Implementation Brief: The Potential of Co-Creation in Implementation Science

National Implementation Research Network

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The purpose of this brief is to create a deeper understanding of the benefits of co-creation approaches and the benefits of engaging a range of stakeholders in implementing, improving, and sustaining the use of research evidence to improve outcomes.

Research to practice and research to policy "gaps" have been well documented in implementation science. An implication of the "gap" language is the inference that there is an empty space situated at the nexus of research to practice waiting to be filled, rather than a sphere populated by interconnected stakeholders acting on knowledge and driving decision-making every day. Moving away from a "gap" framework to one of "co-creation" allows for an explicit focus on assessing and understanding how various actors and groups must build trust and pathways for the use of research evidence to improve outcomes for populations of concern. The purpose of this brief is to create a deeper understanding of the benefits of co-creation approaches and the benefits of engaging a range of stakeholders in implementing, improving, and sustaining the use of research evidence to improve outcomes.

Terminology and Meaning

Developing consensus on terminology and meanings will facilitate future research and application of co-creation concepts. Let's begin by examining the meaning of co-design, co-production, and co-creation. Co-design and co-production have placed "the user, their family, and communities at the heart of service design," allowing the users to participate in service administration and delivery (Simpson, 2012). Business literature describes co-creation as "collaboration for the purpose of innovation" (Chathoth, et. al., 2013) differentiating input derived from the consumption process (co-production) to input derived in the production process (co-creation). In social services the difference is whether stakeholders provide input on programs already selected (co-production) or whether stakeholders are a part of the selection or development process (co-creation).

> *Co-creation is the development of a "shared body of usable knowledge" across scientific, governance, and local practice boundaries (Kerkhoff & Lebel, 2015).*
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> *Co-creative capacity involves the joining of scientific resources, governance capability, and adaptive leadership at multiple and whole systems levels to create the infrastructure and conditions needed for the sustainable use of evidence.*

Social sciences have translated the concept of co-creation as the "development of a shared body of usable knowledge" across scientific, governance, and local practice boundaries (Kerkhoff & Lebel, 2015; Metz & Albers, 2014). Co-creative capacity involves the joining of scientific resources, governance capability, and adaptive leadership at multiple and whole systems levels to create the infrastructure and conditions needed for the sustainable use of evidence. From the perspective of social service delivery, the use of evidence is often a result of "iterative, messy, and dynamic" interactions (Nutley, Walter, & Davies, 2007) among public agencies and policy makers, researchers, and developers of evidence-based practices, practitioners, communities, and families. Successful interactions take the shape of iterative "mutual consultations" that mediate the use of research evidence in complex service systems and political contexts.
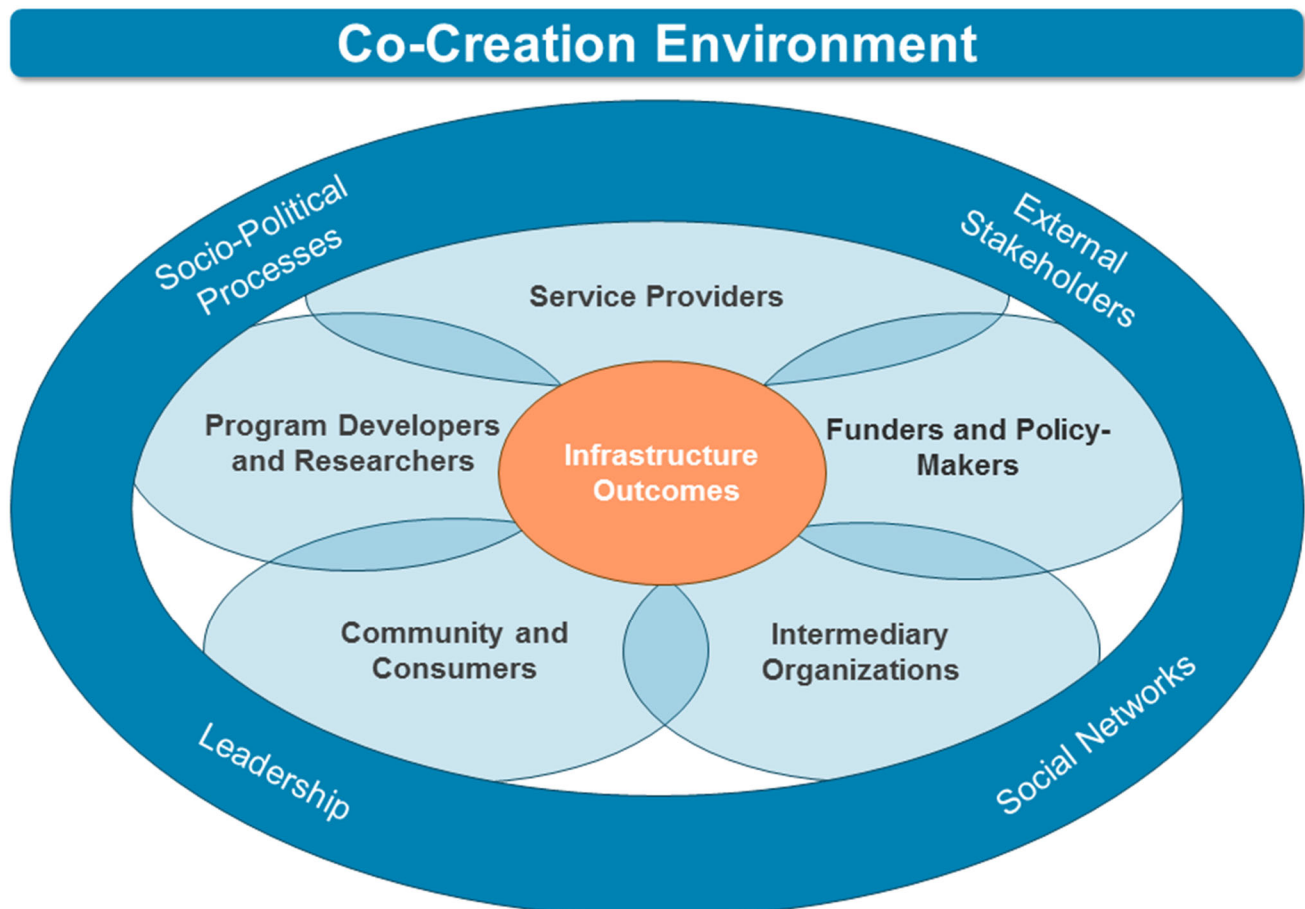
Co-Creation in Complex Systems

Complex systems consist of dense webs of relationships where individual stakeholders self-organize through interactions. In turn, interactions produce co-learning and collaborative problem solving of complex systems challenges. Co-creation is predicated on the assumption that "self-organizing interactions" will be more productive and frequent if individual stakeholders are clear about their roles and expectations for supporting the use of evidence in practice. Several different theoretical models underscore the importance of building co-creative capacity for the use of research evidence. For example, *social capital theory* describes how stakeholders access resources from one another through social ties. Indeed, Palinkas and colleagues noted that "successful implementation of evidence-based practices requires

consideration and utilization of existing social networks of high-status systems leaders that often cut across service organizations and their geographic jurisdictions" (Palinkas et al., 2011, p.1). *Cultural exchange theory* describes how the transaction of knowledge among diverse stakeholder groups includes debate, mediation and compromise. *Ecological systems theory* emphasizes that collaborative efforts of stakeholders are influenced by macro system conditions such as leadership changes and sociopolitical processes. Interactive models of stakeholder involvement in implementation are grounded in experience-based *co-design models* (Bate & Robert, 2005; Robert, 2013) and *co-creation models* (Bason, 2010). These models are used in health, business, and public service sectors predominately in the United Kingdom and Nordic regions to promote collaborative problem solving among governance, research, service, and consumer populations. The models outline necessary *conditions* for involving stakeholders in creative and translational processes to support and sustain the use of research evidence in complex services systems. Conditions include: **reconfiguration of the problem space** (so that multiple perspectives are taken into account when defining problems); jointly **developing prototypes** of analytic tools through **iteration and learning**; *"zooming in"* on the needs of users of research evidence while *"zooming out"* to promote systems thinking among key stakeholders. Conditions for effective co-creation are also related to recent findings on the use of research evidence. For example, the process of prototyping tools, protocols and products that support research translation allow for the ongoing testing of research evidence and tailoring of evidence for new contexts. This type of 'contextualization' has been demonstrated to make a difference in the use of research evidence by policymakers (Palinkas, 2014).

Stakeholder Roles and Functions

Research demonstrates that successful uptake of evidence requires genuine and meaningful interaction among researchers, service providers, policy makers, consumers, and other key stakeholders (Flaspohler, Meehan, Maras, & Keller, 2012; Palinkas et al., 2011; Wandersman et al., 2008). Implementation efforts must address the various needs of these stakeholders (Palinkas et al., 2014). However, we know that in many instances, collaborations among stakeholders, including researchers and community members, are strained by a lack of mutual understanding of each other's goals and expectations (Stokols, 2006). Through the vantage point of *ecological systems theory* (Bronfenbrenner, 1992), we also know that collaborative efforts of stakeholders are influenced by macrosystem conditions such as leadership changes and socio-political processes.

Co-Creation Environment

Socio-Political Processes

External Stakeholders

Service Providers

Program Developers and Researchers

Infrastructure Outcomes

Funders and Policy-Makers

Community and Consumers

Intermediary Organizations

Leadership

Social Networks

There is evidence that key stakeholders involved in building the infrastructure to support and sustain the use of evidence in practice have difficulties sharing authority and responsibilities (or relinquishing autonomy). This "role ambiguity" typically emerges in early stages of implementation when individuals assert roles that were not previously agreed upon (Aarons et al., 2014). There is also a general lack of consensus of who constitutes a stakeholder and what their roles and functions are (Miles, 2012). Put simply, stakeholders often are unclear about their specific roles in using evidence to support implementation. This confusion can actually increase, rather than diminish, as implementation moves from early stages of exploration to initial implementation (Hurlburt et al., 2014). Role ambiguity can limit stakeholders' abilities to improve and sustain the use of evidence-based practices. When stakeholders don't understand their roles, there is evidence that this leads to communication breakdowns, variability in levels of trust, and some disagreement in decision-making processes or authority (Aarons et al., 2014). Recent case study research has identified potential strategies for increasing role clarity among stakeholders, including: frequent feedback loops and communication, the development of a broad understanding of the underlying assumptions for change associated with research evidence, and shared use of data for continuous quality improvement (Metz & Bartley 2014).

Shifts in Accountability among Stakeholders

After research evidence is *adopted and implemented* in systems, there are often shifts in supports and accountability to *sustain* the use of research evidence. These shifts take place for several different reasons. For example: 1) supports from evidence-based program developers diminish or end; 2) resources for evaluation and research activities diminish or end; 3) special accommodations for the use of evidence are time limited; or 4) scaling up requires more proximate implementation capacity to increase efficiency and effectiveness of implementation supports. Implementation through a co-creation lens allows for the examination of potential shifts in supports and accountability and how different stakeholder groups can help sustain the use of research evidence.

Research Questions

NIRN encourages our network partners to conduct research that will build applied knowledge on co-creation processes and the conditions for co-creative capacity to support to the use of research evidence. NIRN is currently involved in two research projects designed to study co-creation. For a study funded by the William T. Grant Foundation, NIRN will seek to understand:

> *NIRN encourages our network partners to conduct research that will build applied knowledge on co-creation processes and the conditions for co-creative capacity to support to the use of research evidence.*

- What processes contribute to leveraging relationships among evidence-based program developers, private service providers, and the public child welfare agency to support the use of research evidence?
- How can relationships among evidence-based program developers, private service providers, and the public agency help to establish the conditions necessary for optimizing and sustaining the use of research evidence after initial implementation supports diminish?

For a study funded by the Socio-Environmental Research Synthesis Center (SESYNC), NIRN will lead a transdisciplinary team working on improving socio-environmental outcomes globally. This team will consider the following questions using international case studies:

- How can the active development of co-creative capacity contribute to: 1) increased role clarity and shared commitment among interconnected stakeholders linking science with practice, 2) maximized synergies among complex and adaptive knowledge systems, and the 3) optimization of evidence in local contexts for sustainable outcomes?
- What are the strategies for enhancing co-creative capacity?
- Can these strategies be converted into widely applicable tools, methods, and practices for enhancing research and action on socio-environmental challenges and across a range of disciplines?

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