

## **EVIDENCE BASED PRACTICE IN THE HOME AND SCHOOL TO HELP EDUCATE THE SOCIALLY MALADJUSTED CHILD**

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Educators often exclude socially maladjusted children (SMA) from a proper education due to serious disruptive behavior. Never the less, these children are entitled to services under section 504 and the Americans with Disabilities Act. While SMA children are indeed difficult to educate, review of the associated literature suggests that methods to remediate and manage behavior patterns exists. This paper will explore effective education for SMA children and effective ways to manage their behavior in the classroom. In addition, this paper will explore the research suggesting that SMA children are harmed by educating them with other children who are SMA. We conclude that meeting the educational needs of children with social maladjustment involves the combination of home and school programming in an inclusive setting.

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### **INTRODUCTION**

Entering the new century, school districts and behavioral health programs around the country are reportedly striving to use "best practices" and evidence-based practices when working with special education students. This important goal emerged from the President's Task Force on Mental Health (New Freedom Commission on Mental Health, 2003). One specific population of children, those diagnosed as socially maladjusted (SMA), are unfortunately not currently experiencing the benefits of this progress and reside in programs which fail to meet the best practice guidelines for treatment. This failure is particularly striking since organizations like the International Association for Behavior Analysis (Task Force on the Right to Effective Behavioral Treatment, 1988; Task Force on the Right to Effective Education, 1990), have published practice guidelines demanding that students have a right to effective education and the president has signed the No Child Left Behind Act (2001). In addition, the costs to society of not intervening with children of this group are great, including a greater demand on other systems such as the criminal justice system.

School psychologists classify children with SMA when they are diagnosed with conduct disorder, oppositional defiant disorder, and disruptive disorder, not otherwise specified. SMA children are at great risk for dropout, with as many as 62% not completing high school (Walker & Reid, 1995). General academic failure combined with a pattern of delinquency ensures over 70% of SMA children are arrested at least once after leaving school (Walker, Colvin, & Ramsey, 1995; Walker, 1997). SMA children cost society over one billion dollars a year in

the juvenile justice system and a half billion dollars in vandalism alone (Patterson, DeBaryshe, & Ramsey, 1989). Finally, about half of all children who are SMA become adolescent delinquents and three quarters of these children become adult offenders (Patterson, et al, 1989). Clearly, educating or not educating SMA children severely affects our society.

After an examination of the costs, it is logical to wonder why schools have not used published best practices in regards to SMA children. Two reasons that children who are SMA might not receive treatment are: (1) schools are not entitled to compensation for such students under Individuals with disability education act 97 (IDEA 97) (2) the political fallout for children who may represent a serious threat to other students (Maag & Howell, 1992). Given the aggression problems of SMA children and that youth violence is one of the most serious problems facing schools systems today (Eberly, 1996) and rising at alarming rates (e.g., Sheley & Brewer, 1995), many find little incentive to argue for the civil liberties of this group.

Maag and Howell (1992) suggest SMA students are victims of culture's need to show little tolerance for violence, which emerges from the school districts' need to retain popular support. Thus, it is not surprising that when youth violence has resulted in many calls for the removal of students who engage in serious behavioral problems, SMA students remain an unprotected group.

However, practices do exist to socialize these children and will lessen the threat to society. Treatment research on areas related to disruption in general and SMA in particular using delinquency, conduct disorder, and opposition defiant disorder show that effective practices exist (Health and Human Services, 1999; Walker, Colvin & Ramsey, 1995;

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Patterson, Dishion, & Reid, 1992). In addition effective practices prevent conduct problems also have demonstrated efficacy (Conduct Disorders Prevention Research Group, 1999a, 1999b) as well as practices to lessen the overall level of antisocial behavior in school (Burke, Ayries, & Hagan-Burke, 2003; Carr, Dunlap, Horner, Keogel, Tunbull, Sailor, Anderson, Albin, Keogel, & Fox, 2002; Tobin, Lewis-Palmer & Sugai, 2001). These practices can create healthier school climates for SMA students and their classmates (Tobin et al., 2001).

Since SMA students are diagnosable under the Diagnostic and Statistical Manual IV, they are entitled to protection under section 504 and the Americans with Disabilities Act (Cohen, 1994). These acts are more inclusive and thus are not restricted to particular conditions, as IDEA97. Conduct disorder is a chronic condition and can affect the overall progress of the child within the school system. SMA children, diagnosed as conduct disorder, in general have poor social skills, repeated failures to respond to treatment, and poorer prognosis for adult living than any other disorder with the exception of autism (Quay, 1986). Children with SMA who receive adequate intervention can show substantial improvement in functioning and in classroom performance. However, interventions must be begin early (most cases prior to the age of 8), intensive, and often need to occur for longer than a year (Walker, Colvin, and Ramsey, 1995).

Contrary to the benefits that can come from scientifically demonstrated treatments (e.g., Brestan & Eyeberg, 1998; Conduct Problem Prevention Group, 1992, 1999a, 1999b), which benefits the student and society, the debate over the inclusion of these children in the school system continues (Zabel, 1986; Hoagwood, 1991). Even the courts, who have championed the rights of the individual, have consistently ruled that students who have serious behavior problems are not entitled to services under IDEA (see *A. E. v. Independent School District no. 25*). This has led many school psychologists to misclassify a child who is SMA as “seriously emotionally disturbed” after a major offense (Murray & Myers, 1998). However, some educators as inappropriate view placing these children into classrooms for children with serious emotional disturbance (SED). Some educators even see putting such children into SED classes as damaging to the child because programming needs for the two types of students differ (Murray & Myers, 1998; Clarizio,

1992). Specifically, the behavior of SMA children logically exacerbates the problems of SED children.

Since the number of students classifiable as SMA is five to six times that of those who are qualified as seriously emotionally disturbed (Walker, Colvin, & Ramsey, 1995), the school system may be placing both types of children at risk by improper placement. These two types of student react very differently to the world in which they live. While children who are SED may have a hypersensitive reaction to negative expressed emotionality, SMA children may have a hyposensitive reaction or even a counter reaction. Obviously, this is a very problematic combination of special needs children.

The origins of social maladjustment are multifactor; however, a strong environmental influence is noted. While most psychological traits load in the range from 25% to 75% from genetic factors (Lykken, 1998), SMA children have a considerably higher environmental loading. For example, latent class analysis of data from the Virginia Twin Study of Adolescent Behavioral Development found that with the children labeled “pure conduct disorder”, 97% of the variance is associated with shared family environment (Silberg, Meyer, Pickles, Simonoff, Eaves, Hewitt, Maes, & Rutter, 1996). This work is augmented by studies indicating that the course of SMA pathological development can often be traced to parental mismanagement of children with difficult temperaments (Loeber & Dishion, 1983; Lykken, 1995, 1998).

School psychologists may be helpful to teachers in differentially diagnosing SMA from SED children. In addition, there appears to be a developmental relationship with the disruptive disorders category, with ODD seen as a forerunner to conduct disorder (Kamphaus & Frick, 1996). This gradual hardening of children needs to be taken into account when deciding if outcomes should be designed to remediate or to accommodate (see Walker, Colvin, & Ramsey, 1995) and the school psychologist may play a major role in differentiating the children who are at the cusp points. A final role for the school psychologist in relation to SMA children concerns their academic and behavioral programming. It is clear that SMA children need specific behavioral and academic intervention to experience success and it is imperative that school

psychologists be well versed in the current related best practices.

### EFFECTIVE TEACHING OF THE SOCIALLY MALADJUSTED CHILD

Given that numerous studies have demonstrated a strong relationship between antisocial behavior and academic performance (Farnworth, Schweinhart, & Berrueta-Clement, 1985; Feldman & Wentzel, 1990; Parker & Asher, 1987; Patterson, Bank, & Stoolmiller, 1990; Tremblay, Masse, Perron, LeBlanc, Schwartzman & Ledingham, 1992; Wentzel, 1993, 1994; Werry, Reeves, & Ekind, 1987) and that this relationship is one in which antisocial behavior is the causal agent (Dishion, 1990; Olweus, 1983), teachers must take a more active role in the inclusion of SMA children. Just as the American Psychological Association has created practice standards that support empirically validated treatments for clinical issues (Task Force on Promotion and Dissemination of Psychological Procedures, 1995), the National Education Association should create and support empirically validated instructional strategies. Ways to improve educational outcomes for SMA students have appeared in the literature since the mid-sixties (e.g., Tannenbaum, 1966). Students, who are socially maladjusted, need programs that emphasize education of skills while working to modify the student's behavior (Derr, 1977; Walker, Colvin, & Ramsey, 1995).

Teaching gains with SMA children were reported back as early as the 1970's. In one program, Bergeth (1972) reported that good progress on standardized indicators for children who were SMA. The program focused on providing students with basic skills while simultaneously remediating inappropriate behavior. In addition, Spivack and Koasky (1972) reported on a six-week summer program for New York City children, which showed strong progress in remediating deficits in reading and mathematics. In addition, these students made considerable progress in the areas of social skills and social behavior.

#### Classroom Disruption

Antisocial behavior has a purpose or function. Early on Patterson (2002) noticed that in about 80% of the interaction in which a child with oppositional or conduct problems engaged in this behavior in the playground, it was to "get" something from a peer.

Conducting a functional behavioral assessment of disruptive behavior in the classroom is critical to the overall management of children with disruptive behavior (Cautilli, Harrington, Vila Gillam, Denning, Helwig, Ettingoff, Valdes, & Angert, 2003; DuPaul & Ervin, 1996; Ervin, DuPaul, Kern, & Friman, 1998; IDEA, 97; Walker, Colvin, & Ramsey, 1995). When conducting a functional behavioral assessment one interview teachers and performs direct observation of the setting events, antecedents, the behavior and its consequences (Carr et al., 2002). Once the function is identified a competing behaviors model can be developed and an alternative behavior can be made more efficient in achieving the same function (Burke, et. al, 2003; Cautilli, Riley-Timman, & Thomas, 2001). In addition, once antecedents are identified, interventions can manipulate those antecedents to lessen disruption and build self-control (Axelrod, 2001).

Research exists to support the practical use of functional behavioral assessment. Functional assessment leads to greater teacher satisfaction with programs (Ervin, DuPaul, Kern, & Friman, 1998; Twernbold-Schill, Kratchowill, & Elliot, 1998), can increase the flexibility and range of the types of interventions used, and can be helpful in determining what to do if a particular strategy fails (Barnett, Bell, & Carey, 1999). While most of the current research has organized behavioral excesses into functional categories, it has only been recently that the vast body of behavioral research on deficits was organized into functional categories (Daly, Witt, Martens, & Dool, 1997).

One factor that often leads to classroom disruption from a deficit perspective is a poor match between the child's curriculum and the child's current skill level (Daly, Witt, Martens, & Dool, 1997; Shinn, 1998). One method to ensure correct curriculum matching is the use of curriculum based assessment procedures combined with an error analysis of the child's performance. Finding the child's level of fluency can be critical to reducing disruption in the classroom (Skinner, 2002). Coupling this with successful teaching strategies is the beginning to a partial solution to school violence (Kaufman, 1994).

#### Introduction to classroom management systems: Preventing Disruption

In general, children with SMA respond better in well managed and well designed classrooms

(Health and Human Services, 1999). It is also true that well managed classrooms, particularly those that used contingency management systems, function to prevent classroom disruption (Conduct Disorders Prevention Research Group, 1999a,b; Filcheck & McNeil, 2003). Teachers should design classroom management procedures to allow SMA children to engage in tasks including schoolwork, following rules, and increasing the child's opportunity to respond around instructional material (Barkley, 1990; DuPaul & Stoner, 1994; Walker, 1997). Indeed, one of the most powerful ways of combating student misbehavior is to build a positive instructional flow between student and teacher, while creating many opportunities for the child to respond (Task Force on the Right to Effective Education, 1990). However, if this is not enough, and in many classrooms, it is often not enough, the teacher can employ a host of strategies.

Strategies for managing an SMA student's low-level misbehavior can help to lessen classroom tension and increase classroom safety (Rathvon, 1999). These strategies often involve changes in setting events or establishing operations and thus can prevent more severe forms of antisocial behavior. In addition, teachers can use Rathvon's (1999) strategies as neutralizing routines when they are indicated in a comprehensive functional behavioral assessment for more serious misbehavior. In other words, using effective classroom management techniques to minimize the occurrence or impact of maladaptive behaviors can head off potentially problematic classroom situations. In addition, teachers prefer classroom management techniques such as group contingencies to individual intervention. For example, a teacher reminding the class of the classroom rules as opposed to an individual child. This is for two reasons (1) when a teacher focuses on individual children, she/he may not be monitoring the entire room at that point (2) the teacher may be allowing the child to become a model of behavior that achieves teacher attention. Of course, serious behavior would always need individual level intervention. Also, more research needs to be done in the area of when to intervene and not to intervene with a particular child. As to how to intervene, researchers have identified many techniques since the early 1970s (e.g., Long & Newman, 1971). The following strategies, most suited for responding to minor misbehaviors, can help teachers deal with problem behaviors as soon as they occur (Long & Newman, 1971; Rathvon, 1999).

**Planned ignoring.** Ignoring is one of the most difficult techniques to teach. If a SMA student's behavior is not likely to harm or spread to others, a teacher might decide to simply ignore the behavior. Ignoring a maladaptive behavior blocks continued momentum for the student. In addition, it stops the student from modeling inappropriate ways to get attention from other students. Planned ignoring is especially pertinent if the behavior signals another problem. For example, a student who repeatedly sighs loudly could be signaling a loss of interest. Instead of responding to the sigh, a teacher should recognize that student's need to change activities soon. For a second example consider the student who drops a pencil. Calling attention to the action might create social reinforcement from other students. Knowing when to ignore and when not to ignore is a very important aspect of teaching SMA students. A modified version of planned ignoring is when a teacher trains the class in the beginning of the school year to ignore an acting out child when she gives a particular cue (McNeil, 1999). The teacher would train the class early in the school year through practice and positive feedback to ignore the responses. In general, the context and parameters of ignoring would be an excellent area of on going research.

**Nonverbal signals.** Another management factor that is important in dealing with SMA students is the use of nonverbal signals. Communicating with students about behavior through the use of nonverbal signals such as eye contact or gestures (for example, finger to lip to request silence) can have a powerful effect on lessening SMA student's disruption by conveying that they are being monitored and that consequences may be rendered. One significant benefit of using nonverbal signals is that their use does not interrupt other students.

**Proximal control techniques.** The third strategy that teachers can employ in their treatment of SMA children is the use of proximal control techniques. Sometimes, simply moving closer to a misbehaving student resolves the problem. Proximal control techniques work because they are signals to the child that the teacher is monitoring the child's behavior and that consequences may follow for inappropriate behavior. Students with SMA are thought to be more sensitive to nonverbal indicators of consequences than verbal ones because of it is typical for individuals to fail to follow through with verbal statements.



Increasing interest. Another technique that might help SMA children is incorporating activities that build their interest. If a student appears to be losing interest in a task or activity, a teacher can refocus attention by asking a specific question about the student's progress or by otherwise paying specific attention to the student's work. An early study of SMA children focused on the use of poetry to increase the student's learning (Rich & Nedboy, 1977). This study found that SMA children would readily complete poetry assignments and that these assignments were rated highly by the class. A more relevant and exciting curriculum could have a major impact on SMA students (Kauffman, 1994). Oftentimes, one could only wonder what the effect would be if American education devoted more time to teaching crafts and trades, especially with SMA children.

Humor. Sometimes tense moments between the teacher and the SMA student can be reduced through humor. Humor can change the entire context in which a behavior occurs (Skinner, 1957). It is important to note that humor should be used very judiciously so that it does not allow the student to interpret the teacher as weak. Furthermore, humor should never be at the child's expense.

Instructional hierarchy. It is important to address the instructional hierarchy with SMA students and ensure that expected work is at the instructional level. Teachers should be aware of the instructional level of SMA students to minimize the chance of frustrating a student by making unreasonable academic demands. Furthermore, academic behavior may be highly aversive to these children (Gunter, Denny, Jack, Shores, & Nelson, 1993; Shores, Gunter, & Jack, 1993). For some SMA students, beginning an assignment can be overwhelming. As a result, SMA students may refuse to start working or engage in adaptive misbehavior to facilitate an escape behavior. A teacher can assist SMA students and avoid a behavior issue by providing an example, asking questions to facilitate their thinking, or prompting them to follow steps.

Maximizing classroom structure. Creating more structure in the classroom can avert discipline problems. For example, having a child begin each day by hanging up her coat, going to her seat, and coloring the picture you have placed on her desk might help her avoid being disruptive. In addition, programming specific rewards during the day may

help in reducing conflict and conduct problems. For example, Tucci (1984) used a class movie at the end of the day as a reward for good behavior for children who were SMA and co-diagnosed with deafness.

Clear commands and rules. The types of commands that a teacher gives can have great impact on student behavior. Students are more likely to follow brief, simple clear commands compared to vague multitask commands (Walker, 1997; Richman & Wacker, 2001). Commands should highlight the reinforcer by focusing on starting a new activity, rather than just stopping an old activity (Walker, 1997). In addition, teachers should take into account the effects of momentum when switching an activity (i.e. if the child has placed much effort into the task often he will persist) and when building compliance for commands (by starting with commands that a child is likely to do and be praised for doing, then moving to other commands) (Strand, 2001). It is important that the teacher consider the child's comprehension level in creating directives and giving rules.

Antecedent control strategies. Antecedent control strategies can be extremely helpful in the prevention of SMA students' disruptive behavior. One such strategy is removing seductive objects. When a student brings Pokemon cards, radios, toys, or other distracting items to school, teachers should usually hold them for "safe-keeping." Other objects in the classroom environment can also become a focus for misbehavior, so the teacher should hide them. Another antecedent strategy would be to seat children in traditional seating rows instead of circles or groups. This lessens the amount of stimulation on a child. Another technique would be to seat disruptive children closer to the teacher and distractible children away from windows. Finally, sitting a disruptive student next to a mature and popular student who is cooperative, can lead to behavioral gains.

### **MORE ELABORATE CLASSROOM MANAGEMENT SYSTEMS: CONTINGENCY MANAGEMENT BASICS**

In many instances, students' behavior problems may need a more long-term and systematic intervention (Walker, Colivin, & Ramsey, 1995) with booster trainings later (Conduct Disorder Prevention Research Group, 1999a). For example, the Conduct Disorder Research Prevention Group (1999b) conducted intensive intervention to build skills and

prevent conduct problems in the first and second grade as well as in the fifth and sixth grade. Technology, like classroom token systems (a form of contingency management system), has shown benefit since the early 1970's (Axlerod, 1971). Contingency management programs are well established in the treatment and prevention of conduct problems in both the home and the classroom (Health and Human Services, 1999), we will review the basic terminology and methods for potential users. Contingency management interventions should focus on increasing desirable behavior a student displays in addition to decreasing the undesirable behavior (Carr, et al. 2002).

A single conversation with the student or sporadic attention to the problem is typically not enough to address conduct problems in children. This is especially true if a student's behavioral excess is an out growth of a particular deficit of the child, which is well pronounced. For example, if using a teacher Vineland Scale of Adaptive Behavior, the behavior analyst finds that a child is two or more years behind in that particular skill area. If this is the case then attempting to remediate the deficit through instruction and reinforcement of that alternative behavior to fill the deficit could take time. Although the principles for responding to student behavior are the same whether the teacher is using simple or more systematic interventions (i.e., based on the behavior analyst's 3-term contingency diagram), the latter responses are usually carried out across time in a consistent manner as part of a formalized behavioral intervention plan. The former, simple interventions, teachers use informally and occasionally.

All students, even the most challenging, have some appropriate behaviors for a teacher to increase (Filcheck & McNeil, 2003). The primary strategy for doing this is a catch them being good strategy and rewarding the good behavior. If they do not display particular behaviors, the teacher is interested in, formal instruction or shaping (reinforcement of successive approximations to the target goal) can be used.

In a contingency management system, the primary strategy for increasing appropriate behavior is reinforcement. Reinforcement, particularly positive reinforcement, has become the hallmark of many applied behavioral analysis interventions. Reinforcement is any consequence, including a response from another child or teacher, that increases

the future probability of a behavior. This principle is the basis of token economies in the classroom (Birnbrauer & Lawler, 1964). It is important to realize that reinforcement is a definition of a basic principle of behavior from which a token system is but one procedure. Another procedure may come in an interaction between the teacher and the student. Reinforcement can increase negative as well as positive behaviors. For example, when a teacher puts a sticker on a student chart because the student completed his assignment without calling out for unneeded help, the student is more likely in the future to continue to work independently. However, when a teacher says to a student who is wandering around the classroom, "Sit down!" the attention may reinforce the student's behavior and thus the student is more likely to wander again in the future. In both instances, the teacher used positive reinforcement. In the first case, it rewarded a desirable behavior; in the second, it rewarded an undesirable behavior.

A teacher can deliver a more precise use of reinforcement using the attention training system (DuPaul, Guevremont, & Barkley, 1992). This system is a machine placed on the child's desk. The teacher presses a button and the machine registers the child's gain or loss of a point. This method provides immediate feedback for children as to their performance.

Another way that a teacher can use reinforcement is through group contingencies (Axelrod, 1983). Group contingencies are utilized when the entire class receives a consequence for particular behaviors. Group contingencies are very effective in decreasing classroom disruption and in seat behavior for children. Some literature exists to show that group contingencies can be as effective as a functional analysis and individual contingencies in the treatment of aberrant behavior (e.g., Twernbold-Schill, Kratchowill, & Elliot, 1998). In addition, teachers may perceive group contingencies as more fair and thus have the added benefit for all in the class who are treated the same.

### **Positive and negative reinforcement.**

When a teacher responds to a SMA child's behavior, and the target behavior becomes more likely to occur again, the teacher is using positive reinforcement. For example, a teacher tells a student that after she completes five social studies questions, then she may use the computer. If she completes all of

the problems, the teacher is reinforcing social studies completion through the computer reward. It is important to remember that reinforcement is not just an artificial intervention created by behaviorist but that reinforcement is a naturally occurring process, harnessed and tailored by behaviorists (Alberto & Troutman, 1995).

Negative reinforcement, or escape, differs from positive reinforcement in that the behavior allows the person to terminate an aversive stimuli in the environment. For example, suppose a teacher sets up a system with a freshman foreign language students whereby they must complete and turn in a class assignment each day in order to opt out of a nightly homework assignment. Because students typically see homework as an undesirable consequence, they will increase the rate of completing the class assignment. Any increase in behavior to avoid a consequence is the result of negative reinforcement. Both positive and negative reinforcement increase the future probability of a behavior occurring (Alberto & Troutman, 1995). Although negative reinforcement can be effective, positive reinforcement should be favored since it is preferable to have students working toward a positive outcome rather than under the threat or perception of a negative consequence.

### Reinforcement Controversy

Some individuals, including psychologists and teachers, object to using positive reinforcement with any students. They fear it teaches students that they are entitled to a payoff for appropriate behavior or that frequent use of reinforcement will sidetrack the child to think of the reward instead of the behavior (Kohn, 1996). They contend that students should complete their schoolwork and behave appropriately because these are the right things to do. These moralists desire the child to make changes because of an awareness of social norms and expectations. This discussion is often addressed as one of external versus internal motivation. This fear has proven largely to be a myth (Eisenberg & Careron, 1997; Pierce & Cameron, 2002). Across educational settings, meta-analytic reviews have found that decreases in motivation are usually attributable to poorly designed programs rather than rewards (Cameron & Peirce, 1996; Eisenberg & Cameron, 1997). In addition, although it certainly would be preferable for all students to have a history that makes learning important and a reinforcer, itself, or to behave

appropriately because it “feels good”, for the most part this is not the case. Usually students who respond out of “internal motivation” are the students who have an extreme interest in the topic, or have a history of repeated successes in the subject over time. While for these students the use of external reinforcers is not important, SMA children typically fall outside this category. Thus, the use of reinforcement is a reality in today’s schools, particularly in the case of SMA children.

### Types of reinforcers that teachers can manipulate

Often teachers are unaware of the types of reinforcers that they hold in their classroom. Some teachers confuse student rights with student privileges. Privileges are things earned; rights are basic entitlements. Once teachers recognize the distinction between rights and privileges, they will automatically have more control over their classroom because they will understand just how many reinforcers of the student’s they control. These reinforcers can help in managing the misbehavior of many students, as long as the reinforcers are given contingent on performance. Some typical reinforcers are:

**Social reinforcers.** Social reinforcers are various types of positive interactions that a teacher, parent, or peer can give students for appropriate behavior that increase the target behavior. These reinforcers might include a positive phone call home to parents, a pat on the back or a hug, verbal praise, or selection as citizen of the month. Teachers should try social reinforcers, especially clear and specific verbal praise, before other positive reinforcers since they are the most natural reward in a school environment. If it is necessary to employ other types of rewards, teacher should use them in conjunction with social reinforcers since a teacher’s long-term goal should always be to have students respond to rewards that occur naturally in their classroom environment. With SMA children, social rewards are relatively ineffective (Roberts, 1999).

**Activity reinforcers.** Activity reinforcers involve events such as playing games, having extra recess, helping a teacher in another class, and participating in other coveted individual or group pastimes. Generally, activities that directly relate to a student’s educational goals are preferable to those that are solely recreational. However, some literature exists showing the effectiveness of free time as a

reinforcer for following classroom rules (Axelrod, 1983).

**Tangible reinforcers.** Tangible reinforcers are prizes or other objects students can earn as symbols of achievement. A student who is earning baseball cards or a certificate for completing assignments is receiving a tangible reinforcer. Sticker on paper is another example of this type of reinforcer. Tangible rewards can often be naturally integrated into classroom activities and have been shown to be effective in motivating student's to perform. For the skilled teacher that uses a token system, the pokeman card given at the end of the school day for good work is a wonderful boon.

**Primary reinforcers.** Primary reinforcers are items related to human needs for survival such as food. Keep in mind several things when using primary reinforcers. First, the potential negative impact of food on student health is a concern. Second, food is not a natural part of the learning process. Finally some people are allergic to certain foods. This being said, an occasional pizza party as a group contingency for the completion of work assignments can be immensely helpful.

**Achievement as a reinforcer.** Some students will be motivated by success in a particular activity. This is certainly the case when a student competes with other students or to beat their own personnel best (Axelrod, 1983). While the other reinforcers are not natural to situations, achievement is often a natural part of life (for the distinction between natural vs. contrived reinforcers see Skinner, 1982).

### **Effective use of positive reinforcers**

Teacher can do several things to enhance the effect of positive reinforcers. First, to make sure that the positive reinforcers are clear and specific and those students understand the relationship between their behavior and rewards. Second, teachers can vary how much and how often they reward students. Intermittent reinforcement is more resistant to the effects of extinction (Alberto & Troutman, 1995). Finally, teachers should make sure that the rewards are desired. Teachers are often amazed with how simple systems applied consistently can over time make a major difference in a child's behavior.

### **Effective use of punishment procedures**

Consensus in the field of education is that SMA children cannot be completely remediated with an all positive system (Walker, Colvin, & Ramsey, 1995). In such cases teachers may need to use mild but effective punishment procedures such as overcorrection (Foxx & Azrin, 1972). Restititional and positive practice overcorrection has shown some success in dealing with many behavior problems including disruption (see Axelrod, Bratner, & Meddock, 1978 for review and parameters for effectiveness). Another technique used is that of Time-Out. Time out has demonstrated effectiveness in reducing disruptive behavior (see Crespi, 1988; Harris, 1985 for parameters). It is important to note that students can use time out as a form of task escape and thus the importance of combining time-out with a good functional analysis is critical to success. Finally, response cost procedures are effective in decreasing inappropriate behavior (Walker, 1983; Zirpoli & Melloy, 1997). Response cost and other punishment procedures should be combined with some form of token system designed to build appropriate behavior (Zirpoli & Melloy, 1997).

### **SOCIAL SKILLS TRAINING, PROBLEM SOLVING TRAINING, AND ANGER MANAGEMENT TRAINING**

Some research exists demonstrating the effectiveness of training alternative social responses (Alberg, Perry, & Eller, 1994; Knapczyk, 1988; Graham & Cline, 1989; Koch, 1988; McGinnis & Goldstein, 1984). In such programs, children are taught to negotiate conflict between them and another or to use a mediator to help settle disputes (Rathvon, 1999). In general, these types of programs have small (Fornes et al., 1997) to moderate success (Zaragoza, Vaughn, & McIntosh, 1991). While these programs address skill deficits that impede change, they frequently miss the motivational deficits. Motivational deficits may be due to histories of violence and aggression and may explain why these children see nonhostile situations as hostile (Bierman, Miller, & Stabb, 1987). In these cases, it might be prudent to embed a social skills training program within a contingency management system as with the RECESS program.

The above appears to be true to some extent for problem solving training. In problem solving training, children learn to identify the problem, generate solutions, and enact solutions (Kazdin, 1996,



1997). Twenty sessions of problem solving skill training by itself has outcomes superior to relation-based psychotherapy (Kazdin, Esveltd-Dawson, French, & Unis, 1987; Kazdin & Wassell, 2000). However, it was not until the problem solving group's parents received training in behavioral parent training (a procedure which utilizes contingency management as stated below), did the child return to the normal range of functioning (Kazdin, 2000).

### **PULLING IT ALL TOGETHER (THE RECESS PROGRAM)**

Walker, Hops and Geenwood (1993) developed a comprehensive program for intervening with children who are SMA. The program is titled the Reprogramming Environmental Contingencies for Effective Social Skills (RECESS). This program uses a combination of script training for social skills, with praise and other forms of positive reinforcement, as well as a response cost program for rule infraction. Some of the social skills that are taught in the RECESS program are peer entry skills and conflict resolution skills. The RECESS program has proven to be powerful for young SMA children in grades K-4. Specifically, the program has been shown to decrease aggression, lessen peer rejection and build pro-social peer behavior.

#### **De-escalation Procedures**

Walker, Colvin and Ramsey (1995) hold that all SMA students should have a clearly written de-escalation procedure that is both understandable by the child and is feasible. They outline a seven-step de-escalation procedure that views the escalation cycle as a series of steps in a behavioral chain and the matching law for alternative responses (see Shukla-Mehta & Albin, 2002). By learning the specific steps and tying those steps directly into intervention, one may prevent the child from continuing in the escalation cycle. In addition, the de-escalation procedure should be designed in a way to teach the child pro-social and self control skills. They arbitrarily label these seven stages as: calm, trigger, agitation, acceleration, peak, de-escalation, and recovery. General strategies are identified for each stage. Also when strategies can be harmful are identified.

#### **Developing Moral Behavior**

Much is written on the development of conduct disorder. From a behavioral perspective

conduct disorder can be seen as a deficiency in rule governed behavior (Skinner, 1966). Skinner (1966) posited that two different types of behavior occur: those learned from words (rule governed) and those learned by experience (contingency shaped). Failure to understand, acquire, respond to, or generate verbal rules can cause "moral" problems (Kurtines, 1984, 1987). Hayes, Giffrod, & Hayes (1998) outlined a detailed account of how such behavior develops based on a child's learning history. Briefly stated, a child first learns to comply to rules of others, then the child learns a general awareness of the rules, and finally the child learns to listen and modify rules to the current situation.

Barkley (1997) has taken this model and applied it to attention deficit disorder and his modification of stages can be applied to conduct disorder children. According to Barkley (1997), children begin with compliance and then start a process of active rehearsing speech. This speech becomes directed into an active problem solving of events. After the child has mastered this level, the speech gradually becomes subvocal. Thus, interventions can be based on where the child is stuck in the process to aid in building self-control.

#### **Compliance training**

Noncompliance is simply not doing what is requested (Patterson, Reid, Jones, & Conger, 1975; Herbert, 1978). Compliance can be seen from a developmental perspective (see Reigler & Baer, 1989). In this model, compliance develops in children from frequent interactions with parents early in childhood. Frequent following of parental rules is reinforced by parents. After many pleasant results from complying, children may begin to develop general compliant behavior. In the final stage, children begin to generalize their own rules (Reigler & Bear, 1989).

Noncompliance is considered a central diagnostic feature for young children with oppositional behavior (Herbert, 1978). While compliance rates in normal children vary between 60% and 80%, for children with conduct problems, compliance is about 40% (Forehand, 1977). Several factors might contribute to this problem. First, in families systems that produce CD and ODD, coercion is often very high and a functional value exist for hostility (Patterson, 1976; Walker, Colvin, & Ramsey, 1995). Second, coercive families may inadvertently

produce communication deficits (Blager & Martin, 1976).

Children from coercive families are at risk to develop deficits in language comprehension (Blager & Martin, 1976; Fox, Long, & Langlois, 1988). Indeed, the correlation between CD and language difficulty is high (Loney, Frick, Long and Langlois, 1988). Blager and Martin (1976) suggested that children in abusive homes learn not to speak and hence do not practice language skills. The practice of language skills has been shown to increase the ability to use language (Hart & Risley, 1996; Moerk, 1996). In addition, this relationship may be a reciprocal one, that is children with speech and language problems may be more likely to set off a coercive family pattern for their failure to comply with request due to misunderstanding or misinterpreting (McCauley & Swisher, 1987).

Children who suffer from comprehension deficits, and exhibit poor compliance, can be taught comprehension monitoring techniques (see Dollaghan & Kaston, 1986). In such a program the child may be taught to identify, label, and demonstrate three behaviors associated with listening (looking at speaker, saying to themselves what the speaker is saying, sitting still). In the second phase, children are asked to detect factors that might lead to statement inadequacies such as insufficient loudness, message to quick, presence of competing messages, ambiguous messages, or highly complex messages. Next, children are encouraged to ask questions to elicit information that they did not understand. Finally, children engage in role-playing of the skills that they were trained and given feedback as to their performance. Positive reinforcement is provided contingent on successful paraphrasing of messages and follow through with content.

Programs that specifically work on child compliance may have generalized effects to other areas of aggressive functioning (Russo, Cataldo, & Cushing, 1981). These programs highlight basic antecedents to compliance such as using the child's name, being within 3 feet of the child when making a request, making eye contact, using a firm clear voice, and using a statement rather than a question format (McMahon, 1999). In addition, it is important to allow the child the opportunity to respond (Forehand & McMahon, 1981; Walker & Walker, 1991). With young children a teacher should avoid reason giving, vague directions, or question directions (Forehand &

Long, 1996). These programs also highlight the importance of using rewards for compliance and mild punishers such as time out for noncompliance.

Incorporating the concept of behavioral momentum and reinforcement matching may enhance compliance programs (Strand, 2001; Walher & Herring, 1999; Strand, Wahler, & Herring, 1999). One way that momentum is currently being explored is by reinforcing child social approach. Children might be more likely to comply with requests after their social approach has been rewarded with attention (Walher & Herring, 1999). For example, Johnny approaches his parent with a problem that he is having at school. If the parent takes a few moments and listens to the problem and then asks John to hand him a book, John will be more likely to comply then if he was just asked to hand him a book.

### Correspondence training

While research on traditional cognitive therapy techniques for SMA children have not found support (Stein, 1999), some literature shows that correspondence training holds promise for effectiveness. Correspondence training refers to programs that attempt to build a child's skill at following rules by targeting what are commonly called truthfulness and follow through (Paniagua, 1989). In the original study on the subject, Risely and Hart (1968) demonstrated changes in nonverbal behavior indirectly by programming reinforcement contingently on a relation between verbalization of a specific pinpointed target behavior and the behavior itself. This phenomena has received much attention in basic research (see Isreal & Brown, 1977; Matthews, Shimoff, & Catania, 1987; Paniagua & Baer, 1982, 1985, 1988; Paniagua, 1992; Paniagua, Stella, Holt, Baer, & Etzel, 1982; Ribeiro, 1989; Rogers-Warren & Baer, 1976; Williams & Stokes, 1982) and in work with various clinical populations (Baer, Osnes, & Stokes, 1983; Jewett & Clark, 1979, Keogh, Burgio, Whitman, & Johnson, 1983; Paniagua, 1985, 1989, 1990, 1992). As the name suggests, correspondence between saying and doing or doing and saying is the critical factor to provide reinforcement value. The "do say" program is often set up in the following way, the child does something and then is asked to report on what he did. If correspondence occurs, then condition one is met to gain the reinforcer. The second condition involves the particular behavior that the child has been questioned about. If what the child did was bad, they

are thanked for truthfulness, while if what the child did was the targeted behavior, then they gain a reinforcer. It is important to note that the child's behavior is reinforced in either condition. While correspondence training may be useful, it needs to be combined with a functional behavioral assessment because environments can exist which will make lying more adaptive and neutralize such programs (Cautilli & Hantula, 2000).

### **Empathy and perspective taking**

While the correlation between empathy and the development of prosocial behavior exists (Eisenberg & Miller, 1987), it is a small and inconsistent (Holmgren, Eisenberg, & Fabes, 1998). Holmgren and colleagues (1998) found that teacher empathy ratings were predictive of pro-social behavior, while family and peer ratings were not. While this debate continues, several research programs have developed to train children and adult antisocial in empathy (e.g., Cautela, 1996) and perspective taking. It remains to be seen if such programs have treatment utility.

### **Interventions to remediate speech deficits**

Children with conduct disorders often have severe deficits in language and verbal skills (Loney, Frick, Ellis, & McCoy 1998). Interventions to increase the SMA child's ability to use words to settle situations instead of physical aggression may depend on the child's level of fluency with speech. This has been the approach adopted by functional communication training programs (Carr & Durand, 1985). Such programs recognize that mass trial and highly structured formats may not be needed for SMA children who are usually higher functioning and have developed models that use less cueing (Halle, Baer, & Spradlin, 1981). Some research does exist on individual differences and language training formats (e.g., Yoder, Kaiser, & Alpert, 1991) but much more data in this area is needed. In addition, the influx of theory (i.e., Skinner, 1957) has led to increased numbers of training procedures and the integration of desperate procedures (Sundberg, 1999). This return to theory is particularly important since Hart and Risely's (1999) work showing that language can be studied using the techniques and is subject to the same law as motor and other forms of behavior.

Research exists to show that disruptive behavior (not necessarily in SMA student's) can be

decreased by communication training (Jayne, Schloss, Alper, & Menscher, 1994). Jayne and colleagues (1994) showed that student disruptions can be decreased by teaching them to ask for help. Models such as this show an area of integration between social skills training programs and language training programs.

### **Looking at effective teaching technology**

While initial enthusiasm around the education of social maladjusted children led to an experimental program being run in New York City, the initial results of this program showed that minimal educational progress was made by students (see Joiner, 1971). This review cast a damper on the ability to educate children who were diagnosed with SMA. Still individual programs did exist that were effective in educating this group (e.g., Bergath, 1972). Bergath reported a program involving fifty children diagnosed with SMA that resulted in significant improvement on reading and arithmetic. The approach attributed its success to modifying the behavior of students, while working on the basic skills reading and math skills, as measured by standardized tests.

One approach that is extremely effective in education (Forness, Kavale, Blum, & Llyod, 1997) and emphasizes the development of basic skills is the direction instruction program (Hyman, 1997). Hyman (1997) goes on to describe direct instruction as superior to all other approaches in project follow through with the respect to students acquisition of basic skills. Students who are at risk for school performance have generally found considerable help from direct instruction (Englemann, 1968; Forness, Kavale, Blum, & Llyod, 1997; Gersten, Carnine, & White, 1984). Direct instruction combines the basics of operant technology with the concept of learning rules (Englemann, 1968). Direct instruction programs are related to positive gains in both reading and math (Biloine, 1968; Meyer, Gersten, & Gutkin, 1983; Aukerman, 1984). In one study, 34% of the children who received one year of direct instruction went to college, while only 17% of the children in the control school went to college. Campbell and Ramey (1989 cited in ERIC) stated that children who received direct instruction in the early intervention program in the Carolina Abecedarian Project suffered much less school failure and less social maladjustment. Direct instruction, which trains children in auditory comprehension, may be of dual benefit for SMA

children. In this case the curriculum will not only effect the child’s academic skills but also, where compliance may be low due to lack of comprehension, remediate the comprehension deficit.

Early suggestions in the education of SMA children suggested that programmed instruction was a possible way to combat student “anti-learning” experiences (Cohen, 1966). This area still remains fertile ground. The role of computer assisted instruction and programmed instruction to combat negative learning experiences and move student’s along at their pace remains an interesting hypothesis.

The Task Force on the Right to Education (1990) list the following factors as being important in all student education: assessment of current performance, correspondence between current performance and placement, instructional methods that allow for the student to master the skills, clear feedback as to the correctness of answer, training teachers in performance based techniques, and reports that objectively measure progress. Each of these factors has considerable research data to support its identification as effective. Yet unfortunately for SMA children many educators will deny the existence of such techniques (Axelrod, 1993).

**Looking at parenting education**

While many factors are involved in the development of SMA children, the factor that research consistently highlights is the moment-to-moment interaction between parent and child (Dadds, 1987; Snyder & Patterson, 1995). Observational studies of parent and child interactions show that SMA children come from families with strong parental deficits in use of positive rewards for the child and increased reliance on coercive means of control (Snyder & Patterson, 1995; Cerezo, 1997; Wahler & Dumas, 1987). The increase in coercive tactics by a parent is often considered maltreatment of the child (Cerezo, 1997; Wahler & Dumas, 1987). An alternative path that may or may not run in tandem with this is the parental inconsistency model (Walher & Dumas, 1987; Walher, Williams, & Cerezo, 1990). In this model, parental inconsistency is considered aversive for the child and as a result, they engage in antisocial behavior to gain parental consistency and attention (Patterson, 1976; Synder, 1977; Wahler & Dumas, 1989; Wahler, Williams, & Cerezo, 1990). Often these two processes lead adults to view the antisocial child as aversive and thus avoid monitoring

the child. Lack of parental monitoring has held as a predictor of deviant behavior across culture (Forehand, Miller, Dutra, & Watts-Chance, 1997; Lamborn, Dornbusch, & Steinberg, 1996).

Table 1- Parenting Programs

Program	Age Range	Evidence for generalization	References to generalization
Helping the Noncompliant Child (Forhand & McMahon, 1981)	3-8	1. Setting generalization 2. Temporal generalization/maintenance (1 to 4.5 years) 3. Sibling 4. Behavioral	1-2 Forhand & Long (1988) (1-4.5 years) 3. Humphreys, Forhand, McMahon, & Roberts, (1978) 4. Wells, Forehand, & Greist, (1980)
Oregon Social Learning Program (Patterson, 1975)	3-12	1. Setting 2. Temporal/maintenance (1 to 2 years) 3. Sibling 4. Behavioral	1-4 McMahon & Wells (1998); Brestan & Eyeberg (1998).
Defiant Child (Barkely, 1997)	2-12	1. Setting 2. Behavioral	1-2 Barkley (1997)
Oregon Social Learning Program (Forgatch & Patterson, 1989)	12-18	1. Setting 2. Temporal (1-3 years)	1-2 McMahon & Wells, 1998
Functional Family Therapy	12-18	1. Temporal (1-2.5 years) 2. Sibling	1-2 McMahon & Wells (1998)
Multisystemic Therapy	12-18	1. Temporal (1 to 4 years) 2. Behavioral	1. Henggler, Smith, Schoenwald, & Hanley (1993) 2. Henggler, Melton, & Smith (1992)

One current treatment of choice for children who are SMA is behavioral parent training (Brestan & Eyeberg, 1998; Miller & Printz, 1990; Task Force on Promotion and Dissemination of Psychological Procedure, 1995) and family therapy programs that draw heavily on behavioral parent training (i.e., Henggler, Schoenwald, Borduin, Rowland, & Cunningham, 1998; Alexander & Parsons, 1982; see Kazdin, 1987 for review). Behavioral parent training programs are successful for both children and adolescences (See Table 1). Meta-analysis of procedures demonstrates that behavioral parent training exhibits large differences in effect size over other less structured forms of treatment (Lipsey, 1992; Weisz & Weiss, 1993). In addition, these results seem to be more based on treatment model then on individual differences (Weisz & Weiss, 1993).

Behavioral parent training teaches parents to use basic principles such as the importance of clear rules, consistency, monitoring, reinforcing



appropriate behavior, and punishment to reduce child's aggressive and antisocial behavior. Conservative estimates for behavioral parent training have stated that anywhere between of 50-66% of children with disruptive behavior patterns function in the normal range at the termination of treatment (Dishion & Patterson, 1992; Ruma, Burke, & Thompson, 1996)

Since parents control a great deal of the child's home environment, it is critical to try to incorporate them into the program. Forehand, Sturgis, McMahon, Aguar, Green, Wells, & Breiner, (1979) showed that training the parents to compliance train children in the home readily generalized back to the school setting. However, as Walker and colleagues (1995) point out, these parents often have no interest in being involved in such programs. Early studies found that parent's were willing to give opinions on ways to better student's performance in the school and that giving these opinions often led to the parents having an improved outlook on the child's education (Williams, 1969). Thus, parental involvement might be a good way to at least ensure that parent's are not detrimental to treatment. One way to increase parent interest in behavioral parent training programs may be to increase the cultural relevance of such programs (Shaffer, Kotcheck, Dorsey, & Forehand, 2001). Still more data would be needed before this is conclusive.

One technique for involving parent's is the daily report card (Kelly, 1990; Shapiro & Cole, 1994). Daily report cards have shown effectiveness in reducing childhood aggressive behavior (Gresham, 1983). In such procedures the child can bring home a report and the parent records the child's progress and charts on behavior changes applying appropriate home contingencies. Given the clear superiority of behavioral aren't training and other family interventions, schools and charters should emphasize such programs for children with SMA.

### **REVIEW OF LITERATURE ON HARMFUL INTERVENTIONS**

While once educating the SMA child in a group with other SMA children was considered a beneficial service delivery option (e.g., Spivack, 1961), recent research shows this practice to be problematic and led to clients becoming more antisocial (McCord, 1992; Feldman, 1992; Dishion, McCord, & Poulin, 1999). One striking study was conducted by McCord (1978, 1992) in which a 30

year follow up showed that children who engaged in the Cambridge-Somerville summer youth program were more likely to engage in criminal activity than matched peers. This matter has received careful investigation and support from other "prevention programs"

O'Donnell (1992) reported similar problems when he began his program of behavior modification. He found that children in the program who had more than a year of prior delinquency actually regressed though-out the program. He began to employ the concept of activity setting into his program. In the activity setting model factors such as space, seating arrangements, and access to group activities were highlighted. He highlighted the role of monitoring or what he termed "manning" issues in the development of antisocial behavior (O'Donnell, 1980). In addition, he looked at the proximity to other SMA peers. He found that SMA children build social networks in which antisocial interaction is favored.

The impact for teacher's and educators is clear, programs for delinquent children that group SMA children, can run the risk of making the child worse. In addition, given the large amount of literature to this effect, to ignore this may constitute malpractice. One current practice that should logically be reassessed are pullout programs for delinquent youth.

### **SUMMARY AND CONCLUSIONS**

While children who suffer from social maladjustment are not entitled to benefits under IDEA 97, they are entitled to protect from the Americans with Disabilities Act. They are entitled to this protection because they have a clear psychiatric condition of either oppositional defiant disorder or conduct disorder. As is the case in business (Hantula & Reily, 1996), disabled children are entitled to receive effective supervision and support to maintain them with their peers. It would be tempting for this problem to be left to the legal system to correct (Axelrod, 1992) and we believe that indeed much of it will need this level of intervention. However, it is important to realize that the legal system has in the past failed to protect this population.

Teachers need to recognize SMA children as having great potential. They can either be a drain on the system or they can become active and productive members of society. To become active members, their

education needs to focus on both the training of skills and the remediation of aberrant and aggressive behavior. Two types of programming are of particular importance (1) powerful performance based instructional strategies to build positive teacher/student instructional flow and (2) contingency management programs, which have proven extremely successful.

As services continue to grow, many ideas need further exploration. For example, the role of the school in educating the family on parenting and long term care for unskilled children is an area ripe for future work. One area of intervention in this line is the teaching family model (Wolf, Braukmann & Ramp, 1987). In this model seriously delinquent adolescents are carefully matched to a teaching home. The goal is to provide the youth with the habilitative skills needed to survive in a warm and supportive environment. An area that this could be extended to is taking the youth's whole family into a mentorship type of program that provides support and guidance on monitoring the delinquent youth and specific instruction on parenting skills.

Another area that warrants further exploration is the use of group entry skills and general social skills to help children with conduct problems enter into nonviolent peer groups (Williams, Walker, Holmes, Todis, & Fabre, 1989). Such skills may benefit the child by giving alternative responses for situations. However, these programs often fail to offer a motivation for change due to a lack of support by the natural contingencies of the environment.

A final area that needs to be developed is transitioning from the classroom into the work world. As SMA student's transition, it is imperative that they have the necessary skills, both academic and social, to obtain a job and hold the position.

As a nation, we have reached a critical point in history. We can continue to lead the world in building prisons or we can attempt to make changes to socialize the most difficult part of our population, early. This population remains our "undiscovered country." The untapped potential is enormous. With intervention they can be our store keepers, molecular biologists, lawyers, mechanics, or information technologists of the future. Without it they will be our drug addicts, burglars, rapists, and murders. In short, the life you save by intervention may be your own.

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