Group–oriented Contingency Management

Module 22

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Mrs. Miller was having problems with her 5th grade reading class. The students consistently made inappropriate comments during class that caused disruptions, forcing Mrs. Miller to stop teaching and address the comments. After learning about group reinforcement systems, Mrs. Miller decided to implement an interdependent group contingency for her reading class. She decided that every day that the class had fewer than three inappropriate comments (she made it clear to students in exact terms what these consisted of) during class they earned a sticker on the class chart. When 15 stickers were accumulated, students earned extra computer time. This worked well for most of the students; however, Alex would consistently make loud and inappropriate comments. This would push the class over the limit of three inappropriate comments per day. Even though Alex's peers expressed their unhappiness with him, he continued with this behavior. Mrs. Miller suspected that Alex continued with the inappropriate comments because he liked the fact that he could exert his power over the group; this was a status he enjoyed. In order to address this, she modified the reinforcement plan. The first thing she did was place Alex in a group of his own. Alex could earn a sticker himself if he could make less than three inappropriate comments per day. When Alex had earned 15 stickers, he could join the rest of the class the next time extra computer time was awarded. In addition, if Alex earned four stickers on his chart by Friday he was allowed to work in the school office during the class's study period on those particular Fridays. Here Alex was able to work as an office aid. His duties included delivering messages to teachers in other classrooms, answering telephone calls, and providing visitors with name tags. This method implemented by Mrs. Miller dropped Alex's inappropriate comments from an average of 12 to less than two per day.

Description of Group Contingency Management

Educators often face the challenging task of effectively addressing the noncompliant, off-task, and inattentive behaviors manifested by students with emotional disabilities (ED) in their classrooms (Theodore, Bray, & Kehle, 2004). Rather than facilitating the academic and social development of students, teachers spend a great deal of time and energy promoting appropriate classroom behavior. Students with ED tend to have more antisocial behaviors and negative relationships than other populations with disabilities (Hansen & Lignugaris-Kraft, 2005). The desire to reduce disruptive classroom behavior has yielded numerous interventions (e.g., token economies, response cost, social skills training, and counseling); however, the majority of these interventions focus on individual student behavior, and not peer interactions within the classroom setting. For many students with ED, how to interact positively with peers can be taught only with a carefully structured program that provides numerous opportunities for positive verbal interactions among peers (Hansen & Lignugaris-Kraft, 2005).

To support positive interactions with peers, teachers increasingly utilize group projects, cooperative grouping, and peer tutoring in their instruction (as cited in Hansen & Lignugaris-Kraft, 2005) to increase targeted behaviors across all students and to encourage group cohesiveness and teamwork (Scheuermann & Hall, 2012). These approaches, often referred to as group reinforcement systems or group contingencies, allow students to build both peer relationships while developing prosocial behaviors based on positive group interactions. For many teachers, group-oriented contingencies are attractive because they require minimum teacher time, are economically feasible, easy to implement, and very effective in decreasing disruptive behavior (as cited in Hansen & Lignugaris-Kraft, 2005).

In 1975, Litow and Pumroy identified three types of group-oriented contingency systems: (a) independent group contingency, (b) interdependent group contingency, and (c) dependent group contingency. When using an independent group contingency, the same reinforcer is available for all students in the group. The attainment of the reinforcer depends on each student's individual performance and any student meeting the criterion earns the reinforcer (Alberto & Troutman, 2006). This system does not focus as much on facilitating group cohesiveness or teamwork because the students do not work together to achieve a common goal (Shapiro & Goldberg, 1986). Researchers have found that students prefer this type of group contingency, but the other two types are more effective in controlling disruptive behavior (Theodore et al., 2004).

The second type of group contingency is an interdependent group contingency where all students must work to achieve the common reinforcer. The group works together to meet the criterion established by the teacher; the class must average a certain score (e.g., 85% correct on math exam). If this goal is accomplished, every student receives reinforcement. This form of classroom management not only proves to be effective in its implementation, it reveals positive long-term effects on children's development in terms of school behavior, mental health, and lowers the risk of students engaging in antisocial behavior (Tankersley, 1995). The final example is a dependent group contingency. Reinforcement for all students relies on the performance of one or more individual students. If these students are successful in their performance of the targeted behavior, all students receive reinforcement. Overall, the use of group contingency

systems have been seen as a highly effective way to address classroom behavior and appropriate peer interactions.

Research Supporting Group Contingency Management

In 2004, Theodore, Bray, and Kehle completed a study that compared the various types of group contingencies that, "(1) examine the efficacy of group contingencies in the reduction of disruptive behavior, and (2) compare the effects of independent, interdependent, and dependent group contingencies in the reduction of disruptive behavior in adolescent males identified with serious emotional disturbance" (p. 256). This study identified five high school students diagnosed with having ED to take part in the investigation. All three distinctions of group contingencies were investigated in this classroom setting and were backed by reinforcers suggested by the students. Research findings from this study show that the use of group contingencies are effective interventions for dramatically reducing disruptive classroom behavior; however, the results did not show that one contingency was superior to the other two.

In another study, a dependent group contingency was examined by Hansen and Lignugaris-Kraft (2005) who observed the social interactions of middle school students diagnosed with ED. They examined the effects of a dependent group contingency on positive verbal interactions among nine middle school males in a self-contained classroom. The study revealed that a dependent group contingency was successful in increasing the positive verbal interactions of students as well as decreasing negative verbal interactions. These positive interaction skills were maintained even after the dependent group contingency was faded. This study demonstrates the successful use of a dependent group contingency to increase the positive social interactions of students in middle school with emotional disabilities.

Finally, a study by Popkin and Skinner (2003) yielded positive results evidenced by increases in academic performance with the use of an interdependent contingency system. The study involved five male middle school students who were diagnosed with serious emotional disabilities and taught in a self-contained classroom. These students were required to meet randomly selected criterion (e.g., 80% or 90% class average) on spelling assignments that were offered daily. The reinforcer would be distributed to the entire group if this criterion was met. Eventually, daily assignments from Math and English classes were phased into this study and the same approach in terms of the random selection of criterion and reinforcers was employed. Target assignments would rotate between the three subjects so only one particular daily assignment was being assessed per day. The result of this study showed that the interdependent group contingency increased the student's academic performance for assignments in the targeted areas. Overall, the results of these studies show the positive effects that group contingencies can have on student and classroom behavior.

When to Consider Group Contingency Management

Teachers experience firsthand detrimental effects that student's disruptive behavior can have in the classroom. Talking out, leaving their seat, picking on a neighbor during the lesson are all examples of disruptive classroom behavior. Unfortunately, these behaviors take the teacher's attention away from the teaching process and can affect how well the class as a whole performs.

These behaviors lessen the availability of learning time which can have major repercussions such as decreases in both academic performance and scores on standardized tests (Canter, Paige, Roth, Romero, & Carroll, 2004). It is up to the teacher to find ways to keep this disruptive behavior at a minimum, while still maintaining a positive classroom atmosphere that facilitates student learning and also encourages student involvement and activity. These are insistences where group contingencies can be implemented to effectively manage student behavior (McKissick, Hawkins, Lentz, Hailley, & McGuire, 2010).

Group contingency systems are very versatile and can produce more than just appropriate student behavior. These systems have the potential to instill the values of teamwork and encourage group cohesiveness, especially ones that have students working together to achieve a common goal (Scheuermann & Hall, 2012). They are versatile in that they can be used effectively in either an entire class, for a small group of students (e.g. reading groups, cooperative groups), and can even be applied to pairs of students (e.g. peer tutoring pairs, peer buddies) (Hansen & Lignugaris-Kraft, 2005; Scheuermann & Hall 2012). Finally, group-oriented contingencies are a particularly attractive alternative since they require minimal teacher time and are economically feasible, easy to implement, and very effective in decreasing disruptive behavior (Jenson, 1978; Litow & Pumroy, 1975; Theodore et al., 2004).

Group-oriented contingencies should be considered when classroom behavior begins to interfere with the teacher and learning process. The teacher would choose one of the three options, independent, dependent, or interdependent, depending on the specific target behavior to be addressed. Results of a meta-analysis conducted by Stage and Quiroz (1997) document the fact that when comparing individual and group contingencies, group-oriented contingencies were more effective than individual contingencies for reducing disruptive student behavior.

Guidelines for Implementation of Group Contingency Management

Group-oriented contingencies have been successfully employed to address a range of behaviors including: academic achievement (Pappas, Skinner, & Skinner, 2010; Popkin & Skinner, 2003), disruptive behavior (Brantley & Webster, 1993; McKissick et al., 2010), and verbal interactions (Hansen & Lignugaris-Kraft, 2005; Kirk et al., 2010). When selecting a form of group-oriented contingency, it is important to follow the basic steps involved.

First, the teacher should choose an effective reinforcer for the group. According to Scheuermann and Hall (2012), effective reinforcers can be determined by using several different strategies. Teachers can use a reinforcer survey or reinforcer menu to determine potential reinforcers. Reinforcer sampling can also be used to identify possible reinforcers. Once the reinforcer is determined, teachers need to identify the target behavior that will be increased or decreased. Teachers should make sure that the students can perform the target behavior when instructed. Next, an appropriate performance criterion should be selected and students are aware of the required goal. Finally, the teacher should select the most appropriate group contingency and monitor both individual and group performance. When determining implementation of group contingency interventions, teachers must determine which approach will be most successful for their students.

Independent group contingency systems are probably the most common form of group contingency. According to Alberto and Troutman (2006), this approach allows the teacher to provide the same reinforcer for all students in the group dependent on each individual's performance. The teacher sets the criterion for earning the reinforcer. The criterion can be either the same for all students or can be individually determined (Sulzer-Azaroff & Mayer, 1991). Then, any student who meets the criterion earns the reinforcer. Those who do not exhibit the targeted behavior at the expected level do not earn the reinforcer. An advantage of independent group contingency is that it can be combined with a token economy to increase its effectiveness and that it supports the student on taking responsibility for their own actions (Smith, Polloway, Patton, & Dowdy, 2006).

In an interdependent group contingency, all students must work together to meet the criterion of the contingency (individually and as a group) before any member earns the reward (Cooper, Heron, & Heward, 2007). This form of group contingency is the most frequently used and has been implemented to improve academic and social behaviors and reduce disruptive behaviors (Lo & Cartledge, 2004). The basis for this approach is that appropriate peer pressure which occurs naturally in the classroom is used to encourage positive behavioral choices (Maag, 2001).

Finally, dependent group contingency involves the use of reinforcement for all students that is contingent upon the performance of one or more individual students. In other words, if the identified students perform the targeted behavior, all students in the class receive the reinforcement (Cooper et al., 2007). A student is not penalized for the behavior of other students and each student has access to the reinforcer based on the exact same terms (Maag 2001; Smith et al., 2006). This approach is most effective for students who respond well to peer attention.

Cautions Regarding Group Contingency Management

Risks or repercussions coming from the implementation of group-oriented contingencies are minimal. However, there are some things that teachers should keep in mind when using this alternative. First of all, teachers need to be certain that all students have the ability to perform the targeted behavior at the desired level when designing a group contingency. Scheuermann and Hall (2012) have outlined steps to ensure that every student has the capacity to perform the behavior. The teacher should observe the students exhibiting the targeted behavior at some time during a school day. If the behavior is never exhibited, the teacher should assume the students may not know how to perform the behavior or how to do it sufficiently under all conditions. At this point, the teacher should teach the behavior and implement the contingency. Initially, the targeted behavior criterion should be set low enough so students have the opportunity to be successful. The criterion level can then be raised as the student has the opportunity to perform, repeat, and become more proficient in the targeted behavior.

When it comes to the use of dependent and interdependent group contingencies, there is the chance one or more students may take the opportunity to intentionally sabotage the group. Scheuermann and Hall (2012) have identified several possible solutions for this situation. First, the student who is sabotaging the group can be removed from the larger group and placed into his or her own group, "a group of one." This ensures that the behavior of one student does not affect the group as a whole, but rather only his or herself. Second, the teacher has the choice to

identify a function-based reinforcer for the saboteur. To do so, the teacher must assess the student's behavior and determine the possible function and then provide reinforcement for the student that addresses the function, contingent upon the group's success. Again, the vignette is an example of both solutions for the use of dependent and interdependent group contingencies.

Each form of a group-oriented contingency has its benefits and weaknesses; however, research has shown that improved academic and behavioral outcomes have occurred with the use of these interventions (O'Donnell, Reeve, & Smith, 2009). Group-oriented contingency systems appear to be a versatile technique to control the disruptive behavior of students in both general and special education classrooms. These contingency systems produce group solidarity and cooperation that is not typically found in individual contingency programs (Gresham & Gresham, 1982).

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Website Links

Education.com-An Education and Child Development Site for Parents-Parenting and Educational Resource: http://www.education.com/reference/article/group-reinforcement-systems/

Intervention Central-Your Source for RTI Resources:
http://www.interventioncentral.org/behavioral-interventions/schoolwide-classroommgmt/good-behavior-game

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