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Teaching self-management strategies to upper-elementary students: Evidence of promise from the *We Have Choices* program

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Abstract

Student behavior problems in general-education classrooms present a major barrier to effective teaching. Behavior challenges, such as disruptions, noncompliance, and peer conflicts, reduce instructional time, whereas prosocial behaviors, such as paying attention, being ready to work, asking for help, participating in class, and completing homework, improve academic performance. Most interventions developed to address student behavior problems were not designed for general-education students in typical classrooms. The purpose of this paper is to present preliminary results from a novel intervention developed to enhance behavioral self-management skills among all upper-elementary students in general-education classrooms. *We Have Choices*, a universal intervention, was designed to increase students' capacity to make appropriate behavioral choices and decrease teachers' responsibility by transferring behavior management to students. An initial randomized controlled trial with 86 fourth- to sixth-grade teachers and 2055 students suggested that *We Have Choices* was associated with improvements in

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student-reported use of self-management strategies, teacher-reported student prosocial behavior, and teacher-reported self-efficacy in behavior management and instruction. Teachers gave the program high scores for social validity, suggesting a good fit for their classrooms.

KEYWORDS
self-management, social skills instruction, noncognitive skills, academic behaviors, upper elementary, experimental design

1 | INTRODUCTION

Due to societal expectations and the pressures of high stakes achievement testing, preparing students to make academic progress can place teachers under substantial stress (Valli & Buese, 2007). Student behavior challenges, such as disruption of instruction, noncompliance with teacher directions, and conflicts with peers, often lead to loss of precious instructional time both for the whole class and for students removed from the classroom (Mendez & Knoff, 2003; Skiba & Knesting, 2001). Reduced student academic achievement (McIntosh et al., 2006) and teacher burnout and turnover are often unfortunate side effects of these pressures (Brouwers & Tomic, 2000). Not surprisingly, teachers identify student behavior problems as one of the top barriers to effective instruction (The New Teacher Project, 2013). This manuscript describes an initial study of a universal student self-management curriculum for upper-elementary school classrooms. *We Have Choices* teaches upper-elementary students eight teacher-preferred classroom behaviors to support academic success (e.g., paying attention and focusing on tasks) and then gradually transitions the management of those behaviors from the teacher to the students.

In upper-elementary and middle schools, students' peer relationships, self-esteem, and school connectedness become critical predictors of later school success (Thapa et al., 2013; Tobin et al., 1996). As students mature and move from elementary to middle school, they begin to assert their autonomy by taking ownership of decisions affecting their future (Güroğlu et al., 2009; James & Prout, 2015). During this transition, their inappropriate behavior tends to increase in severity (Chin et al., 2013), with increased rates of disciplinary exclusions (Losen & Martinez, 2013) and a greater risk of school dropout (Kokko et al., 2006). At the same time, general-education teachers experience a decreased ability to prevent inappropriate behavior through classroom management (Ryan et al., 2015).

1.1 | Impact of classroom behavior on student achievement

Researchers have long recognized the importance of the skills and behaviors that support student learning. These skills or behaviors have been called academic behaviors, academically related behaviors, skills for learning, noncognitive skills, or "*academic enablers* (i.e., skills, attitudes, and behaviors that are related to academic achievement but are not academic skills per se)" (DiPerna & Elliott, 1999, p. 223). Researchers have indicated that interpersonal skills (e.g., following rules, getting along with peers; DiPerna, 2006), engagement (e.g., asking for help, participating in class; DiPerna, 2006), motivation (e.g., focusing on tasks, motivated to learn; DiPerna, 2006), study skills (e.g., completing homework; Dignath & Büttner, 2008; DiPerna, 2006), self-regulated learning (Zimmerman, 2002), growth mindset (Dweck et al., 2014; Dweck, 2006), and perseverance (Duckworth et al., 2007; Dweck et al., 2014) can reduce problem behavior, increase access to academic instruction, and increase academic performance (see also Farrington et al., 2012; Hersh & Walker, 1983; Lane et al., 2004; Wigelsworth et al., 2016).

The literature includes multiple conceptual models of noncognitive factors or social-emotional learning skills that increase the likelihood of school success (Collaborative for Academic, Social, and Emotional Learning, 2012, 2015; Durlak et al., 2011; Farrington et al., 2012; Jones & Bouffard, 2012). In particular, Farrington et al. (2012) have argued that a positive mindset, social skills, academic perseverance, and learning strategies are critical for academic performance—likely even more so than cognitive variables, such as intelligence quotient (Duckworth & Seligman, 2005; Dweck et al., 2014). According to Farrington et al., "academic behaviors have the most immediate effect on students' course grades" (p. 6). The growth mindset espoused by Farrington et al. and others (e.g., Dweck, 1999, 2006) implies that academic behaviors, social skills, and academic perseverance can be learned and reinforced through effort and practice. Students can improve their capacity to pay attention, ask for help, participate in class, focus on tasks, get along with peers, manage feelings, and do their best work. When they do so, those should lead to improved academic and social outcomes.

1.2 | Student self-management

The capacity for students to make appropriate behavioral choices is greatly enhanced when students learn to manage their behavior. Self-management in the educational context comprises students' ability to take responsibility for their academic and social behavior in the classroom and academic behaviors outside of school (e.g., homework). Self-management aligns closely with constructs such as self-discipline and self-control but focuses on strategies (Zimmerman, 2002) for students to monitor, evaluate, regulate, and reinforce their own behaviors (Briesch & Chafouleas, 2009). Student self-management interventions hold promise for increasing appropriate student behavior (Dalton et al., 1999; Young et al., 1991) and decreasing teacher stress, although "the broad range of self-managed components identified was also striking" (Briesch & Chafouleas, 2009, p. 107).

Elements of student self-management programs often include goal-setting, self-monitoring, self-reinforcement, self-charting, and self-evaluation (Duckworth et al., 2007; Mooney et al., 2005; Wigfield et al., 2011). These elements promote students' ability to make positive choices and improve awareness and sense of responsibility for behaviors that support academic success (Mitchem & Young, 2001; Shapiro & Cole, 1994; Wehmeyer et al., 2000). Self-management instruction also has benefits for special populations. It can reduce disruptive behavior and improve academic outcomes for students with emotional disorders (Mooney et al., 2005). Improved self-management increases readiness to learn for students with behaviors typical of attention deficit hyperactivity disorder (Gureasko-Moore et al., 2006). It can also successfully include students with intellectual disabilities in general-education classrooms (Koegel et al., 1999; Wadsworth et al., 2015).

Students benefit from learning and self-management skills across age and ability levels (Briesch & Chafouleas, 2009; Durlak et al., 2011), but improved self-management and other skills for learning may be essential in early adolescence (Anthony et al., 2021). Upper elementary represents a time in students' lives that precedes decreases in motivation (Anthony et al., 2021), self-efficacy, self-management, and social awareness (Soland, 2021). "Diminished study skills may be an early indicator of nascent underlying motivational decreases" (Anthony et al., 2021, p. 26) and reduced engagement (e.g., Wang & Eccles, 2011) in later adolescence. Managing specific study skills, such as homework completion, also becomes more critical in upper elementary as the quantity and quality of homework begin to shift. In upper elementary, and more so in middle school, students receive more homework, and the homework focuses more on academic content than in elementary school (Muhlenbruck et al., 2000). Hence, reinforcing study skills and teaching self-management may help prevent declines in later grades.

1.3 | Interventions for improving student self-management

Despite the importance of student self-management, few existing social-emotional interventions incorporate vital self-management components. Most research on self-management programs has targeted special populations

rather than general-education classrooms and included only a small number of students ($N = 1–8$; Briesch & Chafouleas, 2009). Researchers have targeted students with attention deficit hyperactivity disorder, behavior disorder, severe emotional disorder, or learning disability (e.g., Hansen et al., 2014; Lee et al., 2007; Mechling, 2007; Wehmeyer et al., 2000). Many self-management interventions occur outside the typical classroom, with evaluations based on small samples and nonrigorous research methods (Mooney et al., 2005). Existing programs are often time-intensive and teacher-directed (Chafouleas et al., 2012), increasing instead of decreasing teacher burden. Rather than self-monitoring on their own, students follow teacher prompts to self-monitor, self-record, or self-reinforce a target behavior selected by the teacher.

A few studies with limited samples have tested self-management interventions in general-education classrooms among students not having diagnosed disabilities. Moore et al. (2013) reported positive results from a self-management intervention with three students who had low task completion rates and attendance. Chafouleas et al. (2012) also found favorable results among all students in three eighth-grade classrooms who had received a self-management intervention featuring self-rating, self-charting, and reinforcement. A study by Mitchem and Young (2001) indicated that a classroom-wide peer-assisted self-management intervention increased on-task behavior for 10 target students and the class.

The available literature recommends (a) the development of more programs designed and tested within entire classrooms to benefit all students (Briesch & Chafouleas, 2009; Mitchem & Young, 2001), (b) a greater emphasis on student self-directed rather than teacher-directed programs (Briesch & Chafouleas, 2001; McDougall, 1998), and (c) more-rigorous research designs (Mooney et al., 2005). The present study addressed all three recommendations by evaluating a universal intervention that emphasizes student self-direction in a rigorous cluster-randomized controlled trial.

1.4 | Intervention design for *We Have Choices*

The *We Have Choices* universal intervention directly responds to the gaps identified in the literature for the critical upper-elementary grades. It was developed (a) for all students in a classroom and to provide support across a continuum; (b) to be student-centered by explicitly, gradually, and systematically transferring behavior management from teacher to students; and (c) to have high social validity for the needs of upper-elementary students. To implement *We Have Choices*, teachers receive a brief training and all necessary materials, and classroom delivery requires about 45 min per week for 9 weeks for its core instruction. Teachers may then choose to provide additional support throughout the rest of the year as needed, typically for students who struggle with self-management. See Section 2 for additional details.

1.4.1 | Intervention overview

We Have Choices has three overall goals: (a) to teach students skills necessary to maximize learning in the classroom, (b) to increase students' awareness of their behavior and, in turn, their capacity to make appropriate behavioral choices, and (c) to reduce teachers' burden by transferring behavior-management tasks from external teacher controls to internal student controls. To achieve these goals, the program includes explicit instruction in student self-management strategies and behavioral skills, tools that support self-management, a classroom practice schedule that fosters progressive independence, and an assessment of student progress.

The program teaches eight classroom skills anchored in the research of Walker and colleagues (Hersh & Walker, 1983; Walker & Rankin, 1983) and the research on academic enablers and noncognitive skills (e.g., DiPerna, 2006; Farrington et al., 2012). The 9-week *We Have Choices* curriculum for general-education upper-elementary settings begins with an introductory video called “The Brain, Where Choices are Made,” which teaches

students how skills practice—for any skill—increases neural connections. In the first week, students learn that as connections strengthen through practice, skills become easier and that if they can choose to practice with effort, their skills will improve.

The remaining 8 weeks focus on using self-management strategies to strengthen eight evidence-based classroom behavioral skills: (a) pay attention, (b) focus on the task, (c) ask for help, (d) do your best work, (e) get along, (f) participate in class, (g) manage feelings, and (h) follow class expectations. Developers based these skills on preferences by teachers (Gerber & Semmel, 1984; Hersh & Walker, 1983; Lane et al., 2012) and their potential benefits for students (Anthony et al., 2021; Foulks & Morrow, 1989). Each week offers students explicit instruction in a new skill through an engaging video, followed by practice routines using self-management tools and strategies. As students progress, they practice an increasing number of skills. Smolkowski et al. (2022) demonstrated that a similar program for early elementary students led to improved student behavior (see also Marquez et al., 2014). *We Have Choices* adds instruction in self-management, teaching students to track their behavior at different times during the day while teachers reinforce students' accuracy in their own self-reports.

1.4.2 | Theory of change

Figure 1 presents the *We Have Choices* theory of the change model, illustrating the links between theory, intervention components, measurement, and intended outcomes. Appropriate classroom behavior, like any skill, requires instruction (Gilbert, 1978; Horner et al., 2005). Because peer influences begin to increase in importance relative to adult guidance for early adolescents, *We Have Choices* videos feature student actors with whom students can easily identify (Bandura, 1986; Meltzoff et al., 2009) who define skills and model examples and nonexamples.

We Have Choices explicitly teaches the behaviors and skills (Archer & Hughes, 2011; Brophy & Good, 1986), resulting in more excellent knowledge acquisition, increased use of social skills, and improved behavior. The core principles of explicit instruction include (a) modeling, (b) effective sequencing, (c) appropriate pacing, (d) opportunities to respond or practice, and (e) reinforcement of correct behavior or correction of inappropriate behavior (Engelmann & Carnine, 1991; Hughes et al., 2017; Sugai et al., 2000). Self-regulation theory also posits that goal setting, planning for achieving goals, and evaluating progress are critical phases of self-regulated learning (Boekaerts & Corno, 2005; Dweck & Master, 2008; Zimmerman, 2002). *We Have Choices* helps students set, monitor, and achieve their goals.

As teachers implement instructional activities, students should increase their self-management of academic and social behaviors (proximal outcomes) and improve their social adjustment and academic performance (distal outcomes). As students improve, teachers are expected to improve self-efficacy for behavior management and social skills instruction (proximal) and manage their classrooms with less burden (distal). Students' success, however, may be moderated by factors such as their initial behavioral skills. Although *We Have Choices* is a universal intervention that sets expectations and creates a common classroom culture around student behavior and self-management, some students who begin with more behavioral challenges may see greater benefit from the program. As students take more responsibility for their own classroom behavior, teachers should require less time managing behavior and find it easier to motivate and engage students for instruction, translating into improved teacher reports of their sense of efficacy in the classroom.

1.5 | Study objectives

The present paper reports the results from an initial investigation, a cluster-randomized controlled trial, of the *We Have Choices* curriculum. *We Have Choices* was specifically designed to fill gaps in research and practice by targeting skills for learning to all upper-elementary students in general-education classrooms and then systematically

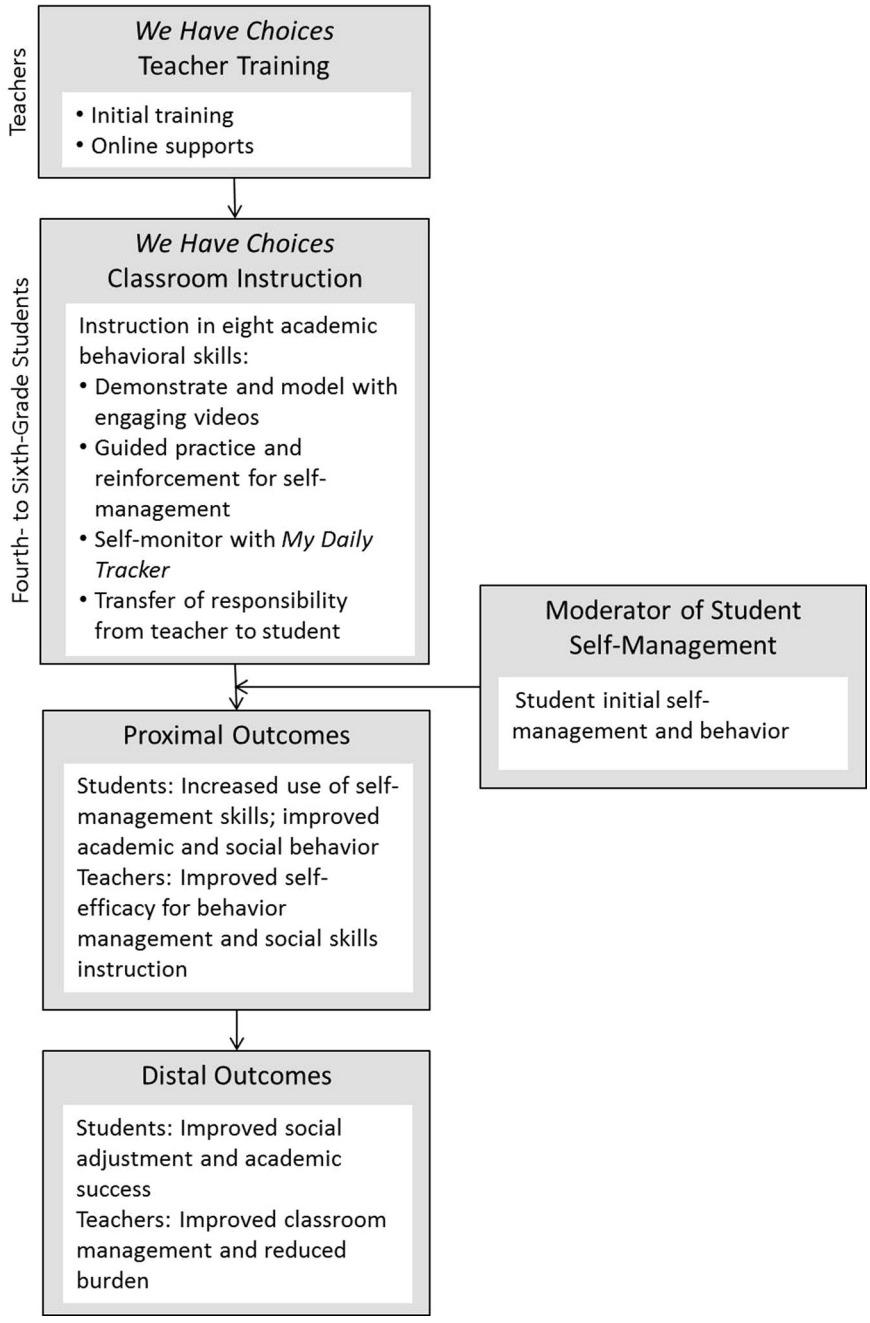


FIGURE 1 The *We Have Choices* theory of change

transferring the management of these behaviors from teachers to students. The following four primary hypotheses drove this experimental study:

1. Teachers implementing the program will report greater self-efficacy for student engagement, instructional practices, and classroom management than teachers in the control condition.

2. Teachers implementing the program will see more substantial gains in their students' appropriate behaviors than the comparison teachers.
3. Students who receive the intervention, relative to the comparison teachers, will self-report more self-management behaviors.
4. Baseline student behavior will moderate condition differences in student outcomes. Specifically, students who begin with more behavioral challenges will demonstrate the most improvement.

To evaluate these hypotheses, we conducted a cluster-randomized controlled trial in general-education, upper-elementary classrooms. The study included a relatively large sample, but teachers were given 9 weeks to deliver the program, which provided only enough time to implement the initial instruction. Teachers did not have time for follow-up activities, such as supporting struggling students or reteaching skills that required more time for students to master. Moreover, in-service days, holidays, and other disruptions kept some teachers from completing all of the lessons before the collection of posttest assessments. Hence, this study may underestimate effects compared with a full-year implementation of *We Have Choices*.

2 | METHOD

2.1 | Study design

Investigators recruited participants from four racially diverse school districts in rural and urban settings—three districts in California and one in Oregon. All fourth–sixth-grade teachers in the districts were invited to participate, and no exclusion criteria were applied. Interested teachers were informed of study requirements and asked for informed consent. We randomly assigned 86 classrooms, with their teachers and students ($N = 2055$), within each school to either receive *We Have Choices* ($n = 44$ teachers and 1038 students) or to a business-as-usual control condition ($n = 42$ teachers and 1017 students). This randomization scheme helped ensure a balance of sociodemographic characteristics across classrooms and schools. The business-as-usual control classrooms provided a real-world comparison of *We Have Choices*. Control teachers were free to implement social-emotional learning, behavior management, violence prevention, conflict resolution, and character development interventions and practices commonly used in schools. Control-group teachers received access to the *We Have Choices* training and program after the evaluation.

2.2 | Participants

Among all teachers, ages ranged from 23 to 63 years ($M = 43.14$; $SD = 10.29$) and experience ranged from 1 to 35 years ($M = 13.86$; $SD = 7.44$). Most teachers had graduate degrees (68.6%), with fewer reporting some postsecondary education (23.3%) and bachelor's degrees (8.1%). Most teachers were white (90.7%). Other ethnicities reported were African-American (2.3%), Asian (2.3%), and multiracial (4.7%); of these, 7.0% of teachers identified themselves as Hispanic. About 43.0% of the teachers taught fourth grade, 38.4% taught fifth grade, 9.3% taught sixth grade, and 9.3% taught in blended classrooms. See Table 1 for participating teacher characteristics by intervention condition.

Demographic information was not collected from student participants. Publicly available information from participating schools indicates that total minority enrollment ranged from 21.5% to 76.5%: white enrollment 23.1%–70.0%, Latino or Hispanic enrollment 12.0%–53.1%, African-American enrollment 0.5%–9.3%, Asian or Pacific Islander enrollment 1.4%–17.6%, American Indian or Alaska Native enrollment 0.4%–1.6%, and multiracial enrollment 1.8%–9.2%.

2.3 | The *We Have Choices* program

The program curriculum incorporates (a) instructional videos for students, (b) the *My Daily Tracker* self-monitoring booklet for students, (c) lesson plans for teachers promoting the systematic transfer of behavior management to students, and (d) an online screening and progress-monitoring tool for teachers to gauge student progress, each described in detail below. The development team created all videos and materials guided by focus groups with educators.

2.3.1 | Instructional videos

Each week's instruction begins with a brief, engaging video that describes the features of each classroom behavioral skill. The first video introduces students to a growth mindset, one of the program's theoretical foundations, and the remaining videos focus on specific skills. In the introductory video, entitled "The Brain:

TABLE 1 Teacher baseline characteristics

Characteristic	Intervention (*N* = 44)		Control (*N* = 42)	
	M or %	*SD*	*M* or %	*SD*
Age (years)	42.43	10.32	43.90	10.33
% Female	88.6		88.1	
Experience (years)	14.59	7.97	13.10	6.86
Educational background				
% Bachelor's degree	75.0		61.9	
% Some postsecondary	15.9		31.0	
% Graduate degree	9.1		7.1	
Race				
% White	97.7		83.3	
% African-American	0		4.8	
% Asian	0		4.8	
% Multiracial	2.3		7.1	
% Latino/Hispanic	6.8		7.1	
Grade level				
% Fourth	45.5		40.5	
% Fifth	36.4		40.5	
% Sixth	13.6		4.8	
% Blended	4.5		14.3	
Training model				
% In person	77.3			
% Webinar	22.7			

Note: TSES, Teacher Sense of Efficacy Scale.

Where Choices are Made," a narrator introduces students to the brain science behind learning. Viewers see examples of athletes, scientists, artists, and tradespeople engaged in their vocations. The narrator points out how neural connections are the building blocks of their skills and how repeated practice, instead of innate ability, strengthens the neural connections that lead to mastery (Rioult-Pedotti et al., 1998). The remaining eight videos present operational definitions of the eight classroom behavioral skills. Catering to preadolescent students' social interests and sensitivities, the videos feature a cast of early adolescent child actors from racially and ethnically diverse backgrounds who take part in a game show. The show's participants compete by watching realistic classroom video clips to identify steps of a specific behavioral skill. Behind the scenes, the game-show producers find themselves in situations where they must practice the given skill. In the video on "managing feelings," contestants identify key steps: "notice how you feel," "list your choices," and "make the choice that leads to a positive outcome." One of the producers then experiences a burst of anger when she notices her colleague has consumed her favorite juice. She admits that she is angry, and deliberates about her choices (e.g., verbally punish her colleague, try to ignore the incident and let it fester, or talk things out with her colleague). She chooses to talk to her colleague, who apologizes. Each video presents a storyline featuring a reality-based use of the skill to strengthen its application. For a 4-min compilation of video clips, see https://youtu.be/BvXD8CmlQFg.

2.3.2 | *My Daily Tracker* self-management booklet

The *My Daily Tracker* booklet guides students through brief and frequent self-management routines each day. Each page provides three sections (Morning Inventory, Skills Practice, and End of Day Inventory). The Morning Inventory is a 3–5-min routine intended to build students' awareness of school readiness, such as how they feel, how many hours they slept, the quality of their breakfast, and whether they were ready for school. The Morning Inventory draws students' attention to their sleep, nutrition, emotions, homework, and other materials. It also allows teachers to quickly take the pulse of their students' inner resources and address identified needs. The Skill Practice section gives students up to five opportunities each day to briefly notice and record their use of a behavioral skill. Each week targets a new skill. As students progress, they rate their use of an increasing number of skills; in the final week, they rate the extent to which they use all eight skills. A checkbox allows the teacher to record agreement with a student's rating and to reinforce accuracy. At the end of each week, students review their data, look for patterns, and reflect on their progress. The My Action Plan pages allow students to identify their strengths and challenges and solve problems based on their own data. Students with more intensive support needs can receive additional practice opportunities, more frequent teacher prompts to use the skill, and more frequent reviews of their self-recorded responses with the teacher. The End of Day Inventory allows students to reflect on what they learned during the day and offers prompts about homework or materials to take home.

2.3.3 | Lesson plans

Nine lesson plans accompany the nine videos. Each lesson plan describes activities to be completed in 1 week and implemented in small daily doses, such as introducing and presenting the instructional videos and discussing their content (10–15 min), guided skill practice (1–3 min, 1–5 times per day), and end-of-week review of student-generated data (5–10 min). The first lesson plan helps students identify their personal goals and reflect on how behavioral skills will help them achieve them. The lesson plans systematically yet gradually transfer management of each skill from the teacher to the students. For example, after receiving instruction on paying attention, students receive multiple opportunities each day to practice applying self-management strategies to pay attention through brief routines using *My*

Daily Tracker. At first, the teacher provides frequent reminders of the operational definition of paying attention and frequent prompts and reinforcement. As the week goes on and the self-management routines become established, *My Daily Tracker* supports students' ability to practice and build awareness of behavioral skills independently. Each week, students learn to manage an additional skill. At the end of the curriculum, they practice, notice, and record their use of a behavioral repertoire intended to increase their school success.

2.3.4 | Screening and progress-monitoring tool

An online classroom screening and progress-monitoring tool, the upper Elementary Social Behavior Assessment (uESBA), was designed to help teachers gauge student progress. The uESBA, derived from the Elementary Social Behavior Assessment (Pennefather & Smolkowski, 2015, Walker et al., 2015), is delivered via an online application called the irisPMT. The 15 uESBA items, grounded in research on social integration mainstreaming conducted by Walker and colleagues (Hersh & Walker, 1983; Walker & Rankin, 1983), map onto the eight skills taught in *We Have Choices* (see measures for details). With the uESBA, teachers can screen entire classrooms or monitor individual students on how well they use the targeted behavioral skills. Results, displayed in color-coded aggregations, allow teachers to easily and quickly determine how well students mastered each skill and which skills or students may require additional instruction, practice, or review. Teachers can assess whether to intensify, maintain, or fade support for a few individuals, perhaps on multiple skills or the whole classroom on one or two skills that most students have not yet mastered (Walker et al., 2015).

2.4 | Measures

Aligned with the *We Have Choices* theory of change, instruments were selected to measure the proximal targets of the intervention. Unless otherwise specified, teachers completed the surveys described below in the 1st and 11th week of the study, leaving the 9 weeks in between to teach *We Have Choices*. All teachers also reported their age, gender, experience, education level, racial or ethnic background, and grade(s) taught at baseline.

2.4.1 | Teacher sense of efficacy scale

Teachers reported their sense of efficacy in providing self-management instruction with the short form of the Teacher Sense of Efficacy Scale (TSES; Tschannen-Moran & Woolfolk Hoy, 2001). On a Likert-type scale from 1 (*nothing*) to 9 (*a great deal*), teachers respond to 12 items, such as "How much can you do to control disruptive behavior in the classroom?," "How much can you do to motivate students who show low interest in school work?," and "To what extent can you craft good questions for your students?" This instrument has shown strong score reliability and construct validity (Tschannen-Moran & Woolfolk Hoy, 2001). Scores relate to a variety of outcomes, including student achievement (Ross, 1992), teacher planning and organization (Allinder, 1994), inclination to refer students to special education (Soodak & Podell, 1993), and commitment to teaching (Trentham et al., 1985). We averaged the 12 items to create a summary score reflecting efficacy in student engagement, instructional practices, and classroom management (α = .90 at pretest and .86 at posttest).

2.4.2 | Upper Elementary School Behavior Assessment

The 15-item uESBA originated from the original, 12-item (early) Elementary School Behavior Assessment (ESBA; Pennefather & Smolkowski, 2015), based on the work of Walker and colleagues (Hersh & Walker, 1983; Walker &

Rankin, 1983). The original ESBA conformed to a single factor, demonstrated high reliability (α = .94–.95), correlated strongly with multiple criterion measures (r > .77; Pennefather & Smolkowski, 2015), and displayed sensitivity to change (Marquez et al., 2014).

The uESBA captures the skills targeted by the intervention and maps directly onto the factors in the theory of change. Teachers rate students on an intuitive 3-point scale: 3 (*skill mastered*), 2 (*needs improvement*), and 1 (*cause for concern*). Example items include "Listens to and respects the teacher," "Follows the teacher's directions," and "Works with effort." The uESBA added three items to the original ESBA: "Completes homework," "Turns homework in on time," and "Participates in class." The summary score for the uESBA, an average of the 15 items, demonstrated adequate reliability (α = .95 at both pretest and posttest in the current study).

2.4.3 | Strengths and Difficulties Questionnaire (SDQ)

The SDQ, teacher form (Goodman, 1997) is a 25-item teacher-report version of a behavioral screening questionnaire for children 4–16 years of age. The SDQ has demonstrated acceptable psychometric properties (Goodman et al., 2010). Teachers indicate on a 3-point Likert-type scale, with 0 (*not true*), 1 (*somewhat true*), and 2 (*certainly true*), the extent to which specific behaviors apply to students. Items include "Considerate of other people's feelings," "Often loses temper," and "Thinks things out before acting." Items were reverse-scored as needed and then averaged to create an overall Total Difficulty scale score (α = .74 at pretest and .73 at posttest in the current study).

2.4.4 | Student self-management for school success survey

Treatment and control students completed a self-report assessment of self-management at pretest and posttest, created for this project to address the eight targeted behaviors. On a Likert-type scale from 1 (*never*) to 5 (*always or daily*), students rate how often they track their behavior in class, what they eat for breakfast, sleep, homework, and moods or feelings. Students also rate how well they perform the eight skills taught by the intervention, using a Likert-type scale from 1 (*not well*) to 4 (*very well*). The items created two scales: Tracking of Behavior (5 items; α = .79) and Use of Skills (8 items; α = .73). Student self-report data were collected in only two of the four districts due to a combination of district administrator decisions and timeline limitations. The sample remained reasonably balanced by condition: 620 students in 27 intervention classrooms and 500 students in 24 control classrooms.

2.4.5 | Social validity and feasibility

Treatment-group teachers completed 23-item posttest surveys developed for this project to assess the social validity of the *We Have Choices* program. They rated their experiences on a Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*) on items, such as "Easy to implement this program," "Satisfied with instructions in lesson plans," and "Video program helped my students." Individual items were reported descriptively.

2.5 | Procedures

Teachers and students in both conditions completed pretest surveys during the first week of the study. Intervention teachers then engaged in a 1-h in-service training session, either in person (n = 34) or online (n = 10) according to their preference with identical content. During the training, project staff described the purpose of the study, reviewed lesson

plans, demonstrated how to teach *We Have Choices*. Teachers in the intervention condition were asked to teach one lesson per week for 9 weeks. In the final week, teachers and students completed posttest surveys.

2.6 | Analyses

Standard or mixed-model (multilevel) analyses of covariance (Murray, 1998), with pretest scores as covariates, were specified to test for condition differences in teacher self-efficacy, teacher-reported student behavior, and student self-reported behaviors. Moderator models for the student outcomes included a term representing the multiplicative interaction of pretest score and treatment group. All models of student data accounted for the clustering of students within classrooms. Given the short duration of the study, just 11 weeks, we experienced minimal attrition (<4%) for students and none for teachers, so analyses were conducted with listwise deletion.

We used the Benjamini–Hochberg procedure to adjust for inflated Type I errors (What Works Clearinghouse, 2020). In response to the recommendations of the American Statistical Association (Wasserstein & Lazar, 2016), we abstained from using bright-line cutoffs for claims of "statistical significance" when $p < .05$, effect sizes, or other statistics. Reported results include Hedges's g values with 95% confidence intervals (CI) to characterize the magnitude of treatment effects and model probabilities (w), described next, along with parameter estimates.

p Values have an interpretation as a measure of incompatibility between the observed data and all statistical model assumptions, including the null hypothesis, H_0 (Greenland et al., 2016; Wasserstein & Lazar, 2016). This cumbersome definition neither informs on which assumptions are incorrect nor the importance of the association. To complement p values and Hedges's g values, we report model probabilities (Akaike, 1973), which describe the strength of evidence for one model when comparing it with others. Akaike weights—also called model probabilities—express the probability of a model given a set of competing models and the observed data (Anderson, 2008; Burnham et al., 2011). They quantify the strength of evidence for each hypothesis, represented by a statistical model, given the data and all other hypotheses (models) tested. For each analysis, we compared models for two hypotheses, one with the intervention effect (H_A) and one without (H_0). We reported the model probability, w, for the model with the condition effect (H_A). With only two models, the model probability for H_0, without the condition effect, is $1 - w$. Hence, $w = .75$ suggests that the probability of H_A is .75 while the probability of H_0 is .25. Interestingly, $w = .75$ is roughly equivalent to $p = .05$, which demonstrates the tenuous nature of "just-significant" results ($p \approx .05$). In such cases, the model for H_A would have an approximately 75% chance of being the best-fitting model. Equivalently, the model for H_A is only three times as likely as the model for H_0 given the two models and data. The weight, w, can also be interpreted as the probability that the same model would be selected with a "replicate data set from the same system" (Burnham et al., 2011, p. 30).

3 | RESULTS

Table 2 provides descriptive statistics, and Table 3 summarizes the results of the efficacy tests for the five dependent variables. We summarize the results for each hypothesis below.

3.1 | Teacher self-efficacy

The two conditions differed moderately at baseline on the TSES measure, $g = -0.25$, 95% CI [−0.67, 0.18], $t_{84} = -1.16$, Benjamini–Hochberg-adjusted p (p_{BH}) = .4132, $w = .40$, favoring the control condition. Controlling for pretest, however, intervention teachers reported greater self-efficacy than control teachers at posttest, $g = 0.37$ [0.04, 0.70], $p_{BH} = .0501$, $w = .78$, a difference just over one-third of a standard deviation between the two groups.

TABLE 2 Descriptive statistics of teacher and student outcomes

Measure	Intervention			Control		
	M	*SD*	*N*	*M*	*SD*	*N*
Teacher Self-efficacy (TSES)						
Pretest	7.17	0.83	44	7.39	0.89	42
Posttest	7.43	0.69	44	7.27	0.77	42
uESBA						
Pretest	2.58	0.51	1038	2.63	0.46	1017
Posttest	2.68	0.43	1038	2.65	0.44	1017
SDQ Total Difficulty						
Pretest	0.34	0.33	1038	0.29	0.31	1017
Posttest	0.28	0.31	1038	0.27	0.31	1017
Tracking of Behavior						
Pretest	2.88	1.19	693	2.77	1.12	627
Posttest	3.92	1.08	692	2.81	1.16	630
Use of Skills						
Pretest	3.22	0.47	690	3.22	0.47	621
Posttest	3.26	0.48	691	3.17	0.52	626

Note: Tracking of Behavior and Use of Skills are both reported by students.

Abbreviations: SDQ, Strengths and Difficulties Questionnaire (teacher reported); TSES, Teacher Sense of Efficacy Scale (teacher self-report); uESBA, upper Elementary Social Behavior Assessment (teacher report).

The model probability suggests the probability of the alternative hypothesis is .78, while the probability of the null hypothesis is about .22, given the two models and the data, so the alternative hypothesis has 3.6 (=.78/.22) times the support of the null hypothesis (Table 4).

3.2 | Student behavior

The teacher-reported uESBA measure differed by a tenth of a standard deviation at pretest, $g = -0.11$ [−0.30, 0.07], $t_{81} = -1.21$, $p_{BH} = .4132$, $w = .43$. The SDQ Total Difficulty scale differed similarly at pretest, $g = 0.12$ [−0.06, 0.31], $t_{81} = 1.30$, $p_{BH} = .4132$, $w = .46$. Both favored the control condition—recall that the SDQ has a negative valence. The posttest uESBA scores, controlling for pretest, were larger for the intervention condition, $g = 0.14$ [0.01, 0.28], $p_{BH} = .0501$, $w = .75$. The effect size, however, was small. We found essentially no evidence of an intervention effect for the SDQ Total Difficulty scale, $g = -0.04$ [−0.16, 0.08], $t_{81} = -0.67$, $p_{BH} = .5072$, $w = .31$.

3.3 | Student self-management

At pretest, students did not differ in their Tracking of Behavior, $g = 0.01$ [−0.23, 0.25], $t_{50} = 0.09$, $p_{BH} = .9301$, $w = .27$, or in their Use of Skills, $g = -0.02$ [−0.22, 0.18], $t_{50} = -0.20$, $p_{BH} = .9301$, $w = .27$. The students who received *We Have*

TABLE 3 Main effect results from mixed-model analysis of covariance with measures of student behavior and teacher efficacy

Statistic or effect	Teacher self-report TSES	Teacher-report uESBA	Teacher-report SDQ Total Difficulty	Student self-report Tracking of Behavior	Student self-report Use of Skills
Model probability (*w*)	.78	.75	.31	>.99	.98
Fixed effects					
Intercept	3.335	.916	.048	1.835	1.080
	(.536)	(.041)	(.014)	(.134)	(.087)
Condition	.270	.063	−.012	1.126	.099
	(.122)	(.030)	(.018)	(.149)	(.029)
Pretest covariate	.533	.662	.743	.358	.647
	(.072)	(.014)	(.013)	(.027)	(.026)
Variances					
Classroom	.316	.015	.006	.239	.003
	(.048)	(.003)	(.001)	(.056)	(.002)
Residual		.076	.031	.876	.161
	(.002)	(.001)	(.038)	(.007)	
ICC		.165	.150	.214	.020
Condition effects					
Hedges's *g*	0.37	0.14	−0.04	1.00	0.20
[95% CI]	[0.04, 0.70]	[0.01, 0.28]	[−0.16, 0.08]	[0.74, 1.27]	[0.08, 0.32]
p Value	.0301	.0401	.5072	<.0001	.0014
B-H-corrected *p* value	.0501	.0501	.5072	.0003	.0035
Degrees of freedom	83	81	81	50	50

Note: Table entries show parameter estimates with standard errors in parentheses except for model probabilities (Akaike weights), intraclass correlation coefficients (ICCs), Hedges's *g* values, and *p* values. The model probabilities indicate the likelihood of the model that contains the condition effect compared with the model without the condition effect given the data.

Abbreviations: B-H, Benjamini–Hochberg; SDQ, Strengths and Difficulties Questionnaire (teacher form); TSES, Teacher Sense of Efficacy Scale; uESBA, upper Elementary Social Behavior Assessment.

Choices, relative to the control students, self-reported higher levels of Tracking of Behavior, $g = 1.00$ [0.74, 1.27], $t_{50} = 7.55$, $p_{BH} = .0003$, $w > .99$, and higher Use of Skills, $g = 0.20$ [0.08, 0.32], $t_{50} = 3.37$, $p_{BH} = .0014$, $w = .99$.

3.4 | Moderators of student treatment effects

Table 3 summarizes treatment-group differences moderated by baseline scores on each respective student outcome. Tests of moderation suggest that intervention differences were moderated by baseline levels for all student outcomes: uESBA, $t_{80} = -4.35$, $p_{BH} < .0001$, $w > .99$; SDQ Total Difficulty scale, $t_{80} = -2.83$, $p_{BH} = .0079$, $w = .95$; Tracking of Behavior scale, $t_{54} = -7.64$, $p_{BH} < .0001$, $w > .99$; and Use of Skills scale, $t_{54} = -2.61$, $p_{BH} = .0188$, $w = .91$. In general, students having more difficulty at pretest showed greater gains due to condition. Note that for

TABLE 4 Moderation results from mixed-model analysis of covariance with measures of student behavior

Statistic or effect	Teacher-report uESBA	Teacher-report SDQ Total Difficulty	Student self-report Tracking of Behavior	Student self-report Use of Skills
Model probability (*w*)	>.99	.52	>.99	.87
Fixed effects				
Intercept	2.638	.283	2.828	3.174
	(.021)	(.013)	(.092)	(.020)
Condition	.062	−.012	1.127	.092
	(.030)	(.019)	(.127)	(.027)
Pretest	.726	.783	.597	.716
	(.020)	(.019)	(.035)	(.034)
Pretest × Condition	−.117	−.075	−.411	−.115
	(.027)	(.026)	(.048)	(.047)
Variances				
Classroom	.014	.006	.193	.004
	(.003)	(.001)	(.043)	(.002)
Residual	.076	.031	.818	.153
	(.002)	(.001)	(.033)	(.006)
Condition effects				
p Value	<.0001	.0059	<.0001	.0188
B-H-corrected *p* value	.0001	.0001	.0079	.0188
Degrees of freedom	80	80	54	54

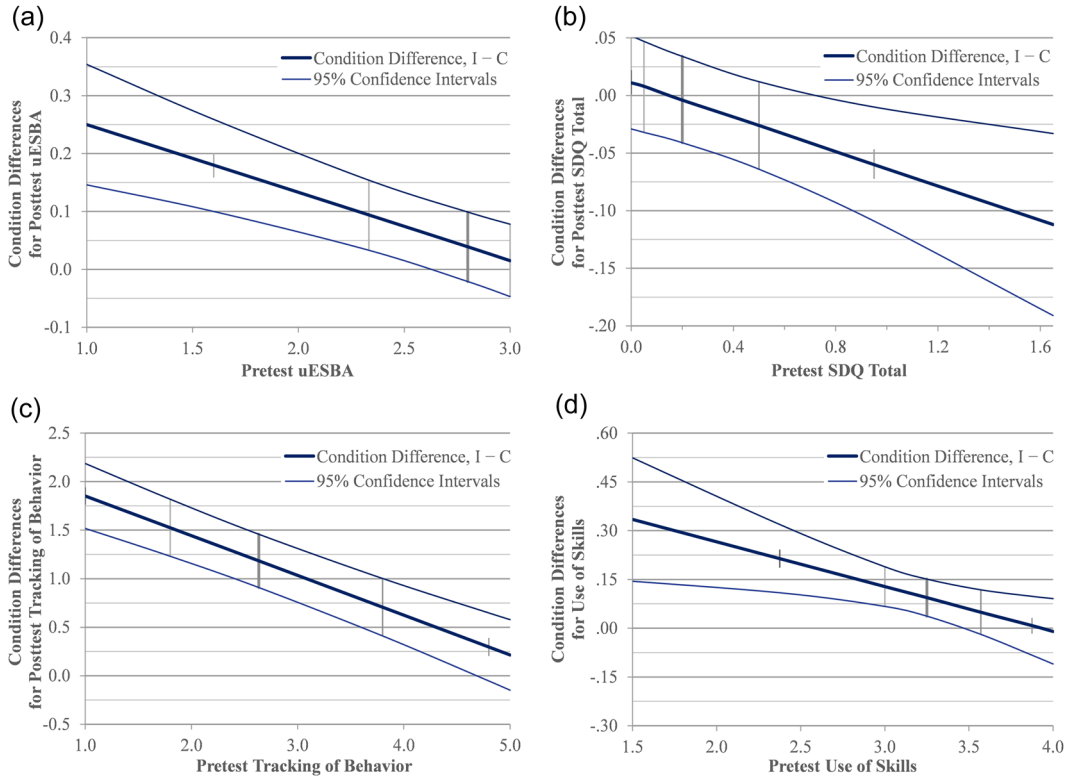
Note: Table entries show parameter estimates with standard errors in parentheses except for model probabilities (Akaike weights), intraclass correlation coefficients (ICCs), Hedges's *g* values, and *p* values. The model probabilities indicate the likelihood of the model that contains the condition effect compared with the model without the condition effect given the data. Pretest covariates for each respective measure were centered at the mean.

Abbreviations: B-H, Benjamini–Hochberg; SDQ, Strengths and Difficulties Questionnaire (teacher form); uESBA, upper Elementary Social Behavior Assessment.

these models, *w* describes the probability for the model with the test of moderation compared with an equivalent model without the Pretest × Condition interaction. The model with the moderation effect was much more likely than the model without it in each case.

Figure 2 illustrates the moderation effects of *We Have Choices*. The graphs show the estimated difference between conditions surrounded by confidence bounds. Each graph depicts the difference between conditions (vertical axis) across the range of the pretest scores (horizontal axis). Zero on the vertical axis represents no difference between conditions. The vertical lines within the graph represent sample percentiles, not unlike a boxplot.

Graph A shows teacher-reported uESBA. The vertical lines show that about 25% of the students received scores below 2.3% and 5% below 1.6. The confidence bounds exclude zero at values of 2.6 or lower, the lower-scoring 40% of the students, which suggests that students below the 40th percentile scored better on the uESBA when exposed to *We Have Choices* than students in the control condition classrooms. In Graph B, for the SDQ Total Difficulty scale, only 14% of students with the most difficulty differed between conditions. Tracking of



FIGUREE 2 Differential response to *We Have Choices* based on student baseline behavior. *Note*: Graphs show the differential response to intervention by baseline student reports of (a) the upper Elementary Social Behavior Assessment, (b) Strengths and Difficulties Questionnaire Total Difficulty scale, (c) Tracking of Behavior, and (d) Use of Skills. The vertical axis shows the difference between conditions—zero on the vertical axis represents no difference between conditions—and the horizontal axis represents the range of pretest scores. The heavy decreasing line depicts the mean difference between conditions at each pretest value. The two thinner, outer lines show the 95% confidence interval around the mean estimate. To show the location of the sample on the graphs, the vertical lines within each figure depict the median (heavier vertical line), 25th and 75th percentiles (thinner long lines), and the 5th and 95th percentiles (short outer lines); vertical lines not shown when sample percentiles overlap. For example, on Graph A, a score of about 2.3 represents the lower 25th sample percentile at pretest.

Behavior, in Graph C, differed between conditions for about 93% of the students. Graph D suggests that about 67% of the students who received *We Have Choices* reported greater Use of Skills than control students.

3.5 | Social validity and feasibility

Table 5 presents posttest social validity mean ratings from teachers who taught *We Have Choices*. Ratings approaching 6.0 reflect positive views. With a mean score of 4.6, teachers reported that they were satisfied, overall, with program components. Most intervention components were rated favorably. Instructions in lesson plans received the highest ratings, while lesson plans' helpfulness was rated lowest. About 84% of teachers said they would recommend the intervention to other teachers and would likely use the program in the future.

TABLE 5 Social validity ratings[a] for teachers who implemented *We Have Choices* ordered by mean rating

Item	*M*	*SD*	*N*
Satisfied with the look and feel of lesson plans	5.88	0.96	43
Satisfied with instructions in lesson plans	5.67	1.25	43
Video program helped my students	5.20	1.05	44
Students satisfied with video program	5.18	1.15	44
Video program helped me teach self-management skills	5.16	1.10	44
Videos were engaging	5.00	1.40	44
Satisfied with video program	4.98	1.42	44
Would recommend *We Have Choices*	4.77	1.33	44
Satisfied with *My Daily Tracker*	4.75	1.28	44
Likely to continue to use *We Have Choices*	4.64	1.37	44
Easy to implement this program	4.61	1.48	44
My Daily Tracker helped me teach self-management skills	4.57	1.23	44
Students satisfied with *My Daily Tracker*	4.55	1.21	44
My Daily Tracker helped my students learn self-management	4.50	1.13	44
My Daily Tracker was engaging	4.36	1.42	44
Satisfied with My Action Plan	4.35	1.19	43
Lesson plans were engaging	4.27	1.26	44
Action plan helped me teach self-management skills	4.02	1.24	41
Action plan was engaging	4.00	1.27	43
Action plan helped my students learn self-management	4.00	1.25	41
Family letter was engaging	3.98	1.26	43
Students satisfied with quality of action plan	3.95	1.22	41
How much lesson plans helped implement *We Have Choices*	3.81	1.01	43

[a]Range = 1 (*strongly disagree*) to 6 (*strongly agree*) for all items.

4 | DISCUSSION

The present study demonstrates that *We Have Choices* was feasible to implement with all students in authentic upper-elementary, general-education classrooms and that teachers generally viewed it positively. The program was associated with gains in teacher-reported self-efficacy in behavior management and instruction, teacher reports of student prosocial behavior, and student reports of self-management strategies. Effect sizes (Hedges's *g*) were reasonable given the short duration provided for implementation. The model probabilities (*w*) implied that the models with the condition effect were more likely than those without, suggesting that *We Have Choices* improved teacher and student outcomes, except for the SDQ measure. These encouraging preliminary findings might have been due to efforts to design a novel, evidence-based approach to self-management that (a) meets the needs of the entire classroom, (b) targets preadolescent students who are beginning to seek autonomy from adults and make their own choices, and (c) emphasizes the systematic transfer of behavioral skill management from the teacher to students. Results generally supported the investigation's four hypotheses, discussed below.

4.1 | Hypothesis 1: Improved teacher self-efficacy

As predicted, teachers who taught *We Have Choices* self-reported greater perceived self-efficacy, which suggests it alleviated some teacher burden in managing student behavior. This finding may have arisen because the self-management intervention facilitated the gradual transfer of behavior management tasks and processes from the teacher to the students. This transfer of responsibility may appeal to teachers who strain to manage the behavior of preadolescent students asserting their independence while delivering academic instruction.

Teachers in the present study seemed to recognize that it was worth investing classroom time for the intervention, given their reports on social validity and observed improvements in their students' behavior. Teachers gave consistently high social validity ratings to the *We Have Choices* approach. They were especially satisfied with the instructions and with the look and feel of the lesson plans. This result is not surprising, as lesson plans were carefully designed and sequenced across days of the week to guide students in acquiring each self-management skill or strategy. Teachers also gave high marks to the video programs for themselves and their students. Teachers were less enthusiastic about the helpfulness of lesson plans for implementing the *We Have Choices* intervention, but this was an intended feature of the program design. The literature emphasizes the need for a close contextual fit for program implementation (Hoagwood et al., 2001; Schoenwald & Hoagwood, 2001), and developers created *We Have Choices* to require minimal training and easy implementation. Teachers gave their lowest ratings to items associated with the action plan. In this short, 11-week trial, however, teachers may have had too little time to engage their students with actions plans fully.

4.2 | Hypothesis 2: Improved Teacher-reported student behavior

As hypothesized, teachers implementing *We Have Choices* reported greater student use of the program's skills than the control group. Students were expected to find the instructional videos and *My Daily Tracker* engaging because program authors collaborated with upper-elementary teachers and students from diverse ethnic backgrounds. The design team convened focus groups and conducted interviews with students to solicit feedback on initial drafts of the materials. Students expressed enthusiasm about the game-show format to teach behavioral skills. The intervention development work and preliminary study outcomes underscore the importance of stakeholder involvement and tailored to meet the intended audience's needs.

The intervention's carefully developed curriculum likely enhanced student behavioral improvements, which relied on evidence-based, direct instruction to teach desirable skills. This emphasis on proactive direct instruction is rarely described in existing self-management research. The *We Have Choices* instructional approach teaches the mechanics of a behavioral skill (e.g., eyes on the teacher for paying attention) and gives students a rationale for using the skill. In this way, students can understand how their new tools help them make positive choices inside and outside the classroom. By explicitly connecting classroom behavioral strategies to students' individual goals, instructional videos increase relevance for students. For example, a student whose goal is to become a soccer player might see that getting along with others is equally important in the classroom and on the soccer field.

Generalization of the skills to the behaviors measured by SDQ, however, was not documented. The SDQ captures emotional symptoms, conduct problems, hyperactive behavior, peer problems, and prosocial behavior. The study design, and the limited implementation duration, in particular, may not have allowed enough time for the skills taught in *We Have Choices* to affect these more general behavioral problems and prosocial activities. Such an optimistic interpretation may not be warranted, however, without further evidence. Other large-scale studies with full-year implementations of social-emotional learning curricula have found only minor differences between conditions on SDQ subscales (e.g., Low et al., 2015, 2016, Hedges's $g < 0.11$). Nonetheless, the present study had intended to demonstrate positive changes in conduct problems, prosocial behavior, and other behaviors but failed to do so.

4.3 | Hypothesis 3: Improved student self-reported self-management

As anticipated, students who received the intervention, relative to the control group, self-reported increased self-management behavior—how well they performed tasks targeted by the intervention (Use of Skills) and how often they tracked their behavior (Tracking of Behavior). The effect size for Tracking of Behavior was quite large (Hedges's $g = 1.00$)—more than a standard deviation difference between treatment groups—and the result is likely to be replicated ($w > .99$). This finding is encouraging, as it suggests that the self-management focus of the intervention was effective. Tracking behavior is a key part of the *We Have Choices* theory of change based on the work of Farrington et al. (2012), which posits that students' increased use of self-management skills, a proximal measure, is a necessary precursor to more-distal social adjustment and academic performance outcomes.

The upper-elementary grades present a promising time for behavioral self-management intervention. Students at this age are beginning to make choices that affect their futures. They are eager to learn skills to help them successfully pursue their own goals and not just satisfy a teacher's classroom behavioral expectations (Güroğlu et al., 2009; Hektner, 2001; James & Prout, 2015). Unfortunately, as students transition into middle school, inappropriate behavior tends to become more severe (Losen & Martinez, 2013). The *We Have Choices* intervention acknowledges students' growing desire for independence and self-direction while recognizing that preadolescent students continue to have various support needs. For students who need help acquiring self-management skills, the intervention provides additional instruction and practice opportunities, slower fading of teacher prompts, and joint student–teacher action planning.

4.4 | Hypothesis 4: Differential response by baseline behavior

As hypothesized, students' success depended in part on their' initial behavioral skills. Student baseline behavior moderated treatment-group differences in respective student outcomes. Students who struggled with skills and behaviors to support learning benefited more from *We Have Choices* than the many initially socially competent students, who likely had little room to grow. This finding implies that the program may be more effective for students with increased support needs, and we further explored the moderation effects in Figure 2. Each graph shows the difference between conditions, calculated as intervention minus control (vertical axis), across the range of pretest scores (horizontal axis). The mean difference between conditions depicted with a heavy line, surrounded by two thin lines indicating the 95% CI, shows that differences occurred for posttest uESBA below the 40th sample percentile, for posttest SDQ Total Difficulty above the 86th sample percentile, for posttest Tracking of Behavior below the 95th sample percentile, and for posttest Use of Skills below the 69th sample percentile.

Although the study demonstrated that some students might have benefited more from *We Have Choices* than others, the result does not necessarily suggest that the intervention should target only struggling students (e.g., Tier 2) in secondary settings. In most cases, more students appeared to benefit from *We Have Choices* than the typical 10%–20% who tend to receive secondary and tertiary supports. *We Have Choices* also introduces a classroom-wide culture, a common language around the use of behavioral self-management skills, and expectations and norms for students' self-management of academic and social behaviors and learning strategies. When delivered in classrooms, the intervention provides opportunities for students to practice skills in the context in which they need to use them and for teachers to give immediate corrective feedback. Peers can also present positive examples. In contrast, interventions provided in a secondary setting, outside of the classroom, may limit students' ability to generalize their skills and behavior to the classroom setting. In addition, teachers' favorable ratings of most program components indicate that *We Have Choices* was a good fit as a universal intervention.

4.5 | Limitations and future directions

The interpretation of results from this first evaluation of the novel *We Have Choices* requires caution due to several limitations. Teachers were not blind to conditions, which may have introduced threats to internal validity. The 11-week study allowed only 9 weeks for teachers to complete the intervention, the minimum required to cover all lessons, with little time to accommodate competing demands on teachers and students, such as academic testing, holidays, field trips, in-service days, and other typical interruptions. Although most teachers agreed or strongly agreed that they were likely to continue to use the program, this inhibited the opportunity to investigate the use and effects of *We Have Choices* beyond 11 weeks.

The pilot study focused primarily on proximal measures of teachers' self-rated efficacy, teacher-reported changes in students' classroom behaviors, and students' self-reported use of academic behaviors and self-management skills. Although the SDQ represents a distal measure, condition differences were not found. This investigation also did not measure distal social and academic benefits of student self-management, such as improved student grades and standardized test scores or a reduced number of suspensions, or direct observations of student behavior. Nor did it examine distal outcomes for teachers, such as improved classroom management or reduced stress.

The study did not include formal documentation of implementation fidelity, a significant limitation. Project staff members maintained frequent but informal contact with teachers, and their anecdotal reports suggested that teachers completed most of the program as intended. Some did not complete the final lesson or two due to the tight timeline. This is consistent with fewer teachers who reported social validity ratings about the action plan introduced in the latter weeks. Nonetheless, we cannot determine if intervention teachers used the program as intended without documentation of teacher progress. *We Have Choices* was designed, however, to be easy and efficient, encouraging program adherence.

This study employed a relatively rigorous randomized controlled design, but additional research is needed to demonstrate the intervention's efficacy fully. Future evaluations should offer teachers more time for implementation, examine additional characteristics that may predict intervention response, and include broader measures for students (e.g., academic performance, social success) and teachers (e.g., classroom management, teaching stress). Most importantly, they should document implementation fidelity and critical markers of effective implementation.

5 | CONCLUSIONS

Despite its limitations, the current study provides evidence of the promise of the *We Have Choices* program. More importantly, it supports and expands prior research by demonstrating that an efficient, universal intervention can affect academic behaviors and self-management skills. It points to the positive impact of enhancing students' social-emotional competencies and self-management practices, consistent with the work of Farrington et al. (2012) and others (e.g., Dweck, 1999, 2006), who have argued for the malleability of student classroom behaviors within a growth mindset. In the present study, teachers saw improvements in their students' behavior. Students reported more tracking and self-management of their own classroom behaviors, such as paying attention, following rules, and managing feelings.

The extant literature demonstrates that self-management interventions can be effective, but most such programs evaluated to date have targeted students with disabilities. Few studies have developed and evaluated self-management programs in general-education classrooms, and small sample sizes and single-subject designs have hampered generalization. The present study builds on the evidence base for the efficacy of student self-management interventions by broadening reach to all students in upper-elementary general-education classrooms, taking a student-centered approach, employing a moderate sample size, and using a relatively rigorous design. The

study demonstrates that classroom teachers can deliver universal social skills and self-management programs, often delegated to school psychologists or other specialists working with subgroups of at-risk students. *We Have Choices* may reduce the number of children at risk and decrease the level of support required by specialists, which may leave more time to focus on students who continue to struggle even after the receipt of the whole-class program.

In summary, results from this preliminary study support the feasibility and promise of the *We Have Choices* multimedia self-management intervention to improve teacher self-efficacy and increase student behavioral self-management in upper-elementary general-education classrooms. This novel approach blends video technology with paper-and-pencil data tracking to assist teachers in instructing students in desirable behaviors. *We Have Choices* explicitly transfers the management burden of student behaviors from the teacher to the students. Future research is needed to replicate and expand these findings. The ultimate goals are to promote students' capacity to self-manage classroom behaviors, improve students' social and academic outcomes, and boost self-efficacy while reducing stress for teachers.

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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