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# Implementation Practice in Human Service Systems: Understanding the Principles and Competencies of Professionals Who Support Implementation

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## ABSTRACT

This study aims to understand the role *implementation support practitioners* can have in supporting the use of research-supported practices, policies, and programs in human service sectors. Through a survey design, the authors: 1) confirm and refine principles and competencies used by professionals to provide implementation support in human service systems; 2) increase understanding of the conditions under which implementation support practitioners can be more or less effective; and 3) describe the usefulness of competencies for professionals providing implementation support. Additional findings are presented on the role of context and trusting relationships in implementation support practice. Areas for further research are discussed.

## KEYWORDS

Implementation science; implementation practice; skills and competencies; research-supported interventions

## Introduction

Implementation science includes both research and practice. Implementation research seeks to understand and evaluate approaches used to translate evidence to the real world. Implementation practice seeks to apply and adapt these approaches in different contexts and settings to achieve positive outcomes (Ramaswamy, Mosnier, Reed, Powell, & Schenck, 2019). The fundamental goal of implementation science is to integrate research and practice in ways that improve the outcomes of those being served (Estabrooks, Brownson, & Nicolaas, 2018). Implementation science offers researchers in human service organizations the opportunity to examine how multilevel strategies, such as capacity building throughout an organization, may influence positive organizational outcomes (Bunger & Lengnick-Hall, 2019).

There is an increasing call for the advancement of a workforce capable of integrating implementation research – concepts, models, frameworks, and strategies – into practice to achieve improved population outcomes (Bornbaum, Kornas, Peirson, & Rosella, 2015; Chambers, Proctor, Brownson, & Straus, 2017; Estabrooks et al., 2018). Padek et al. (2018) describe how the availability of training programs has lagged behind the demand for an implementation workforce. Wandersman et al. (2008) described the need for an implementation support system to connect translation and synthesis systems with service delivery systems to achieve population outcomes. Without competencies for professionals who provide implementation support in human service sectors, it is not possible to develop educational curricula, training programs or commonly acknowledged standards for professionals.

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### **Identifying and building competencies for implementation practice**

Published studies on the training needs of implementation researchers (Carlford, Roback, & Nilsen, 2017; Chambers et al., 2017; ; Meissner et al., 2013; Proctor et al., 2013) demonstrate the wide range of competency-based training programs available and highlight the specific competencies needed for researchers to conduct implementation studies, including researchers' ability to interact with service providers, communicate research findings, improve research-practice partnerships, consider and enhance fit of the intervention to focus population, build capacity for research, and understand multilevel contexts (Chambers et al., 2017; Tabak et al., 2017). However, similar training programs do not exist for those implementing research-supported interventions in routine practice and for professionals who support this implementation in human service sectors. The shortage of individuals trained in the practice of knowledge translation and implementation has been cited as a reason for our failure to optimize the use of evidence to improve population outcomes (Straus, Tetroe, et al., 2011).

A review of the literature demonstrates two important findings. First, there has been an increase in the last five years of publications on developing training curricula to build core competencies for implementation among researchers and direct service providers (Kirchner et al., 2016; Leeman et al., 2017, Moore, Rashid, Park, Khan, & Straus, 2018; Provvidenza, Townley, Wincentak, Peacocke, & Kingsnorth, 2020; Ramaswamy, et al., 2019; Schultes, Aijaz, Klug, & Fixsen, 2020; Straus, Brouwers, et al., 2011; Ullrich, Mahler, Forstner, Szecsenyi, & Wensing, 2017). Second, most of these curricula are focused on building the competencies of implementation researchers, service practitioners or leaders within social service or health service agencies. Few studies have investigated the capacities of professionals supporting implementation efforts who are external to a system or who play a role supporting implementation efforts within the agency. Of these studies, some were focused on competencies for researchers to engage practice partners (Gopalan, Bunger, & Powell, 2019), many were limited to specific contexts outside of human services (e.g., healthcare, behavioral health, education) (Leathers, Spielfogel, Blakey, Christian, & Atkins, 2016; Leeman et al., 2015; Mallidou et al., 2018), and others did not operationalize competencies in enough detail that they are measurable (Chinman et al., 2018; Dunst, Annas, Wilkie, & Hamby, 2019; Moore et al., 2018).

As a result, the identification of specific competencies for professionals who provide implementation support in human services has garnered increased attention. The importance of workforce development for implementation practice has been noted as a "grand challenge" in human services in recognition of this need (Leeman et al., 2015; Mallidou et al., 2018). Because many of these professionals lack formal training in using implementation research in their work, on-the-job training is typically needed to compensate for gaps in needed skills.

### **Implementation support practitioners: a strategy for building implementation capacity in human service sectors**

Professionals who support implementation in human service settings, either internally or externally, can be referred to as coaches, improvement advisors, technical assistance providers, facilitators, consultants, mentors, and implementation specialists. This diverse terminology highlights that the literature on individuals who provide implementation support is highly fragmented. Additionally, although professionals who support implementation are using skills such as coaching and facilitation (Kirchner et al., 2014; Powell et al., 2015) that have been studied and described as implementation strategies, no quality standards exist for implementation support, improvement, and technical assistance activities; and this type of support is rarely delivered systematically (Katz & Wandersman, 2016).

*Implementation support practitioners* represent one approach for building implementation capacity in human service organizations and systems. Implementation support practitioners help systems and service providers implement research-supported practices, policies, and programs, and sustain and scale research evidence for population impact (Albers, Metz, & Burke, 2020). They can reside *outside*

the service systems they work in but may also operate from *within* a service system when those systems have internal work units specifically designed to support innovation, implementation, improvement and/or scaling efforts. Implementation support is often delivered through partnerships between professionals residing inside and outside public service systems.

Some studies have suggested the role of professionals providing implementation support as a promising implementation strategy (Alagoz, Chih, Hitchcock, Brown, & Quanbeck, 2018; McCormack et al., 2013). This may explain why there is increasing interest in understanding what implementation support practitioners do, and in what ways the support they provide relies on specific competencies (Albers, Metz et al., 2020) – especially in child and family services, the focus sector of this study.

Identifying and operationalizing competencies for effective implementation support practice will (1) bring greater clarity to the roles and functions of implementation support, (2) allow for rigorous research on whether and to what extent the use of specific competencies by professionals contributes to increased and sustained use of evidence, and (3) support the development of a skilled workforce that can integrate implementation research and practice in ways that will improve outcomes for populations and communities. Developing this skilled workforce could happen through multiple delivery channels including curricula and training in higher education such as social work, certificate programs for professionals working in human service and public health sectors, and ongoing professional development for leaders and practitioners charged with supporting the use of evidence to improve outcomes for vulnerable populations.

### ***Understanding the roles of trust, relationships and power in implementation practice***

Defining the principles and competencies of professionals who support implementation in human services also provides an important opportunity to acknowledge the specific skills needed to develop relationships, build trust, and address power differentials that are central to the role of implementation support practitioners. Professionals who provide implementation support describe relationships as at the heart of what they do to support evidence use. However, developing trusting relationships and addressing power differentials are not strongly featured in implementation science literature (Metz Boaz, Jensen, et al., 2020).

In a study funded by the William T. Grant Foundation on use of evidence, professionals supporting the use of evidence-based practices in child and family services emphasized with a striking amount of uniformity that high-quality relationships between implementation support practitioners and partners in child and family services was a – if not the – critical factor for achieving implementation results. Implementation support practitioners described in great detail the strategies they use to build trust: entering the implementation space with humility as a learner, rather than an expert; engaging in honest and active listening; providing credible information; demonstrating value; demonstrating commitment in the face of complex challenges; staying in difficult situations; showing kindness and vulnerability; and demonstrating empathy (Metz, Boaz, Jensen, et al., 2020).

These findings align with literature on lessons learned from implementation science on the role of research-practice partnerships in social work. Palinkas, He, Choy-Brown, and Hertel (2017) describe cultural elements of successful partnerships including flexibility and sensitivity to the needs of individuals in the partnership, openness and honesty associated with building and maintaining trust, and humility and tolerance in service to mutualism and shared understanding of the work.

Implementation support practitioners also need to identify power issues that may impact their ability to provide implementation support and/or others' ability to engage with and gain from this support and authentically contribute to implementation decision-making. Power differentials exist when individuals involved in the implementation support have greater authority, agency or influence than others. Implementation support practitioners seek to center those whose lives are most affected by implementation at the center of decision-making (Metz, Woo, & Loper, *in press*). They use facilitation techniques to make power structures visible and ensure multiple perspectives are shared,

to recognize and acknowledge the loss of status and authority that can be implied in implementation processes, and to develop a collective understanding of the work (Metz, Burke, Albers, Louison, & Bartley, 2020).

### **Competencies for implementation support practitioners**

Initial principles and competencies for implementation support practitioners were theorized based on a decade of experience providing implementation support and a literature review by the study team (Metz & Bartley, 2020; Metz, Louison, Ward, & Burke, 2017). An initial systematic scoping review was conducted as part of a ten-year placed based initiative funded by the Kate B. Reynolds Charitable Trust, referred to as Healthy Places North Carolina, to improve health outcomes for local counties in North Carolina (Metz & Easterling, 2016). As part of this work, the first author identified a set of principles and competencies for the Trust's program officers to support implementation of health improvement projects in communities. These principles and competencies were identified through a five-step methodology including a systematic scoping review. The findings from this review served as the foundation for the literature review to identify the current competencies for implementation support practitioners. Additional key sources were identified through a snowballing technique with professionals who provide implementation support, and themes were identified and integrated with the initial findings from the scoping review for the Healthy Places North Carolina Initiative. Principles and competencies were then refined through the extensive experience of authors and staff within their organizations.

Previous evaluations of the principles and competencies have demonstrated promising findings in child welfare and early child contexts for the usefulness of the competencies in supporting the achievement of implementation goals and use of evidence at implementing sites. For example, Yazejian et al. (2019) used a descriptive, qualitative study to assess whether the use of the core competencies for implementation support including co-learning, brokering connections, building trusting relationships, facilitating, tailoring support, and cultivating leadership produced added value in the implementation support process for Head Start regions. Findings from this study demonstrated implementing sites achieved implementation goals related to data use and ongoing improvement (Metz, Boaz, & Robert, 2019) when implementation support practitioners used these competencies. Metz and Bartley (2015) used a case study secondary data analysis methodology to assess how competencies related to co-creation (e.g., growing and sustaining trusting relationships and brokering connections) supported evidence use in child welfare. Findings yielded positive results related to developing stronger partnerships and increasing the sustainability of evidence-based programs in child welfare.

*Principles* refer to foundational *attitudes* with which implementation support practitioners should approach their work, decision-making and interactions with communities, organizations, and stakeholders. *Core competencies* refer to the necessary *abilities* of implementation support practitioners, including the specific knowledge, resources and skills they should bring to bear in their work to effectively support the sustained uptake of research-supported practices, programs and policies. These are captured below in [Figure 1](#) and described in detail by Metz et al. (2017).

#### **Guiding principles**

There are five principles – representing the attitudes or mind-set with which implementation support practitioners approach their work. These are outlined in [Figure 2](#).

#### **Core competencies**

There are twelve core competencies – representing the abilities required by implementation support practitioners to do their work. These are grouped into three domains, “co-creation”, “ongoing improvement”, “sustaining change;” each domain contains competencies that are thematically related. [Figure 3](#) provides definitions for each domain and associated competency. A more detailed description

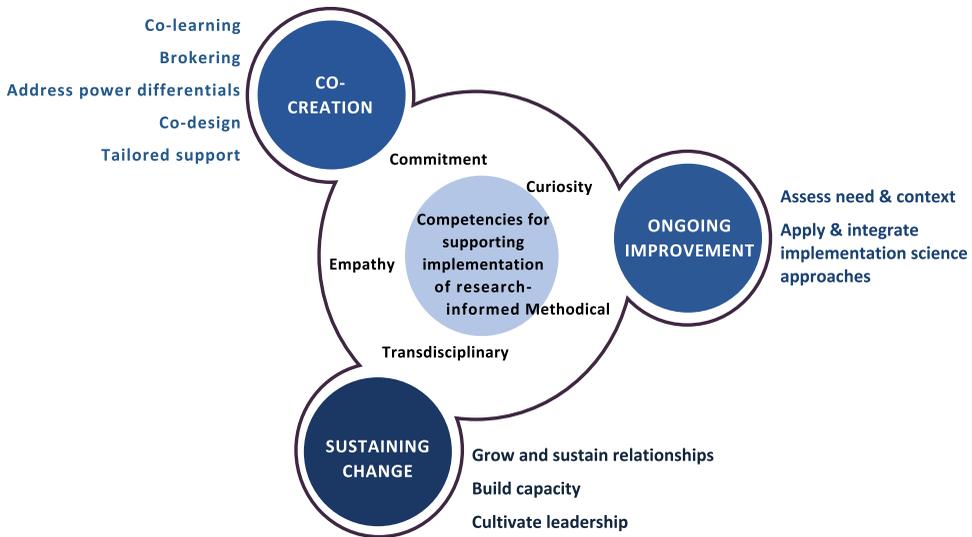


Figure 1. Implementation support practitioner competencies.

### Implementation Support Practitioner Principles & Values

**Empathy:** regard others as legitimate, respected, and valuable contributors to the development and growth of the implementation process and outcomes

**Curiosity:** ask questions; engage with evidence and ways of knowing across content areas and disciplines; tolerate uncertainty

**Commitment:** bring patience, resilience, and willingness to challenge the status quo of the process; create readiness; invest in building effective teams

**Methodical:** systematically access and integrate scientific findings to inform own decision-making and that of stakeholders

**Transdisciplinary:** embrace and use different ways of knowing and being, and diverse expertise to bring about mutual and transformative learning

Figure 2. Implementation support practitioner principles and values.

of the twelve competencies, including core activities associated with each competency, is included in the appendix – Implementation Support Practitioner Profile: Guiding Principles and Core Competencies for Implementation Practice.

**Co-creation.** Co-creation is the active involvement of stakeholders in all stages of the production and implementation process (Metz & Bartley, 2015; Vargo & Lusch, 2004). Five competencies were identified as part of co-creation: co-learning, brokering, addressing power differentials, co-design, tailored support (see Figure 3).

For example, implementation support practitioners may identify and seek to address power imbalances among stakeholders in order to improve their ability to learn from practitioners or families when addressing implementation challenges. Implementation support practitioners may also form implementation teams to ensure multiple perspectives are considered during an implementation. The more they can broker stakeholder relationships and build on local ideas and resources, the more likely

**Co-learning:** Work collaboratively with stakeholders to learn how applied knowledge on implementation science can be effectively used in local contexts.

**Brokering:** Enable knowledge exchange and sharing among stakeholders to increase understanding of diverse perspectives and increase the application of implementation science to improve outcomes.

**Address power differentials:** Address power imbalances between stakeholders by building trust, supporting two-way communication, and cultivating opportunities for mutual consultation.

**Co-design:** Co-design tools, resources, and models through participatory, iterative processes and consensus building.

**Tailored support:** Determine frequency, duration and intensity of implementation supports based on the needs, goals and context of the implementation team and systems stakeholders.

**Figure 3.** Competencies for implementation support practitioners – co-creation.

it becomes that local agencies or communities perceive implementation strategies as relevant and feasible.

**Ongoing improvement.** Ongoing improvement refers to the use of quantitative and qualitative data, information and feedback provided to stakeholders at each stage of implementation, through regular individual or group debriefings (Damschroder et al., 2009). Three competencies emerged for this principle: assess need and context, apply and integrate implementation science approaches, and conduct improvement cycles (see Figure 4).

Implementation support practitioners often help leaders and teams develop processes to frequently receive information about what is helping or hindering implementation efforts (Supplee & Metz, 2015). The information may consist of qualitative descriptions of practitioner and team experiences or quantitative data (e.g., administrative, fidelity, or survey data). Regardless of their form, implementation support practitioners facilitate the use of data to drive decision making that enables service systems to accommodate new ways of work.

**Sustaining change.** Interventions are classified as sustained when their core elements are delivered with integrity after initial implementation support has decreased, and adequate capacity exists to maintain these core elements (Wilsey Stirman. et al., 2012). Four competencies emerged as part of

**Assess need and context:** Work with stakeholders to understand population and community needs and the extent to which potential interventions meet identified needs for particular target populations.

**Apply and integrate implementation science approaches:** Apply and integrate appropriate implementation frameworks, models and strategies by using systems thinking, participatory methods, and knowledge management and exchange.

**Conduct improvement cycles:** Continuously use data to purposefully re-examine implementation processes and improve practice, organization and system changes.

**Figure 4.** Competencies for implementation support practitioners – ongoing improvement.

**Grow and sustain relationships:** Grow and sustain diverse, authentic, respectful and trusting relationships with stakeholders to guide and support implementation and systems change efforts.

**Build capacity:** Build the knowledge, skills, and motivation of stakeholders to achieve their goals. Pay attention to different capacities (psychological, behavioral, structural, innovation-specific, general, analytic, adaptative) at all levels of the system (individual, organization, network, and system).

**Cultivate leadership:** Identify and strengthen formal and informal leaders to provide leadership across organization and system boundaries and silos.

**Facilitation:** Enable participatory problem solving and support in a context of a recognized need for improvement and supportive interpersonal relationships.

**Figure 5.** Competencies for implementation support practitioners – sustaining change.

sustaining change: grow and sustain relationships, build capacity, cultivate leadership, and facilitation (see Figure 5).

Implementation support practitioners support the sustainability of interventions and approaches by developing a shared vision and mutual accountability, building on existing relationships, problem solving and resource sharing, and maintaining collaboration over time (Green et al., 2016). In working to sustain change, they provide support that enables individuals, agencies and systems to (1) deliver research-informed interventions with continuous integrity and quality, (2) build adequate internal capacity to maintain this integrity and quality, and (3) become independent from external implementation support.

## Research aim

This study further defines the role of professionals who provide implementation support and offer a foundation for building a workforce that can use implementation research in practice to achieve better outcomes in human services. The major aim of this study was to assess and receive feedback on the clarity and completeness of the proposed principles and competencies used by professionals to provide implementation support in human service systems.

## Method

A survey was administered to an international sample of implementation support practitioners working in different intermediary organizations. Intermediary organizations provide support to communities and public and private agencies to facilitate the implementation of research-supported programs and practices and build capacity to sustain such interventions with positive outcomes (Franks & Bory, 2017). The purpose of the survey was to assess and gain feedback on the emerging principles and core competencies of implementation support practitioners across different contexts and human service settings.

## Sample and recruitment

Study team members used their extensive knowledge of the field and existing professional networks (e.g., Irish Implementation Network, European Implementation Collaborative, Danish Implementation Network, Australasian Implementation Conference) to identify an initial sample of intermediary organizations who provide implementation support. Taking into account the limited

number of organizations who do this work internationally, a purposive snowball sampling strategy was used to identify additional organizations who provide implementation support. Selection criteria included:

- Represent diverse contexts and cultures, including North America, Europe, and Australia
- Support implementation of evidence and innovations in child and family services, at scale to achieve population impact
- Actively engage in implementation science and practice (e.g., through regular participation in implementation science conferences, formal implementation networks or collaboratives, contribution to implementation science products and measures, and/or authorship of articles and briefs on implementation science)

Invitation letters were sent to 17 senior representatives of intermediary organizations meeting sample criteria, who were encouraged to share the survey link with up to five additional staff providing implementation support. Given the emergent nature of this profession, the study team did not want to overly prescribe the characteristics of the sample and used the sampling criteria described above to ensure suitable respondents with experience providing implementation support.

### **Respondents**

Thirty-four representatives from 16 intermediary organizations (94% response rate for organizations; 40% for potential individuals) completed the survey. [Tables 1](#) and [2](#) describe their distribution across roles and countries.

### **Data collection**

Each respondent was provided with a detailed description of the principles and core competencies and associated activities for implementation support practitioners (see Appendix for this detailed description). The survey included five sections. The first section asked for feedback on each of the three major domains: co-creation, ongoing improvement, and sustaining change. Participants were asked to rate the clarity (i.e., was the definition easy to understand) and completeness (i.e., was the definition complete) of each domain using a three-point Likert scale and to provide additional comments or recommendations for revisions. The second section asked for the same feedback on completeness and

**Table 1.** Roles of respondents (n = 34).

Serve in leadership role in an organization that provides implementation support	n = 6
Conduct implementation evaluation and/or implementation research	n = 2
Provide direct implementation support, consultation, and/or technical assistance to organizations and systems	n = 23
Other	n = 3

**Table 2.** Country of respondents (n = 34).

Australia	7
Canada	8
Denmark	1
England	4
Ireland	3
Netherlands	2
Norway	2
Singapore	1
USA	6

clarity for the core competencies using the three-point Likert scale as well additional comments. A three-point Likert scale can be especially useful for descriptive analysis. In this case, the three-point scale yielded the optimal amount of information to make decisions about the competencies. For example, the authors wanted to know if a core competency was complete, somewhat or on its way to completion, or not complete. Those were the relevant categories for analysis, and to expand the number of response options might have unnecessarily burdened the respondents. Brief, open-ended items were included alongside a set of close-ended survey items, allowing respondents to expand on their responses beyond the constraints of the close-ended questions.

The third section requested respondents to indicate which of the three domains each core competency best fit within. In the fourth section, participants rated the clarity of principles and indicated their level of agreement with whether the principle guided the work of an implementation support practitioner. The final section of the survey asked for general feedback on the competencies using open-ended items. The survey design was reviewed by the Office of Human Research Ethics at the University of North Carolina and deemed exempt from IRB approval (study # 18-1566).

### **Analysis**

Following the import of qualitative data into *Dedoose*, survey data were analyzed in three rounds. First, frequencies of scaled questions were calculated, and open-ended questions were analyzed by principle or competency. Accounting for thematic frequency can be used to determine the relative uniformity of a particular theme across respondents (Maxwell, 2010). The study team reviewed key themes and summarized feedback on potential revisions of principles and competencies. This first coding cycle used an *in vivo* coding methodology that identifies short phrases or words from participants own language as positive, neutral or negative. Next, qualitative feedback for each competency and all open-ended survey questions were coded as “suggested revision”, “affirmation”, or “question.”

During the second cycle of coding, researchers reviewed full responses for each brief open-ended item to look for additional themes not related to specific competencies or principles. Themes emerged inductively, including themes related to the role of the implementation support practitioner, the context in which implementation support occurs, and the role of relationships in implementation. Responses were color-coded in the data set for specific themes, and pattern coding was used to enable identification of reoccurring codes and themes (Saldaña, 2015). The color-coded data set was used as a simple form of a codebook by coders when reviewing for interrater reliability.

Two coders conducting the analysis met on three occasions to discuss the coding process, review coding application, and resolve any discrepancies. Having a secondary reviewer promotes the reliability of the qualitative analysis (Campbell, Quincy, Osserman, & Pedersen, 2013). For the third stage of pattern coding, a total of 68 excerpts were coded with a degree of 86.7% inter-rater reliability. Inter-rater reliability was calculated by dividing the number of agreements by the number of agreements and disagreements combined (Miles & Huberman, 1994). However, we recognize the potential bias in reliability metrics with qualitative data and, as a result, met on three occasions to refine the coding process and discuss discrepancies (Syed & Nelson, 2015). Study team members bring diverse perspectives to the work, facilitating open dialogue and processes for reconciling themes in the qualitative data. During the process, emerging findings were shared with a subsample of survey respondents at a small workshop as a modified version of member checking.

## Findings

### *Study aim: assess and receive feedback on principles and competencies used by professionals to provide implementation support in human service systems*

Overall, the majority of respondents agreed that the definitions of the implementation support practice core competencies were clear and comprehensive, and the principles were clear and should be included in the description of an implementation support practitioner.

Table 3 provides findings related to the overall domains. The majority of respondents indicated the domain definitions were complete, while about a third of the respondents reported the domain definitions as somewhat complete. In terms of definitional clarity, the sustaining change domain was least clear across the three broad domains. Respondents reported the need for additional clarity related to the roles of stakeholders, relationships, and organizational capacity in sustaining change.

Table 4 provides findings related to the core competencies. The majority of respondents indicated the definitions of the core competencies were complete and clear, with more than 80% of respondents reporting that definitions for “tailored support,” “assess need and context,” “conduct improvement cycles,” “grown and sustain relationships,” “build capacity,” and “facilitation” were very complete and more than 80% of respondents reporting that “tailored support,” “conduct improvement cycles,” and “cultivate leadership” were very clear. Core competencies with the least agreement on clarity included “co-design” and “apply and integrate implementation science approaches,” whereas “address power differentials” had the least agreement for completeness. In particular, “apply and integrate implementation science approaches” was reported as the least clear, and qualitative comments indicated that respondents did not fully understand the purpose of this competency. Qualitative responses indicated that the “co-design” and “address power differentials” competencies needed further explanation related to the contextual factors that can limit an implementation support practitioner’s ability to

**Table 3.** Percentage of respondents ratings for completeness of implementation support practitioner principles and competencies.

		Question: Is the definition <b>complete</b> ? That is, does it include all aspects of the competency? % (n = 33–34)		
		Very	Somewhat	Not at All
Domains Overall	Co-Creation	68% (23)	32% (11)	0% (0)
	Ongoing Improvement	73% (24)	27% (9)	0% (0)
	Sustaining Change	68% (23)	32% (11)	0% (0)
Co-Creation Components	Co-Learning	76% (26)	24% (8)	0% (0)
	Brokering	74% (25)	26% (9)	0% (0)
	Address Power Differentials	62% (21)	35% (12)	3% (1)
	Co-Design	76% (26)	24% (8)	0% (0)
Ongoing Improvement Components	Tailored support	88% (30)	12% (4)	0% (0)
	Assess Need and Context	85% (29)	15% (5)	0% (0)
	Apply and Integrate IS approaches	79% (26)	21% (7)	0% (0)
	Conduct Improvement Cycles	82% (27)	18% (6)	0% (0)
Sustaining Change Components	Grow and Sustain Relationships	82% (28)	18% (6)	0% (0)
	Build Capacity	88% (29)	12% (4)	0% (0)
	Cultivate Leadership	82% (28)	18% (6)	0% (0)
	Facilitation	91% (31)	9% (3)	0% (0)
		Level of Agreement % (n = 32–33)		
		Very	Somewhat	Not at All
Principles	Empathy	100% (33)	0% (0)	0% (0)
	Curiosity	94% (31)	6% (2)	0% (0)
	Commitment	94% (31)	6% (2)	0% (0)
	Methodical	85% (28)	15% (5)	0% (0)
	Transdisciplinary	84% (27)	13% (4)	3% (1)

**Table 4.** Context and implementation support practice.

Context Informs Implementation Support	Context Limits Implementation Support
<ul style="list-style-type: none"> <li>• “Implementation support practitioners need to actively learn about culture, history, and current priorities – it is not enough to be open to these things.”</li> <li>• “Implementation support practitioners need to deeply understand the context and conditions that stakeholders are operating in related to the implementation initiative.”</li> <li>• “Context influences the roles that stakeholders and implementation practitioners play, including what is driving the implementation endeavor.”</li> <li>• “Different types of stakeholder engagement are appropriate under different conditions and within different contexts.”</li> </ul>	<ul style="list-style-type: none"> <li>• “Power differences and the workings of systems do far too often coalesce in ways that are detrimental to sustaining well-implemented methods”.</li> <li>• “Policy and systems changes are often sudden and erratic, not founded on rational deliberations but rather on power tactics or coincidences (e.g. changes in leadership).”</li> <li>• “Implementation practitioners often need to address adaptive issues that have serious consequences for implementation. The field of implementation science needs to draw on the experiences that exist in such circumstances, and hopefully expand on available interventions to address these.”</li> </ul>

**Table 5.** Clarity of principles and agreement with principles.

	Is the definition <b>clear</b> ? (n = 33-34)			What is your level of agreement with this philosophical principle? (n = 32-33)		
	Very	Somewhat	Not at All	Agree	Somewhat Agree	Do not agree
<b>Empathy</b>	88.24% (30)	11.76% (4)	0	100% (33)	0	0
<b>Curiosity</b>	88.24% (30)	11.76% (4)	0	93.94% (31)	6.06% (2)	0
<b>Commitment</b>	88.24% (30)	8.82% (3)	2.94% (1)	93.94% (31)	6.06% (2)	0
<b>Methodical</b>	73.53% (25)	26.47% (9)	0	84.85% (28)	15.15% (5)	0
<b>Transdisciplinary</b>	75.76% (25)	18.18% (6)	6.06% (2)	84.38% (27)	12.50% (4)	3.13% (1)

effectively co-design implementation strategies or address issues of power within the implementation setting (e.g., leadership, authority, and resources).

Table 5 provides findings related to the principles. More than 80% of respondents reported agreement that all principles were relevant for the role of the implementation support practitioner, with 100% of respondents agreeing that empathy was a guiding principle of implementation support practice and 94% of respondents agreeing that commitment and curiosity guided the work of an implementation support practitioner. Principles rated as the least clear included “methodical” and “transdisciplinary”, although the majority of respondents still reported these principles as very clear. Related to the “transdisciplinary” principle, qualitative responses indicated that participants needed more information on how different forms of knowledge can support implementation efforts. Participants also offered different word choices for the methodical principle, such as data-driven decision-making.

**Emerging themes related to feedback on competencies**

Participants had the opportunity to include brief qualitative responses as part of their feedback on the completeness and clarity of the principles and competencies. Themes emerged inductively related to context, relationships, and usefulness of the principles and competencies in practice. Participants’ feedback on the principles and competencies often included comments on contextual factors that can impede or facilitate their use of specific principles and competencies, the role relationships play in providing implementation support, and the usefulness of the competencies in their own implementation support practice. We describe each of these themes and their relationships to the competencies.

**Context and implementation support practice**

We interpreted comments related to context as inclusive of three levels including macro, organizational, and local (Damschroder, et al., 2009; Li, Jeffs, Barwick, & Stevens, 2018). Macro context refers

to socio-political and economic forces that either facilitate or hinder implementation efforts. Organizational context refers to an organization's culture and climate that influence the behavior of individuals. The local context includes activities and relationships within the local setting that can also influence implementation.

Contextual conditions were described as an important factor to consider when defining principles and competencies of implementation support practitioners. A total of 56% of respondents included context in their qualitative responses, and 24% in more than one qualitative response. Context was described as (1) informing the approach implementation support practitioners take in providing implementation support and (2) limiting their ability to provide effective implementation support. [Table 6](#) illustrates this through a sample of representative comments.

Respondents reported that implementation support practitioners require a deep understanding of local context to make decisions on which frameworks and strategies to select, combine and/or integrate when supporting stakeholders in addressing specific implementation challenges.

Furthermore, implementation support practitioners' ability to support implementation and ongoing improvement can be limited by organizational contextual factors, including the learning culture of the implementing site, the absorptive capacity of the site (i.e., the ability of stakeholders and organizations to recognize value of new knowledge and seek sources of support for implementing a new practice (Elwyn, Taubert, & Kowalczyk, 2007), and the availability of data to inform decision-making. Contextual factors, therefore, affected the use of competencies in the co-creation domain including addressing power differentials and co-design.

Issues of power and motivation at organizational and systems levels – as implementation barriers – were emphasized in survey responses. Respondents reported their efforts to provide implementation support were often constrained by the macro context including the socio-political-economic conditions influencing service providers and diverting attention away from implementation efforts. Comments centered on the crucial role of stakeholder engagement, with respondents describing the need to tailor engagement activities, depending on who was engaged and for what purpose. Since some of these engagement strategies involved co-creation, and others not, respondents suggested broadening the co-creation domain to stakeholder engagement more generally. Overall, participant comments highlighted the need to provide more detail related to the conditions and contextual factors that can support or hinder the ability of an implementation support practitioner to use the competencies in human service settings.

### ***Relationships and the role of the implementation support practitioner***

A second predominant theme emerging from surveys and included in open ended responses from 68% of participants, was the important role of relationships and relationship building in implementation support practice. The role of the implementation support practitioner was described as relational, with respondents emphasizing trusting relationships, grounded in “mutuality” between the implementation support practitioners and individuals they support.

**Table 6.** Role of context in implementation support.

Context Informs Implementation Support	Context Limits Implementation Support
<ul style="list-style-type: none"> <li>• Implementation support practitioners need to actively learn about culture, history, and current priorities – it is not enough to be open to these things.</li> <li>• Implementation support practitioners need to deeply understand the context and conditions that stakeholders are operating in related to the implementation initiative.</li> <li>• Context influences the roles that stakeholders and implementation practitioners play, including what is driving the implementation endeavor.</li> <li>• Different types of stakeholder engagement are appropriate under different conditions and within different contexts.</li> </ul>	<ul style="list-style-type: none"> <li>• Power differences and the workings of systems do far too often coalesce in ways that are detrimental to sustaining well-implemented methods.</li> <li>• Policy and systems changes are often sudden and erratic, not founded on rational deliberations but rather on power tactics or coincidences (e.g. changes in leadership).</li> <li>• Implementation practitioners often need to address adaptive issues that have serious consequences for implementation. The field of implementation science needs to draw on the experiences that exist in such circumstances, and hopefully expand on available interventions to address these.</li> </ul>

Two types of relationships emerged as necessary: 1) the relationship *between* the implementation support practitioner and key stakeholders involved in implementation; and 2) the relationships *among* the systems and community stakeholders, including service users, who have a stake in the implementation effort. Respondents also noted their role in building relationships among stakeholders and community partners and the importance of these relationships for sustainability – when implementation support diminishes, ends or is transferred to internal capacities.

Respondents described a range of strategies needed to effectively broker relationships among systems and community stakeholders including engagement, facilitation, collaboration, consensus building, and managing group dynamics. Table 7 includes exemplars related to the role of relationships in providing implementation support. These strategies were related to several competencies including co-learning, facilitation, and cultivating leaders. Relationships were described as foundational to effectively using the competencies in implementation support practice.

**Usefulness of implementation support practitioner principles and competencies**

The practical value of defining the competencies of implementation support practitioners was a third theme emerging from the qualitative data. Respondents offered ideas related to the application and usefulness of the principles and competencies in three ways: 1) to support communication; 2) to build internal capacity; and 3) to professionalize the role of implementation support practitioners.

For example, respondents described the principles and competencies as a useful mechanism for helping implementation support practitioners communicate about their role with funders and partners (see Figure 6). One respondent noted, *“I also think that while this is a helpful document for ISP’s, it is just as helpful to share with community partners, so they better understand the role of the ISP. Something that I think is missing sometimes. I’m not sure my partners always completely understand my role. If we have a common description of the ISP role that is used across the world (let’s dream big!), then there will be better common understanding, not just of the ISP role, but also what Implementation Science is trying to achieve.”*

Respondents suggested principles and competencies could help to build internal capacity within their own organizations to provide implementation support. One respondent noted that the principles

**Table 7.** The role of relationships in implementation support.

Relationship <i>between</i> ISP and Stakeholders at the Implementing Site	Relationships <i>among</i> Stakeholders at the Implementing Site
<ul style="list-style-type: none"> <li>● Implementation Specialists (IS) doing this work need to have some interpersonal skill sets to be successful in this area and engaging in a successful collaborative process is key.</li> <li>● I think an important skill set is the ability to work with others and build relationships. I’ve learned that not everyone has this. A certain degree of extroversion is helpful, as well as having a friendly and collaborative attitude. The ability to read complex situations, work with groups of diverse people, facilitate discussion and problem solve are also very important. I’ve noticed over the years that there are some people cut out to do this work, and some not.</li> <li>● You should identify how an implementation specialist might be connected to an implementation endeavor (i.e., hired, part of team already, researchers). This has implications for role and how these competencies and skills manifest [with the implementing site].</li> <li>● Recommend including how the relationship [between the implementation support practitioner and implementing site] is mutually beneficial- perhaps emphasize the application of relationship-based practice to the implementation work.</li> </ul>	<ul style="list-style-type: none"> <li>● The use of the term ‘with stakeholders’ implies that specialists are integral to sustained relationships, however part of the goal of sustainability is for the intervention and system to thrive beyond and without the specialist. This may be specific to the context in which I’ve been working. Specialist may support growth of relationships that can be sustained in the system.</li> <li>● [A strength of the profile] is operationalizing how implementation work occurs. Value of relationships, equity, and the relational aspects of the work. I think we should call this out as much as possible.</li> <li>● The principles and competencies would be useful for planning work with stakeholders [at the implementing site] and taking stock / reviewing the work and progress over time.</li> <li>● We find that the work of “supporting active involvement” of stakeholders [at implementing sites] requires quite a few skills around facilitation, consensus building, and understanding and facilitating group dynamics. The work of the exploration phase is often less about actual implementation and more about developing a common understanding of a problem/challenge and developing a common vision and activities that support this agenda.</li> </ul>

*“I also think that while this is a helpful document for IS's, it is just as helpful to share with community partners, so they better understand the role of the IS. Something that I think is missing sometimes. I'm not sure my partners always completely understand my role. If we have a common description of the IS role that is used across the world (let's dream big!), then there will be better common understanding, not just of the IS role, but also what Implementation Science is trying to achieve.”*

**Figure 6.** Usefulness of competencies for implementation support practitioners.

and competencies can be used to “support organizations in building their own internal capacity and to understand expectations for their own capacity-building.”

Respondents suggested principles and competencies could help to professionalize the role of implementation support practitioners and support local recruitment processes. For example, one respondent noted that the set of principles and competencies identified “serve as a guide to the skills and competencies to bolster implementation support and for professionals to aspire. Managers can use this profile to support hiring of implementation support practitioners as well.” Furthermore, respondents indicated that operationalizing principles and competencies could support ongoing reflection and learning about implementation support activities, thereby informing:

- Implementation support practitioners’ development plans;
- Implementation practice, including the planning, prioritization, adjustment and improvement of implementation activities and strategies; and
- Assessments of implementation support practice.

Finally, respondents expressed the importance of implementation support practitioners being fluid in their application and integration of various approaches to implementation. One respondent noted, “There is value in the practice profile as framework neutral – it’s not a vehicle for promoting [a specific framework], but it can be helpful in supporting the work of those who use various frameworks.” This was further elucidated by others, describing the benefits of principles and competencies as “structuring comprehensive thinking about practicing implementation” and “going so far beyond simply using implementation science to really touching on the realities and diversities of the role.” These comments were directly related to the importance of the competencies for integration of implementation frameworks, strategies and approaches and building capacity.

## Discussion

This study presents preliminary evidence on principles and competencies with a potential to guide the work of implementation support practitioners.

Feedback from an international sample of implementation support practitioners implied that although the majority of principles and competencies were perceived as clear and complete, components such as “co-design”, “address power differentials” and “apply and integrate implementation science approaches” require further refinement. Qualitative responses suggested that contextual factors and relationship building have a central role in implementation support and that articulating principles and competencies could strengthen implementation practice, including recruitment for and training in implementation support, and the planning, monitoring and evaluation of this support.

### ***Refining definitions of principles and competencies***

The aim of the study was to assess and gather feedback on the principles and competencies for providing implementation support. Survey findings suggest a need to rename the “co-creation” domain as “stakeholder engagement” and broaden it to include multiple types of engagement. Co-creation, or the deep and active involvement of stakeholders such as practitioners and family members in decision-making, may not always be feasible given power dynamics and resource constraints. Furthermore, while implementation support practitioners may be able to consult with and receive feedback from key stakeholders, they may not be in a position to build authentically collaborative relationships where decision-making is shared or co-creative relationships where marginalized groups are genuinely empowered to make implementation decisions (Metz & Boaz, 2016). Finally, co-creative techniques would need to be adapted based on those who are doing the co-creating (e.g., people with lived experience, direct service providers, and leaders require different supports to participate fully in co-creation efforts).

Refinements to the “addressing power differentials” competency were also identified as needed. Many types of power imbalances – related to resources, position, authority, historical context, race and gender – may exist, many of which may be too challenging for an implementation support practitioner to address. Implementation support practitioners have limited leverage in the human service organizations and systems they support, especially when operating as external consultants without formal decision-making authority. However, within these boundaries, implementation support practitioners may use strategies – such as structured facilitation – to balance power dynamics. This makes it pertinent to detail potential power dynamics at play in implementation support contexts (e.g., between executive leaders, practitioners, and families) and to specify how implementation support practitioners can help to identify and address these. The location of the implementation support practitioners – inside or outside the service systems – may play a role in how effective they can be in addressing issues of power that may impede implementation. Implementation support practitioners also lifted up the role of teams in their work, specifically developing and convening implementation teams. Findings showed that refinements to the competencies should more explicitly describe the role of team development and the role teams can play in addressing power differentials through collective leadership and mutual accountability (Metz & Bartley, 2020).

Finally, survey findings also demonstrated that the competency of “integrating and applying implementation science approaches” requires adjustment, with more detail needed on the types of methods and strategies that might be employed given various contexts. This suggests a need to more strongly integrate other implementation science concepts within the principles and competencies profile, such as implementation strategies (Powell et al., 2015), implementation outcomes (Proctor et al., 2011) and implementation determinants (Damschroder et al., 2009).

### ***Expanding on context and the role of implementation support practitioners***

The role of context in providing implementation support emerged as a key theme in the qualitative data. Context was described as both facilitating and hindering implementation efforts. Given this, the principles and competencies will need to be more explicit about the contextual influences on the work of implementation support practitioners.

Firstly, while implementation support practitioners may be accustomed to complicated, tense and ever-changing contexts, these have also been described as overwhelming and limiting for the predictability of their implementation support efforts and their sense of efficacy. This speaks to the relevance of “commitment” as a principle, drawing attention to “resilience” as a characteristic of implementation support practitioners (e.g., an ability to cope with ambiguity, pressure, or lack of control).

Secondly, while there was strong agreement with the clarity and completeness of the “assess need and context” competency, this competency may require further operationalization to sufficiently

capture respondents' comments on the importance of context not only at commencement of an implementation but also throughout its entirety. This includes taking into account the different contextual domains (Damschroeder et al., 2009) across which implementation support practitioners operate, including the characteristics of the individuals they work with, their own working conditions, the organizations they support, their surrounding environment (i.e., whether the implementation support practitioner works within the human service system or external to the system), and the implementation process itself.

### **Expanding on trust, relationships, and the role of the implementation support practitioner**

The role of relationships was also identified as a key theme in the qualitative data, related to contextual features of the implementing site and inclusive of engagement with key stakeholders. With implementation support practitioners' ability to broker and build relationships with and among stakeholders emerging as a key attention point from this study, the role of relationships will need to be explored further – not only with respect to the already existing competency “grow and sustain relationships” but also to other competencies across the three domains.

Surprisingly, while relationship building is a commonly acknowledged task of implementation support practitioners (Akin, Brook, Byers, & Lloyd, 2016; Bunger et al., 2016; Hurlburt et al., 2014), few studies have explored it in depth (Beidas et al., 2013; Metz & Bartley, 2015; Nadeem, Gleacher, & Beidas, 2013), limiting our understanding of how relationships between implementation support practitioners and stakeholders can be effectively built and why they are important.

However, studies have shown that trust plays a critical role in how policymakers, agency leaders and practitioners vet, interpret, and appraise information needed to make implementation decisions (Dovey, 2009; Finnigan & Daly, 2012; Tseng, Easton, & Supplee, 2017). When relationships garner trust, information is more readily exchanged, making it possible for more stakeholders to exert influence on an implementation process (Bogenschneider & Corbett, 2010). Furthermore, trust – brought about through informal opportunities for contact and exchange (Farrell & Coburn, 2017) enables individuals to engage in the risk taking, learning and behavior change required to support implementation efforts.

This study provided emerging findings related to two types of trust, which have been identified in implementation support work related to supporting evidence use in human service organizations (Palinkas & Soydan, 2012). *Intrapersonal trust* is the belief that the implementation practitioner is reliable, competent, and committed to the change effort on behalf of the organization they are supporting. *Interpersonal trust* is the perception of the implementation practitioner and their stakeholders that they are in a collaborative and reciprocal relationship pursuing the same aims.

There are several ingredients in the relationship building process that have been described as both a contributor to and an outcome of trust. These include *collaboration* typically involving the use of collaborative decision making processes between the implementation practitioner and stakeholders (Henrick, Cobb, Penuel, Jackson, & Clark, 2017), *communication* taking place at a high frequency and involving exchanges of information that support co-learning (Metz & Bartley, 2015), *empathy* which supports the growth promoting relationships needed to promote change (Metz, Burke, et al., 2020), and *sensitivity* (Palinkas et al., 2015) often represented by the extent to which the implementation support practitioner responds to the priorities of stakeholders at the implementing site.

Sensitivity warrants further exploration and aligns with findings that demonstrate relationship-based support as more motivational than general support such as resource allocation (Pierce, Sarason, & Sarason, 1991). This may be a key factor in implementation – in terms of both readiness and motivation for change. If key stakeholders feel supported by an implementation support practitioner, these stakeholders may feel more hopeful for change even in the face of limited organizational and system resources. This sense of hope may lead to greater commitment and motivation by the stakeholder(s).

The role of empathy also warrants further discussion in implementation. While empathy has historically been described as part of the helping process in psychology, more recent definitions of empathy conceptualize empathy as mutual and interactive. Implementation support practitioners have described empathy as foundational for developing trusting relationships, which aligns with how they describe their day-to-day activities building affiliation, making personal connections, and recognizing themselves as outsiders. Metz, Burke, et al (2020) have described the ways in which implementation support practitioners demonstrate empathy including affectively attuning to stakeholders at the implementing site, balancing flexible boundaries with role clarity, demonstrating comfort in a relational context, and recognizing the impact all stakeholders have on implementation activities and decision-making.

Findings related to trust and relationships point to close linkages existing between implementation support practitioners' ability to utilize principles and competencies on the one hand and to build trusting relationships on the other. While "grow and sustain relationships" can be conceptualized as a separate competency, skillful application of all other competencies may equally contribute to garnering trust and building relationships. As well, trusting relationships may strengthen the impact of all other competencies in supporting effective implementation.

The usefulness of competencies for professionals providing implementation support also emerged as a study theme. Qualitative findings from the study underscore the usefulness of identifying the competencies and activities an implementation support practitioner would be expected to engage with, underpinned by sound guiding principles. Findings also demonstrate the differentiated skills needed by implementation support practitioners in relation to implementation researchers or direct service providers.

## Limitations and future directions

The sample of survey respondents involved in this study was relatively small, with participants primarily representing implementation support activities provided within child and family services in high-income countries. Survey respondents were also selected based on the networks of the study team. These selection criteria and the response rate limit the applicability of the thinking reflected in principles and competencies presented and warrants further research into implementation support provided at a global level. The survey also gathered data at a single point in time, rather than other methods such as a Delphi process or multiple interviews where participants could reflect and iteratively refine competencies over time. Follow-up interviews are planned to gather feedback from survey participants on a revised version of the competencies.

## Conclusion

Implementation support practitioners represent an implementation strategy that warrants further examination. Many professionals have the role of supporting implementation in human service systems. These professionals may reside inside or outside the system, for example as public agency staff or as external consultants. Regardless of their professional affiliations, these individuals share a purpose and a set of competencies needed to provide implementation support. Further efforts must be made to understand how these competencies can be operationalized in routine practice, how they are interlinked, and how they can help to influence the stakeholders and contexts involved in implementation efforts.

We hope this paper will widen the debate in the field of implementation science about the role of implementation support practitioners, their competencies and how these can best be developed. As human services agencies seek to increase the use of research-supported interventions, local expertise is needed to implement and sustain these interventions (Albers, Metz, et al., 2020). Some of the questions we need to explore as a field include:

- Who are implementation support practitioners? What are their role and functions? Where are they located or employed (e.g., government agencies and organizations, intermediary organizations, consultancies and technical assistance providers)?
- How can we build a workforce of implementation support practitioners with the range of competencies needed?
- What combination of formal education and training and continuing professional/workforce development and coaching would best support the development of the required competencies for implementation practitioners? Who will provide this education, training, workforce development and coaching (e.g., universities, training bodies)?
- Is there a typical career path for implementation support practitioners? What might that be? How will it vary from country to country, and by sector?

This paper also highlights the range of skills needed to support implementation and evidence use in human services. In addition to guiding principles for approaching their work, they require a broad range of competencies that include technical skills – e.g., data utilization – and relational skills – e.g., brokering. Findings suggest that implementation support practitioners dedicate as much time to brokering connections, addressing power differentials, and building relationships as they do needs assessments or improvement cycles. Implementation science has perhaps overly emphasized technical skills related to problem identification, strategy selection, and use of data for continuous improvement, at the expense of recognizing the equal importance of relational skills in supporting implementation. This paper foregrounds a critical question of whether high quality relationships between implementation support practitioners and implementing site partners are necessary for overcoming implementation challenges and successfully using evidence to improve outcomes for people and communities.

This paper also centers the role of values and principles in implementation. There was close to universal agreement among study participants that entering the implementation space with empathy, curiosity, and commitment was necessary for implementation success. Developing a workforce that can provide implementation support will require the field of implementation science to look beyond theories, models and frameworks, and to more deeply understand and support the use of principles and relationship-based competencies by professionals working to promote and sustain evidence use in human service systems.

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## Practice points

- This article sets the stage for an important discussion about the skills and competencies required to effectively support implementation in human service sectors.
- It introduces the importance of capacity building for individuals providing implementation support, whether they are internal or external to the human service agency; and discusses the role of competency-based professional development and on-the-job training for these individuals.

- In assessing the conditions that facilitate implementation support, this article explores the role of trusting relationships, power, and context in effective implementation and poses important questions for building a workforce of professionals who support change in human services.

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