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Exploring the Relational Model of Change as a Facilitator of Interorganizational Change Processes

Brenda J. Bond-Fortier[1] and Erika Gebo[2]

Abstract

Organizational change is a dynamic field with rapidly evolving knowledge. Recent scholarship highlights gaps in understanding real-time change implementation and urges granular research in diverse contexts, particularly in interorganizational collaborations where complex problems are addressed by networks of partners. This paper explores how participants employed the relational model of change (RMOC) in two distinct interorganizational contexts to gain insight into the change process. Multiple case study and temporal analysis were used to compare how change played out in the two contexts. Findings reveal that both sites adopted RMOC interventions of boundary spanner roles, shared accountability, and current state assessments. These interventions were implemented differently, however, leading to varied progress toward goals. This study advances our knowledge of change processes and demonstrates, for scholars and practitioners, the RMOC's relevance for strengthening interorganizational collaboratives and organizational change, using granular data regarding the dynamic process of change.

Keywords

organizational change process, relational coordination, relational model of change, interorganizational collaboration, organizational change interventions

[1]Department of Public Service and Healthcare Administration, Suffolk University, Boston, MA, USA
[2]Department of Sociology & Criminal Justice, Suffolk University, Boston, MA, USA

Corresponding Author:
Brenda J. Bond-Fortier, Department of Public Service and Healthcare Administration, Suffolk University, 120 Tremont Street, Boston, MA 02108, USA.
Email: bbond@suffolk.edu

Recent scholarly attention has called for a deeper exploration of the intersections between change content, processes, and outcomes in organizational change research (Poole & Van de Ven, 2021; Schwarz & Vakola, 2021). Scholars highlight persistent gaps in understanding the implementation of change and the use of change process models in real time (Schwarz & Vakola, 2021; Van de Ven & Poole, 2021). Researchers also call for granular investigations of how change processes unfold in diverse organizational contexts (Shani & Coghlan, 2021; Worley & Good, 2021). Calls for change process research come at a time when interorganizational collaboration is increasingly being used as a tool to achieve organizational goals (Bryson et al., 2015), thus calling for a consideration of how change processes operate in interorganizational contexts. Researchers suggest that change challenges are especially complex in interorganizational contexts relative to single organizations, due to their dynamic and multi-faceted nature (Bryson et al., 2015; Provan & Milward, 1995). These calls for understanding extend beyond academic interests. Practitioners need guiding processes, structures, and roadmaps to effectively lead, manage, and implement change. This includes leading individuals to collaborate across multi-level organizational boundaries, facilitating successful implementation of collaboration in complex environments (Bolton et al., 2021; Bryson et al., 2015; Kramer et al., 2019). Given these complexities, insights are needed regarding how collaborative change work unfolds and how various relational, process, and structural dynamics interact over time to affect collaboration (Agranoff, 2007; Agranoff & McGuire, 2003; Bryson et al., 2015; O'Leary & Vij, 2012; Yström et al., 2019).

A growing body of work suggests that successful change toward effective collaboration may require interventions that support how people and systems relate to one another (Gittell, 2016). One such theory is relational coordination, which suggests that strong communication and relationships among participants in complex systems can facilitate the achievement of multiple desired outcomes (Gittell, 2011, 2016). More recent propositions from relational coordination theory suggest that the relational model of change (RMOC), a praxis outgrowth of relational coordination theory, has the potential to facilitate organizational change in collaborative contexts; yet little research exists in this area (e.g., Bolton et al., 2021; Gittell, 2016). To better understand change processes in interorganizational collaborative contexts, this study explored how participants utilized the RMOC to guide change interventions as their work unfolded over time in two sites. Multiple case study and temporal analysis approaches were used to compare across these two sites. This study expands relational coordination and change process research in important ways. First, using RMOC as a change process facilitator in interorganizational collaboration contexts, rather than a single organization, is a relatively new application of RMOC. Additionally, to answer the call for change process investigations, the RMOC is examined in planned or teleological change contexts, comparatively over time to uncover nuances and influences that may be informative for scholars and practitioners interested in how organizational change progresses in complex and dynamic settings.

A review of relevant change process literature and the connection to interorganizational collaboration are presented first. The theory of relational coordination and the RMOC are

introduced followed by a description of the study sites. The multiple case study methodology, data analytical approach, and results are presented next. The discussion considers theoretical and practical implications, including the potential for the RMOC to guide change and strengthen interorganizational collaborations in other settings.

Change Processes and Interorganizational Collaboration

Kurt Lewin's action research on change and change process helped to launch a robust research movement focused on the understanding of change (Lewin, 1946, 1947; Schein, 1999). Over time, change research has evolved with an intensified interest in better understanding the implementation of change (Poole & Van de Ven 2021; Weick & Quinn, 1999). Current views suggest that no one theory can adequately explain change processes, but rather there are "hybrids of two or more theories operating together, at different levels, or during different time periods" (Poole & Van de Ven, 2021, p. 817). In line with this thinking, a growing body of research centers on a typology of change process theories that endeavors to capture, explain, and guide change processes under different circumstances, and in different contexts (Van de Ven & Poole, 1995). This typology, which organizes change process theories across different motivations and mechanisms for change, includes life cycle (i.e., sequence from beginning to end); dialectical (i.e., conflict and contradiction dynamics drive change); evolutionary (i.e., sequence of variation and selection to compete for resources); and teleological (i.e., sequenced goal setting to implementation and assessment). Studies utilizing these change process theories are enhancing our understanding of change within and across diverse settings (Poole & Van de Ven, 2021). Despite these advances in the knowledge base on change mechanisms, not enough is known about *how* change can be carried out effectively by leaders, managers, and other change agents in the field (Van de Ven & Poole, 2021). Answering the question of *how* is a practical imperative if research is to have an impact on the work that is carried out by practitioners.

A teleological process of change wherein individual actors work together to support goal attainment has relevance for the operation of collaboratives (Bryson et al., 2015). Teleological change process captures a process of "goal formation, implementation, evaluation, and modification of actions or goals based on what was learned or intended by the entity. This sequence emerges through the purposeful enactment or social construction of an envisioned end state among individuals within an entity" (Poole & Van de Ven, 2004, p. 378). Intentional change is a way to solve social challenges, often through new working arrangements, roles, contributions, and relational mechanisms within collaboratives (Poole & Van de Ven, 2004). Cross-agency collaboration is an intentional approach aimed at tackling social challenges. However, leaders, managers, and change agents often need assistance and direction in effectively planning, implementing, and maintaining such complex collaborative efforts across organizational boundaries (Bryson et al., 2015; Kramer et al., 2019). Thus, interorganizational collaboratives provide suitable contexts for exploring Poole and Van de Ven's (2021) call for understanding change in different contexts.

Collaboratives are recognized as new institutional arrangements consisting of individuals or groups that work cooperatively on behalf of their home organizations in pursuit of common goals (Bryson et al., 2015). Research reveals that certain collaborative features can influence goal achievement. For instance, the nature of formal and informal collaborative processes (Bryson et al., 2006; Provan & Milward, 1995), governance and management approaches (Thomson & Perry, 2006), and trust and interdependence within and between collaborators (Ansell & Gash, 2008) have been found to influence collaborative work. Collaboration research has also shown that the intentional development of communication and relationships, goal setting, accountability, and resources can impact collaboration success (Bryson et al., 2015; Gittell, 2016; Ingold & Fischer, 2014; Vangen & Winchester, 2014). Yet, pathways to improved collaboration often require difficult changes in policy and practice within and across collaborating organizations (Gittell & Weiss, 2004; Vangen & Huxham, 2012; Williamson & Bond, 2014) even when collaborators willingly come together to plan how to pursue shared interests (Harris et al., 2012). This tension may be even more challenging to resolve as leaders, managers, and change agents may not have the training, capacity, or frameworks for launching and implementing change in single or cross-organizational contexts (Kramer et al., 2019).

Beyond these features, structure, formalization, and operations of interorganizational collaboratives add to their complexity as they are as diverse as the problems they seek to address (Bryson et al., 2006). Challenges include misaligned organizational goals, human resource shifts and turnover, and differing organizational norms and cultures especially regarding information sharing and follow-through, which may not easily match those of their peers in the collaborative (Bryson et al., 2015; Chen, 2010; Ingold & Fischer, 2014; Shumate & Gibson, 2021; Vangen & Winchester, 2014). Indeed, structure, governance, and relationship management are persistent challenges for collaborators that require more research insights (Ysträm et al., 2019) to help guide practitioners to lead effective collaboratives (Huxham & Vangen, 2013; Popp et al., 2014).

Difficulties of collaboration are intensified when collaboratives attempt organizational change in support of their goals. For example, collaboratives striving to establish formal interorganizational agreements, such as memoranda of understanding, may encounter obstacles when individual members who are asked to share data and information with partner organizations are faced with conflicting interests concerning their home organization's information sharing practices (Hoelscher, 2019). Interorganizational change can also be slowed or even blocked when active participation by collaborating partners is not fully realized (Hoelscher, 2019). Inclusivity practices bring collaborators closer to a shared vision (Berardo et al., 2014), but inclusivity may only address diverse views and representation, rather than full and active participation in change discussions and decisions by collaborating agencies. Active participation is a strategy to bring genuine inclusivity (Mintzberg et al., 2009), which helps to elevate mission and goals. Without a roadmap or more structured guidance, these types of complex interorganizational tensions can hinder the progress of collaborative change initiatives.

It is well documented that collaboration has become a common organizational strategy for achieving goals in complex environments (e.g., Bryson et al., 2015; Hoelscher, 2019; Provan & Kenis, 2008; Scott, 2013). In turn, calls for deeper understanding of change within and across diverse interorganizational networks persist (Bryson et al., 2015; Shumate & Gibson, 2021). Indeed, the persistent uncertainties about the nuances of introducing and implementing change have led to continued calls for robust research on how and why change processes unfold as they do, how the temporal dimensions of change processes can be understood, and how the change processes take place in different contexts, including within and across organizational levels (Bartunek & Woodman, 2015; Burke, 2021; Pettigrew, 1985; Poole & Van de Ven, 2021; Reinhardt & Gioia, 2021; Van de Ven & Poole, 1995). Moreover, current knowledge falls short of addressing and informing the real-time challenges that practitioners and change agents face in leading, managing and implementing change within interorganizational contexts. The current study responds to these charges through a temporal examination of how interorganizational collaboratives achieve change in support of their goals.

Theoretical Framework

Relational coordination theory can inform how we understand change processes in interorganizational contexts (Bolton et al., 2021). Relational coordination theory (Gittell, 2002) understands the coordination of work as an emergent relational process through which communication and relationships improve the outcomes of collaborating groups (Crowston & Kammerer, 1998; Faraj & Sproull, 2000). Relational coordination theory proposes the frequent, timely, accurate, and problem-solving communication supports relationships of shared goals, shared knowledge, and mutual respect (Gittell, 2016). These communication and relationship dynamics are mutually reinforcing, strengthening the collaboration process by helping to build trust and collective problem solving (Wolff, 2010; Woolcock & Narayan, 2000). A recent systematic review suggests that relational coordination is a promising practice for supporting change and can serve as a practical tool for facilitating effective processes and practices; yet there has been little exploration in interorganizational contexts (Bolton et al., 2021).

The relational model of change (RMOC) is a research-to-practice tool that grew out of relational coordination theory (Bolton et al., 2021). The RMOC identifies structural, relational, and work process interventions as three types of interventions that participants can adopt to strengthen relational coordination and achieve their desired outcomes (Gittell, 2016). The RMOC is like other bundles of interventions that can be brought to bear to solve complex, multi-dimensional problems (Hamilton, 2010). Figure 1 illustrates the proposition that each type of intervention is expected to strengthen relational coordination and desired outcomes. Each type of intervention (i.e., structural, relational, and work process) and their component interventions (e.g., select and train for teamwork; relational assessment; current state assessment)

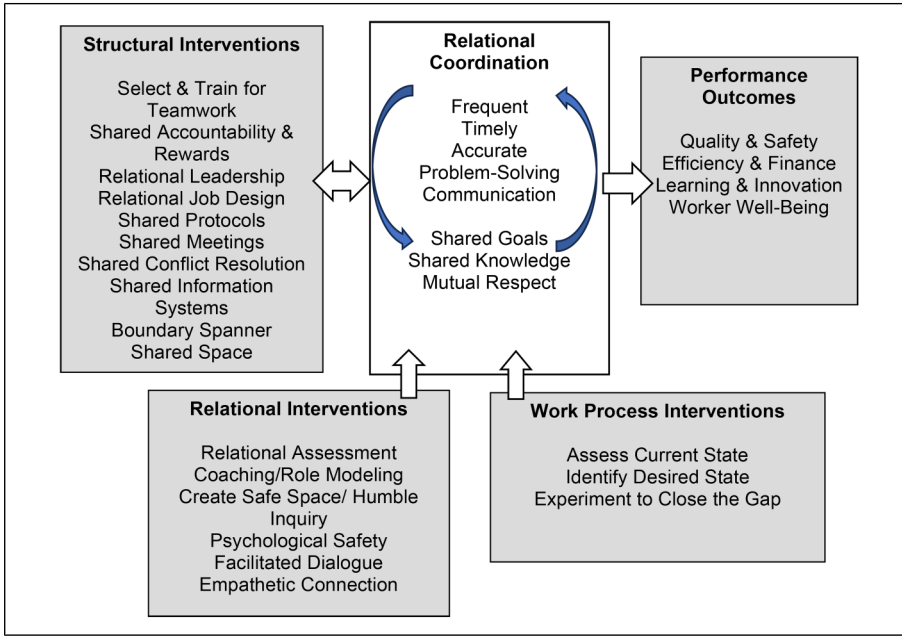

Figure 1. Relational model of change.
Source: Gittell (2016); Gittell and Ali (2021)

offer distinct yet valuable support for enhancing relational coordination (Gittell & Ali, 2021). Each of these elements is operationalized in Appendix A.

Research on the use of the RMOC is limited, and as noted in a systematic review of relational coordination, there is still "much more to learn about how the change methodology [RMOC] works" (Bolton et al., 2021, p. 308). Examining the use of RMOC in an interorganizational change context is of great value given that coordination is a core feature of interorganizational collaboration (Agranoff & McGuire, 2003; Bryson et al., 2006), and that interorganizational collaborations often require coordination among multiple participating organizations (Hurwicz, 1993; Scott, 2013). Moreover, a deeper examination of RMOC implementation over time responds to calls for identifying implementation patterns, similarities, and differences within and across various dimensions (e.g., temporal aspects, frequency) (Miles & Huberman, 1994). This deeper examination of RMOC interventions as a group—an example of a bundled intervention (Hamilton, 2010), can advance our knowledge and application of RMOC in complex, interorganizational contexts.

To address gaps in the change process literature, this study explored two related questions: (1) Which RMOC interventions were implemented most intensively by change actors involved in the interorganizational collaboration? (2) How did the implementation of RMOC interventions shift, if it all, over time? Answers to these questions

provide needed insights to answer calls from scholars on change processes (Bolton et al., 2021; Poole & Van de Ven, 2021) and can provide practical knowledge for practitioners about the usefulness of RMOC as a guide and set of tools as they seek to make change by strengthening interorganizational collaboratives.

Methods

The Current Study

This study provides an in-depth exploration of how the RMOC was utilized to facilitate organizational change as it unfolded in interorganizational collaboratives in two different cities (intervention cities A and B). The current study was part of a larger 3-year, multi-method study examining the implementation of an interorganizational approach to gang and youth violence reduction (Gebo & Bond-Fortier, 2022). In the larger study, researchers sought to understand if RMOC could help to achieve justice-related outcomes and be used as a guide for practitioners facilitating change in similar environments. Study sites were purposefully chosen by the research team based on several considerations: (a) both sites were supported by the same government funding to implement the comprehensive gang model (CGM), a specific gang and youth violence reduction strategy that provided a framework and guidelines for program implementation and oversight; (b) both sites were willing to consider and test the RMOC as a facilitator of the type of change that CGM encouraged, and provide access to data and information; and (c) no historical ties or previous working researcher relationships with the sites.

Study Sites. Change process comparability is based on the fact that resource provision, collaboration structure, and gang and general youth violence reduction strategies were the same across sites. The two cities were ethnically, linguistically, and economically diverse. See Table 1 for site descriptives.

Each city had a government structure that included a local board/council and a strong manager or mayor. Collaboratives included some variation of city employees,

Table 1. Study Site Descriptives.

Site	Population	Ethnicity (single ethnicity)	Median HH income	Families in poverty (%)	Violent crime volume[b]
Intervention city A	180,000	53% White 12% Black 21% Hispanic	$45,000	17%	1,700
Intervention city B	90,000	83% White 4% Black 7% Hispanic	$30,000	19%	1,100

[a]US Census Bureau 2013 rounded estimates.
[b]FBI UCR 2010 rounded actual.

state and non-profit agency representatives, and other local stakeholders, such as community activists or business community members. Each site collaborative had coordinators whose job entailed ensuring implementation of the CGM. State funding allotted to each of these cities for gang and youth violence prevention over a 4-year period encompassing a year prior to the intervention and a year post intervention was proportionally consistent (E. Fontaine, personal communication, 4/9/2021). The initiative was run out of the mayor's office in city A, and out of the human services department in city B, with each utilizing CGM guidelines in implementing violence response strategies.

CGM Framework. Under the CGM framework, local community collaborators engaged in five core strategies to facilitate violence reduction: community mobilization to support and sustain work, prevention, and intervention programs for youth at-risk for violence and justice-involved individuals, arrest and prosecution of individuals committing violent acts, and organizational change and development for organizations to work better together toward the shared goal of violence reduction. While the CGM provided a framework and structure for implementation, it was up to local sites and their site coordinators and steering committees to collaboratively identify context-specific strategies and programs to reduce gangs and violence based on community dynamics and needs. The focus of this study is a deep dive into the use of RMOC as a facilitator for organizational change as it unfolded over time across two different interorganizational youth violence reduction collaboratives.

Interorganizational collaboration plays a vital role in achieving the CGM's goals of reducing violence and enhancing a community's capacity to address violence. Employing Van de Ven and Poole's (1995) typology of change processes, sites' change efforts were characterized as a teleological (or planned) change process wherein there was goal setting, implementation, assessment, and adaptation. The RMOC was employed across sites to facilitate collaborative efforts of decision-making and action in pursuit of their CGM goals of violence reduction.

Larger Study Background

The background of the larger study sets the stage for deeper reflection and analysis of the RMOC in the current study. The larger study spanned a 3-year timeframe with an 18-month intervention period. In the larger study, researchers introduced the RMOC to site collaboratives as a way to facilitate and bolster the organizational change and development component of the CGM through an action research approach. The focus of the current study is RMOC implementation processes during the 18-month intervention.

The action research approach began with a launch meeting in each site, with coordinators and collaborating practitioners where the research team and RC experts provided an overview of the study and process and answered questions. These representatives were empowered by their organizations as change agents in support of CGM goals. Researchers then held a joint-site workshop where each site's collaborative learned more about relational coordination and the RMOC. In the workshop,

each site's collaborative created an "ideal model of gang and youth violence reduction" which laid out a holistic approach for gang and violence prevention. This effort represented the RMOC's "desired state" (Gittell, 2016) consistent with what March and Simon (1958) proposed in moving organizational actors to focus on group goals, rather than individual organizational goals.

Following the workshop, researchers participated in ongoing site meetings, which were held almost monthly to move forward on CGM implementation. Our integration into these existing meetings allowed researchers to introduce concrete RMOC intervention strategies, coach participants, and use humble inquiry to foster positive and actionable communication regarding CGM and change implementation. Humble inquiry was used as a conversational approach centered on asking questions to support thinking and action, rather than telling, to motivate dialogue and action (Schein, 2013). Over the course of the 18-month intervention, researchers presented the menu of RMOC interventions as options for facilitating change. Decisions about what and how to use the varied RMOC intervention options in support of CGM and change goals were made by the collaboratives. This iterative learning and decision process reflected an action research approach.

Through conversations of RMOC, meetings evolved to support information sharing about change, research, and best practices in collaboration and youth violence. In accordance with RMOC, assessments of each site's interorganizational communication and coordination patterns served as critical intervention components.[1] Lastly, researchers conducted regular coaching calls with site coordinators in each city to support collaborative problem solving and to support ideas for next steps. An outcome evaluation of the intervention demonstrated that effective implementation of RMOC was a promising strategy for achieving the CGM goals (Gebo & Bond-Fortier, 2022). The current study focuses on the intervention change process which was not thoroughly explored in the outcome evaluation. The study is highly relevant for practitioners engaging in organizational change and speaks to the calls for research in the change process and relational coordination literatures.

Current Study Approach

A multiple case study approach was employed to examine change processes in the current study. Case study methodologies are useful in understanding complex contextual dynamics at a more nuanced level, providing insights into how and why results come about in a specific study setting (Barker Scott & Manning, 2024; Yin, 2014). The multiple case study design draws on this nuanced approach to explore and compare variables and outcomes of interest across multiple study sites (Fitzgerald et al., 2009; Patton, 2015; Yin, 2014). A comparative approach allowed us to document the context-specific RMOC implementation processes within and across sites to understand how RMOC was utilized and why certain RMOC interventions were emphasized by CGM partners in support of change.

The site collaborative served as the unit of analysis. Researchers served as participant-observers (Angrosino, 2007; Patton, 2015), actively and regularly engaging

with site participants. This active involvement supported formal interaction and data collection as well as opportunities for ongoing, systematic observation (Van Maanen, 2011). Perceptions of collaborating practitioners were systematically documented by researchers via meeting notes, coaching conversations, and interviews. The 18-month intervention period offered opportunities for longitudinal observations that supplied rich data from which to examine the "detail, context and nuance" of the implementation processes (Patton, 2015, p. 257).

Data Sources. The use of RMOC interventions and the actions, concerns, and perspectives of CGM collaborators in their change process efforts were captured qualitatively. Detailed observation notes and meeting minutes were taken at each of the monthly meetings. Twelve meetings took place in site A, while 11 took place in site B. Notes and minutes were recorded by hand by the research team and contemporaneously reviewed by both authors for accuracy.

During this same period, 11 coaching calls were held with site coordinators at site A, while 6 coaching calls were held in site B. The purpose of these calls was to discuss CGM and organizational change intervention efforts. On these calls, we asked coordinators about the intervention and about contextual dynamics that might be of importance. At the conclusion of the 18-month intervention period, we conducted 13 appreciative inquiry interviews with key change actors from each site (site A = 7; site B = 7) to gain understanding of their perspectives on RMOC and the process of change. Nine of the interviews were audio taped and transcribed verbatim, with the remaining interview data recorded by hand. These data were used to answer research questions, while secondary data sources, such as planning documents, change roadmaps, and logic models were used to triangulate concepts from meeting observational notes and minutes and to provide rich illustrations and descriptions of concepts as is recommended for multiple case study methodology (Patton, 2015).

Measures. Consistent with the evolving research on the RMOC (Gittell & Ali, 2021), RMOC interventions from early propositions (Gittell, 2016) and more recent RMOC scholarship (Gittell & Ali, 2021) were gathered and measured (see Figure 1 for these RMOC interventions). RMOC is the outgrowth of the validated relational coordination instrument (Gittell et al., 2000; Valentine et al., 2015). As a result of recent development of RMOC as a set of intervention tools, some RMOC interventions have been consistently measured, while others are emerging and not yet standardized. This has led scholars to operationalize some RMOC elements differently depending on study context (e.g., Bolton et al., 2021; Gittell, 2016; Gittell & Ali, 2021). Lack of clear and standard operationalization is common in new fields of study where new concepts and ideas are still being articulated (Patton, 2015). To address these measurement challenges, scholars suggest that researchers consider a concept, in this case an RMOC intervention, as a "sensitizing concept," assigning meaning to the concept based on how the concept is illustrated within the context being studied (Patton, 2015). A thorough literature review revealed several concepts that were not fully defined or operationalized; for those we used the current study context to help situate the RMOC

concept consistent with Patton (2015). We identified illustrations of RMOC interventions, and then came together to agree upon definitions as sensitizing concepts when no standard definitions were available, allowing us to identify and code patterns in the current data (Cunliffe & Locke, 2020; Eisenhardt, 1989). Appendix A contains RMOC intervention concepts previously and currently measured.

Analytical Approach. Source document data were coded after the conclusion of the 18-month study period. A deductive analytical strategy was used to identify RMOC interventions as they were demonstrated in each site's data and then we compared interventions and their application across sites (Miles & Huberman, 1994; Patton, 2015). Researchers compared, scrutinized, and discussed notes from the monthly site meetings. Coding RMOC interventions involved an iterative, multi-step process. First, the two authors individually and independently reviewed the data line-by-line and assigned a code that related to RMOC dimensions as operationalized for this study. In accordance with Miles and Huberman's (1994) partitioning approach to data analysis, each author also independently coded the dimension data according to the three stages of implementation articulated for this study.

The next step involved coming together to share and discuss the assigned codes for RMOC and the stages of implementation. The co-authors met on four separate occasions to chronologically review approximately 5-months-worth of notes at each meeting. In those meetings, meeting notes and researcher codes were shared and discussed. For areas of discord ($N = 10$), we jointly went back through the data to discuss our respective coding. This step often involved further discussion of the specific meeting activities, the chronological context of activities, and conversations as described in the notes. These discussions allowed us to talk through the meaning of the data in the context of specific meetings to identify disagreements or divergent interpretations. In these cases, we referred to the RMOC and stages of implementation definitions to resolve differences. This task of "check coding" allowed us to move to conceptual alignment of codes between researchers, as one way to come to agreement (Miles & Huberman, 1994) and support reliability of the codes and results (Armstrong et al., 1997). As a final check for reliability, at the last researcher meeting, we went back through codes to ensure accuracy, inter-rater agreement, and reliability in coding over time.

Capturing RMOC interventions allowed us to analyze RMOC-related decisions and actions toward change as part of the change process. Once data were coded, we worked collaboratively to further categorize RMOC data into three distinct stages of implementation—*introduced*, *tackled*, and *accomplished*—in order to understand and compare how implementation of different interventions progressed over time and across sites. This analytical approach, guided by the work of Miles and Huberman (1994), included sorting implementation data into distinct groups, or stages, allowing us to identify and understand implementation patterns at a more granular level across RMOC interventions and, across study sites. Researchers examined the context of each intervention each time it arose in the study data to make determinations about the stage of implementation (introduced, tackled, accomplished). An RMOC intervention was coded as *introduced* if it arose as a new topic of exploration during the change process. An

intervention was coded as *tackled* if the collaborative decided or acted upon an RMOC-related intervention. Data were coded as *accomplished* if an outcome was produced from a decision or action made regarding that intervention. To chronicle each site's implementation of RMOC over time, we used a time-ordered meta-matrix, or a data display, to allow for cross-case comparison of RMOC implementation over the course of the intervention (Miles & Huberman, 1994). This approach permitted us to identify differences in the extent to which interventions were utilized and to uncover the dynamism of the teleological change process as it unfolded in each of the two sites (Miles & Huberman, 1994; Poole & Van de Ven, 2004).

Findings

The results of the current study revealed that the RMOC was a useful change process facilitator across both interorganizational collaboratives, but the adoption and implementation differed across sites, and over time. Observations showed that structural interventions were utilized most, followed by work process interventions, with less focus on relational interventions. Comparison of RMOC implementation in varied stages of use, and over time, provides a more nuanced understanding of RMOC's dynamic and iterative implementation in the study sites.

Use of RMOC Interventions

During the course of the study, site A utilized RMOC interventions on 79 occasions. Forty-eight percent of site A's RMOC's interventions were structural, 31% were work process, and 21% were relational interventions. Site B utilized RMOC interventions on 51 occasions, with structural interventions representing 58% of the total. Work process interventions represented 35%, and relational interventions representing just 7% of the total.

Structural Intervention Implementation: Site A utilized shared accountability, boundary spanner roles, and the creation of psychological safety most often. In contrast, site B utilized relational job design most often. Both sites relied on shared meetings as the glue for their collaboration, allowing for integration and alignment of concrete actions in support of their planned (i.e., teleological) change efforts.

Relational Intervention Implementation: There was only one notable observation of the use of relational intervention in the study. Site A used meetings to consistently foster psychological safety through meetings as safe spaces.

Work Process Intervention Implementation: Site A was consistent in assessing their current state vis-à-vis youth violence reduction efforts and identifying their desired state. Site B was more often focused on assessing the desired state and experimenting to close the gap.

Comparing RMOC Implementation Stages Across Sites

Comparing implementation stages—introduced, tackled, accomplished—showed variation within and between the two sites, as summarized in Table 2. Compared to site B,

Table 2. Count of Relational Model of Change (RMOC) Interventions Across Sites.

RMOC elements	Site A % (*n*)	Site B % (*n*)
Introduced	43% (34)	53% (27)
Tackled	19% (15)	33% (17)
Accomplished	38% (30)	14% (7)
Total	100% (79)	100% (51)

site A *introduced* ($n = 34$ vs. $n = 27$) and *accomplished* ($n = 30$ vs. $n = 7$) more RMOC interventions. Meanwhile, site B *tackled* more interventions than site A ($n = 17$ vs. $n = 15$), but site B accomplishments were notably fewer than site A.

Comparison of the frequency of RMOC intervention use at a more granular level exposes differences in implementation across sites (see Table 3). In looking at the *introduction* of RMOC interventions, site A introduced shared accountability, shared information systems, assessing current state, and identifying desired state more than other interventions. The introduction of these interventions would sometimes show up during the same meeting. For instance, regarding desired state, one social service worker noted, "*once a family is identified, we need wrap around services. Schools need to be included*." During that same meeting, another collaborator noted that information sharing remained an issue, and specifically shared a need to "*find ways to share information in a timely way despite the real challenge that exist relative to sharing information about individuals across difference groups and agencies*." Later in the meeting, during a discussion of collaborative implementation of their plans, one participant spoke about "*everyone is working in silos, and there is no accountability*."

Site B also *introduced* the desired state, but in contrast to site A, they were more likely to introduce relational job design and experimenting to close the gap. One example illustrates how site B approached these RMOC interventions. With a goal of crafting their ideal youth development model (i.e., desired state), the collaborative focused on crafting an organizational chart where each partnering agency identified an individual, or role, that would serve as a partnership point person. In turn, at most of the site B meetings, participants spoke about role clarity and coordination as important to creating stronger relationships.

Regarding RMOC interventions *tackled*, identification of the desired state was the most frequently tackled intervention in site B. Site A tackled a variety of different interventions across structural, relational, and work process intervention dimensions. For example, site A remained focused on their citywide youth violence prevention plan consistently connecting their CGM efforts to this broader plan to ensure that youth did not slip through any cracks. Moreover, to articulate and prioritize the connections between the structural, relational, and work process interventions, site A added organizational change as a cross-cutting mechanism to their citywide plan.

The notable differences regarding intervention utilization relate to *accomplishments*. Site A was considerably more productive in accomplishing RMOC

Table 3. Cross-Site Comparison of Relational Model of Change (RMOC) Implementation[a].

RMOC concepts	Site A				Site B			
	INTRO	TACK	ACC	Total	INTRO	TACK	ACC	Total
Structural interventions (SI)								
Select and train for teamwork	2		1	3	1			1
Shared accountability and rewards	8	1		9	3	1		4
Relational leadership			3	3	1	2	1	4
Relational job design	2	1		3	6	2	1	9
Shared protocols	2			2	3		1	4
Shared meetings								
Shared conflict resolution								
Shared information systems	4	1	1	6	2			2
Boundary spanner		2	10	12	1	2	2	5
Shared space								
Total SI	18 (47%)	5 (13%)	15 (39%)	38	17 (57%)	7 (23%)	5 (17%)	29
Relational interventions (RI)								
Relational assessment	1	1		2	1	2		3
Humble inquiry/coaching/ role model		1		1				
Create safe space/ psychological safety	2	1	8	11				
Facilitated dialogue	1	1		2			1	1
Empathetic connection								
Total RI	4 (25%)	4 (25%)	8 (50%)	16	1 (25%)	2 (50%)	1 (25%)	4
Work process interventions (WPI)								
Assess current state	5	3	5	13	1	1		2
Identify desired state	4	2	1	7	4	5	1	10
Transform work								
Experiment to close the gap	3	1		4	4	2		6
Total WPI	12 (50%)	6 (25%)	6 (25%)	24	9 (50%)	8 (44%)	1 (6%)	18
Total RMOC	34	15	30	79	27	17	7	51

[a]INTRO = introduced; TACK = tackled; ACC = accomplished.

interventions than site B (38% vs. 14%). Site A accomplished the RMOC interventions of boundary spanner roles, psychological safety/safe spaces, and assessing current state. Document reviews, and observational and interview data help to show this distinction more clearly. Site A boundary spanners, who served as site coordinators,

created multi-level structures (e.g., a planning team, working groups, a governance group) to facilitate communication and coordination at different organizational levels within and across citywide youth violence prevention efforts. Boundary spanners facilitated problem identification within working groups by utilizing multi-level structures. Observational analysis revealed that boundary spanners established safe space meeting processes, addressing various challenges like political and practical barriers that could hinder positive change. As an example, partnering staff felt comfortable in collaborative meetings sharing their concerns regarding lack of transparency or data and resource sharing by some institutional partners. Through the provision of these safe spaces, boundary spanners fostered a trustful atmosphere for discussing change, supporting discussions with program-level collaborators.

Working group conveners were similarly encouraged to delve deeper into challenges, exploring their practical and political underpinnings. Collaborators in the working groups were consistently able to raise substantive concerns related to policy, systems, training, coalition building, and networking. Boundary spanners managed and prioritized these emerging issues in their strategic conversations and planning documents while acknowledging the dynamic nature of their work, "*this [plan] is a living document. It is a work in progress*." Site A boundary spanners emphasized the importance of monthly meetings of program staff to discuss these types of evolving and substantive concerns at the field level, which would then be communicated to leaders serving in governance roles.

It was the boundary spanners who worked to involve city leadership to meet shared goals. As one of the boundary spanners shared, "*we had done the assessment and it was like, we were still trying to like, convene people, but it was not really working. And I think, you know, through a variety of conversations, we really were like, okay, this has to move, you know, to the city. The city has to own this*." Recognizing that progress toward goals depended on ownership and endorsement of city leadership, boundary spanners effectively took the lead in facilitating active leadership engagement.

In contrast, site B showed no patterns in what RMOC interventions were accomplished; however, an important site B accomplishment toward shared goals was the reconstitution of a CGM steering committee in the later months of the intervention. The site B boundary spanner led program-level staff in forming a steering committee consisting of high-level stakeholders (i.e., decision-makers), and then prioritized communication and coordination by the steering committee with other, ongoing program efforts. Partners began to see the role of a higher-level group as important, and they wanted a steering committee that could help in ways articulated by one program staff member, "*transition*[ing] *from episodic and individual level to systemic change* [that would] *and help to create sustainability*." This sentiment illustrates a new energy in creating a steering committee to engage in a comprehensive, collaborative effort focused on shared purpose and goals, beyond what any one youth violence effort was engaged in on its own. While site B may not have accomplished as much as site A, their introduction of new tasks was not always in vain, as the steering committee example illustrates. The group circled back and eventually was able to accomplish this larger, strategic effort.

Comparing RMOC Implementation Over Time

To understand the implementation of RMOC interventions in the change process more fully as it unfolded over time, a comparative temporal analysis was conducted. See Appendix B for results by month. Figures 2 and 3 show what interventions were utilized in the months that each site had meetings. Observations revealed ebbs and flows over time in both sites, though overall there was a more sustained effort to implement RMOC in site A. While structural interventions were implemented most intensively in both sites, work process interventions were often ongoing in both sites, especially desired state assessments. The ongoing dynamic of work process interventions

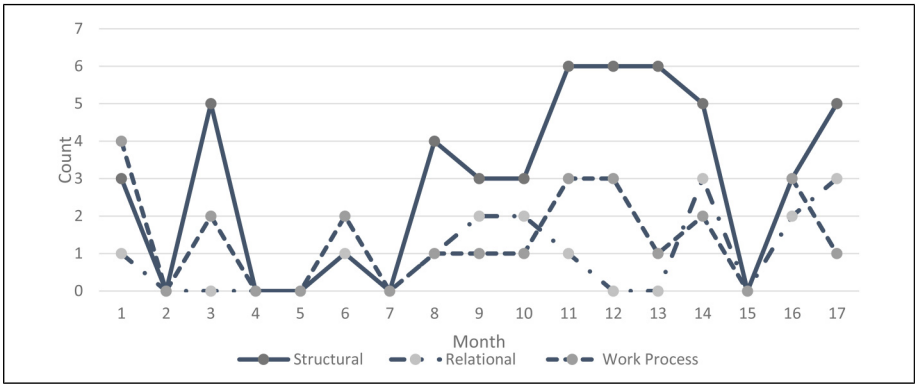

Figure 2. Site A: temporal account of relational model of change (RMOC) focus.

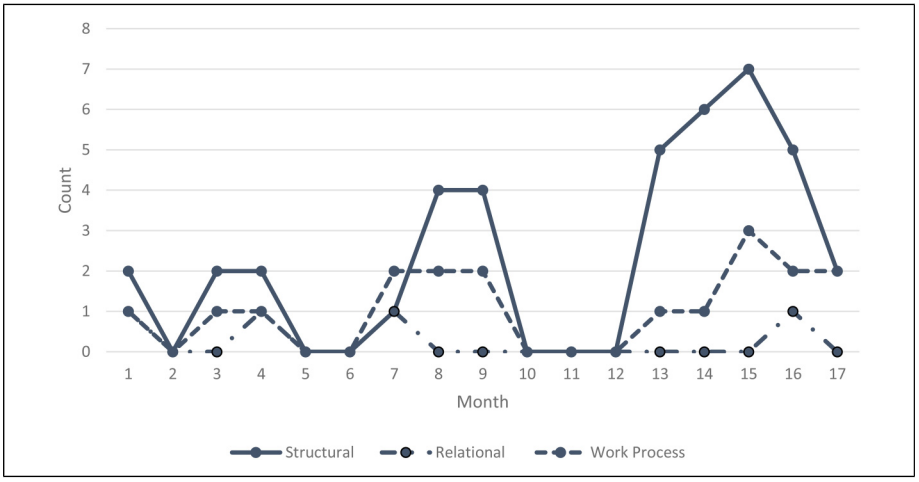

Figure 3. Site B: temporal account of relational model of change (RMOC) focus.

reflect each site's continual reflections on their current state and their desired state. Interestingly, analysis showed that relational interventions were generally lacking in both sites. We return to that finding in the discussion.

One important finding from the temporal analysis was that boundary spanners seemed to set the stage for the accomplishment of several RMOC interventions. Specifically, during times when site A implemented boundary spanning roles and psychological safety, participants were more successful in introducing, tackling, and accomplishing other RMOC interventions. Monthly meetings facilitated by boundary spanners allowed participants to open up, offering a safe space to share their thoughts and concerns. For instance, at one meeting that addressed information sharing and communication, political issues were raised by program-level collaborators as a concern. Some did not want to share information for fear of how the information would be used, including not wanting to tell a story that would make the city look bad. Collectively, meeting participants decided that working group members could discuss political or social issues in separate meetings which would then be aggregated and shared with the governance group in an anonymous way. The psychological safety necessary to address key concerns, such as ethnic and racial disparities in justice systems, an issue raised by many program partners and boundary spanners, was successfully created due to boundary spanner leadership over the course of the intervention.

Boundary spanners facilitated connections between working groups and governance groups as the CGM work progressed to improve communication and relationships across distinct but related efforts. They simultaneously focused on integrating non-CGM, relevant citywide efforts to build and bridge efforts. These integration efforts were noted by one site A participant who reported that "*there is beautiful alignment happening across our city with regard to the citywide violence prevention plan*." This alignment was ongoing and progressive due to boundary spanner efforts.

Overall, while site B introduced and implemented a greater number of interventions relative to the observation period total, they ultimately accomplished less. Just as with site A, in site B more interventions were introduced and implemented when the boundary spanning role was being actively implemented. For instance, it wasn't until after several months of meetings that the site B boundary spanner was formally "anointed" by participants as the right person to lead and coordinate the city's broader youth violence prevention development model work, including the CGM work. This anointment was important on a grander scale. As noted by one of the partners, "*this also helps [them] get things done at higher levels*," meaning at higher organizational levels in the city. Once this declaration of collaborative leadership was articulated, partners focused more intently on strengthening communication and relationships across each component and stage of their desired state. In turn, site B began implementing the RMOC intervention of assessing the desired state, and this work subsequently informed group and steering committee conversations about how different youth violence prevention efforts could work together. Intentionality about integrating their efforts eventually came to characterize their work. As noted by the site B boundary spanner, "*this new steering committee should be giving guidance*" to the youth

violence task force who carries out the work. These efforts in site B were reflective of those happening in site A, but progress was slower because of the later formalization of the boundary spanner role.

For site B, there was a heavy focus on structural interventions, such as job design, particularly toward the end of the 18-month intervention when they reconstituted the steering committee. The creation of a new steering committee was the most significant change to occur in site B, with this work then leveraging structural, relational, and work process interventions. In doing so, site B collaborators strengthened their focus on integration and the streamlining of services. In moving toward a meaningful integration, the boundary spanner suggested a more deliberate approach and asked, "*how do we create a safety net to ensure a continuum of care?*" reflecting a focus on the desired state. At this time, the starts and stops that were common in the early days of the site B intervention began to shift toward steady, forward progress, and the creation of a new, strategically focused steering committee. The shift in thinking illustrates collective advances toward more strategic, bigger picture thinking about communication, coordination, and integration across organizations for youth violence prevention and reduction efforts. Site B collaborators were moving out of their planning for change discussions, supporting structures and processes that would move them toward action and achievement of shared goals.

It took time for site B's participants to modify their thinking and their initial, strong views regarding their capacity at the program level to effect citywide change. Rather than continuing to view a new steering committee as replacing them in citywide efforts, site B collaborators began to see how each of the parts (i.e., program staff and steering committee) could make a whole. This shift in thinking was difficult and took time, but it was an accomplishment worth recognizing. This change in perspective came with an intentional move into the work process intervention of experimenting to close the gap. As collaborating practitioners moved in this direction, they reached a consensus on the expectations and role of the steering committee; as one member noted: "*everyone seemed to be on the same page about what is expected from the steering committee*." RMOC helped facilitate the shift to a best practices-aligned view of the steering committee to focus on strategic visioning and planning.

Throughout the intervention period, site B's meetings and dialogue exhibited empathetic connection with a consistent focus on the relationships between the meeting participants. This was revealed through multiple references to their strong communication and coordination at the program (i.e., frontline) level of services. For example, one staff member noted that "*we have shared goals when it comes to youth*." Another noted "*we aren't a big community, so several of us wear different hats*." These examples are illustrative of how program staff members frequently reflected on their work and the nature of their relationships with and mutual understanding of each other. Over time, site B collaborators evolved their thinking about change to embrace multi-level integration.

For both sites, the developing and shifting dynamics of each site caused the assessment of current and desired states to happen again and again. As a site A boundary spanner shared, we are:

> Not trying to ram community members into the structure, but rather have like, have alliances with groups that are concerned about this in like, a critical friend kind of way. We have these critical friends. And I don't know what the structure is to like, have. You know, first we need to like, build that trust, and then, or I don't know. Maybe through the process of doing this, you build the trust.

In this example, site A shared that they were trying to identify areas that need improvement around communication pathways while also identifying solutions to these issues in a complex, changing environment. Comparably, site B emphasized their current efforts at the outset, but eventually moved forward in connecting their current state to actions needed to achieve their desired state (e.g., positive youth development model). In turn, RMOC as a bundled intervention played a crucial role in helping both sites A and B reframe their approaches to change. Site A moved closer to a strategic and comprehensive perspective, while site B transitioned from a more transactional approach to a strategic one.

Discussion

This study is unique in its exploration of the RMOC for fostering change within an interorganizational collaborative. By examining RMOC implementation over time in two different sites, the study offers insights into how RMOC interventions can be adapted and tailored to enhance planned change in collaboratives seeking to effect youth violence. In doing so, we reveal a nuanced understanding of RMOC implementation in these settings, addressing research limitations regarding RMOC implementation (Gittell & Ali, 2021).

Implementation of RMOC in an Interorganizational, Planned Change Context

The RMOC is a viable change process framework, as shown in the iterative and dynamic implementation across study sites. Each site tailored RMOC interventions to fit their local needs and priorities, and both made progress toward their goals despite their distinctive starting points. Moreover, certain RMOC interventions seemed especially critical in these collaboratives that involved multi-level, complex communication and relationships. By documenting how and why each site implemented different RMOC interventions over time, the study suggests the RMOC can serve as a dynamic and customizable change process facilitator. Results extend our understanding of RMOC in support of the translation of relational coordination theory into practice and provides guidance to practitioners and change agents grappling with coordination and change in complex, multi-organizational contexts.

The findings reveal an emphasis on a small number of RMOC interventions. Boundary spanners have served a coordinating role in diverse contexts (Galbraith, 1974; Gittell et al., 2000), yet the role of boundary spanners in supporting relational coordination has been mixed (Bolton et al., 2021). This study revealed the critical

role of boundary spanners across both sites in coordinating across roles and functions (Gebo & Bond-Fortier, 2022; Gittell, 2000; Parsons, 2012), especially in the context of interorganizational collaboration. Indeed, boundary spanner roles may serve as a precondition for successful interventions in ways that go beyond current understandings of the RMOC. Leaders of collaboration should prioritize boundary spanner roles in their interorganizational work.

Further, accountability, introduced most often via boundary spanners, was observed as an important RMOC intervention in site A. Interestingly, site A's focus on shared accountability in terms of obligations for collaborative contributions came without discussion of shared rewards, which has been noted in RMOC literature as a complementary intervention. In site A, boundary spanners introduced accountability both horizontally and vertically to support shared goals. Their success was largely due to the two individuals who, while serving as boundary spanners for CGM efforts, also held key leadership roles in advancing broader citywide plans to address youth violence. These dual roles were crucial to site A's efforts as they worked effectively across collaborative efforts and organizational lines. The boundary spanner intervention may be critical for successful interorganizational implementation of other interventions and for achieving desired outcomes as illustrated here.

Bolton et al. (2021) suggest that psychological safety strengthens relational coordination. Edmondson (1999) and others (Carmeli & Gittell, 2009; Edmondson, 2004) confirm that environments encouraging open communication, risk-taking, and learning from mistakes support change and the achievement of desired outcomes. The current study builds on these findings by exploring psychological safety as a micro-process that enhances relational coordination and reveals that boundary spanners fostering a psychologically safe environment can drive multi-level change.

Results also revealed both sites' attention to assessing current and desired states in their respective collaborative spaces. These RMOC interventions (Gittell, 2016) played pivotal roles in producing relational coordination and desired outcomes in the study sites. These findings align with propositions of Gittell and Ali (2021) that these "participatory methods" (p. 53) for assessing current and future states helps to guide the change process. The emphasis on the current and desired state is noteworthy given that collaboration often arises out of a desire to intentionally come together to plan a future state (Bryson et al., 2015). Thus, practitioners engaged in planning for change can look to these findings as instructive.

Gittell (2016) suggests that relational job design can enhance relational coordination, improving communication and coordination among collaborators. In this study, only one site employed relational job design as an RMOC intervention. Site B notably invested early in their process to strengthen communication and relationships across roles and functions at a programmatic level. Clear roles and expectations were crucial for advancing site B's positive youth development model, relative to what was observed at site A. These findings suggest that site B's focus on relational job design at the beginning of the change process was instrumental in building and strengthening relational coordination over time.

The study reveals the potential for RMOC as a change process facilitator that can be utilized and adapted by practitioners and change agents working in interorganizational contexts.

As such, this study also responds to calls for deeper exploration of organizational change processes in real time, and the exploration of change process models as tools for change (Poole & Van de Ven, 2021). The study contributes new answers to *how* to facilitate change processes in support of goals of interest. It provides insights into facilitating change processes that support specific goals. It advances our understanding of change within interorganizational collaborations engaged in planned, or teleological, change (Schwarz & Vakola, 2021; Van de Ven & Poole, 1995, 2021). The iterative approach observed in this study highlights the dynamic, non-linear nature of teleological change, characterized by continuous cycles of reassessing the current and desired states, which are grounded in the RMOC interventions. This reinforces current views on the limitations of linear view of teleological change and emphasizes its iterative, evolving nature (Poole & Van de Ven, 2004). By illustrating non-linearity and the need for boundary spanners to facilitate change, these insights provide valuable guidance for practitioners tasked with leading and implementation change and collaboration in constantly evolving environments. Understanding and viewing the RMOC as an adaptive change process methodology and framework for navigating complex, cross-organizational settings, addresses a long-standing challenge in the practice of change (Bolton et al., 2021; Van de Ven & Poole, 2021).

RMOC Implementation Over Time

Capturing RMOC implementation as it unfolded temporally allowed for a more nuanced understanding of change processes as it happened *on the ground*. The articulation of RMOC implementation stages (i.e., introduced, tackled, accomplished) adds to our understanding of the nature and patterns of implementation in complex interorganizational environments. The literature on the temporal dimensions of change in and across group work recognizes the complexity of collaborative arrangements, reinforcing the "nonlinear dynamics" that work in multi-level environments (Arrow et al., 2004, p. 75). These non-linear temporal dynamics were most evident in site B where cycling back and forth on introducing issues may have been necessary to finally achieve the steering committee outcome. In this complex, interagency effort, the collaborators, who were seemingly doing well at the program, or frontline level, would often take one step forward and two steps back when raising and grappling with policy and organizational changes needed to achieve their broader youth violence reduction goals.

Study Contributions

Our study makes several contributions to research and practice. Beyond knowing that RMOC can facilitate communication and coordination in support of youth violence outcomes (citation omitted), scholars and practitioners need to know how those outcomes were achieved. This may be the first study of its kind about the use of

RMOC as a change facilitator in an interorganizational context. The findings demonstrate that the RMOC has potential for facilitating interorganizational change processes, aligning with recent propositions that the RMOC holds potential for facilitating change in collaborative contexts (Bolton et al., 2021). Findings revealed that as sites progressed, they relied on different RMOC interventions to support their efforts toward achieving goals, reinforcing the adaptive nature of the RMOC, which can be tailored in response to contextual dynamics. In turn, these findings show RMOC accessibility to practitioners in different stages and phases of collaboration. Sites relied on RMOC in different ways and emphasized different RMOC interventions at different points in time during their change process efforts. As noted by Gittell (2016), structural and work process interventions are needed to envision, carry out and sustain change, but they are not enough. Relational interventions are also important. In this study, the limited reliance on relational interventions may be explained by already established relationships and high levels of respect for each other and for each other's work. Even as each site utilized the same CGM structure and had access to the same source of funding for the work, notable contextual influences, such as formal plans, or shifting city leadership and priorities, may have influenced implementation and what was ultimately accomplished in RMOC use. Lastly, we have extended the operationalization of RMOC interventions, demonstrating their manifestation in diverse contexts, thus highlighting RMOC's capacity to adapt to and support organizations in different phases of change.

Implications for Practice

The practical implications of our study are significant and multi-dimensional. To start, results can help practitioners engage in and lead interorganizational collaboration by providing a framework for working together in support of shared goals. In today's environment, where collaboration is fundamental to addressing multi-faceted challenges, managing such collaborations poses complexities similar to the issues they seek to tackle. Simultaneously, there is a pressing need for insights into how to lead change, particularly in complex organizational contexts. Our findings offer instructive guidance for practitioners involved in planned change within interorganizational collaborations, especially those lacking the necessary training or tools for navigating complex collaborative environments.

Drawing on change and collaboration research, our study underscores the importance of establishing supportive structures and processes to intentionally and systematically facilitate collective goal attainment through adaptive change process methodologies. By utilizing the RMOC as a tool for collaborative change, our results shed light on *how* leaders, managers, and change agents can effectively navigate dynamic change within complicated, interorganizational contexts to achieve desired outcomes. To this end, boundary spanners must possess the necessary skills and authority to facilitate complex collaborative efforts. Additionally, their effectiveness is likely contingent upon the endorsement and support of institutional leaders, particularly in interorganizational arrangements.

The study's findings offer convincing evidence for the proposition that RMOC can serve as a powerful tool for steering collaborative change (Bolton et al., 2021). We show the utility and adaptability of the RMOC as an instructive change process framework, highlighting RMOC's dynamic nature. Rooted in developing research, yet easily applicable for practitioners seeking to bridge the gap between theory and practice, the RMOC interventions present themselves as a practical and adaptive framework in the current study settings, and perhaps others. Practitioners will appreciate the flexibility of RMOC interventions to support the unique needs and dynamics of collaboratives at various stages of readiness for change.

The practical implications of this study extend beyond practitioners directly involved in leading change within collaborative settings, including other stakeholders who play roles in supporting or promoting change through collaborative efforts. For instance, in our study, site practitioners were implementing a promising practice with the backing of government funders and policymakers. Yet, the guidelines for implementation of the promising practice were ambiguous and did not dictate to sites how to best achieve change via collaboration. This study suggests that policy calls and directives advocating for collaboration can be strengthened by incorporating RMOC as a viable framework for facilitating change within such collaborations. Moreover, by showing the importance of RMOC interventions such as boundary spanners and accountability structures in a collaboration, policymakers and funders are better informed on what contributes to collaborative policy implementation.

Limitations and Future Research

Our study did not investigate causal mechanisms between RMOC interventions and changes in relational coordination or in the achievement of desired performance outcomes. The study's focus on interorganizational efforts made it challenging to pinpoint specific change actions in partnering organizations. Given the exploratory nature of this RMOC study, questions regarding internal and external validity are worth acknowledging. A detailed description of the design and methodology, including the use of multiple researchers for coding and analysis is intended to strengthen internal validity (Gibbs, 2007). With no standardized instrument to measure RMOC interventions, the current study relied on existing interpretations of each RMOC intervention (Bolton et al., 2021; Gittell, 2016), along with the use of "depth and detail" for elucidation of underdeveloped RMOC interventions (Patton, 2015, p. 230). The uses of quotes as evidence, along with triangulation, were efforts employed to boost the categorization of data against the RMOC (Gibbs, 2007; Kirk & Miller, 1986; Patton, 2015).

Future research could explore the utilization of the RMOC in other interorganizational contexts, delve deeper into the operationalization of RMOC concepts, and examine RMOC interventions in different change process models, especially teleological processes. There is more to learn about how and why different interventions are implemented more or less intensively by participants. For instance, although both sites used relational interventions to a lesser extent than structural and work process interventions, this may be attributed to existing strong relationships in both cases. It

may also highlight the influence of external research interveners as change facilitators; thus, future research could more closely examine how change facilitators encourage the implementation of different RMOC interventions depending on their training and mindset. Lastly, while both sites are characterized as urban communities, they differed in total population. Future studies in diverse contexts are needed to build the RMOC knowledge base across settings.

Conclusion

This study offers valuable insights into the implementation of RMOC interventions within interorganizational change contexts. It underscores the dynamic and adaptive nature of these collaborations, the critical role of boundary spanners, and the importance of intentionality in multi-level change interventions. These findings contribute to the understanding of the RMOC as a facilitator of change processes for interorganizational collaboratives, bridging the gap between theory and practice.

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ORCID iD

Brenda J. Bond-Fortier https://orcid.org/0000-0003-1980-9929

Note

1. The larger study included administration of the relational coordination survey to gauge changes in communication and coordination over time. These results are reported elsewhere (citation withheld for review process).

References

Abu-Rish Blakeney, E., Lavallee, D. C., Baik, D., Pambianco, S., O'Brien, K. D., & Zierler, B. K. (2019). Purposeful interprofessional team intervention improves relational

coordination among advanced heart failure care teams. *Journal of Interprofessional Care*, *33*(5), 481–489. https://doi.org/10.1080/13561820.2018.1560248

Agranoff, R. (2007). *Managing within networks: Adding value to public organizations*. Georgetown University Press.

Agranoff, R., & McGuire, M. (2003). *Collaborative public management: New strategies for local governments*. Georgetown University Press.

Angrosino, M. (2007). *Doing ethnographic and observational research*. Sage Publications. https://doi.org/10.4135/9781849208932

Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory*, *18*(4), 543–571. https://doi.org/10.1093/jopart/mum032

Armstrong, D., Gosling, A., Weinman, J., & Marteau, T. (1997). The place of inter-rater reliability in qualitative research: An empirical study. *Sociology*, *31*(3), 597–606. https://doi.org/10.1177/0038038597031003015

Arrow, H., Poole, M. S., Henry, K. B., Wheelan, S., & Moreland, R. (2004). Time, change, and development: The temporal perspective on groups. *Small Group Research*, *35*(1), 73–105. https://doi.org/10.1177/1046496403259757

Baik, D., & Zierler, B. (2019). Clinical nurses' experiences and perceptions after the implementation of an interprofessional team intervention: A qualitative study. *Journal of Clinical Nursing*, *28*(3–4), 430–443. https://doi.org/10.1111/jocn.14605

Barker Scott, B. A., & Manning, M. R. (2024). Designing the collaborative organization: A framework for how collaborative work, relationships, and behaviors generate collaborative capacity. *The Journal of Applied Behavioral Science*, *60*(1), 149–193. https://doi.org/10.1177/00218863221106

Bartunek, J. M., & Woodman, R. W. (2015). Beyond Lewin: Toward a temporal approximation of organization development and change. *Annual Review of Organizational Psychology and Organizational Behavior*, *2*(1), 157–182. https://doi.org/10.1146/annurev-orgpsych-032414-111353

Berardo, R., Heikkila, T., & Gerlak, A. K. (2014). Interorganizational engagement in collaborative environmental management: Evidence from the South Florida Ecosystem Restoration Task Force. *Journal of Public Administration Research and Theory*, *24*(3), 697–719. https://doi.org/10.1093/jopart/muu003

Bolton, R., Logan, C., & Gittell, J. H. (2021). Revisiting relational coordination: A systematic review. *The Journal of Applied Behavioral Science*, *57*(3), 290–322. https://doi.org/10.1177/0021886321991597

Brazil, V., Purdy, E., Alexander, C., & Matulich, J. (2019). Improving the relational aspects of trauma care through translational simulation. *Advances in Simulation*, *4*(1), 10. https://doi.org/10.1186/s41077-019-0100-2

Bright, D. (2012). *Leadership for quality improvement in disease management* [Unpublished doctoral dissertation]. Brandeis University.

Bryson, J. M., Crosby, B. C., & Stone, M. M. (2006). The design and implementation of cross-sector collaborations: Propositions from the literature. *Public Administration Review*, *66*, 44–55. https://doi.org/10.1111/j.1540-6210.2006.00665.x

Bryson, J. M., Crosby, B. C., & Stone, M. M. (2015). Designing and implementing cross-sector collaborations: Needed and challenging. *Public Administration Review*, *75*(5), 647–663. https://doi.org/10.1111/puar.12432

Burke, W. W. (2021). Historical currents in scholarship of organization change. In M. S. Poole, & A. H. Van de Ven (Eds.), *The Oxford handbook of organizational change and innovation* (2nd ed., pp. 23–49). Oxford University Press.

Carmeli, A., & Gittell, J. H. (2009). High quality relationships, psychological safety and learning from failures in work organizations. *Journal of Organizational Behavior*, *30*(6), 709–729. https://doi.org/10.1002/job.565

Carnochan, S., McBeath, B., Chuang, E., & Austin, M. J. (2019). Perspectives of public and nonprofit managers on communications in human services contracting. *Public Performance & Management Review*, *42*(3), 657–684. https://doi.org/10.1080/15309576.2018.1495085

Chen, B. (2010). Antecedents or processes? Determinants of perceived effectiveness of interorganizational collaborations for public service delivery. *International Public Management Journal*, *13*(4), 381–407. https://doi.org/10.1080/10967494.2010.524836

Claggett, J. L., & Karahanna, E. (2018). Unpacking the structure of coordination mechanisms and the role of relational coordination in an era of digitally mediated work processes. *Academy of Management Review*, *43*(4), 704–722. https://doi.org/10.5465/amr.2016.0325

Cramm, J. M., & Nieboer, A. P. (2012). Relational coordination promotes quality of chronic care delivery in Dutch disease management programs. *Health Care Management Review*, *37*(4), 301–309. https://doi.org/10.1097/HMR.0b013e3182355ea4

Cromp, D., Hsu, C., Coleman, K., Fishman, P. A., Liss, D. T., Ehrlich, K., Johnson, E., Ross, T. R., Trescott, C., Trehearne, B., & Reid, R. J. (2015). Barriers and facilitators to team-based care in the context of primary care transformation. *Journal of Ambulatory Care Management*, *38*(2), 125–133. https://doi.org/10.1097/JAC.0000000000000056

Crowston, K., & Kammerer, E. E. (1998). Coordination and collective mind in software requirements development. *IBM Systems Journal*, *37*(2), 227–245. https://doi.org/10.1147/sj.372.0227

Cunliffe, A. L., & Locke, K. (2020). Working with differences in everyday interactions through anticipational fluidity: A hermeneutic perspective. *Organization Studies*, *41*(8), 1079–1099. https://doi.org/10.1177/0170840619831035

Derrington, T. (2012). *Engaging drug-exposed infants in early intervention services: What influences service engagement?* [Unpublished doctoral dissertation]. Brandeis University.

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, *44*(2), 350–383. https://doi.org/10.2307/2666999

Edmondson, A. C. (2004). Learning from mistakes is easier said than done: Group and organizational influences on the detection and correction of human error. *The Journal of Applied Behavioral Science*, *40*(1), 66–90. https://doi.org/10.1177/0021886304263849

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, *14*(4), 532–550. https://doi.org/ttps://doi.org/10.5465/amr.1989.4308385

Faraj, S., & Sproull, L. (2000). Coordinating expertise in software development teams. *Management Science*, *46*(12), 1554–1568. https://doi.org/10.1287/mnsc.46.12.1554.12072

Fitzgerald, L., Dopson, S., Buchanan, D., & Bryman, A. (2009). Comparative case study designs: Their utility and development in organizational research. In *The Sage publications handbook of organizational research methods* (pp. 465–483). Sage Publications.

Galbraith, J. R. (1974). Organization design: An information processing view. *Interfaces*, *4*(3), 28–36. https://doi.org/10.1287/inte.4.3.28

Gebo, E., & Bond, B. J. (2022). Advancing interorganizational crime and violence reduction goals through a relational change intervention. *Criminal justice policy review*, *33*(5), 455–479.

Gibbs, G. (2007). *Analyzing qualitative data*. Sage Publications.

Gittell, J. H. (2000). Organizing work to support relational co-ordination. *International Journal of Human Resource Management*, *11*(3), 517–539.

Gittell, J. H. (2001). Supervisory span, relational coordination and flight departure performance: A reassessment of post-bureaucracy theory. *Organization Science*, *12*(4), 467–482. https://doi.org/10.1287/orsc.12.4.468.10636

Gittell, J. H. (2002). Coordinating mechanisms in care provider groups: Relational coordination as a mediator and input uncertainty as a moderator of performance effects. *Management Science*, *48*(11), 1408–1426. https://www.jstor.org/stable/822615.

Gittell, J. H. (2011). *Relational coordination: Guidelines for theory, measurement and analysis* (p. 1). Brandeis University.

Gittell, J. H. (2016). *Transforming relationships for high performance*. Stanford University Press.

Gittell, J. H., & Ali, H. N. (2021). *Relational analytics: Guidelines for analysis and action*. Routledge.

Gittell, J. H., & Douglass, A. (2012). Relational bureaucracy: Structuring reciprocal relation ships into roles. *Academy of Management Review*, *37*(4), 709–733. https://doi.org/10.5465/ amr.2010.0438

Gittell, J. H., Fairfield, K., Bierbaum, B., Head, W., Jackson, R., Kelly, M., Laskin, R., Lipson, S., Siliski, J., Thornhill, T., & Zuckerman, J. (2000). Impact of relational coordination on quality of care, post-operative pain, functioning and length of stay. *Medical Care*, *38*(8), 807–819. https://doi.org/10.1097/00005650-200008000-00005

Gittell, J. H., Seidner, R., & Wimbush, J. (2010). A relational model of how high-performance work systems work. *Organization Science*, *21*(2), 490–506. https://doi.org/10.1287/orsc.1090.0446

Gittell, J. H., & Weiss, L. (2004). Coordination networks within and across organizations: A multi-level framework. *Journal of Management Studies*, *41*(1), 127–153. https://doi.org/10.1111/j.1467-6486.2004.00424.x

Hamilton, D. K. (2010). Can bundles be effective for both clinical and design interventions? *HERD: Health Environments Research & Design Journal*, *3*(4), 14–18. https://doi-org.ezproxysuf.flo.org/10.1177/19375867100030040

Harris, J. K., Provan, K. G., Johnson, K. J., & Leischow, S. J. (2012). Drawbacks and benefits associated with inter-organizational collaboration along the discovery–development–delivery continuum: A cancer research network case study. *Implementation Science*, *7*, 1–13. https://doi.org/10.1186/1748-5908-7-69

Hartgerink, J. M., Cramm, J. M., Bakker, T., Rianne, J. E. M., van Eijsden, A. M., Mackenbach, J. P., & Nieboer, A. P. (2012). The importance of relational coordination for integrated care delivery to older patients in the hospital. *Journal of Nursing Management*, *22*(2), 248–256. https://doi.org/10.1111/j.1365-2834.2012.01481.x

Hartgerink, J. M., Cramm, J. M., de Vos, A., Bakker, T., Steyerberg, E. W., Mackenbach, J. P., & Nieboer, A. P. (2014). Situational awareness, relational coordination and integrated care delivery to hospitalized elderly in The Netherlands. *BMC Geriatrics*, *14*(1), Article 3. https://doi.org/10.1186/1471-2318-14-3

Hoelscher, C. S. (2019). Collaboration for strategic change: Examining dialectical tensions in an interorganizational change effort. *Management Communication Quarterly*, *33*(3), 329–362. https://doi.org/10.1177/089331891983434

Huber, T. P., Rodriguez, H. P., & Shortell, S. M. (2020). The influence of leadership facilita tion on relational coordination among primary care team members of accountable care organizations. *Health Care Management Review*, *45*(4), 302–310. https://doi.org/10.1097/ HMR.0000000000000241

Hurwicz, L. (1993). Towards a framework for analyzing institutions and institutional change. In S. Bowles, H. Gintas, & B. Gustafsson (Eds.), *Markets and democracy: Participation, accountability, and efficiency* (pp. 51–67). Cambridge University Press.

Huxham, C., & Vangen, S. (2013). *Managing to collaborate: The theory and practice of collaborative advantage*. Routledge.

Ingold, K., & Fischer, M. (2014). Drivers of collaboration to mitigate climate change: An illustration of Swiss climate policy over 15 years. *Global Environmental Change*, *24*, 88–98. https://doi.org/10.1016/j.gloenvcha.2013.11.021

Jakobsen, L. M., Albertsen, K., Jorgensen, A. F. B., Greiner, B. A., & Rugulies, R. (2018). Collaboration among eldercare workers: Barriers, facilitators and supporting processes. *Scandinavian Journal of Caring Sciences*, *32*(3), 1127–1137. https://doi.org/10.1111/scs.12558

Kirk, J., & Miller, M. L. (1986). *Reliability and validity in qualitative research*. Sage Publications. https://doi.org/10.4135/9781412985659

Kramer, M. W., Day, E. A., Nguyen, C., Hoelscher, C., & Cooper, O. D. (2019). Leadership in an interorganizational collaboration: A qualitative study of a statewide interagency taskforce. *Human Relations*, *72*(2), 397–419. https://doi.org/10.1177/0018726718763886

Lee, H. W., & Kim, E. (2019). Workforce diversity and firm performance: Relational coordination as a mediator and structural empowerment and multisource feedback as moderators. *Human Resource Management*, *59*(1), 5–23. https://doi.org/10.1002/hrm.21970

Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues*, *2*(4), 34–46. https://doi.org/10.1111/j.1540-4560.1946.tb02295.x

Lewin, K. (1947). Group decision and social change. In T. M. Neweomb, & E. L. Hartley, & Co-Chairmen of Editorial Committee (Eds.), *Readings in social psychology* (pp. 340–344). Henry Holt and Co.

March, J. G., & Simon, H. A. (1958). *Organizations*. Wiley-Blackwell.

Mark, B. A., Hughes, L. C., Belyea, M., Chang, Y., Hofmann, D., Jones, C. B., & Bacon, C. T. (2007). Does safety climate moderate the influence of staffing adequacy and work conditions on nurse injuries. *Journal of safety research*, *38*(4), 431–446.

McDermott, A. M., Conway, E., Cafferkey, K., Bosak, J., & Flood, P. C. (2017). Performance monitoring in context. *The International Journal of Human Resource Management*, *30*(3), 436–456. https://doi.org/10.1080/09585192.2017.1278714

McMackin, J., & Flood, P. (2019). A theoretical framework for the social pillar of lean. *Journal of Organizational Effectiveness: People and Performance*, *6*(1), 39–55. https://doi.org/10.1108/JOEPP-06-2018-0039

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage Publications.

Mintzberg, H., Ahlstrand, B., & Lampel, J. (2009). *Strategy safari: A guided tour through the wilds of strategic management* (2nd ed.). Pearson Education Canada.

O'Leary, R., & Vij, N. (2012). Collaborative public management: Where have we been and where are we going? *The American Review of Public Administration*, *42*(5), 507–522. https://doi.org/10.1177/027507401244578

Parsons, D. (2012). *Connecting public school students with community-based mental health services* [Unpublished doctoral dissertation]. Brandeis University.

Patton, M. Q. (2015). *Qualitative research and methods: Integrating theory and practice*. Sage Publications.

Pettigrew, A. M. (1985). Contextualist research and the study of organizational change processes. *Research Methods in Information Systems*, *1*(1985), 53–78.

Poole, M. S., & Van de Ven, A. H. (2004). Introduction. In M. S. Poole, & A. H. Van de Ven (Eds.), *Handbook of organizational change and innovation* (pp. xi–xvi). Oxford University Press.

Poole, M. S., & Van de Ven, A. H. (2021). Theories of organizational change as assemblages. In M. S. Poole, & A. H. Van de Ven (Eds.), *The Oxford handbook of organizational change and innovation* (2nd ed., pp. 817–838). Oxford University Press.

Popp, J., MacKean, G. L., Casebeer, A., Milward, H. B., & Lindstrom, R. R. (2014). *Inter-organizational networks: A review of the literature to inform practice*. IBM Center for the Business of Government.

Provan, K. G., & Kenis, P. (2008). Modes of network governance: Structure, management, and effectiveness. *Journal of Public Administration Research and Theory*, *18*(2), 229–252. https://doi.org/10.1093/jopart/mum015

Provan, K. G., & Milward, H. B. (1995). A preliminary theory of interorganizational network effectiveness: A comparative study of four community mental health systems. *Administrative Science Quarterly*, *40*, 1–33. https://doi.org/10.2307/2393698

Reinhardt, A., & Gioia, D. A. (2021). Upside-down organizational change: Sensemaking, sensegiving, and the new generation. In M. S. Poole, & A. H. Van de Ven (Eds.), *The Oxford handbook of organizational change and innovation* (2nd ed., pp. 77–105). Oxford University Press.

Ross, D. (2015). *In pursuit of high performing health care teams: A test of TeamSTEPPS as a model to improve relational coordination in ambulatory care teams* [Unpublished doctoral dissertation]. California School of Professional Psychology.

Schein, E. H. (1999). Kurt Lewin's change theory in the field and in the classroom: Notes toward a model of managed learning. *Reflections: The SoL Journal*, *1*(1), 59–74. https://doi.org/10.1007/BF02173417

Schein, E. H. (2013). *Humble inquiry: The gentle art of asking instead of telling*. Berrett Koehler.

Schwarz, G. M., & Vakola, M. (2021). Project forward! We know where organization change has been, but where is it headed? *The Journal of Applied Behavioral Science*, *57*(4), 409–414. https://doi.org/10.1177/00218863211049534

Scott, W. R. (2013). *Institutions and organizations: Ideas, interests, and identities*. Sage Publications.

Shani, A. B., & Coghlan, D. (2021). Researching change and changing: Integrating collaboration and action through interiority. *The Journal of Applied Behavioral Science*, *57*(4), 478–483. https://doi.org/10.1177/00218863211026094

Shumate, M., & Gibson, Z. (2021). Interorganizational network change. In M. S. Poole, & A. H. Van de Ven (Eds.), *The Oxford handbook of organizational change and innovation* (2nd ed., pp. 671–699). Oxford University Press.

Siddique, M., Procter, S., & Gittell, J. H. (2019). The role of relational coordination in the relationship between high-performance work systems and organizational performance. *Journal of Organizational Effectiveness: People and Performance*, *6*(4), 246–266. https://doi.org/10.1108/JOEPP-04-2018-0029

Thomson, A. M., & Perry, J. L. (2006). Collaboration processes: Inside the black box. *Public Administration Review*, *66*, 20–32. https://doi.org/10.1111/j.1540-6210.2006.00663.x

Valentine, M. A., Nembhard, I. M., & Edmondson, A. C. (2015). Measuring teamwork in health care settings: A review of survey instruments. *Medical Care*, *53*(4), e16–e30. https://doi.org/10.1097/MLR.0b013e31827feef6

Valenziano, K. B., Glod, S. A., Jia, S., Belser, A., Brazell, B., Dellasega, C., Duncan, L., Farnan, M., Haidet, P., Phillips, J., Wolpaw, D., & Dillon, P. W. (2018). An interprofessional curriculum to advance relational coordination and professionalism in early-career practitioners. *MedEdPORTAL*, *14*, https://doi.org/10.15766/mep_2374-8265.10697

Van de Ven, A. H., & Poole, M. S. (1995). Explaining development and change in organizations. *Academy of Management Review*, *20*(3), 510–540. https://doi.org/10.5465/amr.1995.9508080329

Van de Ven, A. H., & Poole, S. (2021). Introduction: Central issues in the study of organizational change and innovation. In M. S. Poole, & A. H. Van de Ven (Eds.), *The Oxford handbook of organizational change and innovation* (2nd ed., pp. 1–22). Oxford University Press.

Vangen, S., & Huxham, C. (2012). The tangled web: Unraveling the principle of common goals in collaborations. *Journal of Public Administration Research and Theory*, *22*(4), 731–760. https://doi.org/10.1093/jopart/mur065

Vangen, S., & Winchester, N. (2014). Managing cultural diversity in collaborations: A focus on management tensions. *Public Management Review*, *16*(5), 686–707. https://doi.org/10.1080/14719037.2012.743579

Van Maanen, J. (2011). *Tales of the field: On writing ethnography*. University of Chicago Press.

Warde, C. M., Vermillion, M., & Uijtdehaage, S. (2014). A medical student leadership course led to teamwork, advocacy, and mindfulness. *Family Medicine*, *46*(6), 459–462.

Weick, K. E., & Quinn, R. E. (1999). Organizational change and development. *Annual Review of Psychology*, *50*(1), 361–386. https://doi.org/10.1146/annurev.psych.50.1.361

Williamson, A. L., & Bond, B. J. (2014). Making Boston strong: Social capital, collaboration, and accountability lessons for public administrators in the twenty-first century. *Public Administration Review*, *74*(6), 693–695. https://www.jstor.org/stable/24029492

Wolff, T. (2010). *The power of collaborative solutions: Six principles and effective tools for building healthy communities*. Jossey-Bass.

Woolcock, M., & Narayan, D. (2000). Social capital: Implications for development theory, research and policy. *The World Bank Research Observer*, *15*(2), 225–249. https://doi.org/10.1093/wbro/15.2.225

Worley, C. G., & Good, D. J. (2021). Forward to the past. *The Journal of Applied Behavioral Science*, *57*(4), 471–477. https://doi.org/10.1177/00218863211049837

Yin, R. K. (2014). *Case study research*. Sage Publications.

Yström, A., Ollila, S., Agogué, M., & Coghlan, D. (2019). The role of a learning approach in building an interorganizational network aiming for collaborative innovation. *The Journal of Applied Behavioral Science*, *55*(1), 27–49. https://doi.org/10.1177/002188631879338

Appendix A. Meaning and Measurement of RMOC Intervention Concepts.

Structural Interventions: Organizational structures and tools that enable new ways of communicating and coordinating work; human resource practices that support and focus on relationships, and the facilitation of work across different groups and functions (Gittell, 2016)

RMOC intervention/ concept	Examples of previously used measures of RMOC intervention/ concepts[a]	Examples of sensitizing concepts measured in the current study
Select and train for teamwork	Selection and training to connect individuals across groups and functions to better facilitate communication and highlight interdependence (Gittell et al., 2010). Interprofessional team training (Abu-Rish Blakeney et al., 2019; Baik & Zierler, 2019; Brazil et al., 2019; Ross, 2015; Valenziano et al., 2018; Warde et al., 2014).	Relational coordination workshop with study sites; effective meeting workshop with site collaborators; best practices training of site steering committee.
Shared accountability and rewards	Performance measurement cooperatively attained; accountability and rewards are shared and valued (Gittell, 2016); focus on shared goals (March & Simon, 1958); gather feedback from multiple sources (Lee & Kim, 2019); performance monitoring with feedback (McDermott et al., 2017).	Agreement by organizational leaders to share CGM-related performance data at monthly governance group meetings to inform discussion and decisions; integration of change measures and data into study site citywide strategic plan.
Relational leadership	Leadership that seeks to build high-quality relationships among colleagues and with supervisees; the facilitation of reciprocal interrelating between leaders and those they lead (Bolton et al., 2021; Gittell, 2016); small span of control to build relationships between supervisor and employee (Bright, 2012; Derrington, 2012; Gittell, 2001); leadership that rewards creativity, solicits input, and provides a supportive setting (Huber et al., 2020); nurse representation in leadership roles (Mark et al., 2007).	Individuals from various sub-groups who serve as sub-group conveners and report back to larger collaborative about change efforts within and across groups and levels; steering committee members whose role is to build and sustain relationships across agencies in support of collaborative.
Relational job design	For boundary spanners, job design is centered on integration of work and processes (Gittell, 2016); clear roles with flexible	Creation of an organizational chart that articulates roles and contact persons for each agency involved in the

(continued)

Appendix A. (continued)

Structural Interventions: Organizational structures and tools that enable new ways of communicating and coordinating work; human resource practices that support and focus on relationships, and the facilitation of work across different groups and functions (Gittell, 2016)

RMOC intervention/ concept	Examples of previously used measures of RMOC intervention/ concepts[a]	Examples of sensitizing concepts measured in the current study
	boundaries (Bolton et al., 2021); clarity of roles that support relationship building (Cromp et al., 2015; Siddique et al., 2019).	collaboration; identification of roles for participants in different committees and groups (e.g., working groups, steering committee).
Shared protocols	Standard processes and procedures for how individual tasks fit into a larger shared effort; routines that serve as shared understandings and common points of reference about how tasks are connected (Gittell, 2016); documentation and dissemination of work processes and interdependencies between tasks to be implemented by different stakeholders (Bolton et al., 2021); more inclusive interdisciplinary clinical pathways (Gittell, 2002); clinical guidelines, protocols and process recommendations, in healthcare (Cramm & Niebor, 2012; Hartgerink et al., 2012, 2014).	Memoranda of understanding between collaborating agencies; integration of CGM efforts and measures into citywide strategic plans; agreements by study site groups and sub-groups on meeting purpose, frequency and schedule.
Shared meetings	Scheduled, planned meetings, brings views together to assess current state, identify next steps, reflect on work and performance across functions and levels—not just top down, one-way communication (Gittell, 2016); meetings for information and idea exchange between interdependent roles (Bolton et al., 2021); huddles with structured agendas (Cromp et al., 2015); structured interprofessional bedside rounds (Abu-Rish Blakeney et al., 2019).	Scheduled monthly meetings of CGM partners, with clear agenda, minutes, and action plans, including connecting CGM meetings to broader citywide efforts; creation of function groups (working, governance, planning) to communicate and coordinate across levels and efforts on regular basis.
Shared conflict resolution	Proactive conflict resolution across groups and functions seek to use conflict to build relationships (Bolton et al., 2021;	Not observed

(continued)

Appendix A. (continued)

Structural Interventions: Organizational structures and tools that enable new ways of communicating and coordinating work; human resource practices that support and focus on relationships, and the facilitation of work across different groups and functions (Gittell, 2016)

RMOC intervention/ concept	Examples of previously used measures of RMOC intervention/ concepts[a]	Examples of sensitizing concepts measured in the current study
	Gittell, 2000; Gittell et al., 2010; Jakobsen et al., 2018); frontline managers lead conflict resolution (Gittell, 2000); bringing together opposing views to create new ideas; Multiple points of view are welcomed to build shared goals and understanding of work and process (Gittell & Douglass, 2012)	
Shared information systems	Information systems that enable communication and coordination with others; common information infrastructure bringing information together for all to see and use in support of shared goals (Gittell, 2016); information systems that are accessible to all to enhance, not replace other forms of communication and to provide visibility into the overall work process (Claggett & Karahanna, 2018); standardized data reporting platforms (Carnochan et al., 2019).	Shared database systems between some, but not all agencies in one site; various limitations about access of data, where some data sharing is allowed, while other sharing is prohibited; aggregate data from collaborative is proactively shared with boundary spanners, who then share with collaborative.
Boundary spanner	Cross-functional liaisons that coordinate the work of others (Galbraith, 1974); coordinating stakeholders to problem-solve, coordinate work toward shared goals, facilitate conflict resolution and engage stakeholders (Gittell, 2016); operations agents in the airline industry (Gittell, 2000).	Organizational representatives that were identified, and able to work across organizational levels and boundaries; individuals facilitated meetings and create safe space and support psychological safety for collaborators across levels and organizations.

(Continued)

Appendix A. (continued)

Relational Interventions: "Relational interventions are coaching and feedback strategies designed to start new conversations to create new ways of thinking and new ways of relating, thereby shifting the culture toward higher relational coordination and enabling the implementation of new structures that further support and strengthen it." (Bolton et al., 2021, p. 303)

RMOC intervention/ concept	Examples of previously used measures of RMOC intervention/concepts	Examples of sensitizing concepts measured in the current study
Relational assessment	Relational mapping, relational coordination survey (Gittell, 2016).	Relational coordination survey administration and facilitated dialogue to debrief results, and to inform collaborative agenda and action; identification of service or stakeholder gaps in pursuit of desired state (both sites).
Humble inquiry/ coaching	Practices that show participants that answers are unknown and to be collectively explored; communicating and practicing vulnerability to show interdependence; Willingness to learn from others; coaching and role modeling by leaders (Gittell, 2016; Schein, 2013).	Monthly coaching calls between researchers and collaborative leaders to check in on goal progress and problem solve; role modeling by research partners at monthly collaborative meetings to support dialogue and collective discussion and decisions about change.
Create safe spaces/ psychological safety	Safe spaces to enable participants to learn, experiment, and change (Gittell, 2016); creating physical spaces that support communication; intentional meeting invitations and participation expectations; role modeling positive behaviors; participant-crafted engagement expectations (Gittell, 2016).	Meeting structures and agenda that allowed collaborating partners to share concerns and issues, and then anonymously elevate to leadership to inform change; boundary spanners willingness to share their concerns about disparities modeled for others the safe space.

(Continued)

Appendix A. (continued)

Work process interventions: Work process interventions such process mapping, "lean and plan-do-study-act cycles are also expected to strengthen relational coordination by providing participatory methods to identify the current state, envision a future state, and work toward closing the gap" (Bolton et al., 2021, p. 303); see also McMackin and Flood (2019).

RMOC intervention/ concept	Examples of previously used measures of RMOC intervention/concepts	Examples of sensitizing concepts measured in the current study
Assess current state	Relational and work process mapping; conversations of interdependence; observations of work processes (Gittell, 2016).	Study site meetings and focused agendas that identify strengths, barriers and changes needed to address priority goals or to systematically update, collate and disseminate information about collaborative goals; use of relational coordination results to inform activities to strengthen communication and coordination.
Identify desired state	Offer clarity and shared goal to direct participants to desired state; seeking input from stakeholders (Gittell, 2016).	Relational coordination workshop for both sites to identify goals for the youth violence reduction efforts; continuous reflection on strategic plans and ideal positive youth development model; identification of what agencies can contribute to each component of an ideal model; identification of funding and resources needed for goal achievement; integration of evidence-based practices into collaborative efforts.
Experiment to close gap	Exploring and proposing solutions to bridge the gap between current and desired state; improvement teams that facilitate experimentation and improvement processes (Gittell, 2016).	Identifying new ways to leverage partners and strategies already existing but not engaged or coordinated in pursuit of goals; identification of private partners in community that could support collaborative efforts.

CGM: comprehensive gang model.

[a]Specific terms and language used in previous studies to illustrate RMOC interventions are maintained and cited here.

Appendix B. RQ2: Data to accompany Figures 2 and 3—presents the differences in months

RQ2: Site A data

Month	1	3	6	8	9	10	11	12	13	14	16	17
Structural	3	5	1	4	3	3	6	6	6	5	3	5
Relational	1	0	1	1	2	2	1	0	0	3	2	3
Work process	4	2	2	1	1	1	3	3	1	2	3	1

RQ2: Site B data

Month	1	3	4	7	8	9	13	14	15	16	17
Structural	2	2	2	1	4	4	5	6	7	5	2
Relational	1	0	1	1	0	0	0	0	0	1	0
Work process	1	1	1	2	2	2	1	1	3	2	2