

AN EVALUATION OF WORKING ON WHAT WORKS (WOWW): A SOLUTION-FOCUSED INTERVENTION FOR SCHOOLS

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Working on What Works (WOWW) is a manualized, 10-week classroom intervention based on solution-focused brief therapy. This study evaluates WOWW using a randomized experimental, posttest-only design. The study included 30 fourth and fifth grade classrooms, containing 30 teachers and 413 students. Results indicate no significant differences between WOWW and control groups for student internalizing and externalizing behaviors, student–teacher relationships, student academic performance, or teacher sense of efficacy. However, students in the WOWW group had significantly fewer days absent from school compared with the control group. Additionally, teachers' ratings on WOWW classrooms' performance improved significantly more than teachers' ratings on the control classrooms. Results from this study show that WOWW is a feasible intervention for therapists to use in schools and can be implemented across classrooms in both public and private schools. WOWW has potential to improve student attendance and classroom performance, both of which are important areas of concern for schools.

Schools are important places for family therapists to address the growing mental health needs of children because school systems are often the primary provider of mental health services to families (Metcalf, 2013; Vennun & Vennun, 2013). However, families of children with mental health needs frequently see these needs go unmet, a likelihood that increases with the severity of the conditions and the poverty of the children (Ganz & Tendulkar, 2006). Unmet mental health needs have been linked to a variety of educational concerns, including behavioral, emotional, and attendance problems (Butler & Lynn Platt, 2007; Jaffee et al., 2005; The White House, 2013). All of these issues impact the academic performance of children and adolescents making it important for marriage and family therapists (MFTs) to intervene in school systems.

Rones and Hoagwood (2000) define school mental health as any program or intervention delivered in a school setting aimed at improving students behavioral, emotional, or social functioning. Within the field of school-based mental health, MFTs fill a role that applies a family systems perspective to educational systems and act as a vital part of collaborative mental health teams in schools (Laundy, 2015). Some systems thinkers suggest that in order to thrive and to make the greatest contributions to mental health the MFT field needs to develop theories and techniques that are uniquely relevant to systems other than the family such as schools (Terry, 2002). This

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requires evidence-based interventions that will remain true to systemic principles and integrate seamlessly into the school environment.

Growing evidence from school mental health research shows that the classroom is an important system with significant influence on social, behavioral, and academic outcomes, even when researchers account for family-, individual-, and school-level characteristics (e.g., Barth, Dunlap, Dane, Lochman, & Wells, 2004; Beaver, Wright, & Maume, 2008; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Therapists working in schools are called upon to deliver interventions within the classroom, and teachers are frequently involved collaboratively in the delivery of those interventions (Durlak et al., 2011; Franklin et al., 2017; Franklin, Kim, Ryan, Kelly, & Montgomery, 2012). Because classroom interactions occur in the context of multiple systems, treatment from a perspective that considers complex interactions, symptom maintenance, and dysfunctional patterns in a classroom may be particularly useful for improving academic and mental health outcomes. The organizing principles of classroom-based interventions include three central roles for the therapist: working with the whole class, not just an individual child; considering how a classroom's structure and hierarchy may affect student behavior and learning; and assessing and intervening regarding individual mental health issues within the most directly affected system. Locating treatment in the classroom presents the opportunity for a therapist to observe a problem in the context in which it occurs, assess what classroom interactions and structures may be perpetuating that problem, and intervene directly in a way likely to achieve lasting success.

Over 80% of classroom mental health interventions are based on cognitive behavioral therapy and research on those interventions has generally shown small effect sizes and mixed results for their impact on internalizing and externalizing mental health outcomes (Durlak et al., 2011; Fazel, Hoagwood, Stephan, & Ford, 2014; Franklin et al., 2017). The majority of school-based mental health interventions are tier-1 program delivered by teachers but reviews suggest that there is a need for school mental health interventions that are low burden and that can more easily fit into the normal routines of the school and classroom schedules (Fazel et al., 2014). Current classroom interventions also have some limitations because they are aimed at preventing mild to moderate symptoms of depression, anxiety, and other mental health issues and often do not address the day-to-day concerns of teachers such as attendance problems, tardiness, and classroom disruptions. Reviews of school-based mental health interventions also yield different results across the studies. Durlak et al. (2011), for example, shows that social and emotional learning (SEL) interventions have significant effect sizes in all outcomes (social and emotional skills, attitudes, behavior, and academic performance) for the interventions investigated. In contrast, Franklin et al. (2017) shows a difference in results with reductions in students' internalizing outcomes and nonstatistical significant effects for externalizing outcomes. There was also a difference in outcomes for minority students with the positive results achieved in internalizing outcomes favoring the nonminority students. This shows a need for continued development of classroom and teacher mental health interventions that can fit seamlessly into a classroom. Newer interventions based on theories and perspectives that include promising systemic and relationship interventions may add to the existing behavioral interventions and warrant testing for feasibility and effectiveness.

Working on What Works (WOWW) is a manualized intervention based on solution-focused brief therapy (SFBT) that was developed in 2004 as a collaborative project between SFBT creator Insoo Berg Kim and SFBT expert Lee Shilts (Berg & Shilts, 2005). SFBT—considered one of the brief systemic therapies—was first developed by Insoo Kim Berg and Steve de Shazer at the Brief Family Therapy Center (BFTC) in Milwaukee. SFBT is a strengths-focused, future-oriented intervention that encourages clients to create detailed and specific descriptions of a future in which goals and desired behavioral changes are happening. Studies on the process change of SFBT show that SFBT works through a process of co-constructing meaning along with language and questions aimed at helping clients discover their own solutions (Franklin, Zhang, Froerer & Johnson, 2017). SFBT lends itself extremely well to school-based settings, likely because of its focus on small changes and its portability, adaptability, and flexibility around length of treatment and proven cultural applications (Kim, Kelly, & Franklin, 2017).

WOWW uses the principles of SFBT by helping teachers recognize and develop what is already working in the classroom and empowering teachers and students to set goals that are important within the classroom context. Guided by systemic principles, the WOWW program

helps create systemic change at the level of an individual class by shifting the focus from deficits to strengths. The WOWW intervention does not work with any individual student; instead the intervention is always conducted with the whole classroom, a group of people with a preexisting relationship. The WOWW intervention is always process oriented and relational, emphasizing the connections and interactions between students and teacher. MFTs conducting this intervention are taught to be “process consultants,” curiously and openly observing the system and intervening strategically. The goal of the intervention is to empower members of the system to improve collaboration and recognize the strengths in each other. WOWW has been applied in classrooms in several countries (including the US, Scotland, and the Netherlands), from first grade to high school, in both urban and suburban schools. Several studies have been completed on WOWW in schools and show promising findings.

Studies on WOWW

From the very beginning of WOWW the intervention was grounded in research studies in schools and has consistently produced evidence that it is a feasible and effective classroom intervention. An initial study was completed using data from the school in which WOWW was created and first implemented in Fort Lauderdale, Florida. This first quasi-experimental study on WOWW used data that were collected from WOWW in 12 sixth to eighth grade urban classrooms ($n = 205$, average age = 13 years old, the majority of students were Black; Kelly, Lisco, Bluestone Miller, & Shilts, 2012). In this study, students receiving the WOWW intervention showed significantly fewer excused absences and less tardiness relative to the comparison classrooms. The improved school attendance impressed the school leadership and resulted in the principal requesting that WOWW be continued within the school. Since the beginning of WOWW in Fort Lauderdale, several other studies from different schools have also been completed.

Studies on WOWW show positive findings across three main areas: Improved teacher self-efficacy and competence to manage the classroom, student behaviors, and classroom goals. All studies show that WOWW is well received by teachers and school leaders who are happy with the improvements achieved in the classroom. Kelly and Bluestone-Miller (2009) conducted a pilot, pre- and posttest study of WOWW in the Chicago Public Schools from 2006 to 2008. Statistically significant results from pretest to posttest were found from the analysis of items on the questionnaire including teachers' perception of themselves as classroom managers and teachers' positive beliefs about how students would report their behavior. In nine second grade classrooms in Massachusetts, Berzin, O'Brien, and Tohn (2012) studied the WOWW intervention using a pre- and posttest design. Teachers' sense of efficacy improved in the areas of motivating students, establishing a classroom management system, and adjusting lessons for diverse needs. Teachers reported an improved student ability to “stay on task” and “put forth best effort.” After using WOWW in a Scottish class (aged 5–6 years), Brown, Powell, and Clark (2012) reported positive impacts on behavior and relationships within the classroom and an increased student willingness to work together and help each other. Additionally, according to the authors, teacher ratings for target goals improved and were maintained at a longer-term follow-up. This study was followed up by additional studies that showed that WOWW improved teacher confidence in the classroom (Lloyd, Bruce, & Mackintosh, 2012) and research that found that behaviors and relationships improved among students (aged 7–8 years; Fernie & Cubeddu, 2016). Most recently, the WOWW intervention has been modified for high school classrooms (Torgerson et al., 2016). Preliminary data collection showed that teacher efficacy, student participation, peer and teacher connectedness, and student engagement increased in two classrooms based on the results of standardized measures. Simultaneously, decreases occurred in student disruptive behavior, teacher burnout, and student boredom, frustration, and disengagement.

As noted, most of the studies on WOWW indicated that teacher self-efficacy and competence at classroom management and the individual goals set for the classroom improved. Teachers using WOWW also view their relationship with their students as being better after the intervention. Additionally, student behavior problems such as attendance, absenteeism, and disruptive behaviors improved. Researchers conducting studies on WOWW recommend that additional studies be completed with larger sample sizes using a randomized, controlled experimental design. Researchers also specifically mentioned the benefits of using more standardized measures in future studies.

AIMS OF THE STUDY

This study builds on previous studies of WOWW that have found the intervention to have several promising behavioral and relational outcomes. This study examines similar outcomes as previous studies including teachers' sense of efficacy, teachers' evaluation of their relationships with students, and teachers' assessment of attendance, problem behaviors, and academic outcomes. The current study will build upon previous studies by increasing the sample size of the research participants and using a posttest-only, two-group randomized experimental design to examine teacher and student outcomes on the classroom level.

METHODS

This study examines the effectiveness of WOWW, an intervention based on SFBT that was designed for implementation in classrooms. WOWW is a 10-week intervention that was developed to improve teacher–student relationships and behavioral issues in the classroom (e.g., absences) as well as other concerns of teachers and students. Table 1 describes the three phases of the intervention.

In WOWW, an MFT or other mental health professional serves as a coach or consultant who provides weekly feedback sessions to a classroom on positive progress toward learning goals. In this study, at the beginning of the WOWW intervention, the coach met with the teachers individually to (a) ask the teachers what goals they had for their class, (b) educate the teachers about the purpose and process of WOWW, and (c) answer any questions they had. During each WOWW classroom session, the WOWW coach observed the classroom for 40 min and wrote his or her strength-based compliments either on sticky notes to hand out to the students or on notes for him or herself. After the 40-min observation session, the coach then provided 15–20 min of feedback on what the students and teachers were doing right in front of the whole class. After three sessions of this procedure, the coach assisted the whole class to set goals around which the rest of the feedback would focus. At the end of each session, the coach asked the class to scale their progress toward meeting their classroom goals. The compliments collected during the observation sessions then became increasingly about how the students and the teacher were moving toward those goals over the course of the intervention. The teachers were encouraged to continue this practice throughout the week. Seven additional sessions commenced (one per week), for a total of 10-hour-long classroom sessions. During the course of the WOWW program, the coach continued to meet with the teachers to assess how successful WOWW was being at helping move the classrooms toward the goals. Teachers completed the Target Monitoring and Evaluation form during these sessions and reviewed them with the coaches.

WOWW Training and Fidelity

In the current study four coaches implemented the WOWW intervention. One of the coaches was a master's level licensed associate marriage and family therapist; one was a marriage and family therapy (MFT) PhD student; and two were MFT master's students. All coaches had previously been trained in SFBT as a part of their therapy training and also received an intensive 1-day training by WOWW creator Lee Shilts prior to the beginning of the study. To ensure treatment delivery and monitoring, the first author acted as a supervisor and provided ongoing supervision to the coaches. The supervisor observed two WOWW coaching sessions for each coach to identify treatment implementation issues and held bi-weekly group supervision meetings. During the supervision meetings, the supervisor covered the use of the WOWW manual by the coaches, answered questions, and provided feedback based on her observation to improve the delivery of WOWW and receipt of the intervention by teachers and students. Examples of feedback provided to the coaches include making their compliments to students more behaviorally specific, strategies for making sure each student received feedback during the sessions, and making sure the coaches were able to get the students invested in the classroom goals during the goal-setting sessions. Based on the supervisor's observations, all of the coaches completed the three phases of WOWW and followed the manual.

Table 1 <i>Working on What Works (WOWW) Intervention</i>	
WOWW PROGRAM PHASE	STEPS
<u>Phase 1: Compliments Phase</u> <i>Weeks 1–3: Sessions are about 40 min with the WOWW coach engaged in observation and 15 min for the WOWW coach’s feedback. (NOTE: Timing depends on each school’s schedules.)</i> <u>Phase 2: Scaling phase</u> <i>(Building the rubric for self-assessment) Weeks 4–6: Observe for 25 min or so. Allow 30 min for feedback and discussion.</i> <u>Phase 3: Goal setting</u> <i>Continuing same routine as above WOWW sessions. Weeks 7 – end</i>	1) Introduce yourself to students, saying “I’m going to be visiting your room to watch for all the things the class does that are good and helpful. I will report back to you what I see.” 2) Note class strengths, by giving group and individual compliments to students and teachers. 3) Meet with teacher in a confidential debriefing session to discuss observations and creating classroom goals. 1) Continue giving positive feedback. 2) Define in behavioral terms, “Best Class in _____ School.” (Rubric) 3) Decide on Scaling method, 1–10, 1–5, smiling faces, etc. 4) Discuss “best” classroom and ask, “What would a 10 look like?”, “What would a 5 look like?”, etc. 5) Help students and teacher understand the scaling method and practice scaling at each meeting. Draw consensus from teacher and class and record results every week. 6) Make prediction for next meeting. Discuss what behaviors are needed to improve on scale. 7) Continue debriefing sessions with teachers as needed. 1) Decide with teacher and class which of the behaviors on the rubric need to improve. 2) Choose only 1–2 goals. 3) Encourage teacher to use scaling at least 1X/day and post a chart in class. 4) WOWW Coach continues positive feedback, noticing strengths, amplifying change, and keeping it interesting. 5) New goals can be added when other goals are accomplished or something needs to be changed. (SFBT basic tenet: Do something different if it is not working!) 6) Continue debriefing sessions with teachers as needed.
Source: Kelly, M., Kim, J., & Franklin, C. (2008). Solution Focused Brief Therapy in Schools (pg. 65). New York: Oxford University Press.	

Participants

This study included 30 fourth and fifth grade classrooms, containing 558 students and 30 teachers from 10 schools in San Antonio, Texas. Of these 558 students, 465 agreed to participate in data collection for this study, and complete data were collected on 413 students (N = 413). We

recruited schools from the public, primarily rural schools of the Southwest Independent School District and private, primarily urban schools in the Catholic Archdiocese of San Antonio. Superintendents and principals from each of the 10 schools agreed to allow WOWW in their schools and we offered teachers a \$100.00 incentive to participate. The IRB of the university and school districts approved this study. To ensure accessibility to the study, we translated the informed consents into both English and Spanish.

Research Design

This study used a posttest-only, two-group randomized experimental design and randomized each classroom into either the experimental group, which received the WOWW intervention, or the control group, which did not receive the intervention. This study employed a posttest-only design for practical reasons: (a) the school did not allow frequent presence of researchers to avoid disruptions of school activities, and (b) the posttest-only design required the teachers to fill out the survey only once and therefore avoid causing a burden on the teachers. The researchers conducted randomization in Excel, using the = `RANDBETWEEN(0,1)` function to generate either a 0 (control) or 1 (treatment) for each classroom. We administered self-report surveys to teachers in an online format after the intervention was administered. Surveys were expected to take 45 min to an hour to complete. We compensated teachers \$100 for their time after completing the intervention and submitting the posttest. We also collected teacher report data on behavior, attendance, and whether each student was at or above grade level in math and reading.

Measures

Outcome variables of this study include student-level variables (i.e., student internalizing and externalizing behaviors, student–teacher relationship [closeness and conflict], student attendance, student academic performance [math performance and reading performance]), and teacher/classroom-level variables (i.e., teacher’s sense of efficacy [engagement, instruction, and management] and classroom rating change scores). The independent variable is the intervention condition (1 = WOWW and 0 = control), and control variables include teacher’s years of teaching experience, class size, coach, student race, special education status, English learner status, and family socioeconomic status.

Student internalizing and externalizing behaviors. The researchers used a modified version of the 5-item Student Internalizing Behavior (Teacher/Staff Version) and the 3-item Student Externalizing Behavior (Teacher/Staff Version) to measure student internalizing behavior and externalizing behavior, respectively. These two scales were developed for the Community and Youth Collaborative Institute School Experience Surveys (CAYCI; Anderson-Butcher, Amorose, Iachini, & Ball, 2013). The original version of these scales asked teachers to rate their entire class using items such as “My students are anxious/worried,” “My students are lonely,” and “My students are impulsive.” The revised version of this scale asks about each student individually, modifying the items to “This student is anxious/worried,” “This student is lonely,” and “This student is impulsive.” The same 5-point Likert scale was used from “almost always” to “almost never.” We calculated the internalizing behavior score and the externalizing behavior score by taking an average of the response scores from the five internalizing behavior items and the three externalizing behavior items, respectively. Higher scores indicate a lower level of the behaviors. Data from 723 school staff members from various elementary schools, middle schools, and high schools in Ohio indicated initial support for the good psychometric properties of the original scales (Anderson-Butcher et al., 2013). In this study, the reliability of the Student Internalizing Behavior scale and the Student Externalizing Behavior scale were 0.83 and 0.89, respectively.

Student–teacher relationship. We employed the Student–Teacher Relationship Scale—Short Form, a widely used measure of teachers’ perceptions of their relationships with students, to measure the student–teacher relationship (STRS-SF; Pianta, 1992; Pianta & Steinberg, 1992). The STRS-SF is a 15-item measure completed by the teacher on each student. Two subscales—conflict and closeness—are measured on a 5-point Likert scale from 1 (“definitely does not apply”) to 5 (“definitely applies”). The closeness scale measures the degree to which a teacher experiences affection, warmth, and open communication with a student (eight items; e.g., “I have an affectionate, warm relationship with this child”); and the conflict scale measures the degree to which a teacher

experiences a negative and conflicting relationship, discordant interactions, and a lack of connection with a student (seven items; e.g., “this child easily becomes angry with me”). We calculated closeness and conflict scores by summing the individual scores from their respective subscale items. Possible closeness score ranges from 8 to 40 and higher score indicates higher level of closeness between the teacher and the student. Possible conflict score ranges from 7 to 35, and higher score indicates higher level of conflict in the teacher–student relationship. Studies show that the STRS-SF has good psychometric properties with high reliability ($\alpha = .72-.87$) and validity (e.g., Patrício, Barata, Calheiros, & Graça, 2015; Settanni, Longobardi, Scavo, Fraire, & Prino, 2015; Tsigilis, & Gregoriadis, 2008). The STRS-SF has high reliability in this study ($\alpha = .87$).

Student attendance. Student attendance was measured by teachers’ report and coded as a count variable (number of days absent). No distinction was made between excused and unexcused absences.

Student academic performance. Students’ academic performance variables include math skill (1 = at or above the grade level and 0 = below the grade level) and reading skill (1 = at or above the grade level and 0 = below the grade level). Both variables were based on teachers’ report.

Teacher’s sense of efficacy. We measured teacher’s sense of efficacy with the Teachers’ Sense of Efficacy Scale (TSES; Tschannen-Moran & Hoy, 2001). The TSES is a 24-item self-report measure with three subscales: efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. Participants answer questions such as, “How much can you do to get through to the most difficult students?” and “To what extent can you craft good questions for your students?” on a 9-point Likert scale from “nothing” to “a great deal,” and subscale scores for engagement, instruction, and management were calculated by computing the unweighted means of the items within each factor. The TSES has been found to have good validity and high reliability within the scale ($\alpha=.94$) and each subscale (alphas = .87, .91, and .90, respectively) (Tschannen-Moran & Hoy, 2001). The reliability of TSES was high in this study ($\alpha = .96$).

Classroom rating change scores. At the posttest, teachers were asked to rate their classroom’s general performance at the posttest and at the baseline. Survey items are “On a scale of 1–10, how would you rate your classroom today? (1 being “not so good” and 10 being “the best”)” and “On the same scale of 1 - 10, how would you rate your classroom at the beginning of the year (September)?” Classroom rating change scores were calculated by subtracting the retrospective baseline rating from the posttest rating.

Independent variable. The independent variable is intervention condition, which was coded such that 1 = WOWW and 0 = control.

Control variables. Control variables include teacher’s teaching experience, class size, WOWW coach, student race, special education status, English learner status, and family socioeconomic status. All control variables were based on teachers’ report. The researchers measured teacher’s teaching experience with the number of years that the teacher had been teaching and coded 1 = 0–5 years, 2 = 6–10 years, 3 = 11–15 years, 4 = 16–20 years, and 5 = more than 20 years. Class size is a continuous variable measured with the number of students in the student’s class. Each WOWW coach was assigned an ID number from 1 to 4. The WOWW coach variable was coded 0 for the control group participants who did not interact with any coach and the ID of the coach assigned to one’s classroom for the participants in the WOWW group. Student race was coded such that 1 = Latino or Black and 0 = not Latino or Black. Special education status was coded 1 = in special education and 0 = not in special education. English learner status was coded 1 = English learner and 0 = not English learner. Finally, family socioeconomic status was coded 1 = low-income family and 0 = not low-income family.

Data Analysis

The researchers used SPSS for preliminary analyses and R Studio for the main analysis. We conducted preliminary analyses to summarize descriptive information of participants and to examine whether the randomization of classrooms produced comparable samples. Little’s missing completely at random (MCAR) test was performed using R’s BaylorEdPsych package and the results showed that the null hypothesis that data were missing completely at random could not be rejected ($p = .971$). Main outcome analyses examining the effect of the WOWW intervention on the student level outcome variables used multilevel model analysis with the intervention condition and all

control variables entered as independent variables as well as classroom and school entered as random variables to account for class and school differences (students are nested in classrooms which are nested in schools). We examined the effect of WOWW on the classroom/teacher-level outcome variable (teacher's sense of efficacy and classroom rating change scores) with linear regression models with the intervention condition and the classroom-level control variables (class size, teacher's teaching experience, and coach) as independent variables. We applied log transformation to account for positive skewness (conflict in student–teacher relationship) and reflect and log transformation to account for negative skewness (externalizing behavior, internalizing behavior, and closeness in student–teacher relationship). In addition, we estimated effect sizes for continuous outcomes using Hedges' *g* effect size with Hedges' small sample size correction (noted as *d*) and we estimated effect sizes for binary outcomes using odds ratio (OR).

RESULTS

Descriptive Information

This study recruited 30 classrooms containing 558 students and 30 teachers from 10 schools in San Antonio, Texas. The classrooms were randomized into treatment and control groups, with 15 classrooms in each group. Of the 558 students in these classrooms, 465 agreed to participate in data collection for this study (83% of the total students in participating classrooms). Complete data were collected on 413 participating students (*N* = 413) and no data were recorded for 52 students who agreed to participate in the study, representing a missing rate of 11.2%. No data were collected on 31 students for the following reasons: (a) one teacher failed to complete questionnaires for 17 students in the WOWW group; (b) 12 students were no longer at the participating schools (11 in the control group and one in the WOWW group); and (c) two students in the WOWW group were no longer in the participating classrooms at the time of posttest. Data on 21 students were incomplete and were completely eliminated due to administrative error. We utilized list-wise deletion to handle missing data, given that the missing rate was fairly low and multiple imputation was not feasible due to no data. Table 2 presents the descriptive information of the participating students and classrooms/teachers.

Table 2 <i>Descriptive Information of the Participating Students and Classrooms/Teachers</i> (<i>N</i> = 413)			
	WOWW Group	Control Group	Total
Student level variables	<i>n</i> = 204	<i>n</i> = 209	<i>N</i> = 413
	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
Latino/Black	143 (70.1%)	147 (70.3%)	290 (70.2%)
In special education	14 (6.9%)	23 (11%)	37 (9.0%)
English learner	46** (22.5%)	21** (10%)	67 (16.2%)
Low-income family	37 (18.1%)	27 (12.9%)	64 (15.5%)
Classroom-level variables	<i>n</i> = 15	<i>n</i> = 15	<i>N</i> = 30
	Mean (<i>SD</i>)	Mean (<i>SD</i>)	Mean (<i>SD</i>)
Teacher experience	3.33* (1.40)	2.00* (1.41)	2.67 (1.54)
Class size	15.73** (4.50)	21.20** (3.63)	18.47 (4.88)
<i>Note.</i> Teacher Experience was rated on a 5-point scale with 1 = 0–5 years, 2 = 6–10 years, 3 = 11–15 years, 4 = 16–20 years, and 5 = >20 years.			
<i>SD</i> = Standard deviation.			
*Group difference is significant at <i>p</i> < .05.			
**Group difference is significant at <i>p</i> < .01.			

The majority of the student participants (70.2%) are Latino or Black. Less than 10% of students were in special education. Approximately 16% of students were English learners and about 16% of them were from low-income families. Chi-squared test results show that the WOWW group and the control group were comparable in terms of student race ($\chi^2 = 0.003, p > .05$), special education status ($\chi^2 = 2.17, p > .05$), and family socioeconomic status ($\chi^2 = 2.15, p > .05$). However, the WOWW group has significant more students who are English learners than the control group ($\chi^2 = 12.03, p < .01$). In addition, independent-samples t-test results show that compared with the control group, the teachers in the WOWW group had significantly more teaching experience ($t = -2.60, p < .05$) and the WOWW classrooms had significantly fewer students ($t = 3.67, p < .01$). However, these group differences were accounted for in the main outcome analyses by including the control variables in the models.

Main Outcome Findings

Table 3 shows the postintervention outcomes and results of the significance tests of the effect of WOWW on each outcome. No significant differences were present at posttest between the WOWW and control groups for student internalizing and externalizing behaviors, student–teacher relationship, student academic performance, or teacher sense of efficacy. However, students in the WOWW group were found to have significantly fewer absent days from school compared with the students in the control group, and the WOWW classrooms’ performance ratings improved significantly more than the control classrooms.

DISCUSSION

WOWW is a manualized, brief, 10-week intervention based on SFBT that is specifically designed for use in classrooms. The intervention is strongly rooted in MFT theory and has been used by family therapists since its inception to apply relational practices to the school system. Placing MFTs in schools is an important expansion of systems theory and provides a natural way for systems thinkers to collaborate in an important aspect of child and family life. According to the Family Therapist in Schools Interest Network, MFTs currently practice in schools and are participating in school-based practice through certifications, school contracts, private practice, consulting, collaborative community initiatives, and government funding of school programs (AAMFT, 2020). WOWW offers a solution-focused approach that MFTs can use to improve relationships within the classrooms.

Like other school mental health practitioners, MFTs who practice in schools work with teachers who may collaborate in the delivery of classroom interventions. Specifically, MFTs can use WOWW to help teachers change the classroom system into a more positive learning environment. Serving as coaches in classrooms, MFTs offer the teacher ideas for how to set goals and give compliments that are designed to improve teacher–student relationships and address behavioral issues. WOWW improves student behavior through increasing positive interactions between students in the classroom, and by increasing the teacher–student relationships and the teacher’s skills as an effective classroom manager. Thus, a better functioning classroom system is believed to improve the relationships and behaviors among participants in that classroom. These ideas are very consistent with family systems theory and SFBT concerning the importance of changing relationships, interactions, and hierarchy within the classroom with the teacher’s effectiveness as an adult leader influencing classroom climate and outcomes.

This study involved 30 classrooms, is the first study to examine WOWW with an experimental design, and is the largest study to evaluate the effectiveness of WOWW. The results of this study showed mixed findings based on measures used but also some positive outcomes that are consistent with previous studies. Similar to previous studies (e.g., Kelly et al., 2012), results from this study indicate that WOWW improves the attendance of students in classrooms when compared to classrooms that did not receive the WOWW intervention. Also, similar to Kelly et al. (2012), the current study showed improvements in attendance in classrooms with a large number of ethnic minority participants. The magnitude of WOWW’s effect size for attendance ($d = 0.13$) is consistent with the average effect size found in randomized studies on whole-classroom treatments ($d = 0.18$) (Lipsey et al., 2012). Students in the WOWW group had significantly fewer absent days

Table 3
Post-Intervention Outcomes in the WOWW Group and Control Group, and Significance Tests of the Effects of WOWW, and Effect Size Estimates

	WOWW Group (<i>n</i> = 204) Mean (<i>SD</i>)/ <i>n</i> (%)	Control Group (<i>n</i> = 209) Mean (<i>SD</i>)/ <i>n</i> (%)	<i>b</i> (<i>SE</i>)	Effect sizes <i>d</i> (OR)
Student-level outcomes				
Behavioral outcomes				
Internalizing Behavior Score ^{†,‡}	4.80 (0.38)	4.75 (0.49)	−0.11 (0.09)	0.11
Externalizing Behavior Score ^{†,‡}	4.58 (0.70)	4.37 (0.96)	0.25 (0.17)	0.25
Student–teacher relationship				
Closeness [†]	30.56 (7.46)	33.11 (4.96)	−0.04 (0.51)	−0.40
Conflict [†]	10.54 (5.66)	10.26 (5.60)	−0.14 (0.15)	0.05
# of absent days	2.44 (3.19)	2.83 (2.79)	−0.86* (0.39)	0.13
Student academic achievement				
Math at or above grade level	132 (64.7%)	134 (64.1%)	1.02 (0.73)	1.02
Reading at or above grade level	143 (70.1%)	126 (60.3%)	2.05 (1.31)	1.54
	WOWW group (<i>n</i> = 15) Mean (<i>SD</i>)	Control group (<i>n</i> = 15) Mean (<i>SD</i>)	<i>b</i> (<i>SE</i>)	Effect sizes <i>d</i>
Classroom-level outcomes				
Teacher's sense of efficacy				
Engagement	7.18 (1.00)	6.99 (1.14)	−.07 (0.58)	0.17
Instruction	7.33 (0.82)	7.11 (1.26)	−.03 (0.57)	0.20
Management	7.82 (0.92)	7.53 (1.13)	−.17 (0.52)	0.27
Classroom rating Change score	3.29 (1.73)	1.00 (1.81)	2.75 (0.91)	1.26
<i>Note.</i> Positive effect sizes indicate improvement in the outcome. <i>SD</i> = standard deviation; <i>SE</i> = standard error; <i>d</i> = small sample bias corrected Hedges' <i>g</i> ; OR = odds ratio. [†] Transformed variables. [‡] Higher score indicates a lower frequency of the behaviors. *intervention effect was significant at <i>p</i> < .05.				

from school compared with the students in the control group. This is a particular interesting outcome because the same results were found in the data that were collected from the school in which WOWW was created and first implemented. Based on the results of these two studies, attendance problems in schools may be a promising area for the WOWW intervention and deserve further evaluation. MFTs using the WOWW intervention can help teachers envision how WOWW can be helpful in decreasing absences by increasing positive participation in the classroom.

No distinction was made in this study between excused and unexcused absences in order to avoid degree of parental involvement acting as a confounding variable. However, due to the solution-focused nature of the WOWW intervention and the coregulation that occurs in supportive classrooms, it is likely that an increased level of classroom support would impact both types of absences by decreasing a student's need for stress-related health visits, increasing a family's ability to effectively manage schedules, and improving a child's eagerness to attend school which may encourage parents to schedule appointments outside of class time. Future studies may want to explore any differences between types of absences, as long as a measure of parental involvement could be integrated into the study to eliminate the impact of this variable.

Improvements in the management and climate in the classroom are consistent with theoretical basis of WOWW and are areas that previous studies on WOWW have examined with favorable results (e.g., Berzin, et al, 2012; Brown et al, 2012). This study also found that teachers rated their classrooms as improved compared to teachers that did not use the WOWW. Based on a scaling technique, 1–10, the difference scores between classrooms that received WOWW and those that did not receive WOWW were large. Compared to the retrospective pretest classroom ratings, the WOWW classrooms' posttest ratings improved by 3.29 points, while the control classrooms only saw an improvement of 1 point. This suggests that teachers in this study that used the WOWW intervention perceived their classroom as improved after receiving the WOWW intervention.

This study is the first study to examine the effects of WOWW on student mental health using a standardized measure of internalizing and externalizing behavior. Results, however, did not show changes in internalizing and externalizing behaviors as reported by teachers that filled out the measurement instrument. More similar to the findings in this study, Kelly et al. (2012) found increases in on-task behaviors but no differences in behavioral referrals for conduct problems. In contrast, Brown et al. (2012), Fernie and Cubeddu (2016), and Torgerson et al. (2016) reported decreases in disruptive behavior after the use of WOWW. The differences in findings between this study and others that showed changes in disruptive behaviors may be because the measures were more specific and individualized to students in a classroom. The standardized measure on internalizing and externalizing behaviors used in this study, while an attempt at improving measurement methods from past studies, may not have been a sensitive enough method for identifying the types of behaviors that teachers may notice. Alternatively, WOWW may work better for students with higher behavioral problems, a possibility that could be tested in future studies by comparing WOWW's impact on students based on preexisting behavior problems and in-classroom ratings.

To improve future studies researchers could make use of independent behavioral observations in the classroom that are more sensitive to the context of the classroom and the individual goals set by teachers for desired behavioral changes. While reliable behavioral observations cost more to use, they are more consistent with the classroom goals that are set by teachers as a part of WOWW. Therapist who are acting as coaches on WOWW may also want to add behavioral observations for the behavioral change outcomes set by teachers to better examine the impact of their work.

This study assessed student–teacher relationships and teacher sense of efficacy using two standardized measures but did not find differences between WOWW and the comparison classrooms. These results are different than several other WOWW studies that have shown differences in teacher reports on teacher self-efficacy and on improved relationships between student and teachers after participation in WOWW (e.g., Berzin et al., 2012; Brown et al., 2012; Kelly & Bluestone-Miller, 2009; and Torgerson et al., 2016).

The lack of results in this study on both teacher self-efficacy ratings and student–teacher relationships may be related to the fact that we did not measure the baseline values of the outcome variables and thus cannot control for baseline differences that were not eliminated by random assignment. The results of the outcome measures indicated that both intervention and comparison classrooms scored within normal cutting points for the measures at posttest. Both the WOWW and control groups scored higher than 30 in student–teacher closeness on a scale from 8 to 40, approximately 10 on the student–teacher conflict scale from 7 to 35, and around 7 on all subscales of teacher's sense of efficacy measure (9-point Likert scale). This means that teachers in both groups possessed self-efficacy for teaching their students and good teacher–student relationships. A pretest score would make it possible to better examine the differences that might have been

achieved with the intervention because the intervention and control classrooms may have started in different places to reach these similar posttest findings. Alternatively, the measure chosen may not be sufficiently systemic to capture the impact of WOWW on teacher–student relationships or this impact may have required follow-up at a future time to account for a latent improvement that may have occurred as WOWW principles were more fully implemented into the system. Future researchers may also want to investigate relationship variables and teacher self-efficacy as mediating variables since they are believed to be important to the changes in the entire classroom system and may be associated with subsequent changes in attendance and behavior (Berzin et al., 2012). Other treatment effects, such as strengthened relationships between students, may have been more significantly impacted by WOWW than the ones examined in this study and may warrant inclusion in future studies. Therapists may ask relationship questions to gauge how the WOWW intervention is impacting relationships in the classroom. Therapists could also use confidence scales to examine a teacher's belief concerning his or her effectiveness as a classroom manager.

Most studies on WOWW have not focused on academic performance but this study asked teachers if students scored above or below grade level. Even though there were no statistical differences between the groups at posttest, a higher percentage of WOWW students (70%) had reading scores at or above grade level compared to control group students (60%). Approximately 64% of students had math scores at or above grade level in both groups. Similar to the findings above, without a pretest score it is difficult to examine the differences that may have been achieved if a higher percentage of the students were scoring below grade level at pretest. It is important note, however, that one other study that used a pre- and posttest design to examine grades from school records (Kelly et al., 2012) did not find any differences in grades and to achieve such differences may take a longer period of time than the 10-week intervention. This suggests that therapists using WOWW may want to set smaller steps for improving academic performance and researchers may want to measure these outcomes for longer periods of time as teachers continue to use WOWW in their classrooms.

Limitations of the Study

This study had several limitations that are associated with experimental designs that are implemented in applied settings. First, as indicated, the study's posttest-only randomized design is a limitation because we did not measure the baseline values of the outcome variables. This makes it impossible to control for baseline differences that were not eliminated by random assignment and to assess outcome changes between baseline and posttest. However, the posttest-only design was chosen for practical reasons to avoid disruption of school activities and reduce burdens on teachers. In addition, no school-based pretest data were available due to starting the intervention at the beginning of the school year. All measurements in this study relied on teacher report and while several outcomes were assessed with standardized measures, the use of teacher report may bias the results because only one observer was used to determine outcomes. The reliance on teacher report could have caused respondent burn out, which could negatively impact the accuracy of teacher report and contribute to some of the null findings of this study. In this study, 9% of the posttests were missing and the missing data in the study could impact the results reported. This study did not use a follow-up period in which measures could be given again to examine if the results were maintained over time. Even with the noted limitations, this study is an improvement over past studies on WOWW that did not use a randomized, experimental design.

CONCLUSION

This study shows that WOWW, a classroom intervention based on SFBT, is a feasible intervention for MFTs to use in schools and can be implemented across classrooms in both public and private schools. Guided by systemic principles of change, the WOWW program helps create systemic change in a whole class by changing relationships and shifting the focus from deficits to strengths. Findings from this study indicate that WOWW improves student attendance and teacher perceptions of improvements within their classrooms. The current study builds on previous studies of WOWW that have found it to be an effective intervention that MFTs can use in schools.

This study is the first study to use a randomized experimental design and lays the foundation for future research that can further examine the effectiveness and use of WOWW in schools.

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