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A Positive Behavior Intervention's Effect on Student Tardiness to School

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A Positive Behavior Intervention's Effect on Student Tardiness to School

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Table of Contents

Abstract	v
Introduction	1
Method.....	4
Results.....	13
Discussion.....	18
References.....	24

Abstract

Developing and implementing proactive interventions within a Positive Behavior Interventions and Supports (PBIS) framework creates a positive instructional environment that results in desired outcomes for students (e.g., improved behavior) and staff (e.g., improved organizational health). To date, most descriptive and empirical studies of PBIS have occurred at the elementary and middle school levels (Horner, Sugai, & Anderson, 2010). If PBIS strategies are to positively impact student success at the high-school level, more examples of evidence-based effective strategies are required. I investigated the effects of a proactive approach of acknowledging appropriate behavior across four high school students using a multiple-baseline across participants design, in which high school students with high rates of tardiness had the opportunity to earn a reward on Friday morning contingent upon arriving to school on time Monday through Friday. Tardiness slightly decreased across all students during the same time, indicating that factors other than the intervention may have affected student behavior. Study limitations and implications for educators and researchers are discussed.

A Positive Behavior Intervention's Effect on Student Tardiness to School

An analysis of discipline policies showed that most techniques being used in schools are punitive, and this overreliance on punitive policies is ineffective at changing behavior and may worsen problem behavior (Morrisey, Bohanon, & Fenning, 2010). As traditional approaches to discipline (i.e., suspensions) are failing to improve student behavior, schools are looking for effective ways to support students. Positive Behavior Interventions and Supports (PBIS) is a model that addresses behavior issues, classroom management, and individualized support systems for students with and without special needs. Sometimes referred to as School-Wide PBIS (SWPBIS), it is a framework for creating, teaching, and reinforcing school-wide behavioral expectations. Using this framework, school teams select evidence-based practices to create a supportive school climate and address problem behaviors in ways that result in fewer discipline referrals, lower suspension rates, and fewer classroom disruptions (Safe Schools Healthy Students, 2012). Prevention-oriented practices of acknowledging appropriate behavior (rather than reacting to inappropriate behavior) may be a step toward keeping students in school and helping students experience personal success.

PBIS provides a continuum of supports to encourage expected behavior, including primary, secondary, and tertiary tier interventions (Horner et al., 2010). Tier 1 interventions are for all students and aim to prevent problem behavior by establishing, teaching, and reinforcing students for following social and academic expectations. Approximately 80% of students respond positively to primary interventions. Tier 2 interventions are designed to address the needs of students whose behaviors are unresponsive to primary level supports, approximately 10-15% of a school population.

Tier 2 supports are efficient interventions, often developed based on a brief function-based screener (assessment based on the idea that problem behaviors serve a purpose) by staff who have knowledge and skills in assessment and interventions, such as functional behavioral assessment and behavior intervention plans (Bohanon, Flannery, Malloy & Fenning, 2009). Examples of tier 2 supports include homework clubs, daily report cards, and anger management programs (McIntosh, Campbell, Carter, & Dickey, 2008). For tier 2 interventions to be successful, school staff must consider the function of the students' problem behavior, or what consequences (i.e., attaining attention/tangibles or escaping attention/work) are maintaining their behavior. Past research has shown that interventions that do not consider the function of behavior are unlikely to be effective in reducing problem behavior (McIntosh et al., 2008).

Tier 3 interventions provide support for students who require intensive individualized supports (approximately 5% of the student body). Tier 3 supports include individualized function-based positive behavior interventions, mental health services, individualized education supports, and wraparound care (Safe Schools Healthy Students, 2012).

Developing and implementing positive strategies within a PBIS framework across the three tiers creates an instructional environment that establishes school expectations and results in improved student behavior (Horner et al., 2010). However, schools often struggle as they attempt to implement tier 2 supports (Newcomer, Freeman, & Barrett, 2013), and tier 2 interventions have been less examined than tier 1 or 3 (McIntosh et al., 2008). This study aimed to design an effective tier 2 intervention for high school students with a high rate of unexcused tardiness to school.

In addition to the limited research on tier 2 supports in general, there are challenges to consider specific to the high school level. By the time many students reach high school, traditional interventions may be ineffective. Students, their families and teachers may even be frustrated with efforts to improve student behavior, possibly leading to decreased morale (Bohanon et al., 2009). Additionally, high schools are generally larger than elementary and middle schools, and the increased school size makes it more likely that teachers may reinforce different academic and behavioral expectations, which makes it challenging for a school to implement a common set of expectations. Also, during high school years, students want to make choices, have autonomy, and acceptance and reinforcement from their peers (Bohanon et al., 2009).

Student tardies, attendance issues, and dropout prevention remain critical issues for high schools, and there is limited research that supports the role of the school climate in preventing student absenteeism and dropout (Bohanon et al., 2009). However, preliminary evidence suggests that positive approaches may have the desired effect on high school students' attendance and on-time arrival to school. For example, in a study in which 9th-10th grade special education public high school students were randomly assigned to treatment and control groups, with the treatment group receiving points for attendance and being on time to each class, points were used to buy tangible items. Over the course of a semester, the treatment group showed no decline in attendance and on-time arrivals to class while the control group did show the predicted decline in attendance and in on-time to class. Results demonstrated that a high school attendance program for special education students may be implemented to prevent the

expected decline in attendance (Licht & And, 1991). Thus, positive strategies show promise at effecting desired changes in high school students' attendance.

If PBIS strategies are to have a positive impact on student success, more examples of evidence-based effective strategies at the high-school level are required. This study focused on addressing this gap in the empirical literature by evaluating the effects of a tier 2 intervention on high school students' tardiness to school within the context of school-wide implementation of PBIS. Specifically, I examined the following research question: Is there a functional relation between a "Breakfast Club" positive behavior intervention and the frequency of tardiness to school among 11th and 12th grade students who exhibit a high rate of tardiness at the start of the first quarter of the school year? Additionally, I looked at the social validity of the positive behavior intervention.

Method

Setting and Participants

This study took place in a suburban high school, grades 9-12, in New England. According to the strategic school profile on the state's Department of Education website, the school enrolled 2,204 students and had an average class size of 19 students in 2011. Eight percent of the student population was eligible for free/reduced-price meals, and 6.8% of the students come from homes where English is not the primary language. The student population was 80.9% White, 7.4% Asian American, 6.4% Hispanic, 3.5% Black, 0.2% American Indian, and 1.6% two or more races.

In 2012 and 2013, this school identified tardiness to school as a high-rate minor problem behavior using the School-Wide Information System (SWIS) data collection. For this study, I worked with school staff to screen potential participants (11th and 12th grade students who were male or female, typically 16-18 years old) for high rates of tardiness to school during quarter one of the school year using a data collection system that collects and reports information on students' attendance. Of these students, 39 were unexcused tardy to school ten or more times by the close of quarter one. After using data to screen for high rates of tardiness, soliciting nominations from administrators and counselors, obtaining consent from all participants/parents/guardians, and determining function of behavior, four students enrolled in the study. Three randomly-assigned cohorts of one to two students participated in the study for 17 weeks.

Student 1 / Cohort 1. Student 1 was a 12th grader and stated that experiencing stress made it more difficult to wake up. He lived within walking distance and had the option to walk to school or have his mother drive him to school. When I interviewed Student 1 about his tardiness, using the Functional Assessment Checklist for Teachers and Staff (FACTS; March et al., 1999; described subsequently), he explained, "I have a problem with being late all the time." He occasionally received a detention for tardiness, but no time-management sessions. He received adult attention as a result of tardiness during the office sign-in and teacher check-in. Student 1 was unexcused tardy to school 17 times by the close of quarter one, which was the first 10 weeks of school.

Student 2 / Cohort 1. Student 2 was a 12th grader and stated that when he was in contact with friends, he was more likely to carpool, therefore more likely to arrive late

to school. He had the option to take the bus or have his mother drive him to school. He explained that he “feels in control” of his decision but often does not choose wisely. Student 2 did not receive detentions or time-management sessions, but did receive adult attention as a result of being tardy. Student 2 was unexcused tardy to school 10 times by the close of quarter one.

Student 3 / Cohort 2. Student 3 was a 12th grader who stated that she experienced stress and difficulty waking up, sometimes due to medication affecting sleep habits, and “simply doesn’t leave the house in time.” She drove herself to school and did not receive detentions or time-management sessions for tardiness. She did receive adult attention during office sign-in and teacher check-in, but no reprimands. Student 3 was unexcused tardy 13 times by the close of quarter one.

Student 4 / Cohort 3. Student 4 was an 11th grader who rode the bus to school and arrived on time to the building, but stated that “bad habits” and socializing with friends in the hall or café was the reason for tardiness. He did not receive detentions or time-management sessions, but was in contact with adults as a result of being tardy. He was unexcused tardy to school 12 times by the end of quarter one.

Design

I used an experimental single-case multiple baseline design across students (Cooper, Heron, & Heward, 2007). I selected a single-subject research design because it has high internal validity and can be used when a sample size is one individual or a group of individuals. Each student (or cohort) served as his/her/its own control, and was exposed to a non-intervention phase (baseline) and an intervention phase while behavior was measured. Specifically, I examined data on tardiness for students during a baseline (no intervention) condition (6 weeks). Then, I introduced the intervention

condition (free breakfast foods on Friday contingent upon arriving to school on time Monday through Friday) in a staggered fashion across three cohorts of one to two students. During this intervention condition, I continued to examine the students' rates of weekly on-time behavior. A post-intervention phase and a follow-up phase was planned based on student response to intervention, as discussed in the Procedures Section.

“Breakfast Club” intervention. The independent variable was the “Breakfast Club” intervention, in which student participants received free breakfast foods (bagel, juice, fruit, protein bar, water) on each Friday morning contingent upon arriving to school on time Monday through Friday. Each Thursday afternoon, I requested the attendance report indicating the students' eligibility. Additionally, students monitored their own weekly attendance using a “Breakfast Club Card.” Each participant received a new Breakfast Club Card at the start of a new month and was expected to carry this card with them to mark down when they were on time to school. On Friday morning, before school started, the breakfast foods were available in the café annex from 7:00am-7:20am. Intervention details and procedures are described in detail in the Procedures Section.

Dependent measures. In this study, I collected data on students' rates of tardiness using office discipline referrals (ODRs) and attendance data to examine the effects of the intervention. I also observed and recorded students' adherence to the intervention by recording the percentage of opportunities the students participated in the breakfast program when eligible. In addition, I assessed the social validity of the intervention using measures described subsequently.

Office discipline referrals (ODRs) and attendance data. The primary dependent variable was the rate of students' unexcused tardies to school during homeroom and period 1. Specifically, unexcused tardy was defined as arriving to school after 7:25am (homeroom tardy) or arriving to school after 7:35am (tardy unexcused). These definitions come from the school's student handbook. ODRs and attendance are valid measures for identifying students at risk and for data-driven decisions by school staff (USDE, 2014). For this study, I requested weekly tardiness data from the school's data specialist. The specialist obtained the weekly data reports from the school's collection system for (a) all 11th-12th graders for Quarter One for initial screening and (b) for the participating students on each Thursday afternoon throughout the baseline phase and then throughout the intervention to identify which students were eligible for the free breakfast foods on Friday (contingent on their on-time arrival on Friday morning). I graphed the percent of days tardy to school (i.e., dividing the number of days on which the student was recorded as unexcused tardy to school by the total number of days in attendance) for each week.

Rate of eligibility and free breakfast attendance. Participants' attendance to the free breakfast was recorded each Friday morning. Students' eligibility depended on the student being on-time to school each day that week. Examining rate of eligibility against free breakfast attendance helped to determine if students were missing the breakfast due to continued tardiness or other factors.

Social validity measure. Efforts to change behaviors to the extent that one's life is affected in a positive and meaningful way have social validity (Cooper et al., 2007). At the conclusion of this study, each student participant completed a brief (15

item) survey: The Adapted Intervention Rating Profile (IRP-15-A; based on Martens, Witt, Elliot, & Darveaux, 1985). I administered the survey to the student participants after the intervention phase to examine the social validity of this intervention. Students rated the intervention using a Likert Scale, in which *1=strongly disagree* to *6=strongly agree*. A higher rating represents increased acceptance of the intervention.

Additionally, the purpose of this questionnaire was to obtain information that would aid in the selection of school-wide interventions at this particular high school to support students who demonstrate problem behavior, specifically not arriving to school on-time, or unexcused tardies.

Procedure

Baseline. Once students were screened for participation (i.e., had 10 or more unexcused tardies to school), received parental consent to be in the study, and provided consent or assent, I conducted an interview with each student using the “Functional Assessment Checklist for Teachers and Staff (FACTS)” Part B (adapted by C. Anderson & C. Borgmeier, 2007 from March et al., 1999). FACTS Part B is a two-page interview intended to be an efficient strategy for initial functional behavioral assessment. The FACTS can be completed in a short period of time (5-15 min) and addresses a description of the problem behavior, events that predict the problem behavior, and consequences that occur as a result of the problem behavior (that may serve as a function of that behavior). Students who responded positively to attention and/or tangible items in the behavior functional assessment were invited to participate in the study, as these were the two primary consequences included in the “Breakfast Club” intervention.

I requested baseline data from the school's data specialist for the four participating students for 6 weeks, with no intervention in place. Students received instructions regarding when their intervention was to begin and what they should do, but the baseline condition continued without intervention for 6 weeks. The possibility of student behavior being affected by learning about the upcoming intervention will be addressed in the Discussion Section.

Intervention. Student participants were randomly assigned to one of three groups by a drawing of names out of an opaque container. The first name was in the first group; the second name was in the second group; the third name was in the third group; and the last name joined the first group. Then, I randomly selected which group entered the intervention first by drawing group numbers out of the opaque container. The first group selected became Cohort 1, the second group selected was named Cohort 2, and the third group selected was named Cohort 3.

Cohorts began the "Breakfast Club" intervention (free breakfast foods contingent upon weekly on-time behavior) at staggered times 3-4 weeks apart. The first cohort started after 6 weeks of baseline, the second cohort started 3 weeks later, and the third group started 4 weeks later. (Initially, the plan called for starting points to be staggered by 4 weeks each, but 1 week of school was missed due to a holiday and snow days.) The first cohort participated in the intervention phase for 11 weeks, the second cohort for 8 weeks, and the third cohort for 4 weeks.

As cohorts entered the intervention, each participant received clear instructions at a meeting scheduled 1 week before their intervention began. They were instructed that the study was aimed at helping students who have been frequently unexcused

tardy to school. I described the breakfast club intervention and explained that if a student had an *excused tardy/absence* that week, they may still receive free breakfast foods. However, if they had an *unexcused tardy/absence*, they may not receive free breakfast items.

I also gave participants a “Breakfast Club Card” to use as a self-recording tool to keep track of their own “on-time to school” behavior (see Figure 1). The purpose of the “Breakfast Club Card” was to increase student engagement with the intervention by serving as a prompt and helping them become aware of how often they were on time to school. The Breakfast Club Card was a 3.5”x 2” standard business card size to fit in students’ wallets/phone cases and was designed to be easy for students to use as a self-monitoring tool. On the front of the card was a place for the student’s name and a four-week calendar with days that students can check-mark if they are on-time. This made it easy for a student to note whether they were eligible for the free breakfast items on Friday morning. On the reverse side of the card, there were three reminders: (1) “Keep me with you always. Your wallet or phone case is a perfect place to store me;” (2) “If you are on time to school Mon-Thurs, please join us for free breakfast foods in the Café annex on Friday by 7:20am;” and (3) {my teacher contact information}.

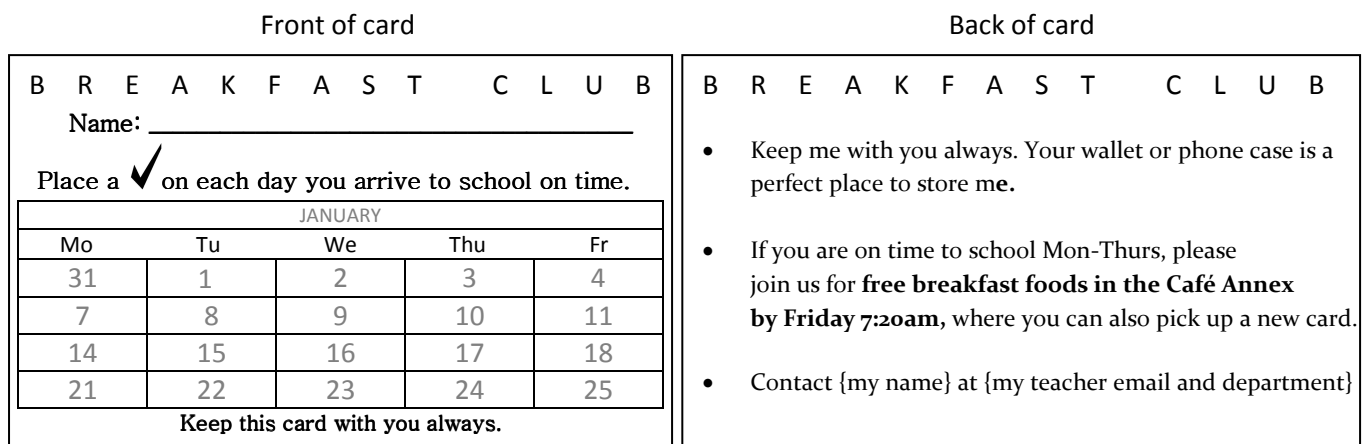


Figure 1. Breakfast Club Card

I requested attendance records from the data specialist each Thursday in order to keep track of the students' on-time arrival to school and unexcused tardies to school for that week (Monday-Thursday). If a student was on time to school Monday through Thursday, they were to stop by the café annex (a designated room normally unused from 7:00am to 7:20am) on Friday for free breakfast foods (selection included bagels, protein bar, juice, water bottle, fruit). I staffed the designated room on Friday morning, from 7:00am to 7:20am, and provided the free breakfast food items for all participants who arrived on time. I maintained records of student attendance to the breakfast intervention. I also sent participants an email on Sunday nights to remind them that they were eligible for the free breakfast food contingent on on-time arrivals all week, that they were still eligible if they were *excused* tardy or *excused* absent, where to pick up the free food on Friday, and that I was available should they have questions. These weekly reminder emails began at Week 10, when Cohort 1 was in its 4th intervention week and Cohort 2 was beginning their intervention, and continued until the end of all participants' intervention phases.

Follow up condition. If students responded to the intervention by demonstrating decreased tardiness, a follow-up condition of 6 weeks with alternating weeks of free breakfast foods was planned to assess for maintenance of treatment effects with less frequent breakfasts.

Visual Analysis

Instances of student tardiness to school were recorded in the school's web-based student information system by students' homeroom and period one teachers. I created a line graph, with each data point representing the percentage of unexcused tardies during each week of the study. I used visual analysis procedures to examine

trend, level, and variability across baseline and intervention phase (Cooper et al., 2007). A functional relation was inferred if the tardiness data demonstrated clear and predictable changes in behavior upon the introduction of the intervention phase. To address the main research question, I visually analyzed the graphs to determine if there was a functional relation between a “Breakfast Club” positive behavior intervention and the percentage of days per week for unexcused tardies to school among 11th and 12th grade students who exhibited a high rate of tardiness during quarter one. In addition, I computed descriptive statistics (mean and range); given concerns with calculating a mean for auto-correlated (time-series) data, these statistics should be interpreted with caution.

Results

Students’ Rates of Tardiness to School

Baseline condition. Cohort 1 (Students 1 and 2) demonstrated a mean of 42% (range = 30%-60%) of days per week that they were unexcused to homeroom or period one over a period of 6 baseline observation weeks (see Figure 2). Cohort 2 (Student 3) demonstrated a mean of 45% (range = 20%-100%) over 9 baseline observation weeks, and Cohort 3 (Student 4) demonstrated a mean of 3% (range = 0%-20%) over 13 baseline observation weeks. Trend of unexcused tardies slightly increased for both Cohorts 1 and 2 and slightly decreased for Cohort 3 (Student 4). Specifically, Student 4’s rate of unexcused tardies dropped upon receiving instructions for the intervention, although the reward was not scheduled for 2 months later. Data for all students were variable, as indicated by the reported ranges.

Intervention condition. All cohorts demonstrated a decrease in unexcused tardies. However, Cohort 2 (Student 3) and Cohort 3 (Student 4) demonstrated a

decrease before their intervention phase began, thereby not reflecting a direct response to intervention. Cohort 1 (Students 1 and 2) demonstrated a mean of 28% (range = 0%-50%), with a slightly decreasing trend during the intervention phase. Cohort 2 (Student 3) demonstrated a mean of 25% (range = 0%-50%), with zero trend. The varied data points for Cohorts 1 and 2 call for further investigation of factors influencing tardiness other than the intervention. Cohort 3 (Student 4) demonstrated a mean of 0% (range = 0%), with zero trend. Low variability and stable intervention data for Student 4 would suggest intervention success, but the stable data began 7 weeks prior to the intervention phase.

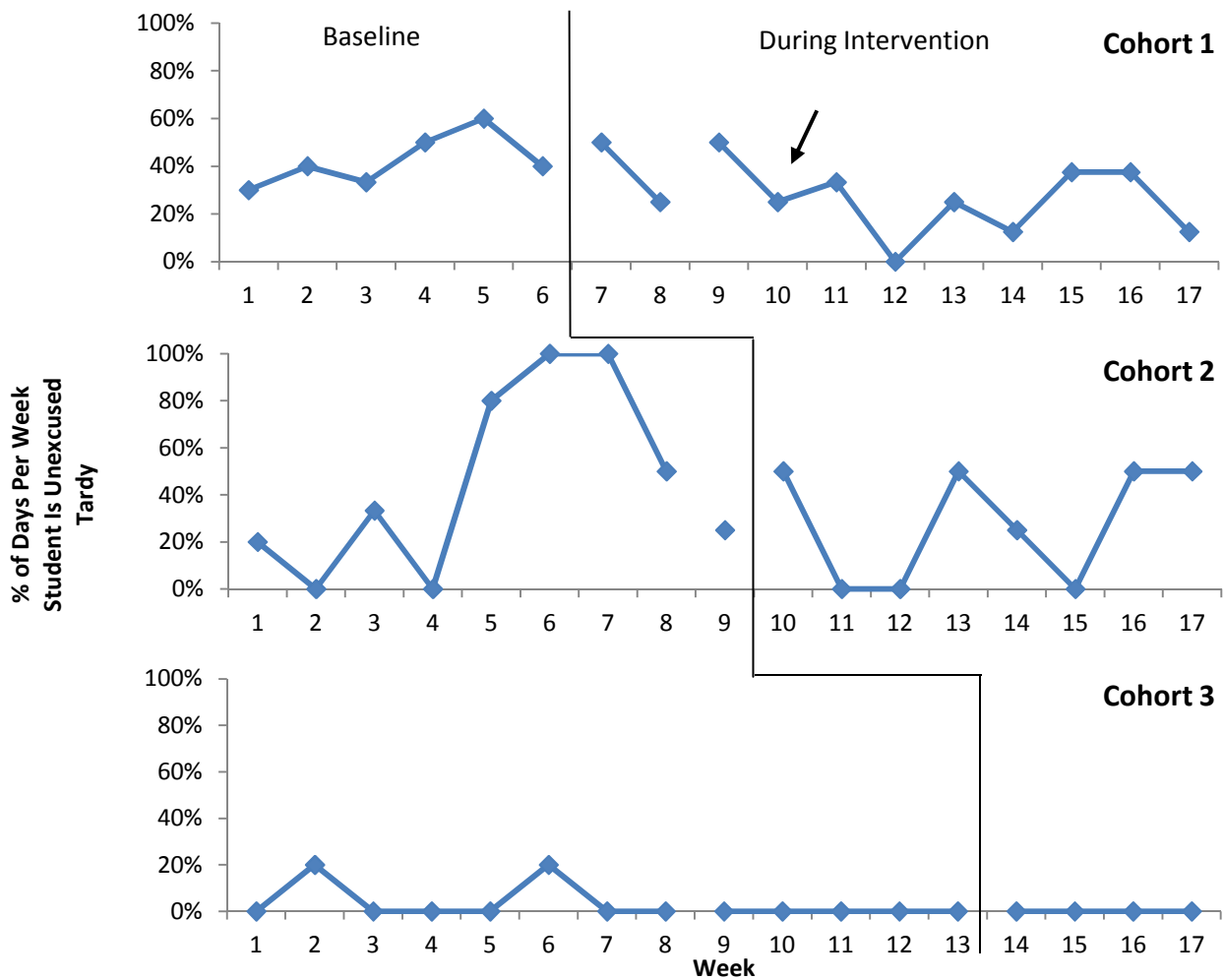


Figure 2. Percentage of unexcused tardies to school across conditions. There was no intervention between Week 8 and Week 9 due to holiday and snow days. Arrow indicates the start of weekly reminder emails sent to participants in intervention phase.

Follow up condition. Student data did not reflect a direct response to intervention. Participants did not routinely access the free breakfast foods when eligible and there was no clear relation between the intervention and student tardiness. Therefore, the follow-up condition was canceled.

Rate of Eligibility and Free Breakfast Attendance.

Student 1 was not eligible for the free breakfast foods during 90% of the intervention phase, and did not pick up free food when eligible. Student 3 was not eligible 71% of the intervention phase, and did not pick up the free food 50% of the times when eligible. By contrast, Student 2 was eligible 80% of the intervention phase, but did not pick up free food 60% of that time. And Student 4 was eligible 100% of the intervention phase but never picked up the free food.

Social Validity

The results from the social validity adapted IRP-15-A survey indicated that participants were generally satisfied with the intervention, as mean scores were mostly 4.75 through 6. Item 1 received a wide range (1-6) of responses, indicating that participants felt differently about this intervention being acceptable for a student's problem behavior. However, item 3 (range of 4-6) indicates that participants felt the intervention should prove effective in changing a student's problem behavior. Item 5 also received wide range of responses, with the lowest mean, as students felt differently

as to whether or not their problem behavior (tardiness) warranted the intervention. Item 10 received a wide range with a low mean indicating that this intervention was unlike previous interventions. Overall, the survey shows that students would recommend the intervention to other students, that they liked the procedures, and believe the intervention to be beneficial.

Table 1

Participants' Social Validity Ratings of Positive Behavior Intervention

Adapted	IRP-15-A survey item (based on Martens, Witt, Elliott, & Darveaux, 1985)	M (range)
1	This would be an acceptable intervention for a student's problem behavior (not arriving to school on-time, or unexcused tardies).	4 (1-6)
2	Most students would find this intervention appropriate for behavior problems in addition to the one described.	4.5 (3-6)
3	This intervention should prove effective in changing a student's problem behavior.	4.75 (4-6)
4	I would suggest the use of this intervention to other students.	5.75 (5-6)
5	My problem behavior (arriving late to school, or unexcused tardies) was/is severe enough to warrant use of this intervention.	3.75 (1-6)
6	Most students would find this intervention suitable for the behavior problem described.	4.75 (3-6)
7	I would be willing to participate in this intervention again.	5 (2-6)
8	This intervention would not result in negative side effects for a student.	5.5 (4-6)
9	This intervention would be appropriate for a variety of students.	5.5 (4-6)
10	This intervention is consistent with those I have also participated in.	3.25 (2-6)
11	The intervention was a fair way to handle a student's problem behavior.	4.75 (4-6)
12	This intervention is reasonable for the behavior problem described.	5.5 (4-6)
13	I liked the procedures used in this intervention.	5.75 (5-6)
14	This intervention was a good way to handle my own behavior problem.	5 (4-6)
15	Overall, this intervention would be beneficial for a student.	5.75 (5-6)

Discussion

The present study examined if a functional relation existed between a positive behavior “Breakfast Club” intervention and the frequency of tardiness to school among four 11th and 12th grade students who exhibited a high rate of tardiness during the first quarter of the school year. During this study, all participants demonstrated a decrease in unexcused tardies; however, the decrease occurred at the same time across cohorts: when Cohort 1’s intervention phase was starting and Cohort 2 and 3 were receiving instructions. Thus, no functional relation was demonstrated.

Student 1 and Student 3 showed a slight decrease in tardiness; yet these students were not eligible for the free breakfast due to continued tardiness 71%-90% of their intervention phase. Student 2 and Student 4 showed a decrease in tardiness. However, these students’ tardiness decreased prior to beginning intervention, and they failed to attend the free breakfasts even when eligible during 60% to 100% of their intervention phase, indicating that factors other than the Breakfast Club may have influenced their decreased tardiness.

This intervention was designed to address functions related to get/obtain access to social attention (from peers and adults during breakfast) and tangible items (free food). The function of participants’ behavior was assessed in Quarter Two using the FACTS interview, which helped gather information on problem behavior, setting event, controlling antecedent, and maintaining consequence to determine if a student’s behavior was maintained by (a) access to peer or adult attention, objects or materials, or (b) escape from peer or adult attention, engagement, or tasks (March & Horner, 2002). Based on the fact that all four students (a) reported adult attention as a consequence, (b) showed an interest in earning free food, and (c) did not report trouble

with grades, or a dislike of school, I inferred that participants were demonstrating behavior maintained by adult attention and access to preferred activities or objects. However, the study results may suggest that the students' behavior may have been maintained by escape/avoidance, that the students had more intensive needs, and/or that a free breakfast was not a sufficient reinforcer to compete with other things in their environment (i.e., a desire to obtain more sleep).

Stress (reported by Student 1 and Student 3) as a setting event may imply that their tardiness was an "escape-maintained" behavior. Research suggests that student response to tier 2 interventions may be affected by the identified function of their behavior (McIntosh et al., 2008) and the Breakfast Club did *not* provide escape from aversive tasks (attending school on-time; sitting in class). Students demonstrating escape-maintained behavior may be confronted with factors such as a feeling of overwhelming problems, receipt of criticism, feeling a lack of control, confrontation, a history of failure, and a belief that work is not worth the effort (Malloy, 2011). These factors need to be considered during initial interviews with students when practitioners are determining function of behavior if interventions are to be effective. The intervention may have been more successful if the setting events present in their typical morning routine for each student were more closely examined and an intervention was centered on escape from aversive tasks (i.e., earning free food or free time *later* in the school day to avoid an aversive activity).

Limitations

Previous research suggests that tardiness may be addressed with a positive approach at the high-school level (Licht & And, 1991). In this study, although all

students' tardiness decreased, a functional relation was not demonstrated between the intervention and students' tardiness. These results should be considered in light of the following study limitations. First, the Breakfast Club intervention did not include social skills lessons. Teaching the expectations and routines may have made this study more effective. Problem behaviors, such as lateness, often result from a lack of skill in social behavior or self-management, and an effective tier 2 intervention may need to include explicit instruction with guided practice and corrective feedback (Newcomer et al., 2013). Nearing the end of his intervention phase, Student 1 told me that he "has a legitimate problem waking up in the morning". If a student's behavior (tardiness) is maintained by the desire to obtain more sleep and they are chronically late, they may benefit from learning about time-management and strategies to wake up in the morning. Punctuality, like being in your seat when the bell rings or washing your hands after using the restroom, is a routine the majority of students learn quickly. But the expectations still must be taught and reviewed appropriately for your target audience (in this study, high-school students who are frequently tardy to school). Additionally, when students can self-identify their problem behavior (as Student 1 did), they may be more invested in an intervention if they have input as to what rewards will be used. Student input regarding the reward for on-time behavior may have strengthened this intervention.

Limitations may exist in the design of the intervention. Effective tier 2 interventions include operational definition of the problem behavior; strategies to teach replacement behavior; antecedent/consequence variables to manipulate; progress monitoring, a method to monitor student progress and fidelity; benchmark goals;

anticipated length of intervention; as well as explicit instruction, practice opportunities, increased adult attention and reinforcement, academic and behavior links, and home/school contact (Newcomer, 2013). The Breakfast Club as a tier 2 intervention contained most of these core features, but lacked strategies to teach replacement behavior, daily reinforcement, and links to academic success (all which could potentially be addressed with social skills lesson plans).

Results may have been affected by the low number of parent consent received. Only 4 of 39 parents/guardians of potential participants responded to a series of parent contact efforts: phone call/voice mail, email, a letter home via mail and a letter sent home via child. This study had planned on using the social aspect of the Breakfast Club as an advantage. Studies suggest that students who experience social connection and acceptance are more likely to graduate and that social acceptance from peers is more important than from adults (Bohanon et al., 2009). When 4 of 39 parents/guardians signed the parent consent forms, the social aspect of the intervention was diminished. With fewer peers involved, the potential benefits of social attention did not exist as a motivator. Additionally, the low number of parent consent may have affected the study because it may have resulted in a sample not representative of the population of 11th-12th graders frequently unexcused tardy to school.

Another possible limitation of the study may be the lack of fidelity data collected on all aspects of the intervention. I collected data on student tardiness, rate of eligibility, and participation, but data were not collected on fidelity of implementation or treatment adherence.

Lastly, potential threats to the study's internal validity must be considered. The students decrease in tardiness seemed to coincide with the introduction that all students received about the intervention. The students knew that they were part of a study, and the knowledge that they were being observed or the way they viewed the study (known as the Hawthorne effect) may have contributed to changes in student behavior. It is also possible that other events or policies within the school or community could have coincided with the introduction of the intervention (known as the history effect) and affected all students' behavior (Fraenkel, Wallen, & Hyun, 2012).

Implications

Results from this study have implications for practitioners and researchers. While there is no evidence of a direct response to the intervention, all four students in this study showed some degree of improvement (decreased tardies) and each one expressed positive feelings toward the intervention on the social validity survey. If this may suggest that students respond positively to adult attention regardless of available tangible reward, there could be implications for strengthening Tier I supports by increasing staff attention to problem behavior through positive proactive approaches with minimal effort (i.e., an email reminder).

Practitioners should consider that the key to developing effective function-based tier 2 interventions to help students maximize their chance for academic and behavioral success may be in teaching the behavioral expectations in the natural context (Sugai & Simonsen, 2012) and relating the intervention to the students' specific needs or the function of their behavior (Horner, 2000). Studies have shown that function-based

interventions that included teaching replacement behavior strategies resulted in increased on-task behavior (Dwyer, Rozewski, & Simonsen, 2011).

In addition to teaching behaviors, emphasis on function-based approaches and a de-emphasis on reactive consequences (i.e., detentions and suspension; Sugai, 2014) is critical. Researchers may consider the effects of decreasing negative reactive policies that are viewed as punishment by high-school students (i.e., detention, or taking away a free period at the end of the school day) and simultaneously presenting privileges that students may earn (i.e., earning free time). For example, at this particular school, students can currently leave school early if not enrolled in an 8th period class regardless of attendance or tardiness rates. Considering that older students prefer quiet and private praise and free time is seen as the most acceptable reward by almost all age groups (Sharpe, Coll, Wheldall, & Merrett, 1987), students who display escape-maintained behavior may view the opportunity to earn a free period as a motivating reward to arrive to school on-time. As limited research exists in tier 2 behavior interventions (Newcomer, 2013) and based on the findings in this study, researchers and practitioners would benefit from further research on high school-level PBIS strategies across all tiers. Specifically for high school, there is a need to identify evidence-based tier 2 interventions that are function-based and include teaching expected social skills.

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