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Programme implementation in social and emotional learning: basic issues and research findings

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ABSTRACT

This paper discusses the fundamental importance of achieving quality implementation when assessing the impact of social and emotional learning interventions. Recent findings in implementation science are reviewed that include a definition of implementation, its relation to programme outcomes, current research on the factors that affect implementation, and a framework for understanding the steps, actions and challenges involved in achieving quality implementation. Examples from the social and emotional learning literature are used to illustrate different issues.

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Introduction

The purpose of this paper is to emphasise the fundamental importance of achieving quality implementation when assessing the impact of social and emotional learning (SEL) interventions. It is part of a special issue devoted to social and emotional learning, and is intended to bring readers up to date on recent developments in implementation science. In order to cover as many important issues as possible, the following sections are presented in short question-and-answer formats. The first five sections cover basic issues concerning implementation. These include its definition, major components and importance to effective school programming, the necessity of monitoring implementation during all programme evaluations, and the costs of ignoring implementation. Then, five additional major research findings regarding implementation are briefly discussed. The paper closes with a short discussion of four research priorities for future work. Table 1 lists the 14 major points regarding implementation that are covered here. Space does not permit a full discussion of each point so the reader is referred to numerous other sources for further information (Bopp, Saunders, & Lattimore, 2013; Damschroder et al., 2009; Damschroder & Hagedorn, 2011; Domitrovich et al., 2008; Durlak, 2013, 2015; Dusenbury, Brannigan, Hansen, Walsh, & Falco, 2005; Humphrey, 2013; Lendrum & Humphrey, 2012; Moore, Bumbarger, & Cooper, 2013; O'Donnell, 2008).

Table 1. Fourteen important points concerning implementation.

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1. Implementation refers to the ways a programme is put into practice and delivered to participants
 2. Implementation is a multi-dimensional concept with at least eight related components
 3. Quality implementation is an essential component of effective programmes
 4. Monitoring implementation is an essential element of all programme evaluations
 5. It is extremely costly to ignore implementation
 6. Adaptations are common and may or may not improve programme outcomes
 7. Effective professional development services are essential for quality implementation
 8. Multiple ecological factors affect implementation
 9. There are multiple steps and activities involved in achieving quality implementation
 10. Quality implementation requires collaboration among multiple stakeholders

Four future research priorities

1. Establish methods for accurate and economic assessment of implementation
 2. Clarify which implementation components affect which outcomes
 3. Determine when implementation is 'good enough'
 4. Identify the factors that sustain effective programmes
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Data from reviews and specific studies of SEL interventions are cited throughout this paper. Although the focus is on SEL programmes, the findings and issues discussed here apply to all types of interventions designed to help children and adolescents to include all types of prevention, treatment, family and educational programmes. Because several of the following points are related to each other, they are discussed separately so as to give each one its due.

What is implementation?

Implementation can be generally defined as the ways a programme is put into practice and delivered to participants. In other words, implementation refers to what a programme looks like in reality compared with what a programme is conceived to be in theory. This distinction is important because the literature indicates that the level of implementation that is achieved when programmes are introduced into new settings is far from ideal. There can be a variety of reasons for this. In some cases, school staff may not be well enough trained or prepared to conduct the programme effectively; in other instances, teachers may make major changes to some parts of the intended programme in accordance with their teaching styles, preferences or personal beliefs; and in still other situations, there may be competing administrative, curricular or financial demands that curtail a project before it is finished. Unfortunately, we now know that the failure to achieve an acceptable level of implementation can be a major problem.

Table 2. Definitions of the eight major components of programme implementation.

1. Fidelity: the degree to which the major components of the programme have been faithfully delivered
2. Dosage: how much of the programme is delivered?
3. Quality of delivery: how well or competently is the programme conducted?
4. Adaptation: what changes, if any, are made to the original program?
5. Participant responsiveness or engagement: to what degree does the programme attract participants' attention and actively involve them in the intervention?
6. Programme differentiation: in what ways is the programme unique compared with other interventions?
7. Monitoring of control conditions: in what ways might the control condition mirror or overlap with critical parts of the new programme?
8. Programme reach: how much of the eligible population participated in the intervention?

What are the components of implementation?

Implementation is a multi-dimensional concept and eight components to implementation have been identified (see Durlak & DuPre, 2008). These components are briefly described in Table 2 and consist of fidelity, dosage, quality of delivery, adaptation, participant responsiveness or engagement, programme differentiation, monitoring of control conditions, and, finally, programme reach. These components can overlap and interact with each other. For example, if programme dosage is markedly reduced then the overall level of fidelity that is obtained will be affected. The components given the most research attention to date have been fidelity and dosage, which are often related to better programme outcomes (see Durlak & DuPre, 2008). However, when and how other components of implementation play an important role, such as quality of delivery or adaptation (see below), is an empirical question. As more research is done, we will have a better understanding of the relative influence of different implementation components, and how they interact to influence outcomes.

Why is implementation so important?

Findings from implementation science have confirmed that one of the most important factors affecting programme outcomes is the level of implementation that is achieved (Durlak & DuPre, 2008). With a few exceptions that prove the rule, data indicate that either: (a) stronger outcomes are obtained when implementation is better, or (b) one can fail to achieve desirable outcomes if implementation is poor. Several examples from the SEL literature illustrate this point. For example, in a meta-analytic review of over 200 school-based elementary, middle and high school SEL programmes it was possible to compare the results for programmes that appeared to be well implemented with those that experienced various implementation problems (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). The outcomes were decidedly better for the former programmes. Students in the former programmes demonstrated academic gains that were *twice* as high as those in the latter group (e.g. standardised mean effects of 0.31 versus 0.14); they also showed reductions in

conduct problems that were almost *twice* as large (effects of 0.27 versus 0.15) and reductions in emotional distress (i.e. depression and anxiety) that were *more than twice* as large as students in the latter group (respective effects of 0.35 and 0.15).

In an evaluation of the Australian programme, Kids Matter, an elementary whole-school mental health promotion initiative that involves SEL, the level of implementation was significantly associated with students' academic performance (Dix, Slee, Lawson, & Keeves, 2012). The difference between students in high- and low-implementation schools represented a difference in academic performance that was equivalent to six months of schooling.

In a study of another type of elementary SEL programme, the Child Development Project, Battistich, Schaps, Watson, Solomon, and Lewis (2000) reported consistent positive changes in outcomes related to school bonding and problem behaviours such as drug use and delinquent activity *only* for students who were in five schools in which the programme was well implemented. In contrast, students in seven SEL schools in which programme implementation was poor failed to differ from their control school counterparts on these same outcomes.

Another example of the role that implementation plays in programme outcomes comes from a study of another SEL programme, Responsive Classroom, designed to increase students' social competence and academic achievement (Rimm-Kaufman et al. 2014). In a randomised trial involving 24 elementary schools, there was no overall impact on student achievement between intervention and control schools. However, when the level of implementation was included in the analyses, student gains as reflected in effect sizes related to academic achievement were 0.26 and 0.30 for maths and reading scores respectively. These effects are comparable to those achieved in many educational interventions (Hill, Bloom, Black, & Lipsey, 2008).

The last two studies just reviewed illustrate how ignoring the level of implementation can lead to misleading results and interpretations of programme outcomes (Lendrum & Humphrey, 2012). Without considering implementation, there was no discernible overall impact on students for either the Child Development Project or the Responsive Classroom intervention; one might judge from such findings that these SEL programmes were not effective. However, in each case, additional analyses indicated the important role of implementation. The programmes were associated with student gains when they were well implemented, but not when they were poorly conducted.

Why should implementation be assessed in all programme evaluations?

As the previous examples illustrate, because implementation influences programme outcomes, it follows that we cannot interpret any programme findings accurately without knowing what level of implementation was achieved. This is especially important when the programme has failed to produce any positive outcomes, because this result may have occurred because of poor implementation. The same programme might work very well when it is effectively implemented.

Even with positive programme outcomes, measuring implementation is crucial because these data provide information about what level of implementation was needed to yield positive results, and perhaps how outcomes might be improved with even better implementation. In other words, monitoring implementation is an essential element for all programme evaluations and is necessary for determining a programme's true value. Therefore, we should expend as much care and attention in studying and assessing implementation as is invested

in other qualities of a programme evaluation such as executing the appropriate design, securing and retaining the participant sample, and assessing outcomes (Horner, Howard, Slapac, & Mathews, 2014). Data on implementation have become one required element for determining the quality of research evidence in prevention (Gottfredson et al., 2015).

Why is it so costly for schools if they ignore implementation?

As the previous points illustrate, ignoring implementation makes it impossible to interpret programme effects appropriately. That is, did the programme fail because of poor implementation or was the programme itself ineffective? Lacking good information on implementation, education leaders will not be able to formulate policies or guidelines to help schools choose programmes with a reasonable chance of success.

It is important to also emphasise the practical implications for schools and their students of ignoring implementation. For example, if members of the school staff are not committed to achieving effective implementation then their chosen programme is unlikely to be successful. This could mean not only that all the time, energy and resources devoted to that programme will be for naught, but also that negative beliefs about the programme's inherent value could develop and be difficult to change (e.g. 'SEL programmes do not work'). The net result might be that school staff will fail to adopt programmes in the future that would actually benefit their students. In other words, both current and future students will not be well served if schools turn away from using certain SEL programmes when they can be effective. The next sections briefly highlight five additional research findings from implementation science, again using a question-and-answer format.

Are adaptations helpful or harmful?

Adaptations, which refer to changes made in the original programme, are a very common occurrence in school-based interventions (Ringwalt et al., 2003). For example, many teachers make some changes in the programmes they implement. These changes might involve shortening lessons because of time constraints, modifying some exercises to heighten student involvement and interest or to reach certain students, or eliminating some programme elements because they do not seem useful for their students. Adaptations can be intentional and well planned, and made in collaboration with those offering professional development services (see below) or they can occur spontaneously based on teachers' ideas or impressions of what is appropriate.

Research indicates that adaptations can improve or diminish programme outcomes, so we must know exactly what adaptations were enacted. It is essential to maintain the active ingredients of interventions (those features that theoretically or empirically are believed to be responsible for producing positive results) while other programme aspects can be modified to produce a better fit with a school's values, goals and the background, culture and composition of its student body.

The importance of carefully studying the types of adaptations that occur during implementation is clearly exemplified in a study of All Stars (Hansen et al., 2013). Based on video recordings, researchers classified the types of adaptations teachers made as they conducted the programme in their classroom. Three categories of adaptations were noted: positive ones (those likely to enhance programme outcomes); negative ones (those likely to diminish

programme outcomes) and neutral ones (those unlikely to have an effect either way). All teachers made some adaptations, and some made many more than others. The programme outcome assessed in this study was student drug use. As expected, neutral adaptations had no significant effect on student drug use, positive adaptations had a positive effect, and negative adaptations had a negative effect. Hansen et al. (2013) also found that teachers who made fewer adaptations overall but more positive ones obtained better results.

Why is professional development necessary for effective implementation?

Another central finding in the literature is the need for outside assistance to achieve effective implementation (called here professional development). Those attempting to follow a programme manual or series of lesson plans on their own rarely achieve high-quality implementation or desirable programme outcomes. This is because school staff members need to understand multiple features of the intervention that cannot be easily explained in written form. These features include the theory behind an intervention, what its core components are, when and how to apply these components, what to do if problems arise in programme delivery, and how much flexibility or freedom is possible in adapting the programme. Because it is typical that some practical problems arise during the course of programme implementation, providers need guidance on how to anticipate various difficulties and handle them. The exact nature of professional development that occurs varies with the chosen programme and staff needs and experience, but usually takes the form of pre-programme training plus continued technical assistance after the programme begins in the form of ongoing consultation or personal coaching. Fortunately, there are some groups available to provide these needed services, although not for every SEL programme (<http://www.casel.org>). Those providing training and consultation can also assist schools in the important tasks of selecting the right programme for their setting, monitoring and improving the process of implementation over time, and assessing student outcomes.

What factors affect programme implementation?

The literature has identified over 20 factors that can affect the process of implementation and these exist at multiple ecological levels (Domitrovich et al., 2008; Durlak & DuPre, 2008; Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). These factors are briefly described in Table 3 and include broad community-level factors such as adequate funding and educational policies, aspects of the programme such as its relevance to the school and its potential adaptability, characteristics of the staff who will be providing the programme such as their motivation, self-efficacy and commitment to the programme, and features of the school or organisation hosting the programme such as its readiness to change, the commitment and support of its leadership, its general capacity to offer new programmes and its organisational climate. As already noted, the quality of professional development that is provided to schools is also relevant.

For example, the odds of effective programme implementation are increased when a self-assessment indicates the proposed programme will address students' needs, when the programme appears to be a good fit with the school's general culture, values and operating practices, when the school staff has realistic expectations about possible programme benefits

Table 3. Examples of factors that can affect programme implementation.

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- I. At the broad community level
 - A. Scientific theory and research
 - B. Political pressures
 - C. Availability of funding
 - D. Educational policies and mandates
 - II. Characteristics of Those Conducting the Program
 - A. Perceived need and relevance of the program
 - B. Perceived benefits of innovation
 - C. Self-efficacy and confidence in executing the program
 - D. Possession of sufficient skills necessary for implementation
 - III. Characteristics of the programme being conducted
 - A. How compatible is it with the school's mission, priorities and values
 - B. Adaptability: what modifications are possible to fit local needs and preferences
 - IV. Factors relevant to the school or district: organisational capacity
 - A. General organisational factors
 - 1. Positive work climate
 - 2. Organisational openness to change
 - 3. Ability to integrate new programming into existing practices and routines
 - 4. Shared vision, consensus and staff buy-in
 - B. Specific practices and processes
 - 1. Shared decision-making and effective collaboration among stakeholders
 - 2. Coordination and partnership with other agencies as needed
 - 3. Frequent and open communication among participants and stakeholders
 - 4. Procedures conducive to strategic planning and task coordination
 - B. Specific staffing considerations
 - 1. Effective leadership
 - 2. Programme champions who can maintain support and problem-solve difficulties arising
 - 3. Effective management and supervision
 - V. Factors related to professional development services
 - 1. Successful training of implementers
 - 2. Ongoing technical assistance to maintain staff motivation, and skills
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Note:

Discussion of these factors is available in Damschroder and Hagehorn (2011), Dmitrovich et al. (2008) and Fixsen et al. (2005).

and is strongly motivated to do what it takes to implement the programme well. It is also important that strong leadership exists for the programme.

The factors affecting implementation are best seen as existing along a continuum instead of being all-or-nothing constructs. For example, variability in local leadership among participating schools in an educational district can be one reason why some schools eventually do a better job than others in programme implementation. The above ecological factors can influence implementation through their effect on one or more components of implementation. For example, financial issues may limit the amount of training and consultation available to staff so that the fidelity or quality of implementation suffers, or it may curtail the duration of the programme affecting dosage. If teachers' commitment to the programme wanes over time, this might also affect any or all three of these implementation components.

A few research examples that have demonstrated the influence of some of the above factors on implementation can be mentioned. For example, in a study of PATHS, an elementary SEL programme that focuses on students' emotional development and skills, Kam, Greenberg, and Walls (2003) found that, as expected, when programme implementation was low, desirable changes in students did not occur. When implementation was high, however, the presence of high principal support was associated with the best student outcomes in terms of both reduced aggression and higher levels of emotional competence.

A study of the Social and Emotional Aspects of Learning programme (SEAL) conducted in secondary schools in the UK revealed that lack of staff buy-in, perceived needs for the programme, teachers' sense of self-efficacy and insufficient staff training were all related to the variability in levels of implementation noted in participating schools (Lendrum, Humphrey, & Wigelsworth, 2013). Another study found that implementation of a whole-school approach to SEAL programming (involving all staff and students in a variety of activities) in primary and secondary schools contributed to a positive school climate (called school ethos by the researchers) and this positive school climate, in turn, mediated the positive outcomes obtained in SEAL schools related to students' attendance and academic achievement (Banerjee, Weare, & Farr, 2014).

What steps are important for effective implementation?

Several conceptual frameworks have been developed to describe the process of high-quality implementation, and a recent synthesis of this literature indicated there was substantial consensus regarding the 14 steps involved in implementation and their temporal sequence (Meyers, Durlak, & Wandersman, 2012). There was general agreement that:

... quality implementation is best achieved by thinking about the implementation process systematically as a series of coordinated steps, and that multiple activities that include assessment, collaboration, negotiation, monitoring, and self-reflection are required to enhance the likelihood that the desired goals of the innovation will be achieved. (p. 475)

Perhaps the most important but not necessarily the most obvious issue is that 10 of the 14 steps must be adequately completed before the programme actually begins! These steps include, among others, assessing the specific need for intervention, determining how the proposed programme fits with the school's resources and values, obtaining genuine buy-in from staff, deciding how or if any programme adaptations should be made, and establishing a team with the responsibilities for monitoring programme implementation and communicating its findings to other relevant stakeholders. It is only after these tasks are successfully accomplished that the school staff is ready to be trained before beginning the programme. A failure to conduct these initial activities successfully greatly lessens the odds of effective implementation and positive student outcomes.

Note how these steps relate to the ecological factors affecting implementation previously mentioned. It is important to take steps to evaluate how these factors might influence eventual implementation and programme outcomes in order to reduce possible barriers and increase the odds of successful implementation. For example, if teachers are not really committed to the programme, programme leadership or support is lacking, or there are insufficient resources for training and follow-up consultation, the programme probably should not be undertaken at that time. Sometimes, programmes should not be offered because the time and circumstances for their effective implementation are not right.

Who is responsible for effective implementation?

It is incorrect to assume that only front-line providers (i.e. teachers and other school staff) bear the sole responsibility for effective implementation. Responsibility for increasing the likelihood of successful implementation is mutually shared by multiple groups of stakeholders who have important roles to play and need to work collaboratively to increase the

odds of successful implementation. These stakeholders include policy-makers, funders, programme developers, front-line providers, trainers and consultants, and, finally, students and their parents. For example, policies and funding must support implementation and provide sufficient resources and time for such endeavours, and principals and school staff must commit to conducting a fair and adequate test of new programmes and doing what they can to enhance programme implementation. Programme developers and researchers should labour to identify the active ingredients of programmes to make them maximally efficient and effective, and trainers and consultants should evaluate their tactics related to professional development so they maximise the readiness and competence of staff to launch new efforts. Parental understanding and support is important to a child's education and some SEL programmes will ask parents to participate actively through various home- and community-based activities. Finally, depending on their developmental levels, students can play a role by offering input into the types of programme activities and exercises that are most relevant to their daily lives, experiences and needs.

Priorities for future research

Although we have learned much about achieving quality implementation, there are several questions that have yet to be answered. Four are discussed here.

What is the best way to assess implementation?

The field has yet to determine the best way to assess implementation accurately and most economically. The typical methods used to assess implementation have included journals, logs or self-ratings from those conducting the intervention, data obtained from direct behavioural observations or video recordings of selected aspects of programme delivery, and evaluations provided by trainers or coaches offering professional development services (Durlak, 2015; Dusenbury et al., 2005). As one might expect, when used in some combination these assessments do not always yield the same information. Sometimes, teacher data reflect better levels of implementation than from other sources (Hansen, Pankrantz, & Bishop, 2013). There are also practical considerations because financial and staff resources may not be sufficient to undertake extensive observational and video recordings.

In terms of assessment, there is also the issue of *when* to measure. Levels of implementation can either increase or decrease over time as a function of the many ecological factors already noted. For example, implementation may diminish over time, due to the inability to train new providers because of staff turnover or because of lessened commitment to the programme. In other cases, when programmes are extensive or complex, implementation increases over time suggesting it takes time to learn how to implement some programmes well. The time period for achieving acceptable levels of implementation can be up to four years depending on programme circumstances and specifics (Fixsen, Blase, Naoom, & Wallace, 2009). Therefore, it appears that assessment at a single point in time is unlikely to provide a true estimate of implementation, although when multiple assessments should be conducted probably varies with the factors likely to affect implementation as well as the special features of the programme.

When is implementation good enough?

Research clearly indicates that implementation does not have to be perfect to affect programme outcomes, but exactly how good it has to be in order to be associated with satisfactory outcomes is not yet known. Previous text has included terms such as ‘high levels of implementation’, or ‘better versus poorer implementation’ but it is not possible to specify exactly what this means because much depends on the metric of evaluation and the comparisons being made (e.g. across multiple intervention settings, or between intervention and control conditions). Nevertheless, it is important to determine whether there are threshold points for implementation at which favourable outcomes are achieved so we can determine what is ‘good enough’ in different circumstances. These thresholds may vary for different programmes and in relation to different outcomes so investigating these possibilities is important.

What implementation components are important for which outcomes?

One perplexing research finding is that one component of implementation may be related to some but not all programme outcomes. For example, Aber, Jones, Brown, Chaudry, and Samples (1998) found that dosage was related to positive effects on two aspects of social emotional development (related to problem-solving ability) but was not related to outcomes in terms of conduct problems in an elementary level SEL programme. Dosage was not related to conduct problem outcomes in a study of a different elementary SEL programme, but quality of implementation was (Conduct Problems Prevention Research Group, 1999). Some of the inconsistencies that have arisen in research findings may be due to what implementation components were studied (as well as how they were measured). Moreover, the constraints on any research trial should be considered because it is difficult if not impossible to study all eight implementation components at once. Nevertheless, there is a need for continual investigation into which implementation components relate to which outcomes.

How can effective programmes be sustained over time?

Unfortunately, even programmes that are effective are not always continued, and it is only recently that attention has focused on sustaining successful programmes (Cooper, Bumbarger, & Moore, 2015). The same factors that have been identified as influencing the level of implementation achieved in the first trial of a programme undoubtedly play a role in programme sustainability. For example, good professional development, strong leadership and a high level of commitment from teachers all enhance the likelihood of effective implementation, and that there will be the commitment to continue a programme that is found to be effective. Nevertheless, changing political, administrative or financial issues, and turnover among the leadership and staff of schools can result in a major shift in programming and priorities. Researchers are beginning to examine factors that increase the likelihood that successful programmes will be sustained. For example, in a review of SEL programmes that had been continued or discontinued, Elias (2010) noted that, in addition to the importance of effective leadership and effective teacher training, two additional factors also appeared to be important. A few teachers who emerged as positive role models for others seemed to be influential in sustaining the school’s commitment and motivation

over time, and programmes that were integrated and became part of the entire school and its daily practices, as opposed to being operational in only some classrooms, were more likely to be continued. Cooper et al. (2015) studied a variety of programmes across different communities, many of which were continued for over two years after their initial funding period, and found that organisational support for programme implementation, a good programme fit, well-trained staff and sustainability planning from the onset were key predictors of programme sustainability.

The above four research issues are likely to be further complicated by the possible interactions that can occur among relevant variables. Implementation cannot be completely understood without reference to the types of students and programmes. Therefore, the ultimate research question to be resolved in future work is: which implementation components are related to which types of outcomes for which students participating in which types of SEL programmes?

Concluding comments

This paper has discussed 14 important points regarding programme implementation and directed readers to other resources for additional information. We have advanced in our understanding of implementation, but still have more to learn. The articles in this special issue illustrate current approaches taken with respect to measuring and elucidating the importance of implementation for the outcomes of SEL programmes, and can be compared to other publications with a similar focus (Wanlass & Domitrovich, 2015). In sum, research and practice has confirmed the relevance of the following aphorism with regard to implementation: what is worth doing, is worth doing well.

Disclosure statement

No potential conflict of interest was reported by the author.

References

- Aber, J. L., Jones, S. M., Brown, J. L., Chaudry, N., & Samples, F. (1998). Resolving conflict creatively: Evaluating the developmental effects of a school based violence prevention program in neighborhood and classroom context. *Development and Psychopathology*, *10*, 187–213.
- Banerjee, R., Weare, K., & Farr, W. (2014). Working with ‘Social and Emotional Aspects of Learning’ (SEAL): associations with school ethos, pupil social experiences, attendance, and attainment. *British Educational Research Journal*, *40*, 718–742.
- Battistich, V., Schaps, E., Watson, M., Solomon, D., & Lewis, C. (2000). Effects of the child development project on students’ drug use and other problem behaviors. *The Journal of Primary Prevention*, *21*, 75–99.
- Bopp, M., Saunders, R. P., & Lattimore, D. (2013). The tug-of-war: Fidelity versus adaptation throughout the health promotion program life cycle. *Journal of Primary Prevention*, *34*, 193–207. doi: <http://dx.doi.org/10.1007/s10935-013-0299-y>.
- Conduct Problems Prevention Research Group. (1999). Initial impact of the Fast Track prevention trial for conduct problems: II. Classroom effects. *Journal of Consulting and Clinical Psychology*, *67*, 648–657.
- Cooper, B. R., Bumbarger, B. K., & Moore, J. E. (2015). Sustaining evidence-based prevention programs: Correlates in a large-scale dissemination initiative. *Prevention Science*, *16*, 145–157.

- Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*, 4, 50. doi: <http://dx.doi.org/10.1186/1748-5908-4-50>.
- Damschroder, L. J. & Hagedorn, H. J. (2011). A guiding framework and approach for implementation research in substance use disorders treatment. *Psychology of Addictive Behaviors*, 25, 194–205.
- Dix, K. L., Slee, P. T., Lawson, M. J., Keeves, J. P. (2012). Implementation quality of whole-school mental health promotion and students' academic performance. *Child and Adolescent Mental Health*, 17, 45–51.
- Domitrovich, C. E., Bradshaw, C. P., Poduska, J. M., Hoagwood, K., Buckley, J. A., Olin, S., & Ialongo, N. S. (2008). Maximizing the implementation quality of evidence-based preventive interventions in schools: A conceptual framework. *Advances in School Based Mental Health Promotion*, 1, 6–28.
- Durlak, J. A. (2013). The importance of implementation for research, practice, and policy. Research brief for the Office of the Assistant Secretary for Planning and Evaluation, Office of Human Services Policy, U.S. Department of Health and Human Services. Retrieved from http://aspe.hhs.gov/hsp/13/KeyIssuesforChildrenYouth/ImportanceofQuality/rb_QualityImp.cfm
- Durlak, J. A. (2015). What everyone should know about implementation. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta, (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 395–405). New York, NY: Guilford.
- Durlak, J. A. & DuPre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology*, 41, 327–350.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82, 405–433.
- Dusenbury, L., Brannigan, R., Hansen, W. B., Walsh, J., & Falco, M. (2005). Quality of implementation: Developing measures crucial to understanding the diffusion of preventive interventions. *Health Education: Research, Theory & Practice*, 20, 308–313.
- Elias, M. (2010). Sustainability of social-emotional learning and related programs: Lessons from a field study. *International Journal of Emotional Education*, 2, 17–33.
- Fixsen, D. L., Blase, K. A., Naoom, S. F., & Wallace, F. (2009). Core implementation components. *Research on Social Work Practice*, 19, 531–540.
- Fixsen, D. L., Naoom, S. F., Blasé, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231). Retrieved from <http://nirn.fpg.unc.edu/resources/implementation-research-synthesis-literature>
- Gottfredson, D. C., Cook, T. D., Gardner, F. E. M., Gorman-Smith, D., Howe, G. W., Sandler, I. N., Zafft, K. M. (2015). Standards of evidence for efficacy, effectiveness, and scale-up research in prevention science: Next generation. *Prevention Science*, 16, 893–926.
- Hansen, W. B., Pankratz, M. M., Dusenbury, L., Giles, S. M., Bishop, D. C., Albritton, J., & Strack, J. (2013). Styles of adaptation: The impact of frequency and valence of adaptation on preventing substance use. *Health Education*, 113, 345–363.
- Hill, C. J., Bloom, H. S., Black, A. R., & Lipsey, M. W. (2008). Empirical benchmarks for interpreting effect sizes in research. *Child Development Perspectives*, 2, 172–177.
- Horner, L. M., Howard, E. C., Slapac, A., & Mathews, K. (2014). The importance of improving implementation research for successful interventions and adaptations. *Journal of Prevention and Intervention in the Community*, 42, 315–321.
- Humphrey, N. (2013). *Social and emotional learning: A critical appraisal*. Thousand Oaks, CA: Sage.
- Kam, C. M., Greenberg, M. T., & Walls, C. T. (2003). Examining the role of implementation quality in school-based prevention using the PATHS curriculum. *Prevention Science*, 4, 55–63.
- Lendrum, A. & Humphrey, N. (2012). The importance of studying the implementation of interventions in school settings. *Oxford Review of Education*, 38, 635–652.

- Lendrum, A., Humphrey, N., & Wigelsworth, M. (2013). Social and emotional aspects of learning (SEAL) for secondary schools: Implementation difficulties and their implications for school-based mental health promotion. *Child and Adolescent Mental Health, 18*, 158–164.
- Meyers, D. C., Durlak, J. A., & Wandersman, A. (2012). The quality implementation framework: A synthesis of critical steps in the implementation process. *American Journal of Community Psychology, 50*, 462–480.
- Moore, J. E., Bumbarger, B. K., & Cooper, B. R. (2013). Examining adaptations of evidence-based programs in natural contexts. *Journal of Primary Prevention, 34*, 147–161.
- O'Donnell, C. L. (2008). Defining, conceptualizing, and measuring fidelity of implementation and its relationship to outcomes in K–12 curriculum intervention research. *Review of Educational Research, 78*, 33–84.
- Rimm-Kaufman, S. E., Larsen, R. A. A., Baroody, A. E., Curby, T. W., Ko, M., Thomas, J. B., & DeCoster, J. (2014). Efficacy of the responsive classroom approach: Results from a 3-year, longitudinal randomized controlled trial. *American Educational Research Journal, 51*, 567–603.
- Ringwalt, C. L., Ennett, S., Johnson, R., Rohrbach, L. A., Simons-Rudolph, A., Vincus, A., & Thorne, J. (2003). Factors associated with fidelity to substance use prevention curriculum guides in the nation's middle schools. *Health Education & Behavior, 30*, 375–391.
- Wanlass, S. B., & Domitrovich, C. E. (2015). Readiness to implement social-emotional learning interventions. *Prevention Science, 16* (8) 1037–1043.