

# Moving from Implementation Science to Implementation Practice: The Need to Solve Practical Problems to Improve Behavioral Health Services

Enya B. Vroom, Ph.D., M.S.

Oliver T. Massey, Ph.D.

## Abstract

*It is well recognized that the use of evidence-based practices (EBPs) is critical to improving service outcomes for those receiving behavioral health services. However, EBPs are not easily implemented in behavioral health settings, and there are many challenges to supporting these services over time. Recently, research efforts in implementation science (IS) have greatly expanded our understanding of issues that influence the successful implementation of EBPs. Unfortunately, less effort has been devoted to translating this research theory on a practical level to help individual service entities solve the specific problems of putting programs into place. A process is needed where service organizations and practitioners can build their capacity, informed by IS research, to improve service outcomes. The purpose of this commentary is to describe the IS research base, provide an introduction to implementation practice, describe challenges confronting practitioners, and propose necessary steps in building organizational capacity that enables practitioners to implement the most effective services available.*

## Introduction

Advances in research, practice, and policy related to behavioral health care have led to greater availability and emphasis on the use of interventions that have proven their effectiveness.<sup>1,2</sup> As a result, the interest, development, and implementation of evidence-based practices (EBPs) have grown exponentially.<sup>3</sup> Evidence-based practices, programs, interventions, and/or treatments can be defined as activities, frameworks, policies, and/or strategies that have been proven to be effective empirically through rigorous research and take client and practitioner values into consideration.<sup>4-9</sup>

---

Address correspondence to Enya B. Vroom, Ph.D., M.S., Department of Epidemiology, College of Public Health and Health Professions and College of Medicine, University of Florida, Gainesville, FL, USA. .

Oliver T. Massey, Ph.D., Department of Child and Family Studies, College of Behavioral and Community Sciences, University of South Florida, Tampa, FL, USA.

*Journal of Behavioral Health Services & Research*, 2022, 106–116. © 2021 National Council for Behavioral Health. DOI 10.1007/s11414-021-09765-1

Evidence-based approaches are now used by many health disciplines including medicine, behavioral health, nursing, and psychology.

Since the implementation of the Affordable Care Act, most notably the expansion of mental health and substance use parity that requires insurers to cover mental health and substance use disorders in the same manner as medical illnesses, behavioral health services are in high demand.<sup>10,11</sup> In addition, Federal funding organizations such as the Substance Abuse and Mental Health Services Administration, the Centers for Disease Control and Prevention, and the National Institutes of Health now require their grantees to use EBPs as well.<sup>10,12</sup> Although there has been an increase in the availability and utilization of EBPs in the last three decades because of the “evidence-based movement” and Federal legislation changing the landscape of behavioral health services, issues still persist with the effective translation of research into practice.<sup>5,8-11</sup> Many behavioral health practitioners and service organizations struggle with successful implementation and integration of EBPs due to a lack of organizational buy-in, insufficient leadership, a lack of knowledge surrounding implementation characteristics, funding, fit of the program, and difficulties with adaptations.<sup>13-16</sup> Due to these challenges, there has been extraordinary growth in the science of implementation over the last two decades.

The field of implementation science (IS) can be defined as methods or activities that promote and support the use of research findings and EBP.<sup>1,17,18</sup> Often thought of as an applied science,<sup>2</sup> IS seeks to bridge the gap between research and practice by attempting to translate knowledge into practical applications in behavioral health care settings.<sup>8</sup> Implementation can be defined as utilizing strategies to identify, select, incorporate, and maintain EBPs as well as systematically change organizational structure, culture, and patterns of practice within settings.<sup>19</sup> The challenges associated with implementing EBPs can hinder improvements in the quality and outcomes of behavioral health services.<sup>13</sup>

Navigating multilayered organizations and communities and their service delivery is an intricate process, often demanding extensive time and resource requirements. Early attempts at EBP dissemination have been met with barriers that may originate from the “top-down” approaches used by researchers to push EBP usage into behavioral health care settings. Research has shown that simply training practitioners in an EBP is not sufficient to ensure success. Accordingly, there is a great need for strategies that build capacity that assists with supporting and implementing innovation in community behavioral health settings.<sup>20</sup>

Written with behavioral health practitioners and service organizations in mind, the purpose of this commentary is to (1) provide a brief background of IS research and discuss the knowledge to practice gap, (2) provide an introduction to a perspective of implementation practice and its potential application for practitioners, (3) describe ongoing challenges faced by practitioners in applying IS research, and (4) and propose necessary steps in building organizational capacity that enables practitioners to implement the most effective services available.

## **Implementation Science Research**

Due to the growing appreciation and need for a theoretical foundation, the field of IS has seen a massive increase in the development and testing of implementation theory, frameworks, models, and strategies in the last 20 years.<sup>21</sup> These multiple IS theories, models, and frameworks support implementation research and provide roadmaps for the difficult processes that are involved with moving EBPs into utilization in the field.<sup>22</sup> This scientific foundation has synthesized approaches to identify the critical determinants associated with successful implementation. Work has also progressed to identify not only situational determinants of implementation success such as organizational climate but also relevant implementation strategies, evaluation techniques, and critical measures of implementation success such as fidelity and sustainability.<sup>21,22</sup> However, the

difficulty now rests on the shoulders of behavioral health researchers and practitioners to select the most appropriate approach to translate EBPs into community settings.

The main objective of these frameworks and models was to assist with the translation of EBPs into the field of practice. Yet, the emphasis remains on research assessing the relevance, breadth, and utility of the models for research rather than on the practical relevance for successfully enabling new programs and interventions. Limited information exists on how to use these models to guide practitioners in the implementation of EBPs. This may be compounded by research that is focused on establishing internal validity within randomized controlled trials (RCTs) at the expense of external validity.<sup>23</sup> The complexities of settings and contexts that are critical components to effective implementation may be minimized in highly controlled research settings. This may compromise the usability and usefulness of EBP implementation and its associated IS approaches in real practice settings.<sup>23</sup> In addition, what IS researchers and EBP developers choose to research is heavily influenced by what funding is available, which may result in EBPs and IS approaches being developed with static protocols that are highly theoretical, that are often disconnected to the end-user (i.e., practitioners and service organizations), and that do not account for the dynamic nature of behavioral health services.<sup>24</sup>

Recently, new research designs have been proposed for IS, such as hybrid trials<sup>25</sup> and user-centered designs,<sup>24,26,27</sup> that highlight both program effectiveness and implementation research working together to understand not only effectiveness but also how, why, and in what settings/contexts an EBP or IS approach works.<sup>23</sup> However, the sheer number of theories, models, frameworks, and measures may pose an impediment to selecting an IS approach and assisting in EBP implementation. This gap may be further exacerbated due to many theories and frameworks being developed across health disciplines with limited cross-discipline collaboration,<sup>21</sup> research findings being potentially contradictory across disciplines,<sup>28</sup> and existing frameworks providing limited guidance regarding methods that ensure user needs are being met.<sup>24</sup> All of these factors have contributed to a lack of cohesion and transparency among researchers,<sup>23</sup> which has led to the issue of a “knowledge to practice” gap.<sup>2</sup>

## Introduction to Implementation Practice

Westerlund and colleagues have noted the recurring question of whether findings and evidence from IS research have sufficiently reached the “world of practice”.<sup>2(p. 332)</sup> The translation of IS research into practice requires answering the question of how IS research findings can be made relevant for practitioners and service organizations. Implementation practice can be defined as the use of implementation mechanisms and activities informed by research and used by knowledgeable individuals, to facilitate the adoption, implementation, and sustainment of an evidence-based practice, model, or approach. The goal of implementation practice is to solve practical problems to successfully enhance services through practitioners and their organizations to improve outcomes for their clients.

In response to the need for IS at the practice level, the IS discipline has begun to shift toward implementation practice through the development of strategies that build capacity surrounding the implementation of EBPs.<sup>29</sup> However, these strategies have largely focused on targeting one specific EBP and often require technical assistance (TA) that is external to the service organization. Using consultative models, EBP purveyors and intermediary organizations may provide TA and training regarding their specific intervention and guide the practitioner through the process of training and implementation.<sup>30</sup> Unfortunately, these sources of support may require long-term contracts and funding to be sustainable.

Implementation knowledge is not often provided to practitioners during their formal education. In addition, limited professional development opportunities are available within service organizations to continue practitioner’s education to assist with practice translation.<sup>2</sup> The lack of

knowledge and skills of behavioral health practitioners related to EBP implementation has consistently emerged from the literature as a barrier to implementing research-supported interventions (i.e., EBPs and IS strategies).<sup>31</sup> Universities have recently begun to increase curricula surrounding EBPs, but the evidence for such teaching techniques and their effectiveness is sparse and it is doubtful that solely those efforts will lead to a behavioral health workforce that can facilitate increased and expanded use of EBPs in their practice.<sup>31</sup> In addition, general training initiatives or professional development opportunities in IS are heavily focused on engaging academic researchers and have engaged less with other key stakeholders (i.e., practitioners and service organizations) that are essential to the implementation process and its success.<sup>32</sup>

The next sections will provide an overview of specific challenges behavioral health practitioners and organizations may face when utilizing an EBP that are related to implementation practice. It will also provide recommendations for future research efforts, to be informed by key stakeholders, aimed at developing implementation practice capacity to improve the implementation of EBPs and client outcomes.

## Issues for Consideration in Implementation Practice

### Challenges to implementation of evidence-based practices

Although the promotion of EBPs in health services represented a critical advancement in behavioral health care, the well-intentioned push towards the use of EBPs often fails to close the gap between the best available research and practice.<sup>23,33–35</sup> EBPs must be effectively matched to community needs, implemented with fidelity to the standards of the intervention, and integrated within regular practices, so they may be sustained over time to ensure better outcomes for consumers. An organization adopting an EBP without first considering implementation and its associated barriers may not be able to ensure effective outcomes among clients.<sup>16,33,36,37</sup> To achieve positive outcomes, EBPs must not simply be implemented but implemented with quality.<sup>12,31</sup> However, behavioral health organizations and practitioners face significant challenges to successful implementation. These include the following: (1) being able to access and understand research findings and interpret them for the needs of their clients, agency, and community; (2) being able to identify and select EBPs they can afford; (3) being able to do the actual work of implementing the EBP through staff training, instituting new policies, and negotiating new contracts; and (4) integrating these changes so these efforts can be sustained.

Practitioners may have difficulty accessing and interpreting the research literature regarding EBPs for their service populations. Synthesizing the research literature surrounding EBPs is difficult and may not be as an intuitive process for practitioners as was originally intended by EBP developers and researchers.<sup>10</sup> Systematic reviews, meta-analyses, and literature reviews tend to predominantly include RCTs. This, coupled with research methodology and EBPs not being topics where clinicians are well-versed,<sup>10</sup> may result in valuable information being omitted from consideration when seeking information about a specific EBP.<sup>28</sup>

Practitioners may also have difficulties in matching EBPs that are often developed with very narrow and specific populations, with their more diverse clientele. Those they serve may suffer from multiple, complex issues bridging mental and physical health concerns, historic disparities and discrimination, poverty, mobility, and education. A topic that has caused tension in the research community is the discussion of fidelity and adaptation. While many argue that adaptations are necessary to meet the needs of a specific setting, others postulate that an EBP that has been adapted may compromise the core elements of the program and be less effective when compared to the original program.<sup>8,37–39</sup> Although fidelity has become the “gold standard” for successful program implementation,<sup>40</sup> it may not take into consideration how a program fits within a context. In addition, organizational characteristics such as readiness for change, climate, staffing,

leadership, and funding can significantly impact the adoption, implementation, and sustainability of EBPs.<sup>8,41</sup> Sustainability may require long-term commitments to facilitate change, including the support of new policies, procedures, and infrastructure enhancements. Supporting implementation and sustainability may require new partnerships and collaborations, sufficient funding, and ongoing problem-solving.<sup>42,43</sup> Figure 1 illustrates the core challenges of translating implementation science into implementation practice.

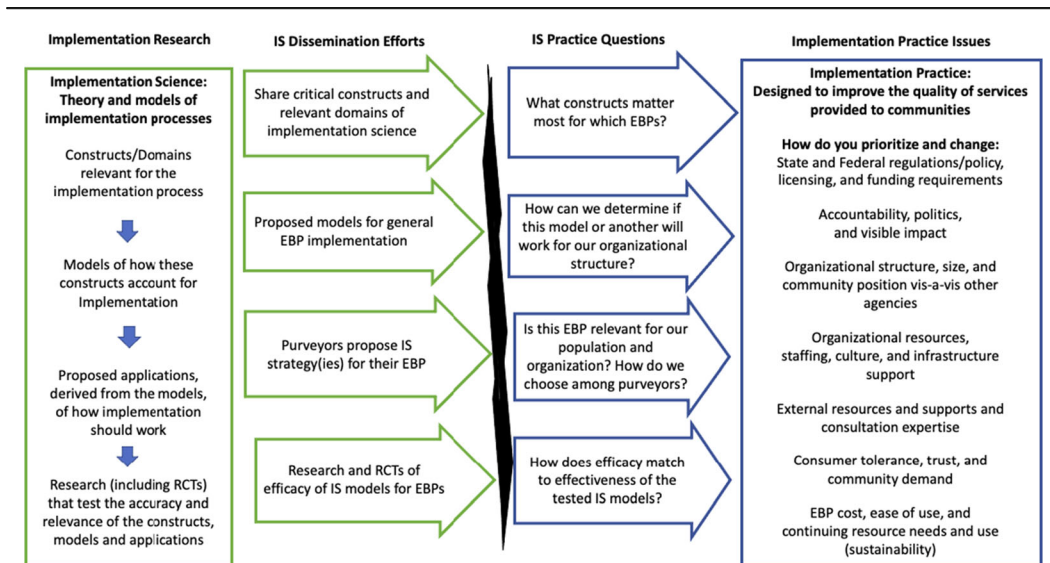
### Implementation practice capacity

A significant amount of IS research is often conducted with limited collaboration or input from key stakeholders (i.e., clients, practitioners, and service organizations).<sup>32</sup> This may result in an implementation strategy that does not take real-world barriers into consideration, that may be used incorrectly, and/or that is unable to be replicated.<sup>22,44</sup> In order to develop tangible, applicable, and sustainable strategies for capacity building among practitioners and service organizations in implementation practice, it is essential that the strategies are created and tested in collaboration with the key stakeholders intended for its use.

Given these challenges and the lack of opportunity for formal training related to EBPs and IS, strategies are needed to build practice level capacity in service organizations for identifying, adopting, implementing, and sustaining EBPs. To influence professional practice, practitioners and service organizations must know how to (1) choose between competing theories, frameworks, models, and strategies of implementation;<sup>45</sup> (2) must be able to determine which issues are most central to consider for their agency;<sup>33</sup> (3) assess fit for their population;<sup>8</sup> (4) acquire and/or allocated resources;<sup>36</sup> (5) determine which approach(es) have the highest potential to produce successful implementation in their unique service setting;<sup>36</sup> and (6) marshal resources to ensure continuation and continuity of the supports necessary for sustainability.<sup>42</sup>

This capacity must address the organization’s ability to adjust and account for changes at systems levels, within Federal and state regulations and licensing and funding requirements; at

**Figure 1**  
Core Challenges of Translating Implementation Science into Implementation Practice



organizational levels, including considering the organization of programs, the structure of the organization, and its relation to other practitioners; and within the consumer community—by building tolerance, trust, and acknowledging the expectations of consumers (see Figure 1).<sup>45</sup>

Albers and colleagues conducted a systematic integrative review examining what implementation strategies are used by implementation support practitioners (ISP) (e.g., purveyors or intermediary organizations) to assist service organizations in practice settings. Findings suggest ISPs need to have a certain set of skills and knowledge to assist service organizations in the utilization of EBPs.<sup>31</sup> However, there was limited discussion on the internal capacities needed on behalf of the service organizations themselves. There is a need to provide professional development to build capacity of current practitioners and service organizations to utilize EBPs and carry out activities associated with implementation practice. The mixed results of IS research conducted in various settings highlight the need for targeted exploration of implementation practice and capacity building in community-based and social service behavioral health care settings.<sup>22,29</sup>

To create a foundation for gaining insight regarding implementation capacity from key stakeholders, it is important to consult the research literature based on the science and practice of implementation. Although much of the information may be rooted in theory and research as opposed to practice, the IS literature provides a solid foundation of information that has allowed for the initial development and framing of the essential areas of implementation competencies that may account for successful implementation practice. Ten critical implementation areas related to practice that have been deemed essential by research for successful adoption, implementation, and sustainability of EBPs have been identified: (1) addressing fit and adaptation; (2) funding and resources; (3) establishing implementation/organizational readiness; (4) addressing organizational culture/climate and buy-in; (5) providing leadership; (6) providing education, training, and coaching; (7) navigating external policies; (8) establishing communication and collaboration networks; (9) navigating the use of data to inform and monitoring/evaluating intervention(s); and (10) ensuring sustainability.<sup>28,33,36,46–50</sup> Table 1 provides a brief overview of each implementation practice capacity and items for stakeholder consideration.

### **Next steps in building organizational capacity**

For community-based practitioners and their organizations, these implementation practice areas define competencies that may be required for the successful process of adopting, implementing, and sustaining EBPs. From a practice standpoint, what remains is the need to identify the importance and presence of these areas from the stakeholder's perspective and how these areas are or should be made explicit in the organization. In addition, research must determine which of these areas compose a critical baseline capacity within the organization internally and which may be best addressed through external consultation and TA. While TA efforts can assist in building capacity, research has shown that to fully benefit from TA, general capacity must be present within the organization to maximize program effectiveness.<sup>28</sup>

Practitioners and/or their service organizations must determine the discrepancies between capacities they need, the capacities they have, and the ideal process to bridge this gap. It is critical for future research to identify and develop methods and tools to measure the areas of implementation practice capacity so they may be operationalized and replicated as well as prospectively identified to enable targeted capacity building efforts. While work on assessing organizational capacity has begun (e.g., State Implementation and Scaling-Up of Evidence-based Practices)<sup>51</sup>, it could benefit from further development. The uptake of an evidence-based program or policy, the size of the organization and its relationship to funders and other agencies, and local government and the community will all influence these considerations.

Among the implementation practice areas described in Table 1, it may be hypothesized that some areas could be readily addressed through strengthening existing internal capacity. It may be



**Table 1**  
Implementation Practice Capacities: Definitions

<b>Implementation practice capacities</b>	<b>Definition</b>
Fit/adaptation	The capacity to control and manage organizational and community demands to ensure a balance between fit and fidelity to the critical components of the program. This focuses on the importance of recognizing the need, values, and acceptability of the EBP within the population and the capacity of the agency against the critical requirements and components of the program in question. This may include the capacity to make meaningful adaptations when necessary to increase the fit and acceptability for the organization and/or population of interest.
Funding/resources	The capacity to acquire the funding and resources necessary to adopt, implement, and sustain new programming. This may involve funding from the local, state, and/or Federal levels and resources such as physical space, technology, education, and time.
Implementation/organizational readiness	The capacity to develop or build organizational readiness for the new program. This may involve reviewing, documenting, and modifying policies and procedures, increasing program awareness, and can include identifying and addressing indicators of organizational commitment to implement the new intervention.
Organizational culture and climate	The capacity to identify and change organizational culture (underlying beliefs, assumptions, and missions/values that contribute to the environment of an organization) and organizational climate (shared perceptions of the psychological impact of the work environment on the employee).
Leadership	The capacity to provide dedicated leadership to the implementation, integration, and support of the new program. This may entail new leadership structures, reassignment of positions or lines of authority, and empowering decision-making and supervisory responsibilities.
Education/training/coaching	The capacity to provide ongoing training and education both during implementation and later for sustaining the new program. This may include periodic retraining, as well as onboarding new staff and acquiring train the trainer opportunities.
External policy	The capacity to remain informed and act on external policy, mandates, and recommendations and guidelines on the local, state, and federal levels that have the potential to facilitate and/or hinder the implementation and maintenance of a new intervention.
Collaboration/communication (both internal and external)	The capacity to build and maintain collaborations and communication channels among required partners.

**Table 1**  
(continued)

Implementation practice capacities	Definition
Data-based decision-making and evaluation	Internally, this may include leadership debriefing with staff and providing ample opportunity and support for inter-organization collaboration as well as organizations communicating goals and visions to its staff and/or instituting formal internal policies to ensure support of the organization's mission can be fulfilled. Externally, multiple service organizations may be in communication with one another with the intention to share insight on the implementation process.
Sustainability	The capacity to collect and utilize data coming from monitoring and evaluation activities to make decisions regarding service implementation. This may include monitoring fidelity and acquiring feedback from implementers about the progress of EBP implementation. The capacity to sustain the supports necessary to ensure the ongoing success of the program. This will likely include maintaining the resources (e.g., monetary and/or personnel), required for the program, ancillary support services, and integrating the program into regular business practices.

expected behavioral health and social service agencies have the structure for education and training experiences for accreditation purposes and for professional licensure and certification. Educating and training for EBPs may be handled internally or through established educational and training partnerships.<sup>15,33,36</sup> Likewise, building and maintaining communication and collaboration within and across the agency and its partners may be part of an internal capacity.<sup>33</sup> Quality circles and continuous quality improvement (i.e., monitoring and/or evaluation) efforts logically reside within the agency.<sup>52</sup> The identification and selection of potential capacity building strategies, however, may be hypothesized to most efficiently be accomplished through external consultation and TA. For example, practitioners may not have the time or resources to identify and compare potential new EBPs as they become available.

Other competencies, such as establishing implementation readiness, may be built through a consultative process where the unique components of a proposed EBP are considered in light of organizational needs and positioning. Researchers as well as EBP developers play a crucial role in the translational of research to practice, and it is essential that these purveyors work collaboratively with the target population to maximize the usefulness and sustainability of the intended product.<sup>28</sup>

### Implications for Behavioral Health

Historically, research and its corresponding initiatives (e.g., RCTs, EBPs, and/or trainings) have been conducted and/or developed in the absence of the primary stakeholders: the consumers and practitioners and their service organizations. Because of this, certain methods or strategies related to improving the implementation process may be proven to be less efficient and effective than they



were originally intended.<sup>53</sup> Therefore, the science and practice of implementation needs to be developed and defined in collaboration with primary stakeholders (i.e., service organizations and their frontline staff) instead of in their absence. The development of implementation practice areas, competencies, and strategies is a critical first step.

Due to the current gaps in the literature, there is an additional need to acquire behavioral health organization and practitioner perceptions of the implementation process and to confirm what implementation practice areas are deemed essential within their specific settings. It is suggested that future research explore service organizations' perceptions of implementation capacity building and what skills and resources they think are necessary to successfully adopt, implement, and sustain EBPs.

Conceptual and operational clarity surrounding IS frameworks, models, and strategies is also required to optimize their effectiveness in behavioral health care service settings. These efforts will serve to inform future research and practice efforts attempting to build general/baseline capacity. Incorporating stakeholders' feedback into the creation of a training initiative aimed at building implementation practice capacity may result in a tailored framework and training techniques, greater buy-in within the organizations, and increased efficacy in the operationalization of capacity building strategies and interpretation of data evaluating a training initiative.<sup>54</sup>

The field of IS has provided the foundation and general explanation of what needs to be accomplished for effective services to be in place. The next step is doing that work (implementation practice) and prospectively assessing what needs to take place within the service organization regarding EBP implementation for it to succeed and be sustainable. Simply adopting an EBP may not be sufficient to address the needs of clients, the expertise of practitioners, and the requirements of the service organization. Organizations must often restructure the way they do business to enable them to identify, choose, implement, and support evidence-based services. Agencies must have continuity and consistency in their business and clinical practices, and this may contribute to an over reliance on passive compliance and reliance on the status quo in service delivery. The critical nature of IS is the recognition that implementing new programs requires a significant investment of resources to continually improve outcomes for consumers. This must be accomplished through a process that maximizes opportunities for service organizations and practitioners to take advantage of new interventions. This can only be accomplished through collaboration with service organizations and practitioners and giving them the resources, knowledge, and skills necessary to successfully utilize EBPs with their unique clients and communities.

## Declarations

*Conflict of Interest* The authors declare that they have no conflict of interest.

## References

1. Aarons GA, Wells RS, Zagursky K, et al. Implementing evidence-based practice in community mental health agencies: A multiple stakeholder analysis. *American Journal of Public Health*. 2009;99(11):2087–2095.
2. Westerlund A, Nilsen P, Sundberg L. Implementation of implementation science knowledge: The research-practice gap paradox. *Worldviews on Evidence-based Nursing*. 2019;16(5):332-334.
3. Painter K. Evidence-based practice in community mental health: Outcome evaluation. *Journal of Behavioral Health Services and Research*. 2012;39(4):434-444.

4. American Psychological Association, APA Presidential Task Force on Evidence-Based Practice. Evidence-based practice in psychology. *American Psychologist*. 2006;61(4):271-285.
5. Fixsen DL, Blase KA, Naoom SF, et al. Core implementation components. *Research on Social Work Practice*. 2009;19(5):531-540.
6. Hoagwood K, Johnson J. School psychology: A public health framework I. From evidence-based practices to evidence-based policies. *Journal of School Psychology*. 2003;41(1):3-21.
7. Kazdin AE. Evidence based treatment and practice: New opportunities to bridge clinical research and practice, enhance knowledge base, and improve patient care. *American Psychologist*. 2008;63(3):146-159.
8. Massey OT, Vroom EB. The role of implementation science in behavioral health. In: BL Levin, A Hanson (eds). *Foundations of Behavioral Health*, Third Edition. New York, Springer, 2020, pp. 101-118.
9. Rabin BA, Brownson RC. Terminology for dissemination and implementation research. In: RC Brownson, GA Colditz, EK Proctor (eds). *Dissemination and Implementation Research in Health: Translating Science to Practice*, Second Edition. New York: Oxford University Press, 2018, pp. 19-45.
10. Marlowe DB, Cannata E, Bertram R, et al. Teaching evidence-based practice: A comparison of two disciplines. *Journal of Family Social Work*. 2020;23(2):133-150.
11. Stanhope V, Choy-Brown M, Barringer S, et al. A comparison of how behavioral health organization utilize training to prepare for health care reform. *Implementation Science*. 2017;12(19).
12. Meyers DC, Durlak JA, Wandersman A. The quality implementation framework: A synthesis of critical steps in the implementation process. *American Journal of Community Psychology*. 2012;(3-4):462-480.
13. Aarons GA, Sommerfeld DH, Walrath-Greene CM. Evidence-based practice implementation: The impact of public versus private sector organization type on organizational support, provider attitudes, and adoption of evidence-based practice. *Implementation Science*. 2009;4(83).
14. Chinman M, Hannah G, Wandersman A, et al. Developing a community science research agenda for building community capacity for effective preventive interventions. *American Journal of Community Psychology*. 2005;35(3):143-157.
15. Willging CE, Gunderson L, Green AE, et al. Perspectives from community-based organizational managers on implementing and sustaining evidence-based interventions in child welfare. *Human Service Organizations: Management, Leadership, and Governance*. 2018;42(4):359-379.
16. Durlak JA, DuPre EP. Implementation matters: a review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology*. 2008;41(3-4):327-350.
17. Bauer MS, Damschroder L, Hagedorn H, et al. An introduction to implementation science for the non-specialist. *BMC Psychology*. 2015;3(32):1-12.
18. Fixsen DL, Naoom SF, Blase KA, et al. *Implementation research: A synthesis of the literature*. FMHI Publication #231. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network, 2005.
19. Kendall PC, Beidas RS. Guiding theory for dissemination and implementation research. In: RS Beidas, PC Kendall (eds). *Dissemination and Implementation of Evidence-based Practices in Child and Adolescent Mental Health*. New York: Oxford University Press, 2014, pp. 9-21.
20. Glisson C, Green P, Williams NJ. Assessing the organizational social context (OSC) of child welfare systems: Implications for research and practice. *Child Abuse and Neglect*. 2012;36(9):621-632.
21. Nilsen P. Making sense of implementation theories, models and frameworks. *Implementation Science*. 2015;10(53).
22. Birken SA, Powell BJ, Shea CM, et al. Criteria for selecting implementation science theories and frameworks: Results from an international survey. *Implementation Science*. 2017;12(124).
23. Barwick M, Dubrowski R, Damschroder L. (2020). Factors associated with effective implementation: Research and practical implications. In: B Albers, A Shlonsky, & R. Mildon (eds.). *Implementation Science 3.0*. Cham, Switzerland: Springer Nature, 2020, pp. 81-100.
24. Lyon AR, Koerner K. User-centered design for psychosocial intervention development and implementation. *Clinical Psychology Science and Practice*. 2016;23(2):180-200.
25. Curran GM, Bauer, M, Mittman B, et al. Effectiveness implementation hybrid designs: Combining elements of clinical effectiveness and implementation research to enhance public health impact. *Medical Care*. 2012;50(3):217-226.
26. Dopp AR, Parisi KE, Munson SA, et al. Aligning implementation and user-centered design strategies to enhance the impact of health services: Results from a concept mapping study. *Implementation Science Communications*. 2020;1(17).
27. Lyon AR, Brewer SK, Areán PA. Leveraging human-centered design to implement modern psychological science: Return on an early investment. *American Psychologist*. 2020;75(8):1067-1079.
28. Wandersman A, Duffy J, Flaspohler P, et al. Bridging the gap between prevention research and practice: The interactive systems framework for dissemination and implementation. *American Journal of Community Psychology*. 2008;41(3-4):171-181.
29. Leeman J, Calancie L, Hartman MA, et al. What strategies are used to build practitioners' capacity to implement community-based interventions and are they effective?: A systematic review. *Implementation Science*. 2015;10(80).
30. Proctor E, Hooley C, Morse A, et al. Intermediary/purveyor organizations for evidence-based interventions in the US child mental health: Characteristics and implementation strategies. *Implementation Science*. 2019;14(3).
31. Albers B, Metz A, Burke K, et al. Implementation support skills: Findings from a systematic integrative review. *Research on Social Work Practice*. 2021;31(2):147-170.
32. Lyon AR, Comtois KA, Kerns SE, et al. Closing the science-practice gap in implementation before it widens. In: B Albers, A Shlonsky, R Mildon (eds.). *Implementation Science 3.0*. Cham, Switzerland: Springer Nature, 2020, pp. 295-313.
33. Aarons GA, Hurlburt M, McCue Horwitz S. Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Administration and Policy in Mental Health and Mental Health Services Research*. 2011;38(1):4-23.
34. Green LW, Ottoson JM, Garcia C, et al. Diffusion theory and knowledge dissemination, utilization, and integration in public health. *Annual Review of Public Health*. 2009;30:151-174.

35. Beidas RS, Williams NJ, Becker-Haimes EM, et al. A repeated cross-sectional study of clinicians' use of psychotherapy techniques during 5 years of a system-wide effort to implement evidence-based practices in Philadelphia. *Implementation Science*. 2019;14(1).
36. Damschroder LJ, Aron DC, Keith RE, et al. Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*. 2009;4(50).
37. Carvalho ML, Honeycutt S, Escoffery C, et al. Balancing fidelity and adaptation: Implementing evidence-based chronic disease prevention. *Journal of Public Health Management and Practice*. 2013;19(4):348-356.
38. Castro F, Barrera M, Martinez C. The cultural adaptation of prevention interventions: Resolving tensions between fidelity and fit. *Prevention Science*. 2004;5(1):41-45.
39. Chambers DA, Norton WE. The Adaptome: Advancing the science of intervention adaptation. *American Journal of Preventive Medicine*. 2016;51(4 Suppl. 2):S124-S131.
40. Lendrum A, Humphrey N, Greenberg M. Implementing for success in school-based mental health promotion: The role of quality in resolving the tension between fidelity and adaptation. In: RH Shute, PT Slee (eds.). *Mental Health and Wellbeing Through Schools: The Way Forward*. London: Routledge, 2016, pp. 53-63.
41. Powell BJ, Beidas RS. Advancing implementation research and practice in behavioral health systems. *Administration and Policy in Mental Health Services Research*. 2016;43(6):825-833.
42. Shelton RC, Rhoades Cooper B, Wiltsey Stirman S. The sustainability of evidence-based interventions and practices in public health and health care. *Annual Review of Public Health*. 2018;39:55-76.
43. Massey OT, Vroom EB, Weston AN. Implementation of school-based behavioral health services over time: A longitudinal, multilevel qualitative study. *School Mental Health*. 2021;13(1):201-212.
44. Proctor EK, Powell BJ, McMillen C. Implementation strategies: Recommendations for specifying and reporting. *Implementation Science*. 2013;8(139).
45. Leeman J, Birken SA, Powell BJ, et al. Beyond "implementation strategies": Classifying the full range of strategies used in implementation science and practice. *Implementation Science*. 2017;12(125).
46. Fixsen DL, Blase KA, Van Dyke, M. *Implementation practice and science*. Chapel Hill, NC: Active Implementation Research Network, 2019.
47. Glasgow RE, Vogt TM, Boles SM. Evaluating the public health impact of health promotion interventions: The RE-AIM framework. *American Journal of Public Health*. 1999;89(9):1322-1326.
48. Glisson C, Schoenwald SK. The ARC organizational and community intervention strategy for implementing evidence-based children's mental health treatments. *Mental Health Services Research*. 2005;7(4):243-259.
49. Schultes MT, Aijaz M, Klug J, et al. Competences for implementation science: What trainees need to learn and where they learn it. *Advances in Health Science Education*. 2021;26(1):19-35.
50. Powell BJ, Waltz TJ, Chinman MJ, et al. A refined compilation of implementation strategies: Results from the Expert Recommendations for Implementing Change (ERIC) project. *Implementation Science*. 2015;10(21).
51. State Implementation and Scaling-up of Evidence-based Practices. Chapel Hill, NC: University of North Carolina at Chapel Hill. <https://siseep.fpg.unc.edu>. Accessed July 29, 2020.
52. Kelly CM, LaRose J, Scharff DP. A method for building evaluation competency among community-based organizations. *Health Promotion Practice*. 2014;15(3):431-437.
53. Stewart RE, Williams N, Byeon, et al. The clinician crowdsourcing challenge: Using participatory design to seed implementation strategies. *Implementation Science*. 2019;14(63).
54. Minkler M, Salvatore AL, Chang C. Participatory approaches for study design and analysis in dissemination and implementation research. In: RC Brownson, GA Colditz, EK Proctor (eds.). *Dissemination and Implementation Research in Health: Translating Science to Practice*, Second Edition. New York, NY: Oxford University Press, 2018, pp. 175-190.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.