Effects of the Behavior Education Program (BEP) on Office Discipline Referrals of Elementary School Students

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Abstract: The Behavior Education Program (BEP; Crone et al., 2004) is a modified check-in, check-out intervention implemented with students who are at risk for more severe problem behaviors. The purpose of this study was to evaluate the effects of the BEP on problem behavior with 12 elementary school students. Results indicated that the BEP was implemented with high fidelity, led to a decrease in office discipline referrals for the majority of students who received the intervention, and had high social validity ratings. Limitations of the current study are presented, along with suggestions for future research.

Implementing a continuum of effective behavior support (from least intensive to most intensive) is recommended to prevent and respond to problem behavior in school settings (Walker et al., 1996). This continuum of support includes primary prevention strategies, such as implementing a schoolwide behavior support plan; secondary intervention strategies to target the 10% to 15% of students who are at risk; and tertiary intervention strategies for approximately 5% of the student population who need significant intervention strategies and supports (Sugai & Horner, 2002). Much research has been conducted examining the effects of implementing primary prevention strategies (e.g., Colvin, Kameenui, & Sugai, 1993; Lewis & Sugai, 1999; Lewis, Sugai, & Colvin, 1998; Taylor-Greene et al., 1997). Furthermore, since the 2004 reauthorization of the Individuals with Disabilities Education Act, more evidence has pointed to the effectiveness of using functional assessment strategies and behavior support interventions for students needing tertiary levels of support (for a review see Heckaman, Conroy, Fox, & Chait, 2000). Little research has been reported on secondary-level intervention programs implemented as part of a continuum of behavior support for students at risk for severe problem behavior.

Students who do not respond to schoolwide behavior support plans may benefit from efficient secondary-level interventions. The group of students who benefits from secondary interventions is the 5% to 15% who are at risk for developing severe problem behavior due to their (a) poor peer relations, (b) low academic achievement, or (c) chaotic home environments (Lewis & Sugai, 1999). These students typically require more practice in learning behavioral expectations and may need academic modifications to ensure learning success (Lee, Sugai, & Horner, 1999). One type of secondary-level intervention is a daily check-in, check-out system to increase feedback and positive adult attention (Crone, Horner, & Hawken, 2004). Other types of secondary-level interventions may include instruction on social skills, such as teaching students how to interact with peers or providing anger management techniques (Lane et al., 2003). The crucial elements of secondary-level interventions are that they are efficient (i.e., students receive support shortly after being identified) and cost effective to implement (i.e., similar procedures are used with a group of students without a large amount of staff time to implement).

One type of secondary-level intervention that has recently received attention in the research literature is a
check-in, check-out system called the Behavior Education Program (BEP; Crone et al., 2004; Hawken, 2002; Hawken & Horner, 2003; March & Horner, 2002; Warberg, George, Brown, Chauran, & Taylor-Greene, 1995). The BEP is a system of support that is implemented with students who are not responding to primary-level prevention efforts. Students are referred to the BEP by their teacher, a parent, or other school staff member if increased behavior support is needed, as indicated by an increase in office discipline referrals, in-school suspensions, interclass time outs, or other consequences for not following expectations.

Although implementing secondary interventions like the BEP within a schoolwide system of behavior support is relatively new, recent studies have provided empirical support for its effectiveness. March and Horner (2002) examined the effects of the BEP on reducing rates of office discipline referrals with middle school students. Using a quasi-experimental design, the number of office discipline referrals per student were examined both prior to and following BEP implementation. The researchers found that 67% of the students who received the BEP intervention had reductions in office discipline referrals following implementation. A follow-up study by the same authors indicated that implementing functional assessment procedures and designing individualized interventions for the students who were not successful on the BEP led to decreases in problem behavior and increases in academic engagement. A similar study conducted by Hawken (2006) found that 75% of the middle school students who participated in the BEP had reductions in office discipline referrals following implementation.

Using a more detailed single-subject analysis, Hawken and Horner (2003) examined the effects of the BEP on problem behavior and academic engagement in the classroom with middle school students. Using a multiple-baseline design across students, the researchers documented reductions in classroom problem behavior and increases in academic engagement using direct observation measures. Hawken and Horner also documented the intervention's social acceptability, with the majority of teachers, parents, and students rating the BEP as helpful in reducing problem behavior, easy to participate in, and worth the time and effort. Overall, these researchers concluded that the BEP was effective in reducing problem behavior, but some students will need more support than the BEP can provide.

Although preliminary research on the BEP is promising, more research is needed to evaluate the effectiveness of this intervention. The goal of the BEP is to prevent students from engaging in severe problem behavior (Crone et al., 2004). All of the previous published studies have examined the BEP in middle school settings; thus examination of the BEP's effectiveness in elementary school settings is warranted. The purpose of this research study was to examine the effects of one type of secondary-level intervention, the Behavior Education Program, on office discipline referrals with elementary school students. Data on BEP fidelity of implementation and social validity are also summarized.

Method

SETTING AND PARTICIPANTS
The study was conducted in an urban elementary school with 655 students (Grades K–6), 66% of whom qualified for free or reduced lunch and 38% of whom were from ethnic minority backgrounds. The elementary school had been implementing schoolwide behavior support efforts for more than 3 years. The Schoolwide Evaluation Tool (SET; Horner et al., 2004) was administered during spring of the school year, and results indicated that the school was implementing their schoolwide behavior support plan with 88% fidelity.

Students were selected for participation in the study if they (a) entered the BEP intervention after at least 2 months of school (to establish a baseline office discipline referral rate), (b) received the BEP intervention for at least 6 weeks, (c) had received at least two office discipline referrals, and (d) were nominated by instructional staff to receive additional behavior support. Students selected for the study also had to demonstrate problem behavior throughout the school day rather than during one academic period (i.e., math, language arts) or only during unstructured times (i.e., recess or lunch). Of the 17 students who received the BEP intervention during the school year, only 13 met the criteria to be included in the study, with parental permission being secured for 12 students. The 4 students who were excluded from the study were already receiving the support of the BEP at the beginning of the school year; thus, a baseline measure of the dependent variable could not be established.

Of the 12 students included in the study, 10 were boys and 2 were girls, with 2 from ethnic minority backgrounds. Eight of these 12 students qualified for free or reduced lunch. One of the 12 students in the study was receiving special education services for a learning disability in reading. Students engaged in a range of problem behaviors, including talking out; making inappropriate comments; failing to complete work; and failing to keep hands, feet, and objects to self (e.g., playing with another student's hair, throwing paper). None of the students in the study engaged in severe problem behavior, such as physical aggression, property destruction, or self-injurious behavior.

MEASUREMENT

Fidelity of BEP Implementation
Fidelity of BEP implementation was assessed on 3 randomly selected school days. For each fidelity assessment,
the first author examined permanent products (e.g., Check-in, Check-out roster; BEP Daily Progress Reports; Excel spreadsheets) and observed behavior team meetings to determine if on that day (a) the students attended morning check-in, (b) teachers provided feedback to students throughout the day, (c) the students checked out at the end of the day, (d) the parents initialed that they had reviewed the Daily Progress Reports, and (e) the BEP coordinator collected and summarized BEP outcome data for decision making.

**Problem Behavior**
The primary dependent variable was the total number of office discipline referrals (ODRs) per group of three students per month. A recent review of the literature supported the reliability and validity of using ODRs as outcomes measures for behavioral interventions that were implemented schoolwide (Irvin, Tobin, Sprague, Sugai, & Vincent, 2004). Minor and major infractions were totaled for each group of three students each month, both prior to and following BEP implementation. Major office discipline referrals were for behaviors that were extreme or dangerous, such as property damage, harassment, physical aggression, or major noncompliance. Minor office referrals involved lower-level chronic behaviors, such as minor disruption, non-serious physical contact, and brief or low-intensity failure to respond to adult requests.

To ensure fidelity of ODR data collection across teachers, the elementary school involved in this study implemented the following procedures: Major and minor infractions were defined in observable, measurable, and mutually exclusive terms. The system for referring students to the office was taught at the beginning of each school year and reviewed at least monthly during faculty meetings. During these meetings, the principal would provide examples and nonexamples of major and minor ODRs. In addition, if a student received an ODR from a teacher and it did not meet the defined criteria for a minor or major infraction, the principal would provide individual coaching and feedback to that teacher, and the ODR would not be counted for the student.

**Referrals to Special Education or More Intensive Behavior Support**
To determine whether the BEP helped prevent students from needing more intensive behavioral supports, information was gathered on the number of students in the study who received more intensive behavior support (i.e., functional assessment and individualized behavior support) and who were referred to special education for problem behavior.

**Social Validity**
The five-item BEP Acceptability Questionnaire (Hawken & Horner, 2003) was used to assess the social validity of the intervention. Questions on the BEP Acceptability Questionnaire assessed the extent to which the BEP was perceived to (a) improve problem behavior at school, (b) improve academic performance, (c) be worth the time and effort, (d) be worth recommending to others, and (e) be easy to implement. Scores on the BEP Acceptability Questionnaire were recorded on a Likert-type scale (1–6), with higher scores indicating a more favorable impression of the BEP.

**DESIGN AND PROCEDURE**
A multiple-baseline design across groups of students was used to examine the effects of the BEP on reducing ODRs. Students who entered the BEP within 1 month of each other were grouped together for a total of four groups, with three students in each group. During the study, two phases were implemented: baseline and BEP.

**Phase 1: Baseline**
During baseline, typical schoolwide behavior support procedures were in place for all students, including those participating in this study. The total number of ODRs (including major and minor infractions) per month was summed for each group of three students.

**Phase 2: Behavior Education Program**
Once parental and student permission was obtained for a student, the BEP was implemented. The BEP process involved the following five elements: First, students were required to “check in” with a paraprofessional before school. The paraprofessional provided the student with a Daily Progress Report (DPR) form that was carried to class for feedback throughout the day. When students checked in, they were asked if they had their DPR from the day before signed by their parents and if they had their materials ready for the school day. They received praise and a lottery ticket for a weekly drawing for checking in. Also during check in, students were prompted to identify daily goals and given feedback to encourage success. For some of the younger students, the paraprofessional delivered the DPR to their classrooms.

Second, during natural transitions in the school day (i.e., after language arts, after math), teachers would provide students with feedback on their DPRs. Teachers provided feedback on student behavior at the end of each time period by rating either 0 (did not meet expectations), 1 (somewhat met expectations), or 2 (met expectations). The expectations for all students were the same as the schoolwide expectations: (a) keep hands, feet, and objects to self; (b) use kind words and actions; (c) follow directions; and (d) work in class. Teachers also provided immediate verbal praise for students who met behavioral expectations for that time period and corrective feedback if students did not meet the expectations.
Third, at the end of the school day, students took the DPR to the paraprofessional to check out. Student percentage of points for the day was calculated, and students received praise and rewards if they met their daily point goal. Rewards were randomly selected each day using a spinner system and included small pieces of candy, schoolwide tokens, or a bonus move on a sticker chart system. Daily point goals were developed during a meeting among the BEP coordinator, teacher, and student before the student was placed in the BEP. For all students in this study, 80% of the total points earned (i.e., 40 out of 50 total points) was their daily point goal. If students did not meet their daily goal, the paraprofessional would provide information on what to work on for the following school day. Fourth, students then took their DPR home to be signed by a parent/guardian, and fifth, the Daily Progress Report was signed by a parent and returned the next morning.

Student data on the BEP were summarized daily, and the schoolwide behavior support team met bimonthly to examine student progress on the intervention. Students were considered to be making progress on the BEP if they were receiving 80% or more of their possible points each day.

Results

FIDELITY OF IMPLEMENTATION

Fidelity of implementation data are presented in Table 1. Overall, there was a high (mean > 90%) fidelity of implementation in four of the five key elements (check-in, check-out, teacher feedback, data collection). Family review and feedback occurred during an average of 36% of the fidelity observations. Although the frequency of parental feedback was less than optimal, students were still making progress (i.e., meeting their daily point goals) without this component in place.

OFFICE DISCIPLINE REFERRALS

To evaluate the effects of the BEP on problem behavior, total number of ODRs per month for groups of three students was compared between baseline and BEP intervention phases (see Figure 1). Overall, the four groups averaged 3.59 total ODRs per month during baseline. Group 1 had the highest average total, 7.5 ODRs per month, with an upward trend in the data toward the end of baseline. Groups 2 and 3 demonstrated high variability and upward trends in baseline data, with average total ODRs per month of 3.25 and 4.3, respectively. Total number of ODRs per month was the lowest for Group 4 during baseline (M = 2), and there was little variability in the data.

The BEP intervention was associated with reductions in the average total ODRs per month across all four groups. The BEP phase for Group 1 documents an average total of 3.67 ODRs per month, which represents a 51% reduction from baseline. Groups 2 and 3 averaged 1.75 and 2.67 total ODRs per month, respectively, following implementation of the BEP. These levels represent 46% and 36% reductions from baseline means. Group 4 demonstrated the smallest change from baseline with an average total of 1.5 ODRs per month, which represents a 25% reduction from baseline means.

Overall changes from pre-BEP to post-BEP in average ODRs per month for individual students are presented in Figure 2. Of the 12 students who received the intervention, 9 (75%) showed reductions in average referrals per month and this change was statistically significant, t(11) = 1.803, p < .05 (one-tailed).

REFERRALS TO SPECIAL EDUCATION OR MORE INTENSIVE BEHAVIOR SUPPORT

Of the students who participated in the study, one student (Student 3; see Figure 2) was referred for special education and qualified for services under the category of emotional disturbance, and one student (Student 7) was referred for and received more intensive behavior support (i.e., individualized functional behavior assessment and behavior support planning) but did not require special education support services. The remaining 10 students in the study required no additional behavior support beyond the BEP intervention.

Table 1. Fidelity of Implementation as Measured by the Five Critical Elements

<table>
<thead>
<tr>
<th>Time</th>
<th>Check-in (delivered) (%)</th>
<th>Check-out (%)</th>
<th>Form signed by parent (%)</th>
<th>Feedback by teachers (%)</th>
<th>Data collection (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1</td>
<td>100 (33)</td>
<td>83</td>
<td>17</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Time 2</td>
<td>100 (58)</td>
<td>100</td>
<td>50</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Time 3</td>
<td>92 (33)</td>
<td>100</td>
<td>42</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>M</td>
<td>97</td>
<td>94</td>
<td>36</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Percentage of students who had their Daily Progress Reports delivered.*
SOCIAL VALIDITY

A summary of BEP Acceptability Questionnaire ratings by teachers, parents, and students is provided in Figure 3. Questionnaires were returned by all 12 teachers and students involved in the study and from 10 participating parents. Mean teacher rating as to whether the BEP resulted in improved behavior and academic performance was 4 or greater on a 6-point scale. Mean teacher ratings for whether the BEP was worth the time and effort, was easy to implement, and would be recommended to others was 5 or better. Mean parent and student ratings of the acceptability of the BEP intervention were also high, with the majority of the ratings being greater than 5. The lowest mean rating was by parents for improved academic performance, with the mean rating of 4.5 on the 6-point scale.

Discussion

Based on the data presented for groups of students and the pre-BEP/post-BEP quasi-experimental analysis of individual student data, the present results indicate that the BEP was effective for the majority of the students in reducing problem behavior as measured by reductions in ODRs. Furthermore, information on the extent to which students who participated in the BEP required additional behavior and educational support provides evidence that the BEP not only reduces problem behavior but also decreases the need for more intensive behavior support services for most of the students who receive the intervention. Previous research found the BEP effective in reducing office discipline referrals with middle school students (Hawken, 2006; March & Horner, 2002), and this study supports and extends previous research with the application to elementary school students.

The results from this study and previous research (Hawken, 2006; Hawken & Horner, 2003; March & Horner, 2002) indicate that not all students benefit from the BEP. In examining Figure 2, it is clear that some students’ problem behavior did not improve following the implementation of the BEP (e.g., Students 3, 5, 7). Previous research suggests that the BEP is least effective with students who do not find adult attention reinforcing (March & Horner, 2002). This is one plausible explanation for the performance of 3 of the 12 students in this study who did not demonstrate positive behavior change. Another explanation may be that the intervention was not individualized or intense enough for some students. Data gathered during this study supports this hypothesis as one student who did not show a reduction in referrals was referred to special education and qualified under the category of emotional disturbance, and another student who did not experience a reduction in referrals required more intensive, individualized behavior support planning.

The data gathered during this study support previous research (Hawken, 2006; Hawken & Horner, 2003) that the BEP can be implemented in a typical school setting by school personnel with a high degree of fidelity. The poorest fidelity of implementation was found for the parental feedback component of the intervention. This finding is similar to previous published research on the BEP, which indicates that parental feedback is the weakest element of implementation (Hawken & Horner, 2003). We hypothesized that because students who participate in the BEP often come from less than optimal home environments, it is difficult for parents or guardians to participate in the intervention or to do so on a consistent basis.

The overall high degree of fidelity of implementation is likely related to the finding that teachers, parents, and students rate the BEP as an acceptable intervention. On a 6-point scale, parents, teachers, and students rated as 4 or better that the BEP improved behavior, improved academic performance, was worth the time and effort, was easy to participate in, and would be recommended to others. It is interesting to note that parents provided a high
rating for the question, “BEP is worth my time and effort,” even though they did not always fully participate in the intervention process.

**STUDY LIMITATIONS**

When implementing behavioral interventions schoolwide, ODRs can serve as an indicator of behavior change, are easily gathered by schools, and are correlated with important school climate variables, such as increased rates of problem behavior and academic failure (Irvin et al., 2004). Office discipline referrals, however, are only one indicator of change in problem behavior and may not always directly correlate with reductions in problem behavior in the classroom. Thus, although the majority of the students showed reductions in referrals, it is unclear whether changes would have been evident if problem behavior was directly observed in the classroom. Data on academic performance were not collected; therefore, although problem behavior may have decreased, it is unclear whether there were also subsequent increases in academic performance (e.g., time on task, work completion).

An additional limitation is the small number of data points in each phase of the multiple baseline design. It should be noted that the goal of the BEP intervention is to catch students early who are at-risk and implement the intervention before they engage in more serious or extreme problem behavior. Due to the smaller number of ODRs received by students at risk for problem behavior, there will sometimes be a need to aggregate reports across longer periods of time (i.e., monthly vs. weekly) to obtain sufficient representative data. However, this leads to a need for some caution in reviewing graphic data. That is, with smaller numbers of data points per phase, individual points may substantially influence the interpretation of the results. In addition, when totaling the number of ODRs across groups of students, there is potential for misrepresentation of the effects on individual students (e.g., if one student received all the referrals in a given month while the other two students received none). This is why presenting the data on individual students (see Figure 2) is important in provid-

![Figure 2. Average number of office discipline referrals pre- and post-Behavior Education Program (BEP; Crone et al., 2004) implementation.](image)

![Figure 3. Mean teacher, parent, and student Behavior Education Program (Crone et al., 2004) acceptability ratings.](image)
ing an overall picture of how each student responded to the BEP intervention.

FUTURE RESEARCH

Although more research is needed to further document the effectiveness of the BEP, the data from this study as well from previous research encourage the addition of this type of intervention to a school’s system of behavior support. The BEP can be modified by incorporating functional assessment procedures, and this modification may lead to the BEP being effective with more students (Crone et al., 2004). For example, for students who are motivated by peer attention, the BEP can be modified to allow students to earn reinforcers to share with their peers (e.g., free gym time, extra recess for the class). For students who are engaging in problem behavior to escape from math that is too difficult, the BEP could be combined with academic supports to improve the student’s math and organization skills. To strengthen the research base for the BEP, future studies should investigate the effectiveness of including functional assessment procedures for students who are not responding to the basic BEP intervention.

Future research should also address the effects of implementing the BEP on other outcome variables such as academic performance and achievement. If implementing the BEP results in students engaging in less problem behavior and spending less time in the school office, improved academic achievement will likely follow. Using a classroom direct observation measure, Hawken and Horner (2003) documented increases in academic engagement following implementing of the BEP. Future research should employ more direct measures of academic performance, such as (a) Dynamic Indicators of Basic Early Literacy Skills (Good & Kaminski, 2001), to assess improvement in early literacy outcomes for young students; (b) Curriculum-Based Measurement (Shinn, 1989) procedures to assess elementary-age student improvement in reading, math, and written expression; or (c) percentage of work completion. Future research should also address the extent to which the parental involvement component is considered an essential element for the effectiveness of the BEP.

Time and resources in schools are scarce, and schools need efficient and effective secondary-level interventions for students who are not responding to primary prevention efforts. The purpose of this study was to examine the effectiveness of one type of secondary-level intervention, the BEP, in reducing problem behavior with elementary school students. Results from the current study as well as previous studies (Hawken, 2006; Hawken & Horner, 2003; March & Horner, 2002) indicate that teachers, parents, and students find the BEP acceptable and can implement it with fidelity. Most important, the BEP is a time efficient and effective intervention that leads to reductions in problem behavior and the need for additional behavior supports.

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AUTHORS’ NOTES

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REFERENCES


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