclusions: What Does the Research Tell Us About Safety Skills Training?

- A behavioral skills training approach, in which the child receives instructions and modeling and then rehearses the skills with feedback in response to a variety of simulated situations, is more effective than an informational approach that does not have the active learning component.
- In situ assessment is the only way to determine if the child will use the skills in response to a seemingly real safety threat.
- Skills learned through BST do not always generalize to the natural environment.
- In situ training is the most reliable method for producing the generalized use of safety skills across a number of skill domains.
- Preliminary results suggest that peer and parent training may increase the efficiency of BST and in situ training. Further research on these approaches is needed, along with studies on technology-based training (e.g., interactive video or computer simulations), child and family factors that might predict the success of training, and training for individuals with developmental disabilities.

Guidelines for Conducting Safety Skills Training

By making safety skills training as effective, efficient, and accessible as possible, more children will benefit from training with the eventual reduction of accidental childhood injuries and deaths. Based on findings from research reviewed in this paper, the following guidelines are offered for teaching safety skills to children:

1. Identify and define the safety skills to be taught, including variations in the safety skills that might be needed in different threat situations.
2. Identify all variations of the safety threat to which the child might have to respond (multiple exemplars) so that the variations can be simulated in training. For example, in conducting abduction prevention skills training, all the ways that perpetrators solicit children should be included in training so that the child learns to respond safely to each type of lure.
3. During training, incorporate stimuli that are found in the generalization setting (common stimuli). For example, firearm safety skills should be taught using real, disabled handguns; abduction prevention skills training should be conducted outside the school or on the playground.
4. Conduct behavioral skills training (see Table 1) individually or in a small group format; ensure that each child is paying attention to the trainer's instructions and modeling and that each child is given the opportunity to rehearse the skills with feedback multiple times in response to role plays simulating multiple exemplars of the safety threat. A training session should last long enough for each child to rehearse the skills successfully (100% accuracy) in four or five role plays. Two BST sessions are suggested before conducting an in situ assessment.
5. Conduct in situ assessments after BST

to determine if each child will demonstrate the skills under naturalistic conditions. To conduct an in situ assessment, the simulated safety threat must be arranged in the natural environment where the child will encounter it without knowledge that an assessment is taking place. Typically a parent or teacher sends the child to the location of the simulated safety threat for some seemingly legitimate purpose and a hidden videocamera or unseen observer records the child's response to the threat. For example, to assess abduction prevention skills, a parent may send a child outside to play at a time specified in advance with the confederate who then walks up to the child and presents the abduction lure. In this case, the confederate and parent would function as observers of the safety skills.

6. Conduct in situ training following BST if the initial in situ assessment indicates that the skills are not occurring in the generalization setting. Continue to conduct in situ assessments a few days apart (followed by in situ training as needed) until the child has exhibited the safety skills in three consecutive assessments.
7. After the child has exhibited the skills successfully in 3 assessments, conduct in situ assessments at periodic intervals (e.g., 1 month, 3 months, 6 months, 1 year) to document maintenance of the skills. Conduct in situ training following any assessments in which the child fails to exhibit the skills.

References

Azrael, D., Miller, M., & Hemenway, D. (2000). Are household firearms stored safely? It depends whom you ask. *Pediatrics, 106*, e31-e36.

Carroll, L., Miltenberger, R., & O'Neill, K. (1992). A review and critique of research evaluating child sexual abuse prevention programs. *Education and Treatment of Children*, 15, 335-354.

Carroll-Rowan, L., & Miltenberger, R. (1994). A comparison of procedures for teaching abduction prevention to preschoolers. *Education and Treatment of Children*, 17, 113-128.

Dowd, M. D., Sege, R., Smith, G. A., & Wright, H. (2004). Firearm injury prevention; failure of gun safety education (letter). *Pediatrics*, 113, 1847.

Eber, G. B., Annest, J. L., Mercy, J. A., & Ryan, G. W. (2004). Nonfatal and fatal firearm-related injuries among children aged 14 years and younger: United States, 1993-2000. *Pediatrics, 113(6),* 1686-1692.

Egemo-Helm, K. R., Miltenberger, R. G., Knudson, P., Finstrom, N., Jostad, C., & Johnson, B. (2007). An evaluation of in situ training to teach sexual abuse prevention skills to women with mental retardation. *Behavioral Interventions, 22*, 99-119.

Gatheridge, B. J., Miltenberger, R. G., Huneke, D. F., Satterlund, M. J., Mattern, A. R., Johnson, B. M., & Flessner, C. A. (2004). Comparison of two programs to teach firearm injury prevention skills to 6- and 7- year-old children. *Pediatrics, 114(3),* 294-299.

Gross, A., Miltenberger, R., Knudson, P., Bosch, A., & Brower-Breitwieser, C. (2007). Preliminary evaluation of a parent training program to prevent gun play. *Journal of Applied Behavior Analysis, 40,* 691-695.

Grossman, D. C., Reay, D. T., & Baker, S. A. (1999). Self-inflicted and unintentional firearm injuries among children and adolescents; the source of the firearm. *Archives of Pediatrics & Adolescent Medicine, 153(8),* 875-882.

Hardy, M. S. (2002). Teaching firearm safety to children: failure of a program. *Developmental and Behavioral Pediatrics, 23(2),* 71-76.

Hardy, M. S., Armstrong, F. D., Martin, B. L., & Strawn, K. N. (1996). A firearm safety program for children: they just can't say no. *Developmental and Behavioral Pediatrics, 17(4),* 216-221.

Haseltine, B., & Miltenberger, R. (1990). Teaching self-protection skills to persons with mental retardation. *American Journal on Mental Retardation*, 95, 188-197.

Himle, M., & Miltenberger, R. (2004). Preventing unintentional firearm injury in children: The need for behavioral skills training. *Education and Treatment of Children, 27,* 161-177

Himle, M. B., Miltenberger, R. G., Flessner, C., & Gatheridge, B. (2004). Teaching safety skills to children to prevent gun play. *Journal of Applied Behavior Analysis, 37,* 1-9.

Himle, M. B., Miltenberger, R. G., Gatheridge, B., & Flessner, C. (2004). An evaluation of two procedures for training skills to prevent gun play in children. *Pediatrics, 113(1),* 70-77.

Jackman, G. A., Simon, H. K., Farah, M. M., & Kellerman, A. L. (2001). Seeing is believing: what do boys do when they find a real gun? *Pediatrics, 107(6),* 1247-1250.

Johnson, B. M., Miltenberger, R. G., Egemo-Helm, K., Jostad, C. J., Flessner, C., & Gatheridge, B. (2005). Evaluation of behavioral skills training for teaching abduction-prevention skills to young children. *Journal of Applied Behavior Analysis, 38,* 67-78.

Johnson, B. M., Miltenberger, R. G., Knudson, P., Egemo-Helm, K., Kelso, P., Jostad, C., & Langley, L. (2006). A preliminary evaluation of two behavioral skills training procedures for teaching abduction prevention skills to school-age children. *Journal of Applied Behavior Analysis, 39*, 25-34.

Jones, R. T., Kazdin, A. E., & Haney, J. I. (1981). Social validation and training of emergency fire safety skills for potential injury prevention and life saving. *Journal of Applied Behavior Analysis, 14*, 249-260.

Jones, R. T., Ollendick, T. H., McLaughlin, K. J., & Williams, C. E. (1989). Elaborative and behavioral rehearsal in the acquisition of fire emergency skills and the reduction of fear of fire. *Behavior Therapy, 20,* 93-101.

Jostad, C. M., & Miltenberger, R. G. (2004). Firearm injury prevention skills: Increasing the efficiency of training with peer tutoring. *Child & Family Behavior Therapy, 26(3*), 21-35.

Jostad, C. M., Miltenberger, R. G., Kelso, P., & Knudson, P. (in press). Peer tutoring to prevent gun play: Acquisition, generalization, and maintenance of safety skills. *Journal of Applied Behavior Analysis*.

Kelso, P., Miltenberger, R., Waters, M., Egemo-Helm, K., & Bagne, A. (2007). Teaching skills to second and third grade children to prevent gun play: A comparison of procedures. *Education and Treatment of Children, 22*, 99-119.

Lumley, V. A., Miltenberger, R. G., Long, E. S., Rapp, J. T., & Roberts, J. A. (1998). Evaluation of a sexual abuse prevention program for adults with mental retardation. *Journal of Applied Behavior*

Analysis, 31, 91-101.

Marchand-Martella, N., Huber, G., Martella, R. C., & Wood, W. S. (1996). Assessing the long-term maintenance of abduction prevention skills by disadvantaged preschoolers. *Education and Treatment of Children, 19(1),* 55-58.

Miltenberger, R. G. (2008). *Behavior modification: Principles and procedures* (4th ed.). Pacific Grove, CA: Wadsworth.

Miltenberger, R. G., Flessner, C., Gatheridge, B., Johnson, B., Satterlund, M., & Egemo, K. (2004). Evaluation of behavioral skills training procedures to prevent gun play in children. *Journal of Applied Behavior Analysis, 37,* 513-516.

Miltenberger, R. G., Gatheridge, B. J., Satterlund, M., Egemo-Helm, K. R., Johnson, B. M., Jostad, C., Kelso, P., & Flessner, C. A. (2005). Teaching safety skills to prevent gun play: An evaluation of in situ training. *Journal of Applied Behavior Analysis, 38,* 395-398.

Miltenberger, R. G., & Gross, A. (in press). Teaching safety skills to children. In W. Fisher, C. Piazza, & H. Roane (Eds.), *Handbook of applied behavior analysis*. New York: Guilford.

Miltenberger, R. G., & Himle, M. B. (2004). Firearm injury prevention: Failure of gun safety education. (letter). *Pediatrics*, 113, 1847-1848.

Miltenberger, R., & Olsen, L. (1996). Abduction prevention training: A review of findings and issues for future research. *Education and Treatment of Children*, 19, 69-82.

Miltenberger, R. G., Roberts, J. A., Ellingson, S., Galensky, T., Rapp, J. T., Long, E. S., & Lumley, V. A. (1999). Training and generalization of sexual abuse prevention skills for women with mental retardation. *Journal of Applied Behavior Analysis, 32,* 385-388.

Miltenberger, R., & Thiesse-Duffy, E. (1988). Evaluation of home-based programs for teaching personal safety skills to children. *Journal of Applied Behavior Analysis*, *21,* 81-88.

Miltenberger, R. G., Thiesse-Duffy, E., Suda, K. T., Kozak, C., & Bruellman, J. (1990). Teaching prevention skills to children: the use of multiple measures to evaluate parent versus expert instruction. *Child & Family Behavior Therapy, 12(4),* 65-87.

Olsen-Woods, L. A., Miltenberger, R. G., & Forman, G. (1998). Effects of correspondence training in an abduction prevention training program. *Child & Family Behavior Therapy, 20(1),* 15-34.

Poche, C., Brouwer, R., & Swearingen, M. (1981). Teaching self-protection to young children. *Journal of Applied Behavior Analysis, 14,* 169-176.

Poche, C., Yoder, P., & Miltenberger, R. (1988). Teaching self-protection to children using television techniques. *Journal of Applied Behavior Analysis, 21,* 253-261.

Roberts, J., & Miltenberger, R. (1999). Emerging issues in the research on child sexual abuse prevention. *Education and Treatment of Children*, 22, 84-102.

Stillwell, S. L., Lutzker, J. R., & Greene, B. F. (1988). Evaluation of a sexual abuse prevention program for preschoolers. *Journal of Family Violence, 3*, 269-281.

Stokes T. F., & Baer, D. M. (1977). An implicit technology of generalization. *Journal of Applied Behavior Analysis, 10*, 349-367.

Yeaton W. H., & Bailey, J. S. (1978). Teaching pedestrian safety skills to young children: an analysis and one-year follow up. *Journal of Applied Behavior Analysis, 11,* 315-329.

Wurtele, S. K., Saslawsky, D. A., Miller, C. L., Marrs, S. R., & Britcher, J. C. (1986). Teaching personal safety skills for potential prevention of sexual abuse: A comparison of treatments. *Journal of Consulting and Clinical Psychology*, *54,* 688-692.

You are Invited

You are invited to attend the first annual BAP business meeting! The meeting will be held during the ABAI annual convention on May 24th, from 7:30 pm to 8:20 pm, in PDR 4. Board members will discuss the progress of the new journal and plans for upcoming issues, followed by a question-and-answer session.