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### Authors

Shapiro, VB  
Kim, BKE  
Robitaille, JL  
[et al.](#)

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## **[Running Head: Efficient Implementation Monitoring]**

### **Efficient Implementation Monitoring in Routine Prevention Practice: A Grand Challenge for Schools**

Valerie B. Shapiro, University of California, Berkeley  
B. K. Elizabeth Kim, University of Southern California  
Jennifer L. Robitaille, Devereux Center for Resilient Children  
Paul A. LeBuffe, Devereux Center for Resilient Children  
Kelly L. Ziemer, University of California, Berkeley

#### **Author Notes**

Valerie B. Shapiro, PhD, is an associate professor at the University of California, Berkeley, School of Social Welfare.  
B. K. Elizabeth Kim, PhD, is an assistant professor at the University of Southern California, Suzanne Dworak-Peck School of Social Work.  
Jennifer L. Robitaille, MS, is a research associate at the Devereux Center for Resilient Children.  
Paul A. LeBuffe, MA, is a director at the Devereux Center for Resilient Children.  
Kelly L. Ziemer, LMSW, is a doctoral student at the University of California, Berkeley, School of Social Welfare

Correspondence regarding this article should be directed to Valerie Shapiro, 120 Haviland Hall, Berkeley, CA 94720-7400 or via e-mail to [vshapiro@berkeley.edu](mailto:vshapiro@berkeley.edu)

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#### **Conflict of Interest Declaration**

Valerie B. Shapiro, B. K. Elizabeth Kim, and Kelly L. Ziemer received these data, deidentified, after project completion. Jennifer L. Robitaille and Paul A. LeBuffe coordinated technical assistance for the district under study and supervised the collection of fidelity and outcome data;

they also consulted with PATHS developers on occasion for training and measurement tools. No author of this paper receives any direct financial remuneration from the sale of any of the assessments or resources mentioned within this manuscript.

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## Abstract

**Objective:** Within schools, monitoring of prevention program implementation is needed to achieve prevention objectives, but implementation monitoring is challenging in routine school social work practice. This study sought to verify the implementation–outcome relationship; determine whether implementer characteristics predict participation in implementation-monitoring protocols; and suggest whether implementation monitoring can be streamlined to reduce the number of implementers requiring ongoing monitoring, the number of planned observations per implementer, or the number of items rated within each observation. **Method:** Data are from a district-wide implementation of the Promoting Alternative Thinking Strategies (PATHS) curriculum. Two technical-assistance providers attempted to make 8 observations of 170 classroom teachers across 15 elementary schools while they delivered PATHS. Teacher characteristics, adherence, participant responsiveness, overall implementation quality, and other implementation aspects were observed. Student social–emotional competence was assessed with the DESSA-Mini at 3 time points to verify the implementation–outcome relationship. **Results:** Growth of student social–emotional competence was predicted by the overall quality of PATHS implementation. Teacher compliance with implementation-monitoring protocols declined over time, and teachers who demonstrated an initial commitment to implementation participated more fully in monitoring, regardless of their initial implementation quality. A teacher’s initial implementation quality, however, predicted their long-term implementation quality. Items within a single observation were highly intercorrelated. **Conclusion:** We suggest strategies that individuals who provide implementation support can use to improve teacher participation and reduce inefficiencies in implementation-monitoring protocols.

**Keywords:** prevention, PATHS, implementation, monitoring, social and emotional learning

The American Academy of Social Work and Social Welfare created its grand challenges initiative to “identify ambitious yet achievable goals for society that mobilize the profession, capture the public’s imagination, and require innovation and breakthroughs in science and practice” (Uehara et al., 2013). The resulting Grand Challenge to Ensure Healthy Development for All Youth by Unleashing the Power of Prevention aims to reduce the incidence of behavioral health problems in youth by 20% within a decade through the implementation of effective prevention policy and practice (Hawkins et al., 2015). To achieve population-wide reductions in behavioral health problems, the delivery of effective preventive interventions must become commonplace (Shapiro, 2015).

Some communities provide young people access to effective preventive interventions through school-based services (Bruns et al., 2016). One type of school-based service is a universal (i.e., Tier 1) social and emotional learning (SEL) program (Fagan, Hawkins, & Shapiro, 2015). SEL is “the processes of developing social and emotional competencies in children” such as self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (Weissberg, Goren, Domitrovich, & Dusenbury, 2013, p.9). SEL programs can be cost-beneficial to implement and, when implemented well, have been shown to be effective in achieving a broad array of positive outcomes for youth, including reducing the likelihood of anxiety, delinquency, and truancy, and increasing the likelihood of academic achievement (e.g., Belfield et al., 2015; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Flay & Allred, 2003; Greenberg et al., 2003).

Given that many SEL programs are universal and their outcomes are not just in the psychosocial realm, SEL programs provide role-expansion opportunities for school social workers (Johnson & McKay-Jackson, 2017). When social workers support school-wide and

classroom-wide preventive approaches as recommended in the National Standards for School Social Work Services (National Association of Social Workers, 2012), social workers can increase their reach from 5%–20% to 100% of the school population, helping all students achieve the standards for SEL promoted by the School Social Work Association of America (Lindsey et al., 2014). With this shift from clinical caseworkers to primary prevention advocates, planners, organizational change agents, and consultants for staff behavior change (Frey et al., 2013; Kelly et al., 2010), there are exciting opportunities for school social workers to become central contributors to the Grand Challenge to Ensure Healthy Development for All Youth.

In the performance of each of these roles, there is an explicit expectation that school social workers facilitate the use of evidence-based interventions (i.e., approaches that have been demonstrated to be effective through rigorous scientific studies; National Association of Social Workers, 2012). Fortunately, many effective universal school-based prevention programs now exist for improving student well-being (Shapiro et al., 2013). Yet, effective interventions can be subverted in routine practice through the use of ineffective implementation strategies (Nation et al., 2003). Often, these effective programs are selected without careful consideration of local needs and goals, and they are implemented without requisite time, training, materials, or technical assistance (Hallfors & Godette, 2002). This generally results in students receiving fewer active ingredients or a lower quality dosage than was intended or has been scientifically tested (Gottfredson & Gottfredson, 2002). Because we can only expect positive outcomes when effective practices and programs are implemented well (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005), overcoming implementation barriers is essential to achieving the grand challenge goals.

The proactive monitoring of implementation activities (e.g., training) and outputs (e.g.,

implementer adherence to core program elements, participant responsiveness) has been shown to improve the implementation and outcomes of effective prevention programs (Fagan, Hanson, Hawkins, & Arthur, 2008). Thus, Thompson and Piester (2017) argue that school social workers must collect data that verify and promote the high-quality implementation of the evidence-based interventions they facilitate. Implementation information can be collected by implementer (e.g., teacher), self-report, or by third-party (e.g., social worker) observation, and observations can be live or recorded (Domitrovich et al., 2008). In most direct comparisons, third-party observational data have shown a stronger relationship to outcomes than self-report data (Lillehoj, Griffin, & Spoth, 2004).

Third-party observations of implementation output (henceforth “*implementation observations*”) are most needed in routine practice conditions where implementation fidelity can be difficult to achieve (Lillehoj et al., 2004; Schulte, Easton, & Parker, 2009). Recent studies have estimated that observation-based implementation monitoring is used 28% of the time (Brown, Feinberg, Shapiro, & Greenberg, 2015). Although practitioners may know about the importance of implementation monitoring, many logistical challenges to completing observations exist (Forman et al., 2013). For example, it is not feasible for a third party to document every lesson or moment-to-moment integration of an SEL curriculum into the school day, nor is it easy to observe an ample and truly random sample of these activities. Impromptu schedule changes and weather disruptions are frequently cited as observation challenges (Melde, Esbensen, & Tusinski, 2006). Furthermore, not all teachers are open to third-party observation, particularly when the observations seem evaluative of job performance (Greenberg, Domitrovich, Graczyk, & Zins, 2005; Lillehoj et al., 2004). Missing observations for nonrandom reasons can create a biased sample of implementation data and incorrect conclusions about implementation fidelity.



To avoid this problem, we need to articulate and test models of effective and efficient implementation-monitoring protocols used by third parties in routine practice (Domitrovich et al., 2008). That is, we need *pragmatic* (i.e., relevant and feasible in real-world settings; Lewis, Weiner, Stankick, & Fischer, 2015) protocols for implementation monitoring. Similarly, Schulte and colleagues (2009) recently suggested that

It might be possible to establish the number and length of observation occasions required to be confident that treatment integrity estimates are representative of the entire intervention. At present, we have no empirical basis for deciding how much treatment integrity data are enough. (p.469)

This paper aims to give preliminary guidance to those conducting third-party observations to monitor teacher implementation of evidence-based prevention programs in routine practice. To be clear, the individuals conducting third-party observations range from concerned citizens volunteering through prevention coalitions (e.g., Shapiro, Hawkins, & Oesterle, 2015) to technicians affiliated with university prevention research centers. Despite the implied range of knowledge, experience, and resources brought to the task, it seemed to us that all observers commonly face pragmatic challenges when trying to fulfill the need for implementation monitoring in schools. Although we hope that all individuals who monitor implementation benefit from the research questions we pose, we have intentionally written this paper for social workers. We believe there is an opportunity for school social workers to become SEL leaders, facilitating the implementation of effective universal prevention programs and practices. National School Social Work Survey results (Kelly et al., 2010) indicated that school social workers spend less time on primary prevention than they would like. Finding efficiencies in the implementation-monitoring process may enable more social workers to take up the challenge to unleash the power of prevention.

In this study, we first verified in this data the relationship between overall high-quality

implementation and student outcomes that has been observed elsewhere (Aim 1). Then, to find efficiencies in the implementation-monitoring process, we explored the relationship between certain teacher characteristics and a teacher's full participation in implementation-monitoring protocols (Aim 2). This may guide social workers to proactively support teachers who are at risk for low participation in implementation monitoring. Finally, we explored whether the implementation-monitoring process can be streamlined by reducing the number of implementers regularly observed (Aim 3a), the number of items rated within each observation (Aim 3b), or the number of observations planned per implementer over time (Aim 3c). Results could help school social workers enact implementation-monitoring protocols that are more efficient than the untested guidance that developers or regulators otherwise suggest.

## **Method**

### **Study Description**

Data are from a district-wide implementation of the Promoting Alternative Thinking Strategies curriculum (PATHS; Kusché & Greenberg, 1994). PATHS is an SEL program found to be effective in rigorous studies (e.g., Fishbein et al., 2016; Greenberg, Kusché, Cook, & Quamma, 1995). Blueprints for Healthy Youth Development (Mihalic & Elliott, 2015)—a clearinghouse created to help consumers determine “what works”—lists PATHS as a “model” program. Although PATHS studies suggest that implementation quality is critical to achieving desired outcomes (Kam, Greenberg, & Walls, 2003), research-informed guidance is unavailable to suggest how implementation quality should be monitored.

During the 2011–2012 academic year, 170 teachers of prekindergarten through second grade across all 15 elementary schools in a Pennsylvania school district (targeting approximately 4,000 elementary school students) were trained in PATHS and asked to deliver it in accordance

with the curriculum manual, teaching lessons 1–2 times per week throughout the school year. According to 2011–2012 district enrollment figures, this district had large percentages of ethnic minority students (e.g., 65% Hispanic/Latino) and economically disadvantaged students (80% were eligible for free or reduced-price lunch; Pennsylvania Department of Education, 2012). District data were used for research purposes upon review by the Devereux Foundation institutional review board. Data from 3,629 students (52% male, 64% Hispanic/Latino, 35% per grade across kindergarten through second grade) were included in the present study. Teacher demographic characteristics were not available from the district.

### **Data Description**

Two grant-supported technical-assistance providers (TAs) were hired to support PATHS implementation. Although the two TAs were certified classroom teachers, we suggest that this job could be done by others, such as district or school social workers. The TAs were unfamiliar with PATHS prior to their TA appointment, but they participated in the district’s preservice PATHS professional development and received additional one-on-one training and ongoing mentoring from a master PATHS trainer. Conceptually derived implementation guidelines recommended observing 20% of PATHS lessons as a requirement for state funding (Evidence-Based Prevention & Intervention Support Center, 2011). Therefore, the TAs worked with teachers to schedule monthly classroom observations (eight observations of each teacher during the school year). Thus, the entire population of K–2 classroom teachers was studied.

The proportion of teachers actually observed by the TAs (indicated by the submission of a rating form) averaged 86% over the first six observations and then dropped sharply (Time 1 = 94% of teachers were observed by TAs; Time 2 = 90%; Time 3 = 76%; Time 4 = 86%; Time 5 = 89%; Time 6 = 81%; Time 7 = 48%; Time 8 = 35%). Although not reflective of our method,

Time 8 observation rates drop to 32% if restricted to *complete* protocols during the final observation (Shapiro, Kim, Fleming, & LeBuffe, 2016). The sharp drop in compliance with the implementation-monitoring protocol may be attributable to the time pressures and scheduling challenges associated with high-stakes testing and end-of-year routines (e.g., field trips, award ceremonies). All eight time points are used to answer research questions regarding protocol compliance, but given the large number of missing observations at Times 7 and 8, research questions seeking to examine the stability of ratings over time only consider levels of implementation through Time 6 to limit selection bias.

During each third-party observation, the TAs recorded overall implementation quality, various dimensions of implementation (e.g., adherence, participant responsiveness) and specific teacher characteristics. Following each observation, TAs provided feedback to teachers. Evaluators provided monthly reports of aggregated data to SEL leadership teams.

## **Measures**

**Social–emotional competence.** Teachers assessed students’ social–emotional competence using the DESSA-Mini (Naglieri, LeBuffe, & Shapiro, 2014) at three time points: October (initial), January/February (midyear), and May/June (year-end). The DESSA-Mini is a strength-based (Simmons, Shapiro, Accomazzo, & Manthey, 2016) behavior rating scale used to evaluate youth outcomes in diverse environments, including school (e.g., Shapiro, Kim, Accomazzo, & Roscoe, 2016), after-school (e.g., Shapiro, Accomazzo, Claassen, & Robitaille, 2016), and child-welfare (e.g., Smith, Shapiro, Sperry, & LeBuffe, 2014) settings. The rater reports the frequency (*never* = 0, *rarely* = 1, *occasionally* = 2, *frequently* = 3, *very frequently* = 4) of students’ prosocial behaviors (e.g., do something nice for somebody) over the past 4 weeks. The sum of eight items—transformed into a *T*-score based on national norms—yields a social–

emotional total (SET) score for each student at each time point (Naglieri, LeBuffe, & Shapiro, 2013). DESSA-Mini scores have been shown to be reliable (e.g., Shapiro, Accomazzo, & Robitaille, 2017); sensitive and specific (e.g., Naglieri, LeBuffe, & Shapiro, 2011); discerning between children with and without mental, emotional, and behavioral problems (e.g., Shapiro & LeBuffe, 2006); and predictive of serious disciplinary infractions (Shapiro, Kim, Robitaille, & LeBuffe, 2016) and academic achievement (Chain, Shapiro, LeBuffe, & Bryson, 2017).

**Implementation quality.** TAs completed the 19-item PATHS Monthly Implementation Rating Form (provided by PATHS developers) during each observation. Versions of this measure have been used in previous evaluation studies of PATHS (e.g., Mattera, Lloyd, Fishman, & Bangser, 2013; McMahon & Canal, 1999). For the purposes of this study, 10 of the items were used to examine overall lesson implementation quality, specific dimensions of implementation, and teacher characteristics.

**Overall lesson implementation quality.** TAs used a single item to rate the overall implementation quality of each observed session on a 5-point scale. This item was meant to reflect teacher preparedness, understanding of concepts, content coverage, pacing, and engagement of students during the observed lesson. Each point on the scale had broad anchors (e.g., *no evidence that the teacher is implementing a regular PATHS lesson or its use is significantly flawed [e.g., unprepared, digression from lesson content or poor understanding of concepts, inappropriate pacing, failure to engage students or assess comprehension during lesson] = 1; teacher implements a PATHS lesson weekly, and is exemplary in his or her delivery [e.g., prepared, lesson content covered, understanding of concepts, appropriate pacing, engages students and assesses student comprehension during lesson] = 5*). In estimating the effect of overall implementation quality on the growth of student social–emotional competence, early

implementation quality (the mean of the first three ratings) was used to preserve temporal order between implementation and student outcomes.

***Teacher characteristics and dimensions of implementation quality.*** Nine items from the PATHS Monthly Implementation Rating Form were used to measure specific aspects of implementation. TAs rated all items as *strongly disagree* = 1 to *strongly agree* = 5. Three items assessed *teacher characteristics*: (a) teacher openness to consultation and feedback, (b) teacher commitment to implementation, and (c) teacher engagement with TAs. Prior studies (e.g., McMahon & Canal, 1999) have examined the relationship between teacher characteristics and student outcomes, but not between teacher characteristics and compliance with the implementation-monitoring protocol.

Consistent with the conceptualization of Dane & Schneider (1998), four items assessed *adherence*—the extent to which teachers followed the curriculum guide in implementing lessons and strategies: (a) using PATHS techniques, (b) reinforcing children’s use of PATHS techniques, (c) using PATHS classroom management strategies, and (4) displaying PATHS materials in the classroom. Dane & Schneider (1998) conceptualize student participation and enthusiasm as aspects of *participant responsiveness*, assessed here through two items: (a) student engagement, and (b) student enjoyment of PATHS activities. Alternative conceptualizations (e.g., Century, Rudnick, & Freeman, 2010) and additional dimensions have been suggested for measuring implementation quality (e.g., dosage, differentiation), but were not captured on the PATHS Monthly Implementation Rating Form that was provided by PATHS developers.

### **Analysis Plan**

First, to verify the effect of overall implementation quality on the growth of SET scores (Aim 1), we used multilevel modeling (Rabe-Hesketh & Skrondal, 2012) with random slopes

and estimated the average growth of SET scores over time (Level 1), accounting for variation across students (Level 2) and teachers (Level 3). In other words, the analysis accounted for shared variance in observations over time within the same individual and shared variance in observations for multiple individuals within the same classroom.

Because the remaining research questions used data based on coaches' ratings of teachers, we used two-level models accounting for variation within teachers (Level 1) and within schools (Level 2). To identify predictors of full participation in the implementation-monitoring protocol, we examined the extent to which initial teacher characteristics at Time 1 predicted the number of times (of eight potential observations) that the teacher was successfully observed by a third party (Aim 2). To identify implementers who may not need continuous monitoring (Aim 3a), we examined the extent to which initial teacher characteristics at Time 1 predicted implementation quality at Time 6. To consider reducing the number of items needed within each observation (Aim 3b), we assessed the extent to which individual implementation items predicted overall implementation quality (rated concurrently). Finally, to consider reducing the number of observations planned per implementer (Aim 3c), we estimated the extent to which initial implementation quality items at Time 1 predicted implementation quality at Time 6.

## **Results**

### **Aim 1: Implementation–Outcome Relationship**

Shapiro, Kim, Robitaille, & LeBuffe (2018) reported that students in kindergarten through second grade who were assessed with the DESSA-Mini in this district experienced significant growth in social–emotional competence during PATHS implementation. Current analyses suggest that early overall implementation quality significantly predicted the previously observed growth in social–emotional competence over the year ( $b = .43, p = .003$ ), such that

students gained more social–emotional competence when their teachers implemented PATHS well. In this analysis, approximately 12% (intraclass correlation coefficient = .12) of the variance in student social–emotional competence was attributable to the shared classroom experience.

### **Aim 2: Predicting Participation in Implementation Monitoring**

Of the eight recommended observations, teacher participation in the implementation-monitoring protocol ranged from 2 to 7 completed observations ( $M = 5.99$ ;  $SD = 1.07$ ). Higher initial (Time 1) ratings of teachers' commitment to implementation ( $b = .34$ ,  $p = .001$ ) predicted a greater number of total observations completed. Teachers' initial openness ( $b = .060$ ,  $p = .53$ ), engagement with the TA ( $b = .048$ ,  $p = .68$ ), and initial implementation quality ( $b = .058$ ,  $p = .559$ ) were unrelated to the number of observations completed.

### **Aim 3: Predicting Level of Implementation Quality**

All teacher characteristics observed at Time 1 significantly predicted long-term implementation quality (teacher commitment:  $b = .285$ ,  $p < .001$ ; teacher openness:  $b = .234$ ,  $p < .001$ ; teacher engagement:  $b = .302$ ,  $p < .001$ ) at Time 6 (Aim 3a). All implementation items significantly predicted concurrent implementation quality (Aim 3b), such that teachers with higher adherence and participant responsiveness had higher overall implementation quality at each time point. These findings are consistent with the high internal reliability across adherence, participant responsiveness, and overall implementation quality for each time point ( $\alpha = .82$ – $.91$ ). Furthermore, all initial implementation items significantly predicted long-term implementation quality (Aim 3c), such that higher initial adherence and participant responsiveness at Time 1 predicted higher long-term implementation quality (Time 6). See Table 1 for details.

<Insert Table 1 Here>

## **Discussion**



The Grand Challenge to Ensure Healthy Development for All Youth by Unleashing the Power of Prevention aims to reduce the incidence of behavioral health problems in youth by 20% by making effective preventive interventions commonplace (Hawkins et al., 2015). As schools adopt evidence-based SEL programs in pursuit of this goal, teachers implement SEL curricula, and school social workers shift their work toward primary prevention as SEL coaches, guidance is needed for how social workers can monitor implementation fidelity in routine practice. We sought to determine whether certain teacher characteristics predicted full participation in implementation-monitoring protocols and whether the implementation-monitoring process could be streamlined such that the number of implementers requiring ongoing monitoring, the number of planned observations per implementer, and the number of items rated within each observation could be reduced for the sake of efficiency in routine practice.

As expected, we found that student growth during PATHS implementation was predicted by teachers' overall implementation quality. Previous studies have found a similar relationship between PATHS implementation and student outcomes (e.g., McMahon, & Canal, 1999; Domitrovich, Gest, Jones, Gill, & DeRousie, 2010) in preschool and first-grade samples. This finding reinforces the notion that implementation quality matters and reifies the importance of verifying and promoting implementation quality when social workers facilitate the use of evidence-based interventions in schools. Exactly how high the overall implementation quality needs to be to achieve desired student outcomes is a topic that needs further exploration, ideally across diverse studies of PATHS implementation and effectiveness.

Although proactively monitoring implementation has been shown to improve implementation quality, there are many barriers to implementation monitoring in schools. This is evident in our data, where the rates of teacher participation in the implementation-monitoring

protocol dropped drastically over time. We found, however, that teacher participation in the implementation-monitoring process was predicted by initial commitment to implementation. Therefore, school social workers may be able to determine—upon the first observation—which teachers are at risk for low participation and may be able to proactively intervene to increase commitment to implementation. Lane, Oakes, and Magill (2014) have developed free tools for assessing stakeholder perspectives on prevention programming before and during implementation to determine acceptability of goals, procedures, and outcomes. Frey and colleagues (2013) have suggested that motivational interviewing may be an approach for enhancing teacher motivation to implement interventions.

We also found some prospects for making implementation monitoring more efficient in routine practice. Initial teacher commitment to implementation, engagement with the TA, and openness to feedback predicted long-term overall implementation quality. Therefore, initial observation data might suggest a differential number of observations for different implementers, optimizing and personalizing technical assistance. Additional studies are needed to determine the most appropriate cut score for decision-making and whether the provision of selective or tiered coaching could raise population-levels of implementation fidelity, ultimately raising population levels of student social–emotional competence. Feasibility studies should also explore unintended consequences of personalizing technical assistance, particularly if teachers do not desire additional support or if it stigmatizes recipients. Among other undesirable effects, this could create perverse incentives that jeopardize honest engagement with third-party observers at initial assessment.

We also found that initial adherence and participant responsiveness predicted concurrent and long-term overall implementation quality. Like other studies, we also found high

intercorrelations between items (Domitrovich et al., 2010; Mattera et al., 2013). For the sake of verifying implementation fidelity, it may be sufficient to only rate overall implementation quality without separately rating its component parts. To this point, growth in student social–emotional competence was predicted by only one item averaged across three observations. Alternatively, if monitoring is being used formatively to improve fidelity in real time, school social workers may find the individual items useful for consultation with teachers.

Finally, like other studies of PATHS, we found fairly stable rates of implementation quality over time (e.g., Conduct Problems Prevention Research Group, 2010). Given the consistency of this finding in the research literature, we tentatively recommend that school social workers should plan to conduct fewer than eight observations of each implementer during a single year. Despite good intentions and adequate monitoring resources, not a single teacher in this study was observed eight times. We see little need to chase an elusive and impractical standard. Limiting the required number of observations could enable the crucial step of assessing interobserver reliability, which has not been possible in this or other large studies (e.g., McMahon & Canal, 1999) using the PATHS Monthly Implementation Rating Form.

### **Limitations**

Several limitations and strengths should be considered. Conducting the study under routine practice conditions limited the potential for causal claims but enhanced the study’s utility for informing practice-as-usual decisions. Similarly, we used data collected with forms designed by the developer for practitioner use. Thus, some constructs we could have studied (e.g., quality of the relationship between the student and the implementer, teacher demographics) were not measured, and some that were measured may not have captured all of the nuance with the precision that is optimal for research. On the other hand, our findings may therefore be directly

applicable to social workers using these forms and in need of empirically derived advice for how they might do so successfully. Furthermore, although many implementation studies use school-level cut scores to examine outcome effects (Lillehoj et al., 2004), all implementation variables in this study were treated as continuous and modeled at the classroom level in order to closely observe the natural implementation variance that occurred. Although a multilevel analysis was conducted to account for the nonindependence of observations, this analytic approach may result in biased effect-size estimates that are difficult to interpret based on our conventional criteria. Finally, this paper implicitly assumed that completion rates reflect the rational choices of teachers for how to participate in implementation monitoring. External constraints and the TAs themselves, however, may have shaped completion rates in ways that we did not explicitly study.

### **Implications and Conclusions**

In the “State of School Social Work,” Kelly and colleagues (2010) reflected upon the findings from the National School Social Work Survey and suggested that school social work practice should evolve in two ways. They recommend that school social workers “increase their visibility by enhancing their collaboration with teachers” and “increase their role in prevention activities” (p. 139). However, they caution that although many social workers like the idea of being a prevention specialist and teacher consultant, little evidence exists for how effective school social workers are in these roles. In fact, few papers discuss the role of social workers in the emergence of the multitiered systems of support framework currently shaping schoolwide approaches to learning and behavioral interventions (Avant & Lindsey, 2015). Our study does not resolve this knowledge gap, but it is responsive to it. We believe that we need to give school social workers the tools to conduct this work as a requisite to evaluating their effectiveness in using them.

It is possible that having staff social workers providing SEL leadership—rather than relying on a temporary external agent—could improve the process of sustainable implementation monitoring by ensuring that protocols fit within the local culture and by leveraging long-term relationships for teacher skill development and behavior change. Pilot studies have found that school social workers can evolve their roles to be seen as coaches, consultants, and leaders (Avant & Lindsey, 2015). Ensuring the healthy development of *all* youth requires school social workers to traverse multiple levels of practice, assess students and their environments, and motivate change to facilitate the successful delivery of effective prevention programs (Haggerty & Shapiro, 2013). We hope that this preliminary guidance for efficiently monitoring implementation quality can help school social workers do their part to unleash the power of prevention.

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