Hammill Institute on Disabilities

Remedial and Special Education
2021, Vol. 42(4) 207–219

DOI: 10.1177/0741932519896860
rase.sagepub.com
SAGE

Elementary Teachers' Perceptions of a Comprehensive, Integrated, Three-Tiered Model of Prevention

Holly M. Menzies, PhD[1], Wendy Peia Oakes, PhD[2], Kathleen Lynne Lane, PhD, BCBA-D[3], David James Royer, PhD[4], Emily D. Cantwell, MEd[3], Eric Alan Common, PhD[5], and Mark Buckman, Master of Science (Education)[3]

Abstract

This study examined perceptions of teachers who implemented a tiered system of support, the comprehensive, integrated, three-tiered (Ci3T) model of prevention. We reported findings of four focus groups with a total of 18 elementary teachers who implemented Ci3T for 2 years. While the Ci3T model comprised elements addressing academics, behavior, and social-emotional learning, teachers were predominately concerned with issues related to students' behavior. Teachers reported difficulty moving from reactive to proactive classroom management approaches theoretically grounded in behavioral principles.

Keywords

qualitative research, behavior management, legal/policy issues, whole-school interventions

School and district leaders in the United States are prioritizing a systems approach to education reform to ensure that students have access to the resources they need for success (Lane et al., 2014). There is now an emphasis on using tiered models that are comprehensive; integrated into the structures, practices, and policies of the school; and address the needs of all students (McIntosh & Goodman, 2016). This approach grew out of efforts to conceive a model that delivers services inclusively, uses evidence-based practices, and offers additional or individualized assistance to students who are at risk of school failure for any reason, not just those with an identified disability and served by special education (Individuals with Disabilities Education Improvement Act [IDEIA], 2004). In addition, there was a desire to move away from focusing on individual characteristics, particularly deficits, as the cause for low achievement among subgroups of students and instead build a system that changes the way educators view students at risk for or with disabilities (Sailor & McCart, 2014). The goal of tiered models is to redesign educational systems, so the organizational structure itself reduces risk of school failure and has the capacity to seamlessly deliver specialized services to students who need them, be they academic, behavioral, and/or social-emotional.

Recent literature on tiered systems has examined their effectiveness as well as identified barriers to implementation. Some findings are clear; for example, we know sustaining these models requires strong leadership, high levels of fidelity during initial implementation, and the ability of school teams to use data for decision-making (McIntosh et al., 2018). Barriers to implementation include low staff buy-in and limited resources, including time and funding (McIntosh et al., 2013; McIntosh, Mercer et al., 2016; Pinkelman et al., 2015). Other findings are more ambiguous: There has been debate over the efficacy of Response to Intervention (RtI; Fuchs & Fuchs, 2017) and, while School-wide Positive Behavioral Interventions and Supports (SWPBIS) can reduce office

[1]The California State University, Los Angeles, USA
[2]Arizona State University, Tempe, USA
[3]The University of Kansas, Lawrence, USA
[4]University of Hawai'i at Mānoa, Honolulu, USA
[5]University of Michigan, Flint, USA

Corresponding Author:
Holly M. Menzies, The California State University, 5151 State University Drive, Los Angeles, CA 90032, USA.
Email: hmenzie@calstatela.edu

Associate Editor: Melinda Leko

discipline referrals and suspensions, it has been difficult to show unequivocal outcomes in student achievement, perhaps due to methodological constraints (Bradshaw et al., 2010).

However, there is a notable lack of information about the perceptions of school personnel who implement tiered systems of support. As districts scale education initiatives, understanding the local context becomes increasingly important (Andreou et al., 2015; Institute of Education Science, 2018). Schools are not static laboratories where all factors can be controlled or isolated. They are dynamic, complex settings where culture, geography, history, and policy, as well as politics (both local and national) intersect to produce unique conditions. One potent means of understanding context is listening to the voices of those who participate in school reform (Seidman, 1998). Perspectives of teachers, who are ultimately one of the most powerful agents for educational transformation, are critical in apprehending the difficulties, discontinuities, and on-the-ground problems that occur when trying to effect lasting change to improve students' experiences and outcomes. For example, Brantlinger and colleagues (2005) detailed how qualitative research has been pivotal in special education because it offers insight to the lives of students with disabilities and provides valuable information on services developed to meet their needs. Shavelson and Town (2002) offer similar views of qualitative inquiry, noting its power in illustrating lessons learned that can inform intervention efforts and, ultimately, systems change.

We were unable to find literature examining teachers' perspectives about implementing a *comprehensive* tiered system. To date, research on participants' perceptions has focused on tiered models that emphasize either academics (RtI; Castro-Villareal et al., 2014), behavior (SWPBIS; McIntosh, Kelm, & Canizal Delabra, 2016; McIntosh et al., 2014), or social-emotional learning (Romer et al., 2018), with most of this research featuring survey studies. A common finding is the importance of teacher and administrators' beliefs. Without staff buy-in and an administrator committed to the endeavor, both implementation and sustainability are difficult. Other findings emphasized the necessity of adequate training and resources (McIntosh et al., 2013). We conducted the current study to examine teachers' perspectives of a district-wide implementation of a comprehensive, integrated tiered model.

The comprehensive, integrated, three-tiered (Ci3T) model of prevention is designed to meet students' needs by using data-informed decision-making and ongoing professional learning (Lane et al., 2019) and is the first to address academic, behavioral, *and* social-emotional domains in a single comprehensive model (Lane & Menzies, 2002). Ci3T is a framework that guides schools in developing and implementing the practices that each site or district has customized to be responsive to the local context. Each school establishes a Ci3T Leadership Team that determines the specific practices and instructional programs that will be used at the site to provide graduated levels of support (i.e., Tiers 1, 2, and 3) that increase in intensity for students who require either specialized or additional intervention (Lane et al., 2014). The first tier includes all three domains (academic, behavioral, and social-emotional) and is provided to all students. For example, validated practices are identified for use in the academic, behavioral, or social-emotional domain (e.g., Reading Street; Pearson Education, 2011; SWPBIS; Horner & Sugai, 2015; Positive Action; Flay et al., 2001), with stated parameters for dosage (e.g., 90 min of uninterrupted reading instruction daily). The behavioral domain features positive behavioral interventions and supports (PBIS) in which expectations are determined with input from all faculty and staff. Expectations are taught and acknowledged when demonstrated in the same way that academic instruction occurs. As a complement to Tier 1 programs, teachers promote high student engagement by using strategies such as increasing students' opportunities to respond and incorporating instructional choice (Lane et al., 2015; Simonsen et al., 2015).

In addition to a Tier 1 plan for all domains, the Ci3T model provides intensified support through data-informed decision-making. Student progress is monitored through systematic screening procedures three times per year in fall, winter, and spring (Oakes et al., 2017) to identify risk. Students for whom Tier 1 practices are insufficient receive more focused Tier 2 and/or intensive Tier 3 resources. Tier 2 might include small group instruction, a supplemental curriculum, or low-intensity supports (e.g., an increased rate of opportunities to respond; Messenger et al., 2017), whereas Tier 3 includes intensive intervention designed to address any issues preventing a student from being successful in school. This could be services such as mental health counseling (Lane et al., 2017), one-to-one academic instruction (Austin et al., 2017), or a functional assessment-based intervention (FABI; Umbreit et al., 2007).

Another critical element of Ci3T is using data to provide information about other aspects of the model. These include determining whether (a) stated school goals are achieved (e.g., reductions in office discipline referrals and increases in academic outcome measures), (b) it has social validity with stakeholders, and (c) the plan is being implemented with fidelity. School-level data are also used to inform professional development programming. Using data for these purposes is a significant change from early educational reform efforts. Practitioners and school leaders now interpret data relevant to the local setting and then make adjustments to instruction and other school practices as well as professional learning efforts as needed (Bernhardt, 2015).

Theoretical Foundations of Ci3T

Ci3T is theoretically grounded in applied behavior analysis (ABA), a field of study concerned with the science of behavior (Hatfield, 2001; Pierce & Cheney, 2017). ABA attempts to understand how factors in the environment

influence behavior, with the goal of improving behavior in socially significant ways. In education, ABA is sometimes criticized as mechanistic or antithetical to humanistic principles (Trump et al., 2018). However, ABA has used applied research to dramatically improve outcomes for students, particularly those with the most challenging disabilities (Altus, 2009; Cooper et al., 2007).

The use of behavioral principles in Ci3T focuses on the power of institutions to constrain or facilitate particular behaviors of both teachers and students. In other words, all actors are "changed behaviorally by the environment" (Michael, 1985, p. 102) and a school's policies will cause those who work and learn within it to respond in specific ways. The Ci3T model advocates paying specific attention to adjusting school policies so they emphasize proactive and positive outcomes, particularly when applied to plans for responding to challenging behaviors.

ABA elements critical to the model include the use of data for making decisions, explicit identification and instruction of school-wide expectations, reinforcement of those expectations, and removal of aversive or punitive actions. The power of the model comes from teachers and staff working together to offer a unified system. This can be difficult to achieve because traditionally teachers have had significant autonomy in their individual classrooms and adhering to a school-wide plan may feel restrictive. In addition, teachers who are uncomfortable with reinforcement or other ABA techniques may resist using them.

Purpose

This study reports findings from four focus groups conducted after 2 years of implementation of a Ci3T model of prevention partially funded by an Institute of Education Sciences' Practitioner-Researcher grant. The focus groups were one part of a mixed-methods design looking at the impact of the model on various student and school-level outcomes (Oakes et al., in review). The research objective was to understand the meaning teachers made of the CI3T model and its implementation.

Method

Participants

Participants were 18 elementary teachers who took part in one of four focus groups. We invited 120 (demographics subsequently described) elementary teachers who completed treatment integrity measures as part of a larger research project on teaching efficacy and burnout. We included participants with both high and low levels of implementation fidelity of the Ci3T model to ensure diverse perspectives. We believed degree of implementation might capture different perspectives. For example, it could signal those who were enthusiastic about the project as well as those who were more reluctant to change existing practices. It might also differentiate between teachers who felt comfortable implementing the model from those who had more difficulty with doing so.

Procedures

Participants were considered to have high implementation fidelity (treatment integrity; TI) if they scored 80% or higher on both the Ci3T Treatment Integrity: Teacher Self-Report (Ci3T TI: TSR; Lane, 2009b) and Ci3T Treatment Integrity: Direct Observation (Ci3T TI: DO; Lane, 2009a) in the spring 2016 semester or fall 2015. The Ci3T TI: TSR is a 38-item checklist consisting of three subscales: procedures for teaching, procedures for reinforcing, and procedures for monitoring. The Ci3T TI: DO contains a subset of items from the Ci3T TI: TSR, with 13 procedures for teaching and eight procedures for reinforcing. A trained Ci3T research team member observed participants for a 30-min session, rating the level of implementation observed for each item on the DO tool from 0 = *not at all* to 3 = *all of the time*, or 7 = *no opportunity*. Those who scored less than 80% on both measures were considered to have low TI.

Teachers from both high and low TI groups were sent an invitation to participate in a focus group. From those who responded, four groups (18 teachers total) were formed, representing 11 of the 14 (78.6%) elementary schools in the district. All participants were female, 26 to 58 years of age ($M = 36.33$, $SD = 9.31$), 1 to 31 years of experience in education ($M = 11.28$, $SD = 8.24$), with 17 (94.44%) White and one (5.56%) Latina. All were certified teachers and had taken a course in classroom management and 11 (61.11%) had earned a master's degree. Thirteen teachers (72.22%) had participated in professional development on academic screening and 15 (83.33%) had professional development on behavior screening. Eleven (61.11%) participants were general educators, teaching kindergarten to fifth grade, with one teaching K–5 Title 1 reading groups and one teaching English as a second language. Seven (38.89%) participants were special educators, with one teaching a self-contained class and six teaching in resource settings. Six (33.33%) were members of the Ci3T leadership team at their school site. See Table 1 for district demographics.

Development of interview questions. The research team developed a set of questions to probe various aspects of the district's implementation of the Ci3T model, including the following: teachers' understanding of the Ci3T model, what Ci3T consisted of at their school site, challenges of implementing it, and, finally, their perceptions of its effectiveness. The focus group interviews were semistructured to reach a balance between comparability of the data while allowing for flexibility (Maxwell, 2013). After several iterations, the final question set comprised 15 questions and approximately the first 10 were asked in each interview.

Table 1. District-wide Student Demographics 2016.

Demographics	Percentage of students
Gender	
Male	52.40
Female	47.60
Socioeconomic status	
Nondisadvantaged	60.00
Disadvantaged	40.00
Ethnicity/race	
White	68.50
Black	6.10
Hispanic	9.00
Other	16.40
English language learner	
Non-English language learner	92.00
English language learner	8.00
Disability	
Students without a disability	87.00
Students with a disability	13.00

Source. Kansas State Board of Education (2016).

The questions were open-ended to elicit participants' individual understanding of the Ci3T model and its implementation at their school site. For example, the opening question was, "How would you define Ci3T to someone who doesn't know what it is?" See the appendix for a full list of questions.

Focus groups. Four 1-hr interview sessions were held over 2 days during the summer following the second year of Ci3T implementation. Two groups comprised high-fidelity participants and two comprised lower fidelity participants. Groups were limited to five participants and each interview was concluded after 60 min.

Participants were paid a US$100 stipend for attending the interview, which was held in a conference room at a university in the Midwest United States. The researcher conducting the interview (first author) introduced herself to the teacher participants as they entered. The interviewer was not involved in implementation of the Ci3T model in the district and had not previously met any of the participants to reduce the likelihood of social desirability bias (Dane & Schneider, 1998). After stipend forms were completed, the interview opened with a brief overview of the Ci3T project (which all participants were already familiar with) and why the interview data were being collected (to better understand implementation issues to guide future endeavors) and recorded (for transcription and analysis). Participants were told that there was a set of questions that would guide the interview, but they were encouraged to bring up other topics they felt pertinent to the discussion. After a question was posed, each participant responded. None of the participants asked to skip a question. Some questions stimulated further discussion among the groups, whereas others did not. The interviewer moved to the next question when it appeared that everyone had said all they wanted to about the topic. As a result, not all questions were asked in each focus group.

Analysis

We used an inductive approach to data analysis to understand which issues were of greatest salience to the participants. Each interview was recorded, transcribed, and imported into the qualitative software NVivo (QSR International, 1996–2015). The first author listened to each interview three times and independently coded the transcripts using a mix of in vivo and descriptive codes. Once the data were coded, visual displays and code percentages across groups, participants, and individual questions were examined and discussed by the first three authors. After consensus was reached over the first cycle of coding (meaning the first three authors agreed on the code labels and the items coded), the first author identified those with the most density and cohesion to establish the second cycle patterns (Miles et al., 2014). For example, first cycle coding contained the codes "clip chart" and "tickets" which were determined to be a pattern relevant to PBIS. The first three authors then reviewed the second cycle patterns together to establish larger themes. Codes or patterns were retained only if all three authors were in agreement.

Ensuring Trustworthiness and Credibility

We were mindful that our personal views and experiences inevitably shaped, as well as informed, our perceptions of the data. For example, all members of the research team worked in K–12 schools at some point in their careers and, due to our training in special education, we see ABA as an effective and viable approach to addressing a range of issues including designing behavior management systems. To strengthen the validity of the data and its interpretation, we considered credibility, dependability, confirmability, and transferability (Lincoln & Guba, 1985; Rolfe, 2006).

Credibility and dependability. We conducted multiple focus groups using the same interview questions to look for patterns across groups. To provide diverse perspectives, we sampled purposively for participants who held different types of teaching assignments and experience. This was done to improve triangulation as well as to help achieve data saturation (Fusch & Ness, 2015; Golafshani, 2003). In addition, the study was part of a larger mixed-methods research project that provided other sources of information such as surveys and observations used during analysis to contextualize and/or triangulate information from the focus groups (Oakes et al., in review).

Confirmability and transferability. The reader will determine for themselves whether the findings resonate with their own knowledge of schools, students, and teachers, but one of the critical functions of qualitative research is to understand the thoughts and actions of participants from their perspective. In the "Discussion" section, we examine the role of punishment in American schooling because understanding the sociocultural context in which teachers work makes it clear how difficult it is for a teacher to change practice as is documented here. Although it is possible that other themes would have resonated with a different team or the use of a different theoretical frame would have emphasized other results (Creswell, 2013; Kozleski, 2017), we believe that the findings represented here accurately offer insight to the difficulties inherent in adopting new systems.

Results

The district's Ci3T model emphasized identifying and providing academic, behavioral, and social-emotional support for all students. Yet despite the fact there were no initial questions about behavior (some follow-up questions probed about behavior issues once the topic arose), teachers in each of the four focus groups repeatedly discussed the difficulty in shifting from a reactive to proactive approach to classroom management. The predominate theme throughout and across all interviews was the struggle to implement the PBIS component of the model. Given the importance of and consistency of this theme across all teacher participants, we explore it in detail collectively across the four focus groups. Within this larger theme, three distinct topics were evident: the difficulties of using proactive classroom management strategies, the role of punishment in classroom management, and structural facilitators and barriers to adopting the Ci3T model. Below are data illustrative of each of the themes and topics.

Difficulty Using Proactive Classroom Management Strategies

Adopting new classroom management strategies was an area of difficulty. Teachers were encouraged to emphasize proactive strategies, such as (a) explicitly teaching expectations, (b) reinforcing behaviors they wanted students to demonstrate (e.g., behavior-specific verbal praise and "caught being good" tickets), and (c) reducing misbehavior by increasing engagement, improving routines and procedures, and using consequences judiciously. However, managing behavior using a proactive approach was a monumental shift that was met with some resistance. Even for willing teachers, it was a difficult transition. For example, the use of "clip charts" became contentious. Clip charts were visual reminders for students of the appropriateness or acceptability of their behavior and were a frequently used tool. Students started out the day with a clothespin marked with their name clipped to the green area of the chart. If they misbehaved, the clip was moved down to orange or to red if their behavior was unacceptable. Teachers notified parents with a communication home, reporting the color the student was "clipped to" at the end of the day. When implementing Ci3T, teachers were asked not to use the clip charts because they were a very public notice of each child's behavior status and could be punitive in nature (positive punishment in which an aversive was introduced; Cooper et al., 2007). The request to eliminate clip charts and other class-wide systems that involved publicly posting student infractions (e.g., dropping a star and flipping a card) was not implemented uniformly throughout the district. Some principals allowed the use of clip charts and others did not. Teachers were asked to use proactive techniques, such as prompting/cueing students, reinforcers (verbal acknowledgment for desired behavior or tickets), and reviewing classroom procedures and reteaching them if necessary. Teachers learned individualized approaches (e.g., self-monitoring) as part of Tier 2 supports for students who had persistent and ongoing behavior challenges (Oakes et al., in review).

Many teachers felt that the clip charts were effective, could be used as a reinforcer, and thought that removing them as a classroom management tool was confusing to students.

> Which is hard to do if a student is used to having clip charts and now it's something different. At the beginning of the year we're like, can we bring the clip charts back? Can't we just say if you're at the bottom, that's one ticket or two tickets, three tickets, four tickets, and kind of use them that way?

Others believed the clip charts were used as a punitive measure rather than as a genuine means of communicating with a student about their behavior.

> I think clip charts are gone because people weren't using them the right way. They weren't using them for the positive.

One teacher made the argument that the charts tended to be stigmatizing for students who continually struggled to meet classroom expectations. In addition, charts were rarely used to reinforce desired behaviors.

> But you're exactly right—the classrooms I was in, even though it was fluid and teachers would say, well they can go back up, it was definitely pointing out the negative all the time. "Oh, you're not paying attention, go clip down." Instead of rewarding the student that was paying attention, because my girls [the teacher's own children] were the ones who were always doing the right thing in class would occasionally get to clip up. But they could come home and say exactly who clipped down throughout the day and then a teacher would get really

> frustrated and say, everybody go clip down, your desks are a mess. So they would come home crying because they had to clip.

Parents noticed clip charts were no longer used in some classrooms and one teacher commented that parents believed clip charts offered an effective consequence for misbehavior.

> You know, it's interesting because I keep coming back to the clip chart thing, but at my set of conferences I had several parents asking me why we didn't do them. I was like, how do you know about them? "Well my kids had them in pre-school and it worked really well for them."

The dissatisfaction with not being able to use the clip charts was echoed in some teachers' belief that students should not be reinforced for behaviors they were expected to use fluently. Each school site used "tickets" as part of the Tier 1 plan that teachers could offer as reinforcers by acknowledging the expected behaviors. Students could collect their tickets to buy items at the student store or classroom store if their teacher had one (i.e., exchange them for a reward), or be entered into a drawing, but some teachers viewed this technique as counterproductive.

> What are we teaching them as kids that later in life when you have a job and you do something right at your job? You should get a ticket for it? I just don't think we're really teaching them life skills. I love the expectation part and I love what the concept is, but I don't really agree with the whole ticket part because I think we're setting them up for failure of, well, you did something right, you get rewarded for it, but why don't you just be nice to be nice? I know that at our school that's an overall issue.

A related area of difficulty was how to use reinforcers to modify some students' behavior while not interfering with the motivation of those who did not require external reinforcement. A teacher told the story of siblings where one benefited from the external reinforcement but the other's behavior was negatively affected by it.

> One of the students had a sibling who was receiving all sorts of rewards for his additional supports. [All students could earn tickets as part of Tier 1.] At the beginning of the school year she was wonderful and would follow directions, would come in happy every day. Then towards the end she was acting out and doing anything she could and finally we said what's going on and she said, well I want a [self-monitoring] chart. She was saying all of the things that [the sibling] was getting and was wanting that, too.

It appeared that some teachers were confused about how to use behavior management techniques premised on behavioral principles (Cooper et al., 2007). Or perhaps they understood how to use them but did not have enough information as to why they were likely to work if used correctly. This misunderstanding, or lack of confidence in ABA strategies, interfered with believing that the new proactive strategies would be more effective than reactive strategies in the long term, thereby decreasing the likelihood of teachers adopting them or persisting with their use. There appeared to be little awareness about the detrimental effects of punishment (e.g., aggression, learned helplessness, anxiety, and social disruption; Pierce & Cheney, 2017).

Role of Punishment in Classroom Management

As teachers moved to a proactive model of classroom management, they tried to emphasize teaching and reinforcing the behaviors they wanted students to use rather than relying exclusively on reactive measures, such as the clip charts, time out, or loss of privileges. Yet, they felt very strongly that "consequences" were the most powerful part of a classroom management program. Disturbingly, there seemed to be an understanding among the participants that the word "consequences" was code for punishment, in its most negative and everyday sense, and it was deemed a very effective strategy for managing behavior. As one teacher framed it,

> They [teachers] changed the word. So, they mean punishment, but they say the word consequence. So there was a mandate in our district that the board came up with that we could no longer take away recess for students. Ironically, that happened at the same time our Ci3T was rolling out so a lot of teachers were also confused about thinking we can only reward, we can't take anything away and I think what we were actually seeing was that we didn't realize the level of punishment that was actually being used.

Teachers were more comfortable using what they felt had worked in the past and found it difficult not to rely predominately on punishment to manage student behavior. For example,

> I think something that my school struggled with a lot this past year, and maybe in previous years, was that their understanding of how to address behavior was to find a punishment for that child immediately, and that would be if it was a small behavior issue or a much larger one. It was just, what can we do to punish this child for behavior that we don't want to see happen again or on a regular basis? So for them the Ci3T model is a struggle to use consistently with fidelity and with a positive mind frame.

Another teacher noted the difficulty some colleagues had with trying to use an instructive rather than a punitive approach to managing behavior:

> I think one thing is having growth mindset and thinking all kids can learn and all kids can grow and, you know, not punishing

> or trying to have it be like a "gotch ya," but have it be "ok you don't know the rules of school." You know, let me teach them to you so even when you know kids are acting up or whatever, it's not you're just a naughty kid, but let me teach you how you should do this and why you should do this.

When the pressures of managing behavior became too great, teachers used punishment rather than apply the tenets of the schools' Ci3T plan.

> I think people, at their core, think "this kid is driving me crazy, he's making it so I can't teach, he needs to, you know, suffer the consequences," instead of just sticking with the plan of teach, reteach, reward those who are doing what they're supposed to.

In addition, not all teachers understood how to use a variety of strategies (e.g., precorrection, increasing opportunities to respond, and instructional choice; Lane et al., 2015) to manage students' behavior after the initial rollout of the model and subsequent training.

> By the end of the year several teachers were very vocal about how unhappy they were about Ci3T. It went back to that punishment thing, it was like, I don't understand why we can't punish these kids and I don't understand why they don't get these consequences.

Reducing teachers' reliance on punishment and supporting them in learning more about consequences in general (e.g., more than just a negative response to a problem) was a challenge because punishment was a technique that produced an immediate response and, in the moment, controlled disruptive behaviors, especially in the context of teaching a large group of students while feeling the pressures of maintaining classroom control and moving through the curriculum. As one teacher summed it up,

> Because those kids behaviorally take so much time and energy, and it's really exhausting. And there's a lot of pressure to move academically. And a lot of times it goes hand in hand, but really those behavior kids are what takes a lot of your energy.

Despite the difficulties of adopting new methods of managing behavior, there was evidence that teachers were changing their perceptions as they tried new techniques. They began to see the positive behavior strategies as viable options.

> And I would say that it's, it was shifting focus into what *can* teachers do instead of what *can't* teachers do. I mean I feel like at the beginning it's kind of like, well, now I can't do this, I can't do that, I can't do this. Instead it shifted it to well you can do behavior-specific praise, you can, you know do check in, check out, you can . . . and it was more what *can* teachers do.

One teacher explained how she saw the nuances of applying consequences to unwanted behavior. She wanted the consequence to communicate to the student that he needed to change his behavior but did not want him to interpret it as punitive. This is a difficult balance to achieve, particularly because, in the short term, punishment may decrease or eliminate the undesirable behavior, whereas applying the more gentle consequences this teacher used may not seem powerful enough. Yet, punishment can result in unintended outcomes such as aggression and anxiety (Cooper et al., 2007) that create a cycle of continued misbehavior.

> I think it's *how* you look at consequences. My boys [her students], they know they don't lose recess, we don't take away their recess or things like that, but they *have* consequences.

Structural Facilitators/Barriers to Change

Using data. One factor instrumental in convincing teachers to use or to sustain new behavior methods was examining school-level data. Sites were asked to examine behavioral screenings and achievement data three times a year. There was uneven use of data across the district and some sites were better at allocating time to do so (Oakes et al., in review) and some of those who did appeared to find it a useful exercise.

> So, we look at the SRSS data every trimester. And we look at that internalizing versus the externalizing, and we did have growth in that. Red, we had a kid move the red to the yellow, and yellow to the green and so I think we talked about a lot more about internalizing behaviors and had some PD [professional development] about. So that was good step so, yea, we do look at that data.

Principals were instrumental in providing access to the data as well as signaling the importance of using it to understand whether the new model was working.

> My principal is all about the data in every single aspect of every part of the school and they really look at that data and they have biweekly meetings and he does listen to the teachers input and what they have to say and what's working well, what's not working well and very much so supportive, just across the board with it and very data driven and if there's a specific problem with, we see this behavior going up, how can we work on it to fix it.

Leadership. Administrative leadership was essential in promoting the use of Ci3T practices. Teachers believed that without site administrator leadership they would not be motivated to use them.

> Our principal does, every day he talks about the . . . expectations [Tier 1 expectations] and how those relate to a specific

> area—so either in the restroom or in the cafeteria or whatever. And then he's the one too who is responsible for carrying through the school-wide parties and making sure that was communicated to parents and what we were going to be doing. It was his job, really, to follow it through and he did a good job with that so, and just kind of, I mean I feel like he's just showing unwavering support, if he were to waver I feel like everybody would jump ship.

Another teacher noted how hard her principal worked to lead the faculty. These efforts emphasized the importance of implementing Ci3T.

> She's [the principal] just really good about taking on a new initiative and making it work for our school and using the data to make changes and be consistent and walking the walk and talking the talk. She hands out tickets in the hall, she reminds them of expectations, she celebrates success, she goes out for our schoolwide rewards and gets all of the ice cream and toppings and she spends the day dishing out ice cream as classes come through when we have those trimester schoolwide reward kind of thing. She's just really bought in. She's really encouraged us, she's provided us support with a Ci3T leadership team, but also in our team meetings when we're talking about specific kids, I mean, she's just brought it across everything and just provided what's been needed to be successful and then show that this is what we're doing and this is what I believe in and this is why I believe in it.

Using data to inform decisions and leadership from the site administrator were essential elements in changing teachers' perceptions about the utility of the Ci3T model.

Lack of time. A significant barrier to teachers' implementation of the new model was the lack of time to learn about it and to confer with their colleagues.

> I think it would be, I don't know how to remedy this, but it would be nice to have just more time I think for professional development. If there would be time during the day for us to go to some Ci3T training like what was offered in the evenings. I know everybody is super busy and I have kids at home. I cannot go to something after [work]. I've got two kids to run around after school so I wish those things could be offered on a Wednesday afternoon or something like that. I think that there's a lot of value in spending time in professional development, working through these things and brainstorming together and talking about student behavior, but there's just so little time.

The district was engaged with what the teachers thought were too many initiatives to focus on at one time.

> There's a lot of initiatives since Ci3T: writing curriculum's new, reading curriculum, and science will be new next year.

Too many things at once made teachers less likely to embrace the new model because it felt overwhelming to implement it along with their other responsibilities. They did not see Ci3T as a framework within which new curricula would be integrated; it was viewed as something separate.

> I think a lot of it too, just like you were saying, with all of the things that were implemented last year it was just kind of like one other thing. It's not Ci3T's fault. It's just our district putting so much on each teacher that it's like, "Oh My Gosh! I can't do this too!"

Lack of time is not a new finding and is frequently cited as a barrier to reform (Berhrstock-Sherratt & Rizzolo, 2014). Time is a precious resource for teachers and it is almost always a commodity of which there is not enough.

Discussion

Findings indicated teachers are deeply concerned with student behavior and classroom management, even when implementing a multipart reform that included other components. Changing teachers' practice in managing behavior will require more than the introduction of new strategies. Moving from a reactive to a proactive classroom management approach is not only a question of skill acquisition, but requires a cultural and theoretical shift as well. Teachers' beliefs about punishment and what constitutes acceptable behavior are deeply engrained and arise partly from the structural constraints of schooling itself as well as from societal beliefs about punishment. Findings demonstrated not only do some teachers rely on punitive measures to control student behavior, but they genuinely believe punishment to be an appropriate response that will teach students how to navigate the "real" world in the future. This is not surprising given the long history of sanctioned punishment in schools. In Colonial America, headmasters used a switch or a cane to discipline children and, to the present day, corporal punishment is still vigorously debated. Stunningly, it is legal to use corporal punishment in 19 states (Gershoff & Font, 2016), and it is only recently the American Pediatric Association unequivocally denounced the use of parental spanking to control children's behavior (Sege & Siegel, 2018) due to the negative cognitive, behavioral, emotional, and psychosocial outcomes it portends for children who experience it. Although the vast majority of schools have moved away from physical punishment as a primary means of managing students, Stearns and Stearns (2017) document how shaming, another punitive measure, has been used for decades to control students' behavior, despite ample evidence of its harmful effects.

Even fairly recent practices are punishment-based, such as the Zero Tolerance policies of the 1990s where students who broke school rules faced mandatory penalties (Teske, 2011). The approach was modeled on the "broken window"

theory of police enforcement where even the smallest infraction, such as panhandling, was handled by arrest. It was thought that attending to lesser crimes would deter more serious crimes. Originally, school-based Zero Tolerance policies required the expulsion of any student who brought a weapon to school, yet many states passed laws that went further, requiring suspension or expulsion for other offenses, such as fighting, drugs, smoking, defiant behavior, tardiness, and even truancy (Gregory et al., 2010). This was the beginning of what is now called the school-to-prison pipeline (Berlowitz et al., 2017; Skiba et al., 2014), which illustrates how harsh and inequitable school discipline promotes serious negative outcomes for students including incarceration (Fabelo et al., 2011).

Some forms of school punishment alienate students from school while others literally exclude them (Nieto & Bode, 2012). Over 3 million students were suspended from school in 2011–2012 (National Center on Educational Statistics, 2018), with Black males suspended at a rate twice as high as any other group. The pipeline begins as early as preschool; the 2016 National Survey of Children's Health shows that more than 200 preschoolers are suspended every day (Data Resource Center for Child and Adolescent Health, 2016).

However, the very organization of schooling may constrain teachers and students in ways that make punishment a rational, if undesirable, choice. In the 1960s, Philip Jackson conducted thousands of hours of observations in classrooms and, in his book *Life in Classrooms*, described the experiences of children in schools (Jackson, 1990). He identified ubiquitous conditions that shape students' experiences, which are still relevant today. One is that students are taught in fairly large groups, which means they are always in competition for the teacher's attention, a scarce and valuable commodity, and teachers are continually managing many students at once—an inherently tension-producing condition that may cause teachers to rely on classroom management methods that work immediately, even if they are counterproductive in the long run. A related condition is the power relation between students and teachers. Students may feel subject to a teacher's power, while teachers worry about maintaining control in the classroom, a justifiable concern, given one adult is managing the needs of many students.

There are other constraints that affect teachers and students and how they relate to one another in the classroom. For example, high-stakes accountability (von der Embse et al., 2016) may reduce teachers' tolerance for behavior issues because they are pressured to cover academic curriculum and must adhere to district pacing guides for instruction (David, 2008). There is little time available for working with students whose behavior is more challenging. The physical conditions of some classrooms are not conducive to learning; some are too small, in poor condition, or inappropriately designed (Tanner, 2008). Many teachers do not have adequate classroom and instructional supplies and materials. A 2018 report from the National Center on Educational Statistics shows that 94% of public school teachers use their own funds for classroom supplies. While stressful or challenging work conditions may not be a direct cause for a punishment-based stance to classroom management, they leave teachers with less time and energy to devote to learning and practicing new pedagogies, making it more efficient to rely on familiar practices. This may be especially likely as teachers report feeling underprepared by their preservice programs to use effective classroom management strategies (Cooper et al., 2018).

Increased Attention to Negative Effects of Aversive Techniques

Although implementation of this Ci3T model included training in classroom management and behavioral strategies, it appears that more information about the deleterious consequences of punishment was needed. Changing from a reactive to a proactive classroom management and behavior system requires attention to teachers' beliefs about school discipline as well as to technical considerations such as training and availability of time. Teachers may be able to adopt PBIS strategies more quickly and successfully with a deeper understanding of the negative effects of punishment. It may also help them reassess culturally held beliefs that could be impeding their ability to change disciplinary practices. In addition, teachers may benefit from knowing that changes in student behavior can take longer than expected, but gains in prosocial behavior can grow exponentially over time if all teachers in a school use a positive orientation. Initially, student growth/change is likely to be incremental and not immediately visible.

Second, teachers may benefit from more training related to ABA. While the field of special education has relied on ABA for a variety of intervention approaches addressing functional, academic, and behavioral outcomes, and many teachers use group contingency behavior management systems (Chow & Gilmour, 2016), some educators hold a negative view of using ABA techniques in education settings (e.g., contrived, complex, and controversial; Pennington, 2018). However, the use of ABA in education is focused on proactive, reinforcement-based approaches to counter the use of arbitrary or inconsistent discipline (Trump et al., 2018) that in some cases has led to the inequitable treatment of students of color (Skiba et al., 2002). Professional development that helps teachers understand reinforcement and its relation to intrinsic motivation may also be helpful in dispelling myths about ABA principles and encourage teachers to see how it can be adapted to their own teaching practice.

There is evidence that even as the wider society changes its norms about punishment-based discipline, schools are slow to follow (Middleton, 2008; Stearns & Stearns, 2017). A combination of structural conditions and historical traditions may create less than optimal conditions for the adoption of new reforms, including innovative systems for managing behavior, despite teachers' strong interest in the topic. Educational leaders who implement reforms such as Ci3T must be aware of extant norms, as well as the organizational structures and institutional conditions that are significant barriers to new practices.

Implications for Practice

Despite the difficulties teachers shared about using a proactive approach to behavior management, they felt the Ci3T model held promise for improving student outcomes. Some teachers pointed out that once they were fluent in using the new strategies, they could more easily see the benefits of using the model. Similarly, when teachers saw changes in student behavior, it motivated them to use positive behavior intervention and support techniques more consistently.

Unsurprisingly, teachers' opinions about adopting Ci3T echoed well-established findings in the literature about school reform. For example, teachers saw the use of data as essential in shifting beliefs about the efficacy of the model. When their school sites examined school-level data and saw positive changes in the outcome variables, it swayed those who initially did not believe that the new methods would work. In a study by McIntosh and colleagues (2018), a strong predictor of the use of school-wide positive behavioral interventions, was a school's use of data to improve implementation. This is similar to findings by Andreou et al. (2015) who documented how the use of data was an important factor in sustaining implementation of school-wide PBIS.

Teachers believed the principal's leadership was crucial in the adoption of new practices. Although Ci3T was a district-wide endeavor, participants had widely varying experiences with school site leadership. Some had principals who encouraged teachers to persist even when implementation was difficult, whereas others said that their principals undermined the model. Teachers were unequivocal in stating that when a principal did not support the initiative, it would not be implemented with fidelity at the site. It is the principal who communicates the importance of adopting new practices (Dolph, 2017) and participants in the study noted how their enthusiasm was sparked when their principal demonstrated excitement and support for the model. Principals have discretion over allocation of resources, including how time is spent and providing access to professional development. Effective leaders have what has been referred to as "resource influence," or the ability to lobby for, and secure, needed resources (Hoy & Tarter, 1997). Perhaps most importantly, the principal has both the authority and the obligation to lead a school's efforts to adopt reform practices. This is an important consideration for district-level administrators. As part of Ci3T training and implementation practices, district leaders must educate principal leaders during the hiring and onboarding processes to ensure that they are prepared to lead systems change efforts.

Finally, the need to understand the local context cannot be overemphasized when bringing reform to scale. Interventions or models that work in isolation or in a controlled setting are subject to significant stressors when implemented at the school or district level. Awareness of how a reform unfolds in a specific school or district is instrumental in adapting it to meet the needs of the students, teachers, and the community. As demonstrated in this study, closer attention to teachers' beliefs about the theoretical underpinnings of the model, and cultural norms in conflict with it, might have resulted in smoother adoption of the PBIS components.

Limitations and Future Directions

This study was conducted to better understand teachers' perceptions of using a Ci3T model in one district. This limits the generalizability of the findings. The experiences of these teachers may be quite different from teachers in other districts who have implemented a tiered model of support. For example, the teacher participants were predominately White, as were the majority of students in the district. Approximately, the proportion of economically disadvantaged students was 40% and that of English learners was 8%. Teachers in urban or rural districts with a different composition of students may not share the same perceptions about managing student behavior or may have completely different concerns when implementing a tiered model. Further inquiry is needed to explore teachers' views in other geographic locales and with a broader range of educators.

With all research, validity is essential in ensuring the integrity of the findings. In this study, we sampled participants by including those with both high and low levels of implementation fidelity to increase the opportunity for diverse opinions about the district-adopted tiered model. Teachers held a variety of perspectives in response to the questions we posed, but student behavior was a common area of concern in all of the focus groups. This is reflected in the literature where classroom management and issues about school discipline are popular topics in both research and practitioner journals. However, it is possible that our sampling method resulted in less diverse perspectives rather than more.

Conclusion

Student behavior is a perennial concern for educators, so it is not surprising that it surfaced as a theme when asking

teachers about their experiences implementing a reform model that included a behavioral component. What was surprising was the intensity of educators' concerns about using behavioral strategies premised on ABA. When implementing new models of reform, a significant barrier may be cultural norms that shape school practices as well as the better understood barriers such as lack of time and the need for strong leadership.

Appendix

List of Interview Questions

1. How would you define CI3T to someone who doesn't know what it is?
2. Describe your part in implementing the CI3T model at your school.
3. What was your administrator's role in CI3T?
4. What was the most difficult part of CI3T for you personally?
5. Describe some of the strategies you used for promoting student engagement.
6. How would you characterize the general perceptions of using CI3T at your school site at the beginning?
7. Did perceptions change over time?
8. How did your school site use data to inform your decisions about students?
9. What were the most difficult challenges experienced by teachers at your school site?
10. How lasting do you think the results of CI3T will be at your school site?
11. What were the biggest changes that occurred at your school site as a result of CI3T?
12. On a scale of 1 to 10 (10 being the hardest), how difficult was it for your site to implement CI3T?
13. If you were to redesign the program, what changes would you suggest?
14. What were the biggest changes you noticed in students after implementing CI3T?
15. How would you explain this program to parents?

Note. Ci3T = comprehensive, integrated, three-tiered model of prevention.

Authors' Note

Opinions expressed herein are those of the authors and do not necessarily reflect the position of the U.S. Department of Education and such endorsements should not be inferred.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported in part by an Institute of Education Sciences Partnership Grant (R305H150018).

ORCID iDs

Holly M. Menzies https://orcid.org/0000-0002-0270-4656

Kathleen Lynne Lane https://orcid.org/0000-0001-6364-838X

David James Royer https://orcid.org/0000-0003-2882-1049

Eric Alan Common https://orcid.org/0000-0003-3775-9013

References

Altus, E. K. (2009). A case study in the misrepresentation of applied behavior analysis in autism: The Gernsbacher lectures. *The Behavior Analyst*, *32*(1), 205–240.

Andreou, T. E., McIntosh, K., Ross, S. W., & Kahn, J. D. (2015). Critical incidents in sustaining school-wide positive behavioral interventions and supports. *Journal of Special Education*, *49*(3), 157–167. https://doi.org/10.1177/0022466914554298

Austin, C., Vaughn, S., & McClelland, A. (2017). Intensive reading interventions for inadequate responders in grades K–3: A synthesis. *Learning Disability Quarterly*, *40*(4), 191–210.

Berhrstock-Sherratt, E., & Rizzolo, A. (2014). Everyone at the table. *Educational Leadership*, *71*(5), 64–69.

Berlowitz, M. J., Frye, R., & Jette, K. M. (2017). Bullying and zero-tolerance policies: The school to prison pipeline. *Multicultural Learning and Teaching*, *12*(1), 7–25.

Bernhardt, V. L. (2015). Toward systemwide change. *Educational Leadership*, *73*(3), 56–61.

Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2010). Examining the effects of schoolwide positive behavioral interventions and supports on student outcomes. *Journal of Positive Behavior Interventions*, *12*(3), 133–148.

Brantlinger, E., Jimenez, R., Klingner, J., Pugach, M., & Richardson, V. (2005). Qualitative studies in special education. *Exceptional Children*, *71*(2), 195–207.

Castro-Villarreal, F., Rodriguez, B. J., & Moore, S. (2014). Teachers' perceptions and attitudes about Response to Intervention (RTI) in their schools: A qualitative analysis. *Teaching & Teacher Education*, *40*, 104–112.

Chow, J. C., & Gilmour, A. F. (2016). Designing and implementing group contingencies in the classroom: A teacher's guide. *Teaching Exceptional Children*, *48*(3), 137–143.

Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied behavior analysis* (2nd ed.). Pearson Prentice Hall.

Cooper, J. T., Gage, N. A., Alter, P. J., LaPolla, S., MacSuga-Gage, A. S., & Scott, T. M. (2018). Educators' self-reported training, use, and perceived effectiveness of evidence-based classroom management practices. *Preventing School Failure*, *62*(1), 13–24.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). SAGE.

Dane, A. V., & Schneider, B. H. (1998). Program integrity in primary and early secondary prevention: Are implementation

effects out of control? *Clinical Psychology Review*, *18*(1), 23–45. https://doi.org/10.1016/S0272-7358(97)00043-3

Data Resource Center for Child and Adolescent Health. (2016). *National survey of children's health*. http://childhealthdata.org/learn/NSCH

David, J. L. (2008). Pacing guides. *Educational Leadership*, *66*(2), 87–88.

Dolph, D. (2017). Challenges and opportunities for school improvement: Recommendations for urban school principals. *Education & Urban Society*, *49*(4), 363–387.

Fabelo, T., Thompson, M. D., Plotkin, M., Carmichael, D., Marchbanks, M. P., & Booth, E. A. (2011). *Breaking schools' rules: A statewide study of how school discipline relates to students' success and juvenile justice involvement*. The Council of State Governments Justice Center. https://csgjusticecenter.org/wp-content/uploads/2012/08/Breaking_Schools_Rules_Report_Final.pdf

Flay, B. R., Allred, C. G., & Ordway, N. (2001). Effects of the positive action program on achievement and discipline: Two matched-control comparisons. *Prevention Science*, *2*(2), 71–89.

Fuchs, D., & Fuchs, L. S. (2017). Critique of the National Evaluation of Response to Intervention: A case for simpler frameworks. *Exceptional Children*, *83*(3), 255–268.

Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *Qualitative Report*, *20*, 1408–1416.

Gershoff, E. T., & Font, S. A. (2016). Corporal punishment in U.S. public schools: Prevalence, disparities in use, and status in state and federal policy. *Social Policy Report*, *30*, 1–37.

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, *8*, 597–606.

Gregory, A., Skiba, R. J., & Noguera, P. A. (2010). The achievement gap and the discipline gap: Two sides of the same coin? *Educational Researcher*, *39*(1), 59–68.

Hatfield, G. (2001). *Behaviorism and naturalism* (IRCS Technical Reports Series 22). http://repository.upenn.edu/ircs_reports

Horner, R. H., & Sugai, G. (2015). School-wide PBIS: An example of applied behavior analysis implemented at a scale of social importance. *Behavior Analysis in Practice*, *8*(1), 80–85.

Hoy, W. K., & Tarter, C. J. (1997). *Road to open & healthy schools: A handbook for change*. Corwin Press.

Individuals with Disabilities Education Improvement Act of 2004, 20 U.S.C. 1400 et seq. (2004). (reauthorization of Individuals with Disabilities Education Act 1990).

Institute of Education Sciences. (2018). *Request for applications: Research networks focused on critical problems of policy and practice in special education* (CFDA 84.324N). U.S. Department of Education.

Jackson, P. W. (1990). *Life in classrooms*. Teachers College Press.

Kansas State Board of Education. (2016). *Kansas building report card*.

Kozleski, E. (2017). The uses of qualitative research. *Research & Practice for Persons with Severe Disabilities*, *42*(1), 19–32. https://doi.org/10.1177/1540796916683710

Lane, K. L. (2009a). *Ci3T treatment integrity: Direct observation* [Unpublished instrument]. http://www.ci3t.org/measures

Lane, K. L. (2009b). *Ci3T treatment integrity: Teacher self-report* [Unpublished instrument]. http://www.ci3t.org/measures

Lane, K. L., & Menzies, H. M. (2002). The effects of a school-based primary intervention program: Preliminary outcome. *Preventing School Failure*, *47*, 26–32.

Lane, K. L., Menzies, H. M., Ennis, R. P., & Oakes, W. P. (2015). *Supporting behavior for school success: A step-by-step guide to key strategies*. Guilford Press.

Lane, K. L., Menzies, H. M., Oakes, W. P., & Kalberg, J. R. (2019). *Developing a schoolwide framework to prevent and manage learning and behavior problems* (2nd ed.). Guilford Press.

Lane, K. L., Oakes, W. P., Crocker, J., & Weist, M. D. (2017). Building strong partnerships: Education and mental health systems working together to advance behavioral health screening in schools. *Report on Emotional & Behavioral Disorders in Youth*, *17*, 93–101.

Lane, K. L., Oakes, W. P., & Menzies, H. M. (2014). Comprehensive, integrated, three-tiered (CI3T) models of prevention: Why does my school—and district—need an integrated approach to meet students' academic, behavioral, and social needs? *Preventing School Failure*, *58*, 121–128. https://doi.org/10.1080/1045988X.2014.893977

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE.

Maxwell, J. (2013). *Qualitative research design: An interactive approach* (3rd ed.). SAGE.

McIntosh, K., & Goodman, S. (2016). *Integrated multi-tiered systems of support: Blending RTI and PBIS*. Guilford Press.

McIntosh, K., Kelm, J. L., & Canizal Delabra, A. (2016). In search of how principals change. *Journal of Positive Behavior Interventions*, *18*(2), 100–110.

McIntosh, K., Mercer, S., Nese, R., Strickland-Cohen, M., Kittelman, A., Hoselton, R., & Horner, R. (2018). Factors predicting sustained implementation of a universal behavior support framework. *Educational Researcher*, *47*(5), 307–316. https://doi.org/10.3102/0013189X18776975

McIntosh, K., Mercer, S. H., Hume, A. E., Frank, J. L., Turri, M. G., & Mathews, S. (2013). Factors related to sustained implementation of schoolwide positive behavior support. *Exceptional Children*, *79*(3), 293–311.

McIntosh, K., Mercer, S. H., Nese, R. N. T., Strickland-Cohen, M. K., & Hoselton, R. (2016). Predictors of sustained implementation of school-wide positive behavioral interventions and supports. *Journal of Positive Behavior Interventions*, *18*(4), 209–218.

McIntosh, K., Predy, L. K., Upreti, G., Hume, A. E., Turri, M. G., & Mathews, S. (2014). Perceptions of contextual features related to implementation and sustainability of school-wide positive behavior support. *Journal of Positive Behavior Interventions*, *16*(1), 31–43.

Messenger, M., Common, E. A., Lane, K. L., Oakes, W. P., Menzies, H. M., Cantwell, E. D., & Ennis, R. P. (2017). Increasing opportunities to respond for students with internalizing behaviors: The utility of choral and mixed responding. *Behavioral Disorders*, *42*(4), 170–183. https://doi.org/10.1177/0198742917712968

Michael, J. (1985). Behavior analysis: A radical perspective. In B. L. Hammonds (Ed.), *The master lecture series:*

Vol. 4. Psychology and learning (pp. 99–121). American Psychological Association.

Middleton, J. (2008). The experience of corporal punishment in schools, 1890-1940. *History of Education*, *37*(2), 253–275. https://doi.org/10.1080/00467600701607882

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE.

National Center on Educational Statistics. (2018). *Public school teacher spending on classroom supplies*. https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018097

Nieto, S., & Bode, P. (2012). *Affirming diversity: The sociopolitical context of multicultural education* (6th ed.). Pearson Education.

Oakes, W. P., Lane, K. L., Cantwell, E. D., & Royer, D. J. (2017). Systematic screening for behavior in K-12 settings as regular school practice: Practical considerations and recommendations. *Journal of Applied School Psychology*, *33*, 369–393.

Oakes, W. P., Lane, K. L., Royer, D. J., Menzies, H. M., Buckman, M. M., Brunsting, N. C., Cantwell, E. D., Schatschneider, C., & Lane, N. A. (2019). Elementary Teachers' self-efficacy during initial implementation of comprehensive, integrated, three-tiered models of prevention. *Manuscript in review*

Pearson Education. (2011). *Scott Foresman reading street*.

Pennington, R. (2018). Special issue on behavior analysis in education. *Teaching Exceptional Children*, *50*(6), 319–320. https://doi.org/10.1177/0040059918776161

Pierce, D. W., & Cheney, C. D. (2017). *Behavior analysis and learning: A biobehavioral approach*. Routledge.

Pinkelman, S. E., McIntosh, K., Rasplica, C. K., Berg, T., & Strickland-Cohen, M. K. (2015). Perceived enablers and barriers related to sustainability of school-wide positive behavioral interventions and supports. *Behavioral Disorders*, *40*(3), 171–183.

QSR International. (1996–2015). *NVIVO©*.

Rolfe, G. (2006). Validity, trustworthiness and rigour: Quality and the idea of qualitative research. *Journal of Advanced Nursing*, *53*, 304–310.

Romer, N., Green, A., & Cox, K. (2018). Educator perceptions of preparedness and professional development for implementation of evidence-based practices within a multi-tiered system of supports. *School Mental Health*, *10*(2), 122–133.

Sailor, W. S., & McCart, A. B. (2014). Stars in alignment. *Research and Practice for Persons with Severe Disabilities*, *39*(1), 55–64. https://doi.org/10.1177/1540796914534622

Sege, R. D., & Siegel, B. S. (2018). Effective discipline to raise healthy children. *Pediatrics*, *142*(6), 1–10. https://doi.org/10.1542/peds.2018-3112

Seidman, I. (1998). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. Teachers College Press.

Shavelson, R. J., & Town, L. (Eds.). (2002). *Scientific research in education*. Center for Education, Division of Behavioral and Social Sciences and Education, Committee on Scientific Principles for Educational Research, National Research Council.

Simonsen, B., Freeman, J., Goodman, S., Mitchell, B., Swain-Bradway, J., Flannery, B., . . . Putnam, B. (2015). *Supporting and responding to student behavior: Evidence-based classroom strategies for teachers*. Office of Special Education Programs.

Skiba, R. J., Arredondo, M. I., & Williams, N. T. (2014). More than a metaphor: The contribution of exclusionary discipline to a school-to-prison pipeline. *Equity & Excellence in Education*, *47*(4), 546–564. https://doi.org/10.1080/10665684.2014.958965

Skiba, R. J., Michael, R. S., Nardo, A. C., & Peterson, R. L. (2002). The color of discipline: Sources of racial and gender disproportionality in school punishment. *Urban Review*, *34*(4), 317.

Stearns, P. N., & Stearns, C. (2017). American schools and the uses of shame: An ambiguous history. *History of Education*, *46*(1), 58–75. https://doi.org/10.1080/0046760X.2016.1185671

Tanner, C. K. (2008). Explaining relationships among student outcomes and the school's physical environment. *Journal of Advanced Academics*, *19*(3), 444–471.

Teske, S. C. (2011). A study of zero tolerance policies in schools: A multi-integrated systems approach to improve outcomes for adolescents. *Journal of Child and Adolescent Psychiatric Nursing*, *24*, 88–97. https://doi.org/10.1111/j.1744-6171.2011.00273.x

Trump, C., Pennington, R., Travers, J., Ringdahl, J., Whiteside, E., & Ayres, K. (2018). Applied behavior analysis in special education: Misconceptions and guidelines for use. *Teaching Exceptional Children*, *50*(6), 381–393. https://doi.org/10.1177/0040059918775020

Umbreit, J., Ferro, J., Liaupsin, C., & Lane, K. (2007). *Functional behavioral assessment and function-based intervention: An effective, practical approach*. Prentice Hall.

von der Embse, N. P., Sandilos, L. E., Pendergast, L., & Mankin, A. (2016). Teacher stress, teaching-efficacy, and job satisfaction in response to test-based educational accountability policies. *Learning and Individual Differences*, *50*, 308–317.