

Teacher Fidelity in Use of Behavior Management Strategies: Relationships Among Observations, Self-Report, and Children's Disruptive Behavior

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INTRODUCTION

In a nationally representative survey of school-based practices for classroom management of disruptive behavior (Fabiano et al., 2002; Gottfredson & Gottfredson, 2001), regular education teachers reported common use of behavioral interventions (up to 99% for some strategies). These reports indicate that behavioral programs are frequently used in classroom settings, but provide no information on the consistency/integrity with which they are employed. In fact, most information on fidelity of implementation of such programs relies largely on teacher self-report instruments. Evidence further suggests that there are discrepancies between teacher self-reports of use and their actual behavior (e.g., Rosen et al., 1990).

The present study included data from a large, multi-site randomized trial of a school-wide intervention (Pelham et al., 2005; Waschbusch, Pelham, & Massetti, 2005) funded through the Social and Character Development (SACD) program by the Institute of Education Sciences and the Centers for Disease Control's National Center for Injury Prevention and Control (R305L030065). The present data include information from classroom observations conducted in Year 2 of the study in regular education classrooms grades K through 5 and teacher surveys collected in the Spring of the school year.

METHODOLOGY

- 14 Schools (7 Intervention, 7 Comparison)
- Urban, high-risk populations
- Matched and randomly assigned to Intervention (ABC Program) or Comparison conditions.
- For the present analyses, data from 211 teachers in grades K through 5 were included.
- Data consisted of classroom observations conducted in the spring semester of the school year.

Classroom Observations

- 30-40 minute observations conducted by research staff in classrooms.
- Observers intensively trained to criterion and ongoing reliability was obtained on 15-20% of observations.
- Up to 3 sessions in Intervention and Comparison classrooms grades K-5.
- Current analyses include only general education classrooms (no special education).

Goals of Observations

- Count and classify rule violations for all students during 30-minute period and record teacher response to each violation.
- Document use of classroom behavior management strategies:
 - **Response to rule infractions: acknowledgement, consequence, use of neutral tone**
 - **Use of social reinforcement/praise**
 - **Effective and ineffective commands**
- Ratings of effectiveness of use of behavior management strategies by observer on a 7-point Likert scale: social reinforcement, commands, classroom management, tone of voice, classroom climate.

Teacher Surveys

- Collected from all K-grade 5 teachers in the spring; teachers reported on use and effectiveness of behavior management strategies.

CLASSROOM RULE VIOLATIONS AND TEACHER RESPONSES

| | Mean (<i>sd</i>) | Range |
|---|--------------------|------------|
| Total rule violations | 49.57 (30.07) | [17-112] |
| Rule violations per minute | 1.65 (1.00) | [.57-3.73] |
| Teacher observed rule violations | 71.90% (16.03) | [39%-100%] |
| Teacher responses to rule violations | | |
| Appropriate acknowledgement | 62.33% (15.56) | [18%-91%] |
| Inappropriate acknowledgement | 5.67% (13.72) | [0%-71%] |
| Appropriate consequence | 51.58% (12.99) | [26%-84%] |
| Inappropriate consequence | 3.90% (8.31) | [0%-41%] |
| Ignored | 32.00% (14.52) | [2%-56%] |
| Teacher other strategies | | |
| Social reinforcement/praise | 14.92 (9.47) | [3-38] |
| Appropriate commands | 30.03 (15.39) | [5-85] |
| Inappropriate commands | 2.43 (3.37) | [0-20] |
| Teacher self-report | | |
| Use of beh. Mgmt strategies | 3.15 (.58) | |
| Effectiveness of strategies | 3.09 (.59) | |

DISCUSSION

- The average rate of observed rule infractions was 1.65 per minute, or nearly 50 rule infractions in a 30-minute period. There was a great deal of variability in rates of disruptive behavior across classrooms.
- Nearly 30% of rule infractions occur outside of teachers' vision, suggesting that a substantial portion of disruptive behavior takes place without the teachers' knowledge. Also, there was variability noted in teacher monitoring of student behavior.
- Of those rule violations that teachers observe, there was a great deal of variability in teacher responses across classrooms. Nearly one third of observed rule violations were ignored, suggesting that this is a very common strategy used by teachers. The most common response was an appropriate acknowledgement. Inappropriate (harsh, overly critical, demeaning) responses (both acknowledgement and consequences) were relatively less common, although they were observed for 6% and 4% of rule violations, on average. The variability in inappropriate responses warrants concern, as some teachers used inappropriate strategies as many as 71% of the time, meaning that teachers failed to respond appropriately to nearly 500 of the 700 rule violations in a typical class in a typical school day.
- Use of social reinforcement was relatively common, although not nearly as frequent as the rates of students' rule violations and teachers' responses to rule violations, at only half the rate of commands, suggesting that the ratio of teachers' positive to negative verbalizations and commands towards students is small.
- In evaluating the relationships among variables, moderate expected relationships emerged between the direct observational variables.
- A moderate correlation (.42) emerged between total rule violations and teachers' use of ignoring, suggesting that this strategy is not effective in curbing students' disruptive behavior in the classroom. Conversely, higher rates of rule violations were associated with lower percentages of teachers' appropriate acknowledgement and consequences, suggesting that these strategies are more effective in decreasing students' disruptive behavior.
- Higher rates of ignoring were also associated with lower appropriate acknowledgment, appropriate consequences, and lower ratings of effectiveness.

CORRELATIONS (Controlling for Grade and Intervention Group)

| Classroom observations | Rule Violations | Social Reinforcement | Ignored | Approp. Ack. | Approp. Cons. |
|--|-----------------|----------------------|---------|--------------------|-------------------|
| Teacher observed rule violations | | .25*** | | -.34*** | -.40*** |
| Appropriate acknowledgment | -.34*** | .17** | -.91*** | | .85*** |
| Inappropriate acknowledgment | | | | -.16* | |
| Ignored | .41*** | | | -.91*** | -.82*** |
| Appropriate consequence | -.40*** | .19** | -.81*** | .85*** | |
| Inappropriate consequence | | | | -.15* | -.18* |
| Social reinforcement | | | | .17* | .19** |
| Appropriate commands | .32*** | .40*** | | .19* | .24** |
| Inappropriate commands | .29*** | | | -.33*** | -.30*** |
| Effectiveness of social reinf. | -.44*** | .56*** | -.25*** | .26*** | .25*** |
| Effectiveness of commands | -.59*** | | -.39*** | .40*** | .34*** |
| Effectiveness of classroom mgmt. | -.69*** | | -.37*** | .37*** | .40*** |
| Tone of voice | -.21** | | .15* | | |
| Classroom climate | -.45*** | .22** | | .15* | .17* |
| Teacher self-report¹ | | | | | |
| Use of beh. Mgmt strategies | | | | Eff of class mgmt. | Classroom climate |
| Effectiveness of strategies | -.19* | .20** | .18* | .18* | .19** |

* $p < .05$; ** $p < .01$; *** $p < .001$

¹Note: correlations between observations and teacher surveys conducted on $N=179$. Most correlations were very small and not significant.

DISCUSSION, continued

- Interestingly, greater use of social reinforcement was associated with a higher percentage of rule violations observed by teachers, suggesting that teachers who consistently monitor rule violations also use more positive strategies. Greater social reinforcement was also associated with greater use of appropriate acknowledgement, appropriate consequences in response to disruptive behavior.
- Teachers' self-report of behavior management use was not significantly correlated with any of the direct observational measures. Teacher self-report of effectiveness of behavior management was significantly but minimally correlated with some of the observational categories and observer ratings, suggesting a minimal degree awareness of behavior management effectiveness.
- In summary, teachers in this study did not observe nearly one third of the rule violations in their classrooms. Of those rule violations that were observed, teachers responded appropriately to only 50-60%.
- These results suggest that teacher self-report is not a valid method for assessing use of behavior management strategies in classrooms. Further, based on a 30-minute observation, observers' ratings only correlated moderately with direct observations. It would appear that direct, independent observations of teacher and child behavior are necessary to assess teacher use of behavior management in elementary classrooms.

Baseline Characteristics of Teachers

| | All Teachers | Intervention Group | Control Group | p-value |
|--------------------------------|--------------|--------------------|---------------|---------|
| Gender (% male) | 9.7 | 9.4 | 10.1 | 0.90 |
| Race/ethnicity | | | | |
| White | 80.1 | 73.2 | 86.9 | 0.33 |
| Black | 10.6 | 13.0 | 8.1 | |
| Hispanic | 6.9 | 8.9 | 5.0 | |
| Mean years teaching experience | 12.3 | 12.7 | 11.9 | 0.63 |
| Bachelor's degree | 23.0 | 24.0 | 22.0 | 0.60 |

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