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Systematic Review of Factors That Impact Implementation Quality of Child Welfare, Public Health, and Education Programs for Adolescents:

Implications for Juvenile Drug Treatment Courts

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Abstract

To inform the development of juvenile drug treatment court (JDTC) guidelines, this study reviewed the evidence on factors that impact implementation quality and fidelity in other youth-serving systems, namely, child welfare, public health, and education programs delivered to adolescents or adolescents and their families. From a universe of more than 8,000 articles reviewed, 53 studies were included for analysis using meta-aggregation methods, as outlined by the Cochrane Collaboration. The findings support previous research showing that intervention outcomes are influenced by implementation quality, readiness to complete each step of the implementation cycle (beginning with intervention selection), access to technical assistance, and contextual "fit" with the population or community. The findings align with previous research from juvenile drug treatment court implementation studies, showing the importance of improving community collaboration, reducing cross-system barriers, and using data for continuous quality improvement. New findings indicate that fidelity adherence may have unintended negative effects with vulnerable populations when compliance protocols interfere with an intervention's theory of change. Fidelity requirements may affect youth and their adult caregivers differentially and produce more positive outcomes with youth than adults, who may disengage if the program cannot be changed to fit their needs.

Background

Youth involved in the juvenile justice system typically have histories of trauma,[1] maltreatment, and involvement in the child welfare system[2]; educational challenges such as grade retention or special education needs[3]; diagnosable mental health or substance use disorders[4]; and exposure to community[5] and family violence.[6] It is not surprising that up to 61% of justice-involved youth report high rates of drug and alcohol use.[7] Popular programs for delinquent youth once considered effective by virtue of consensus expert opinion, or anecdote, have largely fallen by the wayside in the era of evidence-based practices (EBPs). EBPs require scientific support to generate confidence in outcomes, including clear standards for performance rather than general guides or suggestions for what programs might do to achieve aims.[8] Beginning with Lipsey's seminal work more than 20 years ago, the call for evidence-based outcomes is not reserved for researchers; it now comes from practitioners and policymakers.[9] Adding to this are growing concerns over formal justice processing on young people's well-being and the realization that failed programs not only harm youth but also may lead to costly increases in justice expenses as youth with unmet needs transition into adulthood.[10] Although the desire for EBPs has grown, the means to implement them effectively have not kept pace, resulting in failed replications and adaptations when taking a single-site program to scale.[11] Some of these difficulties come from the policy objective of quickly disseminating EBPs (and even mandating their use) to encourage their adoption without first ensuring these interventions come with adequate supports to be implemented with quality.[12] As research indicates, poorly implemented EBPs without an established evidence base can produce no better outcomes than "homegrown programs."[13] Research on the science of implementation and change demonstrates that organizations must be "ready" to implement interventions; key components of readiness include a combination of factors inside the organization and within the context in which it operates.[14] Organizations that are not ready to take on an EBP typically produce poor results; eventually, the intervention is de-adopted and replaced.[15]

When young persons are arrested for offenses involving substance use, JDTCs can provide coordinated community treatment and recovery services to help youth succeed. Many JDTCs, however, face challenges that limit their effectiveness: incomplete understanding and inconsistent implementation of best practices; lack of evidence-based treatments; and insufficient readiness to adopt, implement, and sustain effective interventions, delivered with quality.[16] With the rapid expansion of JDTCs in the late 1990s, the Department of Justice saw the need for practice standards to assist courts with their implementation. These practice standards (also called guidelines) provided 16 consensus-based strategies with recommendations for implementation and the expectation that they could be flexibly adapted to local settings and target populations.[17] Developers hoped that these strategies would provide a foundation for research and evaluation, and they projected that evolving innovations would inform JDTC practices. While the 2003 practice standards provided guidance, the research suggests that JDTCs have struggled with implementation and often lacked the training and supports to meet these needs.

To address these issues, the Office of Juvenile Justice and Delinquency Prevention (OJJDP) awarded a 5-year grant to a team of researchers and practitioners, led by American Institutes for Research (AIR). AIR researchers are using a research-informed approach to create practice standards to enhance what is known about effective JDTC treatment and coordination of practices to improve JDTCs nationally. The work is commencing across two phases. In Phase I, we will (1) conduct a meta-analysis on the effectiveness of JDTCs; (2) complete a meta-analysis on the effectiveness of treatment for adolescent substance use; (3) undertake a systematic review of JDTC implementation and studies from other fields (public health, child welfare, and education); (4) conduct a policy and practice review; (5) convene listening sessions with a diverse group of stakeholders; (6) synthesize findings, convene an Advisory Group, and draft preliminary practice; and (7) broadly disseminate JDTC standards. In Phase II, the learning from Phase I will be put to the test in the form of field trials where the draft guidelines will be studied using rigorous methods that can determine both the level of impact and the quality and fidelity of implementation. This report details the results of one of the studies from Phase I, an investigation of implementation factors that impact outcomes in programs targeting adolescents involved in child welfare, public health, and educational interventions.

Objectives of the Review

This study reviewed the evidence on factors that impact implementation quality and fidelity in child welfare, public health, and education programs delivered to adolescents or adolescents and their families. This review focused on factors directly relevant to the quality and fidelity of program implementation, such as staff training, contextual fit, and access to technical assistance, as well as other potential moderators of quality and fidelity. The review aims to provide new perspectives on implementation effectiveness that can benefit JDTCs, from systems and stakeholders who routinely serve court-involved youth and through interventions that youth often experience at the same time as, before, or after their experience in JDTCs.

Methods

Criteria for Including Studies in This Review

Types of Studies

Studies eligible for inclusion had to meet the following criteria:

1. Studies must be dated between January 1, 1980, through December 31, 2014.
2. The program under study must be based in child welfare-judicial, child welfare-agency, education, or public health setting.
3. The study was empirical and included analysis of the implementation process.
4. The setting was North America (United States and Canada).
5. Studies were excluded if they violated the eligibility criteria or contained any of the following characteristics: (1) conclusions drawn are not feasible to inform real-world programs, policies, or practices; (2) rare medical condition is the basis for study; or (3) psychotropic drugs are the intervention.

Types of Outcomes

Only articles that studied and reported on implementation factors in relation to research outcomes were included in the review. There was no restriction on the type or measurement characteristics of outcomes included in the review as long as outcomes were in reference to interventions benefitting adolescents within the participant age range.

Types of Participants

Studies eligible for inclusion had to include interventions targeting youth ages 12 (or Grade 6) to 18 or interventions targeting families if the intervention also served youth in the relevant age range.

Types of Settings

We reviewed research studies that explored interventions implemented within or across educational, public health, or child welfare settings, including child welfare agencies and dependency courts, as well as delinquency courts that implemented nonjudicial interventions, such as gun courts and mental health courts.

Search Methods for Identification of Literature

Using a series of keywords related to implementation quality and fidelity (Exhibit 1), we searched the following databases and Internet resources for eligible studies: ERIC, Education Source, PsycINFO, JSTOR, Academic Search Premier, EconLit, National Bureau of Economic Research Working Papers, MEDLINE (PubMed), Cochrane Library, CINAHL, Health Services Research Projects in Progress, Health Services and Science Research Resources, ClinicalTrials.gov, PsycINFO, Psychology and Behavioral Sciences Collection, SocINDEX, Dissertation Abstracts International, Google Scholar, American Evaluation Association Conference Proceedings, American Public Health Association Conference Proceedings, American Sociological Association

Conference Proceedings, American Educational Research Association Conference Proceeding, and Society for the Study of Social Work Conference Proceedings. We also examined references found in research reviews, meta-analyses, and eligible studies.

The search strategy was tailored to each database or website with the goal of identifying all relevant studies. The search process identified 8,036 titles and abstracts that were screened for relevance. This resulted in 602 titles and abstracts that were examined more carefully by two coders. This review produced 397 documents for which the full text was examined to determine final eligibility, resulting in 53 eligible and coded studies.

Exhibit 1. Keywords and Phrases Used to Search for Relevant Studies

Readiness to implement effective interventions/programs/innovations		
Capacity to implement effective interventions/programs/innovations		
Willingness/Motivation to implement effective interventions/programs/innovations		
Implementation quality	Implementation fidelity	Implementation cycle
Selecting an intervention	Adopting and intervention	Installing an intervention
Implementing interventions	Adapting interventions	Sustaining interventions
Taking interventions to scale	Implementation drivers	Implementation supports
Implementation challenges	Implementation barriers	Implementation mediators

Data Collection and Analysis

Step 1: Face validity review

Each study produced through the search strategy was first categorized according to the paper's disciplinary perspective using a face validity process that included keyword searches within the document for the four youth-serving systems of interest to this study: child welfare, juvenile justice, education, and health. In some cases, the journal or source of the publication was used to categorize the paper according to discipline. This step was used to organize the literature for conducting the first round of review for inclusion in the study.

Step 2: Eligibility coding

Once all included documents were categorized by discipline, each document was thoroughly reviewed for eligibility and coded using descriptive categories that included explicit thematic definitions and levels of coverage. These were then transformed into codes for analysis purposes. The codebook developed for this study is included in the Appendix.

Step 3: Content analysis

Additional articles were excluded from the study during the eligibility coding process. The documents that remained after the first two inclusion reviews were then subjected to a content analysis procedure, which progressed using the following process:

1. Developed thematic definitions

2. Developed thematic levels
3. Developed code book for themes
4. Coded each article using coding guide
5. Inputted coded data into analysis software
6. Analyzed data

The initial set of themes, levels, and codes were used by two independent coders on a subsample of documents reviewed by each coder to further refine the process and provide a measure of convergence across studies in the review. Using the finalized set of codes, all documents were coded and codes were entered into a spreadsheet and SPSS analysis software.

Data Synthesis

Meta-aggregation was used as the method for this systematic review, as outlined by the Cochrane Collaboration.[18] This approach involved the extraction of study findings (i.e., a text summary or direct quote), the assessment of the quality of the evidence supporting the finding, and the categorization of the findings into conceptual groups. These conceptual groups were then subjected to thematic analysis using standard qualitative data analytic techniques to arrive at an interpretative summary of each grouping of findings. A credibility of evidence assessment (questionable, low, medium, and high) was assigned to the qualitative and quantitative basis for study findings. Specifically, the complete dataset of coded literature was synthesized using a step-wise process, beginning with descriptive statistics describing the overall content of the literature. This included a raw count of document characteristics within the dataset, such as setting type (e.g., education setting) or study type (e.g., randomized controlled trial). The next step was to conduct analyses within each discipline (e.g., child welfare) to describe predominant themes and other content characteristics across documents within that discipline. The third and final step was to analyze all documents across all disciplines to determine content themes and depth of thematic coverage across disciplines.

Credibility of the Evidence

A three-step process (Exhibit 2) was used by two independent research coders to determine the credibility of findings within the context of the qualitative and quantitative evidence presented in the study.

Exhibit 2. Credibility Decision Steps

Qualitative Data	Quantitative Data
Step 1: Are the findings clearly connected with direct quotes or thick description of observations rather than just the opinion of the researcher with little connection to the evidence?	**Step 1:** Are the findings directly connected to a statistical finding and consistent with that statistical finding in terms of statistical significance, direction of effect, and magnitude of effect? (Note that not all of these will be relevant for all types of quantitative findings.)

Qualitative Data	Quantitative Data
Step 2: Is there an adequate amount of qualitative data to have confidence in the findings, or would additional time in the field have produced different findings? If different methods are triangulated to produce the finding, then credibility is higher. If there is no indication of the number of interviews or time spent observing, then credibility is weakened.	**Step 2:** Are findings based on at least 85% of the original sample (or 85% of the subsample if finding a based on a subsample)?
Step 3: Is there evidence of careful qualitative analysis, such as using multiple coders, validation methods, qualitative software, or discussions of data validity?	**Step 3:** Are clear risks of bias for findings minimized? Consider the following: (a) post hoc nature of the finding (i.e., possible data fishing), (b) appropriateness of statistical method, (c) selection bias or other internal validity concerns if finding is of a causal nature, (d) poor question wording or measurement construct fit, (e) adequate statistical power if finding is one of no effect and (f) any other concern that would raise doubt about the finding?

The credibility of findings was defined as follows:

- **High credibility:** We are very confident that the qualitative and quantitative evidence supports the finding within the context of the study.
- **Medium credibility:** We are moderately confident that the qualitative and quantitative evidence supports the finding within the context of the study, but there is a possibility that it is substantially different.
- **Low credibility:** Our confidence in the findings is limited: The true finding may be substantially different from what the available evidence can support.
- **Questionable credibility:** We have very little confidence in the findings: The true finding is likely to be substantially different from what the available evidence can support.

At each step in the process, individual articles were scored in binary fashion (yes/no) to arrive at an overall credibility score for each article. If a study produced no answers to all questions, then it would receive the lowest rating of "questionable credibility." Once themes were identified in common across individual studies, the ratings for each study were combined to determine an overall rating that best represented the group of studies within each theme (Exhibit 3).

Exhibit 3. Credibility of the Evidence for Themes

Theme 1

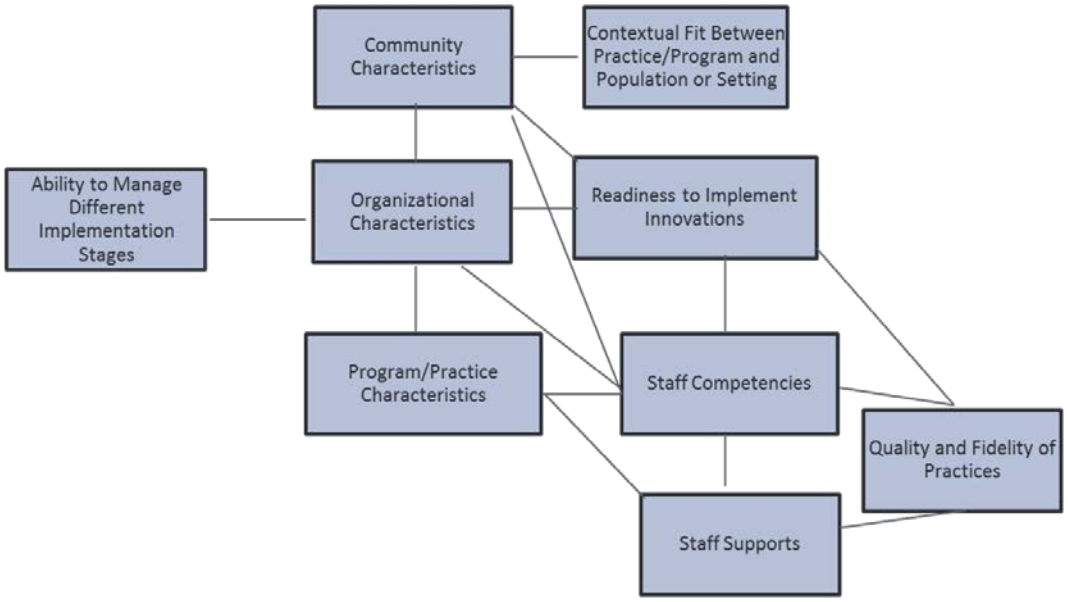
Study A: Low Credibility + Study B: Moderate Credibility + Study C: Moderate Credibility
= Theme 1: Moderate Credibility

Results

Results of the Search

Across the 53 studies, 396 findings were identified and assembled into six broad themes that reflect different aspects of implementation effectiveness across three levels: community, organization, and program (Exhibit 4). Twenty preliminary subthemes were identified and further categorized by relative impact (positive or negative) on study outcomes.

Exhibit 4. Themes Identified Across the Included Studies



Of the 53 articles included in the review, 20 studies (38%) examined interventions delivered within educational settings, while 19 studies (36%) involved interventions implemented in behavioral or public health systems. Nine articles (17%) looked at interventions in the child welfare system (six within agencies and three within courts), and five studies concerned interventions used across more than one youth-serving system. There were no articles on other (non–drug treatment) court-related interventions serving adolescents. Forty-three studies (81%) included some type of qualitative evidence. The most common methodologies used were document review (30%), interviews (28%), and fidelity rating scales (28%). Forty-eight (91%) of studies included quantitative evidence. Mean-difference tests [e.g., analysis of variance (ANOVA)] were most commonly used (22 studies or 46%), followed by regression analyses (16 studies or 33%) and correlations (10 studies or 21%). Forty-one of the studies (77%) were published between 2007 and 2014, with only 13 studies available prior to 2007 and only two between the years 1990 and 2000.

More than half of the studies (54%) had as their primary objective studying the overall effectiveness of an intervention on adolescent participants (12–18 years). Thirteen studies (24%) intentionally set out to measure the ways in which different organizational practices or

implementation approaches impacted intervention outcomes for adolescent participants, and 11 studies (21%) examined implementation effects on intervention outcomes among adolescents and their parents. Twenty-six studies (49%) used nonexperimental designs, followed by 14 studies (26%) using experimental designs and seven studies (13%) using quasi-experimental approaches. In addition, there were four research syntheses (8%) and two systematic reviews (4%) with meta-analysis.

Findings

Implementation characteristics influencing intervention outcomes were identified across three types of settings: (1) within the intervention setting, (2) within the organizational setting, and (3) within the community setting.

Intervention Setting

Multiple studies revealed that in addition to training in specific program content and delivery process, staff should be trained in the program's logic model and underlying theory of change. When staff do not share a common understanding of the program's goals and objectives, implementation was less consistent and outcomes often suffered.[19] While previous research has identified the need for staff to have specific educational and technical backgrounds to implement the intervention,[20] staff selection criteria should consider other characteristics such as race, ethnicity, and personal experiences that might align with the population the program will serve, or the issue the program addresses. Staff who share characteristics in common with the participants the intervention serves had greater success engaging and retaining participants; this may have resulted in a greater likelihood that participants can benefit from the full intervention effect.[21]

Consistent with previous research,[22] outcomes improved when staff had access to high-quality technical assistance[23] and when administrative practices and operational policies were reviewed and revised to reduce or remove any barriers that limited staff support or thwarted program objectives.[24] In addition to studies that found using continuous quality improvement (CQI) practices to generate data on client outcomes in relation to staff practices increased implementation quality,[25] several studies found that CQI practices can have unintended negative effects on staff when leadership uses CQI only for compliance (quality assurance/control) and staff surveillance purposes. As would be expected, many studies found that implementation fidelity was tied to better program outcomes.[26] Importantly, when working in chaotic settings or with clients under duress (e.g., homeless youth, victims of sexual assault), some studies suggested that using a flexible fidelity framework with core components, rather than prescriptive sequencing of elements, is important when working in chaotic settings or with clients under duress.[27] One study found a flexible fidelity approach to be more effective than prescriptive fidelity even in a classroom setting where teacher curriculum delivery styles varied.[28] A new finding from this review came from several studies that suggested implementation fidelity may affect youth and their adult caregivers differentially and produce more positive outcomes with youth than adults, who may disengage if the program cannot be changed to fit their needs.[29]

Organizational Setting

Echoing other research,[30] this review found that an organization's general capacity (e.g., infrastructure, financial stability) was related to implementation integrity and sustaining implementation quality over time, leading to more successful outcomes.[31] When lacking, general capacity may even bias the organization's selection of programs or services in a way that does not meet the community's needs by "chasing funding" in order to keep the organization afloat.[32] Specific capacity (e.g., intervention-specific skills and supports) was related to implementation integrity in many studies from this review,[33] but it may have unintended negative consequences on program outcomes due to interaction effects between program staff and youth/caregiver background characteristics (e.g., race, SES, risk). For example, Gottfredson and colleagues[34] found that more experienced afterschool program staff were more successful in their efforts to help youth build successful relationships through the program. This level of increased engagement between youth led to increased delinquency outside of program hours, as low-risk youth and higher-risk youth maintained these new friendships during their out of program time.

Multiple studies in this review confirmed earlier research that every step in an intervention's implementation cycle must be done well in order for the intervention to yield optimal results.[35] For example, when choosing an intervention to serve youth across several systems, organizations that were able to create collaborative community linkages and a strong stakeholder team committed to change had greater success with their interventions.[36] When adopting an intervention, the results were improved when staff at all levels of the organization were trained in the purpose of the program, the evidence of its value, and how it aligned with the agency's mission.[37] Programs that provided staff with an opportunity to work through their doubts that the program will have its intended effect produced better results than did interventions where staff were not able to share their concerns.[38] In fact, organizations had more success with their programs when they assessed and addressed adverse implications for staff roles, workloads, technology, space, and current commitments before implementation began.[39] Last, sustaining implementation quality and successful results over time was associated with organizations that proactively worked to reduce staff turnover, increase staff supports, engage with funders and policymakers, access high-quality technical assistance and training, and use program and community data to continually assess changing needs and resources.[40]

Community Setting

This review found that implementation quality was compromised and resulting participant engagement and success was reduced when programs were not a good fit (a) for the readiness of clients or (b) within the cultural, physical, or socioeconomic context.[41] These results support emerging research that suggests the "contextual fit" of an intervention is a crucial aspect of intervention success and may explain why evidence-based programs have had limited efficacy when transplanted into environments very different from those where the program was originally developed and studied.[42] Related to this contextual issue is a new finding, raised in several studies, that suggests following strict fidelity protocols (e.g., attendance, punctuality) may trigger underlying issues (e.g., power and control-related trauma) in vulnerable populations and could otherwise interfere with an intervention's theory of change.[43] Similarly, when interventions require high-risk youth to attend interventions together in a group setting and fidelity requirements direct intervention staff to enforce strict attendance compliance so that more youth attend more sessions together, youth may form or deepen problematic relationships that

undermine intervention goals.[44] For youth involved in multiple service systems (e.g., child welfare, justice), engagement and program completion rates improved when programs reduced cross-system demands on a youth/family's time, so there was more time reserved for the provision of actual services.[45]

Overall Completeness and Applicability of the Evidence

This review examined a large number of studies across three distinct literatures in order to learn whether intervention implementation characteristics important in other youth-serving systems might be applicable for use with juvenile drug treatment court programs. The evidence from these studies comes from interventions that serve the same general target population of youth and families eligible for juvenile drug treatment court programs.

Quality of the Evidence

Most findings were rated as having moderate (n = 25) or high (n = 12) evidence quality, reflecting a fairly strong connection between study findings and the quantitative or qualitative evidence. Mixed-method studies with lower average ratings overall generally had adequate quantitative evidence with weaker qualitative evidence.

Potential Bias in the Review Process

We believe the search strategy was thorough and rigorous. The authors have no vested interest in the findings of the review and do not favor one type of study over another. The completeness of the evidence is limited by access to studies that have been made publicly available. Although the authors made efforts to identify papers in the fugitive literature that were unpublished or pending release, no such studies were identified.

Agreements or Disagreements With Other Studies or Reviews

The results of this review show a high degree of alignment across previous research on implementation factors associated with the effectiveness of JDTCs[46] and those characteristics associated with success in other human-serving programs,[47] noted in research from the broader field of implementation science.

Conclusions

Implications for Juvenile Drug Treatment Courts

This review has implications for JDTCs within the intervention setting, within the organizational setting, and within the community setting.

Implications for the Intervention Setting

The results from this review suggest that staff training, experiences, and even personal characteristics should be specifically matched to the JDTCs program requirements and context of the client population. In addition to this, JDTCs should have access to, and quality of, ongoing technical assistance and training. Importantly, the larger justice system context should support JDTC staff to deliver the program as intended, meaning they should not have their job duties

split between the JDTC's therapeutic approach and the "court as usual" adversarial approach. To learn how well the intervention is working (i.e., not for compliance), data should be collected on an ongoing basis and used to improve the quality of services and youth outcomes. Fidelity to practice can have unintended negative effects if it works against the needs of the population and the program's theory of change. JDTCs should ensure that compliance with court procedures does not undermine the therapeutic needs of youth, who may have untreated learning disability or mental health needs from previous traumatic experiences.

Implications for the Organizational Setting

Before creating a JDTC, court and partner agencies should determine whether there is need for a JDTC based on an assessment of the community's youth substance use issues in the context of the most effective resources available to meet these needs. To ensure consistency in practice and support the therapeutic needs of youth with substance use and related issues, JDTCs should develop and train staff to support one theory of change across treatment and court contexts that all stakeholders (e.g., therapists, probation officers) understand and agree to support. To optimize success in the long-term, JDTCs need to support every stage of the implementation cycle, from assessing the need for services before beginning a program, utilizing technical assistance and training on a regular basis to improve the program, and regularly evaluating the program's quality and outcomes in order to communicate results, which can increase community support and sustain program funding—which in turn can ensure a more consistent level of implementation quality over time.

Implications for the Community Setting

Youth at the greatest risk for JDTC involvement often come from vulnerable families and communities where risks and needs interact in complex ways. JDTCs need to understand a youth's treatment readiness and customize practices to the cultural context in which youth live. To successfully engage family members, JDTCs also need to understand the adult–youth dynamics that are at play in the home and ensure JDTC practices are designed to meet the independent needs of youth and adults, so that each fully engages in the JDTC process. Last, JDTCs can increase the ability and willingness of youth and family members to participate in programming by coordinating with other systems serving the family and reducing the number and frequency of other system demands placed on them.

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Appendix

Included Studies

Aalborg, A. E., Miller, B. A., Husson, G., Byrnes, H. F., Bauman, K. E., & Spoth, R. L. (2010). Implementation of adolescent family-based substance use prevention programmes in health care settings: Comparisons across conditions and programmes. *Health Education Journal*, *71*(1), 53–61.

Study Description	Study Type
Fidelity issues addressed when first installing the program resulted in improved implementation quality. Staff knowledge of healthcare setting and collaborative relationships were important for producing positive outcomes. Fidelity data and training were used to maximize adherence.	Mixed methods

Aarons, G. A., & Palinkas, L. A. (2007). Implementation of evidence-based practice in child welfare: Service provider perspectives. *Administration and Policy in Mental Health, 34*(4), 411–419. doi.org/10.1007/s10488-007-0121-3

Study Description	Study Type
Six primary factors identified with evidence-based practices (EBP) implementation: acceptability to caseworker and families, suitable for family needs; caseworker motivation, training experience, organizational support, perceived impact on service delivery process, and client outcomes. Reduced autonomy with additional oversight and monitoring produced poorer implementation quality overall. Implementation fidelity may be disrupted by sequencing changes based on critical client needs.	Qualitative

Beaulac, J. (2008). A *promising community-based hip-hop dance intervention for the promotion of psychosocial and physical well-being among youth living in a disadvantaged neighbourhood*. Retrieved from http://sirc.ca/sites/default/files/content/docs/Document/09109_en_julie-beaulac.pdf

Study Description	Study Type
Staff turnover and limited resources to support the intervention resulted in poor outcomes. Staff expectations for the program's value, adequate space to host the intervention, lack of training in prosocial development, and rushing the roll out process were also associated with adverse outcomes.	Mixed methods

Belenko, S., Dembo, R., Rollie, M., Childs, K., & Salvatore, C. (2009). Detecting, preventing, and treating sexually transmitted diseases among adolescent arrestees: An unmet public health need. *American Journal of Public Health, 99*(6), 1032–1041. doi.org/10.2105/AJPH.2007.122937

Study Description	Study Type
Overall, 72% of all screened youths agreed to the sexually transmitted disease (STD) testing process with no difference seen by gender or race, and 62% were eventually treated for detected STDs. Implementation success was due to the collaborative relationships between the public health and juvenile justice agencies, their prior work together, experience with the operational aspects of the process, services being free for youth, and strong buy-in among community stakeholders.	Quantitative

Boles, S. M., Young, N. K., Moore, T., & DiPirro-Beard, S. (2007). The Sacramento Dependency Drug Court: Development and outcomes. *Child Maltreatment, 12*(2), 161–171. http://doi.org/10.1177/1077559507300643

Study Description	Study Type
More family drug treatment court parents enrolled in treatment, received more intensive level of treatment, and completed more treatment episodes than comparison parents. More children were united in the District of Columbia (DC) sample and at a faster rate than in the comparison group. New child abuse allegations were extremely rare in the DC group and recidivism was very low in both groups.	Mixed methods

Booker, J. M., Schluter, J. A., Carrillo, K., & McGrath, J. (2011). Quality improvement initiative in school-based health centers across New Mexico. *The Journal of School Health, 81*(1), 42–48. http://doi.org/10.1111/j.1746-1561.2010.00556.x

Study Description	Study Type
Perception biases skewed assessments of implementation quality. Use of continuous quality improvement (CQI) and monitoring of practices countered these implementation biases.	Mixed methods

Brown, C. H., Chamberlain, P., Saldana, L., Padgett, C., Wang, W., & Cruden, G. (2014). Evaluation of two implementation strategies in 51 child county public service systems in two states: Results of a cluster randomized head-to-head implementation trial. *Implementation Science, 9*, 134. http://doi.org/10.1186/s13012-014-0134-8

Study Description	Study Type
This cluster randomized trial found that implementation scores produced for final implementation stage reached (competency) + number of families served + quality of the implementation. There was no statistically significant difference between intervention conditions with regard to these implementation scores.	Mixed Methods

Bruns, E. J., Suter, J. C., & Leverentz-Brady, K. (2008). Is it wraparound yet? Setting quality standards for implementation of the wraparound process. *The Journal of Behavioral Health Services & Research, 35*(3), 240–252. http://doi.org/10.1007/s11414-008-9109-3

Study Description	Study Type
Quality standards were developed that appeared to fit the research-defined markers of implementation fidelity and be related to positive outcomes in high-fidelity sites.	Mixed methods

Byrnes, H. F., Miller, B. A., Aalborg, A. E., Plasencia, A. V., & Keagy, C. D. (2010). Implementation fidelity in adolescent family-based prevention programs: Relationship to family engagement. *Health Education Research, 25*(4), 531–541. http://doi.org/10.1093/her/cyq006

Study Description	Study Type
Strict adherence to fidelity reduced parent satisfaction with the program but increased youth satisfaction. Parents expected to be treated more as peers by the trainers and have their requests respected when asking for changes to the schedule or process to accommodate family needs. Trainers who had a warm delivery style and managed time effectively were more likely to produce greater engagement and better outcomes from participants.	Mixed methods

Cantu, A. M., Hill, L. G., & Becker, L. G. (2010). Implementation quality of a family-focused preventive intervention in a community-based dissemination. *Journal of Children's Services*, *5*(4), 18–30. http://doi.org/10.5042/jcs.2010.0692

Study Description	Study Type
Eleven sites in statewide implementation of Strengthening Families Program 10-14 showed no relationship between program implementation quality or adherence and short-term program outcomes. The outcomes were more strongly related to proper targeting of participants, steady attendance, and evidence-based components than to strict adherence to program delivery processes.	Mixed methods

Carpenter, L. M., Lachance, L., Wilkin, M., & Clark, N. M. (2013). Sustaining school-based asthma interventions through policy and practice change. *Journal of School Health, 83*(12), 859–866.

Study Description	Study Type
Implementation success was due to careful monitoring of data on students' behaviors and needs, increased education and training of staff by a local hospital, and developing linkages with community-based health care clinics. Implementation success resulted in more funding to sustain the program.	Mixed methods

Chovil, N. (2010). One small step at a time: Implementing continuous quality improvement in child and youth mental health services. *Child & Youth Services, 31*(1-2), 21–34. http://doi.org/10.1080/01459350903505561

Study Description	Study Type
The CQI process improved training effectiveness of staff, reduced "no shows" of clients who then received more services, and produced better youth outcomes according to an adolescent functioning survey.	Mixed methods

Cox, J. E., Buman, M. P., Woods, E. R., Famakinwa, O., & Harris, S. K. (2012). Evaluation of raising adolescent families together program: A medical home for adolescent mothers and their children. *American Journal of Public Health, 102*(10), 1879–1885.

Study Description	Study Type
A medical home model with comprehensive and integrated medical care and social services can effectively address the complex needs of adolescent parents and their children. Implementation success was related to the experience and training levels of the medical home staff.	Mixed methods

Crosse, S., Williams, B., Hagen, C. A., Harmon, M., Ristow, L., DiGaetano, R., … & Derzon, J. H. (2011). *Prevalence and implementation fidelity of research-based prevention programs in public schools. Final report*. Washington, DC: Office of Planning, Evaluation and Policy Development, U.S. Department of Education. Retrieved from http://eric.ed.gov/?id=ED529062

Study Description	Study Type
Approximately 44.3% of the research-based curriculum programs, or just 3.5% of all programs implemented in schools, met minimum standards for overall fidelity of implementation based on four program-specific measures. Training and support were needed to improve the quality of program implementation.	Mixed methods

Domitrovich, C. E., & Greenberg, M. T. (2000). The study of implementation: Current findings from effective programs that prevent mental disorders in school-aged children. *Journal of Educational and Psychological Consultation, 11*(2), 193–221.

Study Description	Study Type
Among the 34 programs studied, four found that implementation quality and specific capacity to implement the interventions were associated with positive outcomes.	Mixed methods

Dusenberry, L., Brannigan, R., Falco, M., & Lake, A. (2004). An exploration of fidelity of implementation in drug abuse prevention among five professional groups. *Journal of Alcohol and Drug Education, 47*(3), 4.

Study Description	Study Type
There was a tension between the need for fidelity and the need for flexibility; barriers to fidelity included lack of time, lack of resources, lack of support, lack of understanding what fidelity means, wrong personnel, and resistance by students (teachers changed their approach to engage students). Greater fidelity was present when there was strong administrative leadership and a good fit between teacher and program, and students and program.	Qualitative

Fagan, A. A., Hanson, K., Hawkins, J. D., & Arthur, M. W. (2008). Bridging science to practice: Achieving prevention program implementation fidelity in the Community Youth Development Study. *American Journal of Community Psychology, 41*(3-4), 235–249. http://doi.org/10.1007/s10464-008-9176-x

Study Description	Study Type
By using the Communities that Care (CTC) model, 12 communities in the treatment group replicated 13 prevention programs with high rates of adherence to core components and in accordance with dosage requirements. Access to trained technical assistance consultants boosted implementation quality.	Mixed methods

Fagan, A. A., Hanson, K., Briney, J. S., & David Hawkins, J. (2012). Sustaining the utilization and high quality implementation of tested and effective prevention programs using the Communities That Care prevention system. *American Journal of Community Psychology, 49*(3-4), 365–377. http://doi.org/10.1007/s10464-011-9463-9

Study Description	Study Type
Communities That Care (CTC) communities that received training and technical assistance were more likely to sustain and implement prevention programs with fidelity. They served significantly more youth and families, and monitored quality more than the control sites.	Mixed methods

Fox, D. P., Gottfredson, D. C., Kumpfer, K. K., & Beatty, P. D. (2004). Challenges in disseminating model programs: A qualitative analysis of the Strengthening Washington DC Families Program. *Clinical Child and Family Psychology Review, 7*(3), 165–176.

Study Description	Study Type
Cultural relevance, overuse of incentives and inaccessible program language resulted in poor attendance in the program, which was related to poor outcomes. Poor organization of program services was related to diminished access to technical assistance and poorer implementation. Program administrators did not support program implementation and staff were not supported, were not paid on time, and had more turnover. Implementing the program in a public housing complex also created problems of fit, because participants were less likely to attend sessions.	Qualitative

Gerstenblith, S. A., Soulé, D. A., Gottfredson, D. C., Lu, S., Kellstrom, M. A., Womer, S. C., & Bryner, S. L. (2005). After-school programs, antisocial behavior, and positive youth development: An exploration of the relationship between program implementation and changes in youth behavior. *Organized activities as contexts of development: Extracurricular activities, after-school and community programs*, 457-478.

Study Description	Study Type
Lack of training produced behavioral disruptions during program sessions that compromised implementation quality and ultimately affected youth outcomes.	Mixed methods

Gillham, J. E., Reivich, K. J., Brunwasser, S. M., Freres, D. R., Chajon, N. D., Kash-MacDonald, V. M., ... & Seligman, M. E. (2012). Evaluation of a group cognitive-behavioral depression prevention program for young adolescents: A randomized effectiveness trial. *Journal of Clinical Child & Adolescent Psychology*, *41*(5), 621–639.

Study Description	Study Type
The program was weakly effective when delivered by trained teachers versus clinical or research staff. Rates of hopelessness and depression were reduced) for those in the intervention group.	Mixed methods

Glisson, C. (2007). Assessing and changing organizational culture and climate for effective services. *Research on Social Work Practice, 17*(6), 736–747. http://doi.org/10.1177/1049731507301659

Study Description	Study Type
Youth outcomes were better in organizations scoring higher on organizational climate. Health clinics where staff reported a healthier climate experienced less turnover.	Quantitative

Goldman, G. (2009). Initial validation of a Brief Individual Readiness for Change Scale (BIRCS) for use with addiction program staff practitioners. *Journal of Social Work Practice in the Addictions, 9*(2), 184–203. http://doi.org/10.1080/15332560902858596

Study Description	Study Type
Greater flexibility and more time to deliver EBPs as designed, staff experience, proficiency of direct service skills, use of technology and feelings about using technology, and making an impact with clients were important predictors of better outcomes.	Mixed methods

Gottfredson, D. C., Gerstenblith, S. A., Soulé, D. A., Womer, S. C., & Lu, S. (2004). Do afterschool programs reduce delinquency? *Prevention Science, 5*(4), 253–266.

Study Description	Study Type
Trainers with the most skills inadvertently encouraged deviance by normalizing it during program sessions (i.e., making youth feel at ease with one another). Deviance training among youth with different risk levels, in the context of deviance normalization, resulted in poorer outcomes from the intervention.	Mixed methods

Grabbe, L., Nguy, S. T., & Higgins, M. K. (2012). Spirituality development for homeless youth: A mindfulness meditation feasibility pilot. *Journal of Child and Family Studies, 21*(6), 925–937. http://doi.org/10.1007/s10826-011-9552-2

Study Description	Study Type
A flexible fidelity approach allowed for successful adaptation of program with homeless youth participants who showed improvements in resilience, well-being, psychological symptoms, and spiritualty, but no improvements in impulsiveness.	Mixed methods

Green, B. L., Furrer, C. J., Worsel, S. D., Burrus, S. W., & Finigan, M. W. (2009). Building the evidence base for family drug treatment courts: Results from recent outcome studies. Retrieved from http://pdxscholar.library.pdx.edu/sysc_fac/4/

Study Description	Study Type
Most of the sites demonstrated positive outcomes for time in treatment, success in treatment, and increased reunification. Integrated models that had one judge oversee the drug charge and the dependency case performed better than programs were the two cases were not integrated under one judge. Community collaboration and a non-adversarial process are associated with these integrated models. Higher-risk families also fared better than lower-risk families.	Quantitative

Green, B. L., Furrer, C., Worcel, S., Burrus, S., & Finigan, M. W. (2007). How effective are family treatment drug courts? Outcomes from a four-site national study. *Child Maltreatment, 12*(1), 43–59. http://doi.org/10.1177/1077559506296317

Study Description	Study Type
New cases of abuse were no different between controls and treatment families overall, but families that received treatment the fastest were less likely to reoffend. Collaboration between child welfare and treatment systems was seen as a facilitator of program outcomes.	Mixed methods

Gueldner, B., & Merrell, K. (2011). Evaluation of a social-emotional learning program in conjunction with the exploratory application of performance feedback incorporating motivational interviewing techniques. *Journal of Educational and Psychological Consultation*, *21*(1), 1–27. http://doi.org/10.1080/10474412.2010.522876

Study Description	Study Type
Greater fidelity to the original program, without motivational interviewing, was associated with better youth outcomes.	Mixed methods

Henggeler, S. W., Sheidow, A. J., Cunningham, P. B., Donohue, B. C., & Ford, J. D. (2008). Promoting the implementation of an evidence-based intervention for adolescent marijuana abuse in community settings: Testing the use of intensive quality assurance. *Journal of Clinical Child & Adolescent Psychology, 37*(3), 682–689. http://doi.org/10.1080/15374410802148087

Study Description	Study Type
An intensive quality assurance system that engaged and motivated staff increased practitioner implementation quality of cognitive behavioral techniques and were sustained over time, but did not increase the use of client monitoring techniques.	Mixed methods

Hodgdon, H., Kinniburgh, K., Gabowitz, D., Blaustein, M., & Spinazzola, J. (2013). Development and implementation of trauma-informed programming in youth residential treatment centers using the ARC framework. *Journal of Family Violence, 28*(7), 679–692. http://doi.org/10.1007/s10896-013-9531-z

Study Description	Study Type
Five areas were identified as important for readiness to implement the Attachment Self-Regulation and Competency intervention for children and adolescents exposed to trauma: (1) environment had to be welcoming and a safe space; (2) staff training in trauma-informed care; (3) staff support and self-care given their own exposure to secondary trauma; (4) service integration to reduce fragmentation and increase certainty of outcomes when seeking help; and (5) program culture that does not punish lack of attendance, which could retrigger feelings of helplessness. Creating a trauma team before implementation was important for building skills in clients.	Qualitative

Hoffmann, F. L., Leckman, E., Russo, N., & Knauf, L. (1999). In it for the long haul: The integration of outcomes assessment, clinical services, and management decision-making. *Evaluation and Program Planning*, *22*(2), 211–219.

Study Description	Study Type
CQI process increased staff motivation and buy-in as well as belief in using their data to improve client outcomes and staff satisfaction.	Mixed methods

Hogue, A., Liddle, H. A., Singer, A., & Leckrone, J. (2005). Intervention fidelity in family-based prevention counseling for adolescent problem behaviors. *Journal of Community Psychology, 33*(2), 191–211. http://doi.org/10.1002/jcop.20031

Study Description	Study Type
Lack of specific training or orientation in the prevention population that the multidimensional family prevention (MDFP) program is designed to support may explain the reasons why some intervention implementation outcomes were not as expected.	Mixed methods

Hurley, K. D., Ingram, S., Czyz, J. D., Juliano, N., & Wilson, E. (2006). Treatment for youth in short-term care facilities: The impact of a comprehensive behavior management intervention. *Journal of Child and Family Studies, 15*(5), 615–630. http://doi.org/http://dx.doi.org.mutex.gmu.edu/10.1007/s10826-006-9040-2

Study Description	Study Type
Staff training and confidence in their proficiency to deliver a comprehensive behavior management intervention, as well as strong quality assurance practices including monitoring and feedback, resulted in better implementation, which resulted in reduced behavioral problems and increased skills among youth.	Mixed methods

Langberg, J. M., Epstein, J. N., Becker, S. P., Girio-Herrera, E., & Vaughn, A. J. (2012). Evaluation of the Homework, Organization, and Planning Skills (HOPS) intervention for middle school students with ADHD as implemented by school mental health providers. *School Psychology Review, 41*(3), 342–364.

Study Description	Type of Study
Fidelity was maintained without formal consultation supports for school mental health staff. Intervention adaptations were installed prior to implementation to provide flexible options when implemented in real-world settings by nonresearch staff.	Mixed methods

Mendenhall, A. N., Iachini, A., & Anderson-Butcher, D. (2013). Exploring stakeholder perceptions of facilitators and barriers to implementation of an expanded school improvement model. *Children & Schools*, *35*(4), 225–234. http://doi.org/10.1093/cs/cdt011

Study Description	Study Type
Lack of buy-in, understanding improvement efforts, student home life, and limited implementation time were barriers that varied by stakeholder group and may have been important for innovation success.	Qualitative

Mihalic, S. F., Fagan, A. A., & Argamaso, S. (2008). Implementing the LifeSkills Training drug prevention program: Factors related to implementation fidelity. *Implementation Science*, *3*(1), 5. http://doi.org/10.1186/1748-5908-3-5

Study Description	Study Type
Quality of implementation, adherence, and dosage were related to more positive outcomes among youth participants. This study suggests some important factors that organizations should consider to ensure fidelity, such as selecting programs with features that minimize complexity while maximizing flexibility. Time constraints in the classroom should be considered when choosing a program. Student behavior influences program delivery, so schools should train teachers in the use of classroom management skills. Schools should recognize the importance of program monitoring, training, and technical assistance to ensure quality program delivery.	Mixed methods

Minugh, P. A., Janke, S. L., Lomuto, N. A., & Galloway, D. K. (2007). Adolescent substance abuse treatment resource allocation in rural and frontier conditions: The impact of including organizational readiness to change. *The Journal of Rural Health*, *23*(s1), 84–88.

Study Description	Study Type
Organizational readiness for implementation was related to the proper assessment of substance abuse need in the community and the resulting selection of appropriate interventions for participants.	Quantitative

Pettigrew, J., Miller-Day, M., Shin, Y., Hecht, M. L., Krieger, J. L., & Graham, J. W. (2013). Describing teacher-student interactions: A qualitative assessment of teacher implementation of the 7th grade *Keepin' it REAL* substance use intervention. *American Journal of Community Psychology*, *51*(1-2), 43–56. http://doi.org/10.1007/s10464-012-9539-1

Study Description	Study Type
Fidelity was associated with teaching styles of individual facilitators and did not vary between their sessions with different cohorts of youth.	Qualitative

Rajan, S., & Basch, C. E. (2012). Fidelity of after-school program implementation targeting adolescent youth: Identifying successful curricular and programmatic characteristics. *Journal of School Health*, *82*(4), 159–165.

Study Description	Study Type
Identifying and incorporating specific curricular and programmatic characteristics associated with high levels of implementation fidelity can enhance the quality and benefit of afterschool programs. Fidelity was related to lesson clarity, more time to process complex material, learning objectives aligned with activities, alternate activities for less motivated youth, and coaching resources.	Mixed methods

Reyes, M. R., Brackett, M. A., Rivers, S. E., Elbertson, N. A., & Salovey, P. (2012). The interaction effects of program training, dosage, and implementation quality on targeted student outcomes for the RULER approach to social and emotional learning. *School Psychology Review*, *41*(1), 82.

Study Description	Study Type
There were no main effects of training, dosage, or implementation quality on student outcomes. However, youth exhibited more positive outcomes when teachers were better trained, taught more lessons, and implemented the intervention with moderate or high quality overall.	Mixed methods

Rhoades, B. L., Bumbarger, B. K., & Moore, J. E. (2012). The role of a state-level prevention support system in promoting high-quality implementation and sustainability of evidence-based programs. *American Journal of Community Psychology, 50*(3-4), 386–401. http://doi.org/10.1007/s10464-012-9502-1

Study Description	Study Type
Pennsylvania used empirical evidence to inform general and specific capacity-building and support interactions among researchers, funders, and practitioners in order to achieve population-level public health improvements using evidence-based programs and practices. At the substate level, programs that reported having more assets reported higher fidelity. Better community fit, greater access to technical assistance (TA), and use of continuous quality improvement (CQI) were associated with higher fidelity. Most adaptations were made for efficiency, not content or needs. Time, recruitment, retention, and sustaining the programs were all related to staff knowledge of the program's logic model as well as support from and collaboration with community partners, researchers, funders, and policymakers.	Quantitative

Sánchez, V., Steckler, A., Nitirat, P., Hallfors, D., Cho, H., & Brodish, P. (2007). Fidelity of implementation in a treatment effectiveness trial of Reconnecting Youth. *Health Education Research, 22*(1), 95–107. http://doi.org/10.1093/her/cyl052

Study Description	Study Type
This efficacy trial measured fidelity along five domains as predictors of outcomes and found that the program was implemented "good enough" for a real-world setting. The program was very well attended and as a result, individual grade point averages of students increased. But, this concentrated time that high-risk youth participants spent together in the program predicted increased alcohol and marijuana use and greater anger.	Quantitative

Scannapieco, M., & Painter, K. R. (2014). Barriers to implementing a mentoring program for youth in foster care: Implications for practice and policy innovation. *Child and Adolescent Social Work Journal*, *31*(2), 163–180. http://doi.org/10.1007/s10560-013-0315-3

Study Description	Study Type
Only three youth participated for 12 months and only 46 youth overall were matched from a sample of 200. Sixty percent of youth had very little contact with their mentor and none had the required 8 hours face-to-face time per month. The program was implemented too poorly to draw reliable conclusions.	Quantitative

Schoenwald, S. K., Halliday-Boykins, C. A., & Henggeler, S. W. (2003). Client-level predictors of adherence to MST in community service settings. *Family Process, 42*(3), 345–359. http://doi.org/10.1111/j.1545-5300.2003.00345.x

Study Description	Study Type
Multisystemic Therapy (MST) adherence ratings were positively associated with caregiver–therapist ethnic match and educational disadvantage of caregivers. Adherence was marginally associated with economic disadvantage of caregivers. Economically advantaged caregivers may find the action-oriented nature of MST as intrusive in comparison to conceptions of mainstream counseling. Adherence ratings were negative for referrals from school suspensions and pretreatment arrests and lower for youth referred for criminal justice and substance abuse offenses than for youth referred for only substance abuse or status offenses. Related to this finding, counselors demonstrated resistance working with delinquent youth, especially those referred for violent offenses.	Quantitative

Spoth, R., Guyll, M., Lillehoj, C. J., Redmond, C., & Greenberg, M. (2007). PROSPER study of evidence-based intervention implementation quality by community–university partnerships. *Journal of Community Psychology*, *35*(8), 981–999. http://doi.org/10.1002/jcop.20207

Study Description	Study Type
The results revealed uniformly high rates of implementation adherence—averaging over 90%—and other indicators of implementation quality for both family-focused and school-based interventions. Team effectiveness, meeting quality, staff attitudes toward prevention, and use of technical assistance all increased implementation quality. Factors closest to the direct service delivery process were more influential impacting implementation quality than were factors at the organizational or external levels of action.	Mixed methods

Spoth, R., Guyll, M., Redmond, C., Greenberg, M., & Feinberg, M. (2011). Six-year sustainability of evidence-based intervention implementation quality by community-university partnerships: The PROSPER Study. *American Journal of Community Psychology, 48*(0), 412–425. http://doi.org/10.1007/s10464-011-9430-5

Study Description	Study Type
Sustainability of implementation quality in PROSPER communities was related to access and quality of technical assistance. Strong community partnerships also appeared to be important in the delivery of well-implemented interventions of any type.	Mixed methods

Spoth, R., Guyll, M., Trudeau, L., & Goldberg-Lillehoj, C. (2002). Two studies of proximal outcomes and implementation quality of universal preventive interventions in a community-university collaboration context. *Journal of Community Psychology*, *30*(5), 499–518. http://doi.org/10.1002/jcop.10021

Study Description	Study Type
University–community partnerships increased implementation adherence. While sites did not vary in terms of outcomes related to fidelity at program exit, those sites that implemented the intervention with greater adherence produced greater long-term outcomes among participants 18 months after program exit.	Mixed methods

Steinka-Fry, K. T., Wilson, S. J., & Tanner-Smith, E. E. (2013). Effects of school dropout prevention programs for pregnant and parenting adolescents: A meta-analytic review. *Journal of the Society for Social Work and Research*, *4*(4), 373–389. http://doi.org/10.5243/jsswr.2013.23

Study Description	Study Type
Systematic review with meta-analysis of school dropout programs found that implementation quality strongly moderated program effectiveness.	Mixed methods

Sy, A., & Glanz, K. (2008). Factors influencing teachers' implementation of an innovative tobacco prevention curriculum for multiethnic youth: Project SPLASH. *Journal of School Health*, *78*(5), 264–273.

Study Description	Study Type
Teacher self-efficacy and teaching experience was correlated with higher implementation, while perceived complexity of the curriculum was associated with incomplete implementation. The lack of specific training in health areas was associated with poorer implementation of smoking cessation curriculum with students. Implementation shortcomings were affected by time shortages, where teachers felt pressured to complete the curriculum in shorter timeframes.	Mixed methods

Vandegrift, J. A., et al. (1991). *Powerful stories, positive results: Arizona at-risk policy report, FY 1990-91 [Executive Summary]*. Retrieved from http://eric.ed.gov/?id=ED340126

Study Description	Study Type
Implementation factors associated with more successful outcomes included staff willingness to work with at-risk youth, administrative support for new programs/change, evaluation assistance, strong program leadership, staff commitment to working with parents of at-risk students, ongoing dialogue/collegiality among teachers on how to assist at-risk students, integrated school-district plan for meeting needs of at-risk students, alignment of school-district philosophies toward at-risk students (e.g., testing, curriculum), availability of funds/resources earmarked for at-risk youth, school and community collaboration in meeting student/parent needs, and clear communication to all staff regarding program objectives, implementation, and a process for making implementation refinements.	Mixed methods

Walking Eagle, K. P., Miller, T. D., Cooc, N., LaFleur, J., & Reisner, E. R. (2009). *Evaluation of New Jersey after 3: Reaching and engaging New Jersey's youth through afterschool programs, 2005–2008*. New Brunswick, NJ: New Jersey After 3.

Study Description	Study Type
Weaker outcomes were found in schools with insufficient administrative support, lack of knowledge on student needs, no feedback on performance from state funders, poorly qualified staff, limited access to sufficient resources from host schools, limited supplies and materials, inadequate space and funding, and lack of community resources that can supplement and reinforce programming goals.	Mixed methods

Wang, W., Saldana, L., Brown, C. H., & Chamberlain, P. (2010). Factors that influenced county system leaders to implement an evidence-based program: A baseline survey within a randomized controlled trial. *Implementation Science*, *5*, 72. http://doi.org/10.1186/1748-5908-5-72

Study Description	Study Type
Organizational climate and readiness to adopt evidence-based practices (EBP) were related to, but did not moderate, days to consent to join the study of the program. Duration of time before program entry was the strongest predictor of days to consent.	Quantitative

Main Findings and Credibility of the Evidence

Category	Interpretive Statement	Number of Studies	Type of Evidence (Qualitative or Quantitative)	Credibility of Evidence 1—Questionable, 2—Low, 3—Medium, 4—High			
Contextual Fit	Implementation quality was compromised and participant engagement was reduced when programs were not a good fit for the readiness of clients or with the cultural, physical, or socioeconomic context.	17	Mixed	1	2	3	**4**
	Following strict fidelity protocols may trigger underlying issues (e.g., trauma) in vulnerable populations by enforcing compliance requirements (e.g., attendance).	6	Mixed	1	2	**3**	4
	Programs that serve clients from multiple systems must have ongoing support from community collaborators to remove any system-created disincentives that could jeopardize outcomes.	17	Mixed	1	**2**	3	4
	Support systems that align needs and resources across policy and practice sectors (i.e., state funder, local providers) are more likely to sustain high-quality programs that seed population-level outcomes.	9	Mixed	1	2	**3**	4
Organizational Readiness	General capacity (e.g., infrastructure, financial stability) is related to implementation integrity and sustaining quality over time and, when lacking, may bias the organization's selection of programs or services in a way that does not meet the community's needs.	16	Mixed	1	2	**3**	4
	Specific capacity (e.g., intervention-specific skills and supports) was related to implementation integrity but may have unintended negative consequences on outcomes due to interaction effects between program staff and youth/caregiver background characteristics (e.g., race, socioeconomic status, risk).	27	Mixed	1	**2**	3	4
Different Implementation Stages Require Different Actions	Implementation effectiveness depends on successfully addressing issues specific to different stages of the implementation cycle.	49	Mixed	1	2	3	**4**

Category	Interpretive Statement	Number of Studies	Type of Evidence (Qualitative or Quantitative)	Credibility of Evidence 1—Questionable, 2—Low, 3—Medium, 4—High			
	Creating collaborative community linkages and a strong stakeholder team committed to change is important when selecting an intervention to be implemented.	11	Mixed	1	2	3	**4**
	When adopting an intervention, staff at all levels should be trained in the purpose of the program, the evidence of its value, and how it aligns with the agency's mission. Staff should have an opportunity to work through doubts that the program will work.	10	Mixed	1	2	**3**	4
	Before installing an intervention, organizations should assess and address any adverse implications for staff roles, workloads, technology, space, or prior commitments.	11	Mixed	1	**2**	3	4
	During the initial implementation stage, staff and participant feedback should be collected and used to refine the service delivery process and increase buy-in for the program.	8	Mixed	1	**2**	3	4
	Sustaining implementation quality requires all of the following: low staff turnover, adequate staff supports, engaged funders and policymakers, access to high-quality technical assistance and training, and use of data to assess changing needs and resources.	4	Mixed	1	2	3	**4**
Staff Competencies	In addition to training in specific program content and delivery process, staff should be trained in the program's logic model and underlying theory of change.	9	Mixed	1	2	**3**	4
	In addition to reviewing educational and technical background, staff selection criteria should consider other factors that might align with the population the program serves or the issue the program addresses.	3	Mixed	1	**2**	3	4
Staff Support	At all phases of implementation access to high-quality technical assistance can improve staff capacity to deliver the program effectively.	26	Mixed	1	2	**3**	4

Category	Interpretive Statement	Number of Studies	Type of Evidence (Qualitative or Quantitative)	Credibility of Evidence 1—Questionable, 2—Low, 3—Medium, 4—High			
	Administrative practices and operational policies should be reviewed and revised to reduce or remove any barriers that limit staff support or thwart program objectives.	24	Mixed	1	2	**3**	4
Quality and Fidelity of Practices	Use of continuous quality improvement practices can have unintended negative effects on staff if used only for compliance (quality assurance/control) purposes.	13	Mixed	1	2	**3**	4
	Implementation fidelity may affect youth and caregivers differentially and produce more positive outcomes with youth than adults, who may disengage if the program cannot be changed to fit their needs.	7	Mixed	1	**2**	3	4
	Programs that ensure quality through the use of a flexible fidelity framework with core components, rather than prescriptive sequencing of elements, are important when working in chaotic settings or with clients under duress.	6	Mixed	1	2	**3**	4

Coding Sheet

Study ID:		First Author Last Name:		Year:		Title's First Word:	

1. Finding: Directly quoting finding(s) from the study

2. Finding Category:

Direction of Results				Direction of Results			
Category	**Absent**	**-**	**+**	**Category**	**Absent**	**-**	**+**
Specific capacity was related to intervention outcomes.	0	1	2	Full implementation process was related to intervention outcomes.	0	1	2
General capacity was related to intervention outcomes.	0	1	2	Efficiency innovations were related to intervention outcomes.	0	1	2
Staff motivation was related to intervention outcomes.	0	1	2	Content adaptations were related to intervention outcomes.	0	1	2
Use of CQI was related to intervention outcomes.	0	1	2	Sustainability activities during implementation were related to intervention outcomes.	0	1	2
Implementation quality was related to intervention outcomes.	0	1	2	Taking an intervention to scale was related to intervention outcomes.	0	1	2
Intervention fit within community context was related to intervention outcomes.	0	1	2	Organizational appetite for risk was related to intervention outcomes.	0	1	2
Intervention selection process was related to intervention outcomes.	0	1	2	Staff selection was related to intervention outcomes.	0	1	2
Intervention adoption process was related to intervention outcomes.	0	1	2	Training was related to intervention outcomes.	0	1	2
Intervention installation process was related to intervention outcomes.	0	1	2	Decision support systems were related to intervention outcomes.	0	1	2
Initial implementation process was related to intervention outcomes.	0	1	2	System influencers were related to intervention outcomes.	0	1	2
Program leadership was related to intervention outcomes.	0	1	2	Intervention advocates were related to intervention outcomes.	0	1	2
Access to technical assistance was related to intervention outcomes.	0	1	2	Facilitative administration was related to intervention outcomes.	0	1	2

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Direction of Results				Direction of Results			
Category	**Absent**	**-**	**+**	**Category**	**Absent**	**-**	**+**
Quality of technical assistance was related to intervention outcomes.	0	1	2	Fidelity flexibility was related to intervention outcomes.	0	1	2
Performance pressures were related to intervention outcomes.	0	1	2	Collaborative community/agency linkages.	0	1	2
Other:				Other:			

3. Rate the credibility of the qualitative findings within the context of the evidence presented:

   a. Finding is based on what type of information?

0	None	1	Observations	2	Individual interviews
3	Group interviews	4	Focus groups	5	Observations and interviews
6	Document review	7	Three or more methods	8	Fidelity rating scale
9	Other (describe):				

[a] focus group is a collection of people who do not know each other in advance of the process. In a group interview, individuals know one another in advance of the process.

   b. Rate the amount of descriptive information presented to support the findings:

0	None (no description)	1	A little (thin description)	2	A lot (thick description)	3	Not applicable

   c. Determine the credibility of the findings (0 = questionable, 1 = low, 2 = medium, 3 = high):

Step 1: Are the findings clearly connected with direct quotes or thick description of observations, rather than just the opinion of the researcher with little connection to the evidence?	If "No," code credibility = 0 If "Yes," enter 1 here 99 = Not applicable	
Step 2: Is there an adequate amount of qualitative data to have confidence in the findings, or would additional time in the field have produced different findings? If different methods are triangulated to produce the finding, then credibility is higher. If there is no indication of the number of interviews or time spent observing, then credibility is weakened.	If "No," code credibility = 0 If "Yes," enter 1 here 99 = Not applicable	
Step 3: Is there evidence of careful qualitative analysis, such as using multiple coders, validation methods, qualitative software, or discussions of data validity?	If "No," code credibility = 0 If "Yes," enter 1 here 99 = Not applicable	
Credibility Rating for This Study (total steps 1–3): Not applicable = 99		

4. Rate the credibility of the quantitative findings within the context of the evidence presented:

   a. Nature of finding

0	None
1	Correlation

2	Regression coefficient (any type)
3	Mean difference, *t* test, ANOVA
4	Two-way contingency table
5	Raw frequency, rate, proportion, or percentage
6	Survival analysis
7	Other (describe)

b. Finding based on at least 85% of original sample (or subsample if this finding is based on a subsample).

0	No	1	Yes	2	Cannot determine	3	Not applicable

c. Finding reflects a post hoc analysis

0	No	1	Yes	2	Cannot determine	3	Not applicable

d. Credibility of quantitative finding (0 = questionable, 1 = low, 2 = medium, 3 = high):

Step 1: Are findings directly connected to a statistical finding and is consistent with that statistical finding in terms of statistical significance, direction of effect, and magnitude of effect (Note that not all of these will be relevant for all types of quantitative findings.)	If "No," code credibility = 0 If "Yes," enter 1 here 99 = Not applicable	
Step 2: Are findings based on at least 85% of original sample (or 85% of subsample if finding a based on a subsample).	If "No," code credibility = 0 If "Yes," enter 1 here 99 = Not applicable	
Step 3: Are clear risks of bias for findings minimized? Things to consider are (a) post hoc nature of finding (i.e., possible data fishing), (b) appropriateness of statistical method, (c) selection bias or other internal validity concerns if finding is of a causal nature, (d) poor question wording or measurement construct fit, (e) adequate statistical power if finding is one of no effect, and (f) any other concern that would raise doubt about the finding.	If "No," code credibility = 0 If "Yes," enter 1 here 99 = Not applicable	
Credibility Rating for This Study (total steps 1–3): Not applicable = 99		